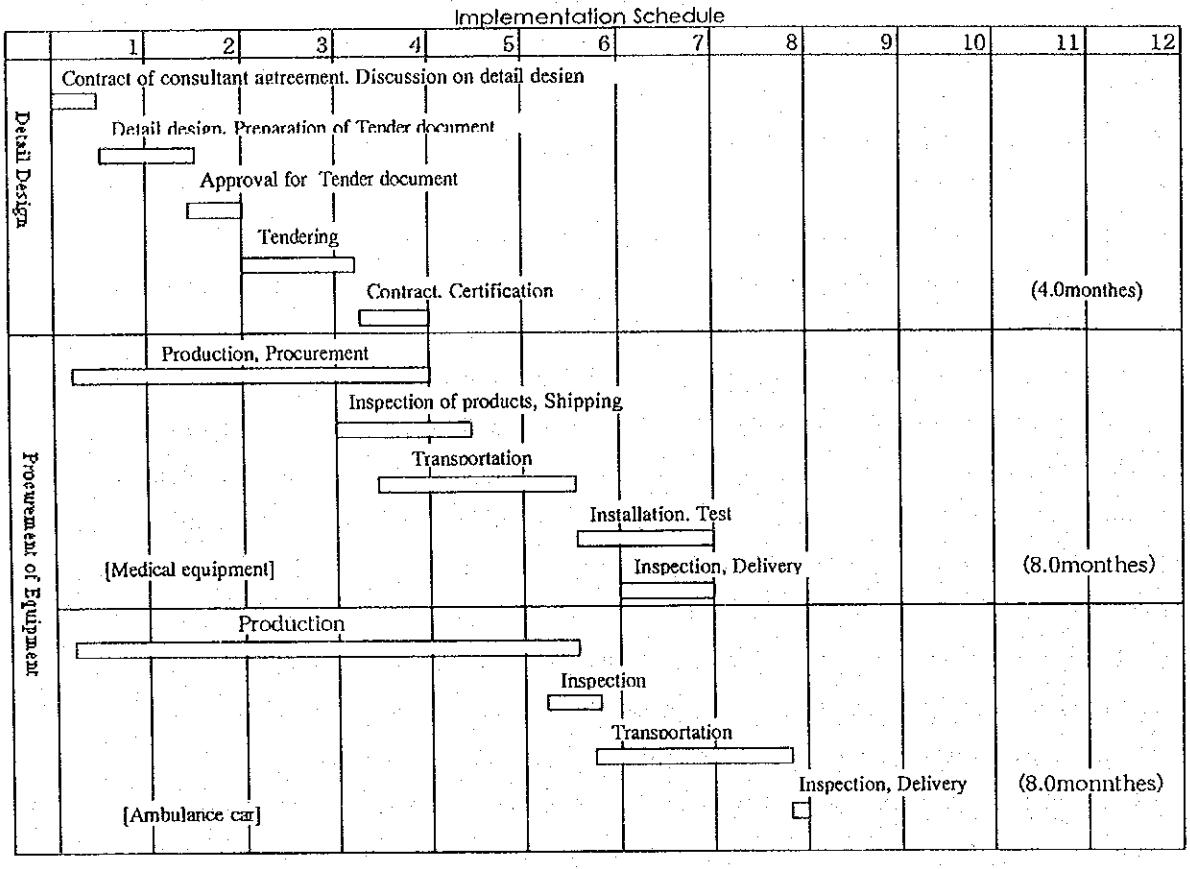
2) Progress Schedule



3-1-7 Obligations of recipient country

Work to be carried out by the Kyrgyzstan side is as follows;

1. Provision of every necessary facility for the unloading, customs clearance and domestic transport of equipment imported under the project.
2. Exempting Japanese nationals to stay in Kyrgyz to engage in tasks related to the implementation of this project from customs and taxes
3. Provision of every necessary facility and security to Japanese nationals to stay in Kyrgyz to engage in transportation and installation of equipment necessary for the implementation of this project.
4. Payment of the following charges to a Japanese bank to deal in foreign exchanges under the bank arrangement

   Bank arrangement charges

   Bank authorization charges
5. Allocation of budgets (including costs of maintenance and management of the equipment procured with the grant aid cooperation of the Government of Japan) and staff members which are necessary for the effective implementation of this project.

6. Proper, effective maintenance and management procured with the grant aid cooperation of the Government of Japan and reporting the status of use, maintenance and management of the equipment to the Government of Japan, and also allocation of budgets and staffs necessary for their operation, maintenance and management.
7. Defrayal of all of the costs which are necessary for the implementation of this project but cannot be covered by the grant aid cooperation of the Government of Japan.

3-1-8 Expenses borne by Government of Kyrgyz

The government of Kyrgyz will be required to contribute about US$20400.00 (about ¥2,650,000) as the cost of repair of the X-ray rooms, the sterilizer rooms and the operating rooms.

Project Institution	Amount
3.0 Bishkek Ambulance Center	$ 530.00
4.0 National Surgical Center	$ 2,100.00
5.0 Republic Infectious Disease Hospital	$ 8,190,000
6.0 City Hospital No.3 for Children	$ 8,430.00
7.0 Maternity House No.2	$ 1,150.00
8.0 Maternity House No.4	0
Total	$ 20,400.00

3-2 Operation and Maintenance Plan

3-2-1 Expectant Expenditure

(1) Operation and maintenance cost of the equipment procured under this project

The expectant expenditure of each project institutions including of cost of reagent, consumables and spare parts necessary for the operation / maintenance of the equipment procured under this project are as shown in following table.

Expectant Annual Cost for Operation and Maintenance of Procured Equipment based on 1998

		Maintenance	Operation	Total
Bishkek Ambulance Center	¥	1,228,003	12,006,001	13,234,004
	Som	175,429	1,715,143	1,890,572
National Sergical Center	¥	2,270,079	4,605,944	6,876,023
	Som	324,297	657,992	982,289
Republic Onfectious Disease Hospital	¥	867,223	1,174,922	2,042,145
	Som	123,889	167,846	291,735
City Hospital No.3 for Children	¥	1,573,866	1,324,862	2,898,728
	Som	224,838	189,266	414,104
Maternity House No.2	¥	405,384	1,527,862	1,933,246
	Som	57,912	218,266	276,178
Maternity House No.4	¥	693,161	1,273,069	1,966,230
	Som	99,023	181,867	280,890
TOTAL	¥	7,037,716	21,912,660	28,950,376
	Som	1,005,388	3,130,380	4,135,768

The operation cost consists of reagent and consumables and the maintenance cost consists of spare parts mainly.

The expectant expenditure of each project institutions in following 5years including of cost mentioned above are shown in following tables. The expectant expenditure was estimated based on the following precondition.

①The inflation rate of consumer price sets up with 10% from 1998 to 1999 and with 15% every year since 1999.

②There will be no change in the number of beds and staff in each project institution

③There will be no change in the composition of the expenditure since1998.

④Operation cost of equipment procured under the project will be required since 2001 and the maintenance cost of procured equipment (spare parts fee) is also required since 2002.

Name of Institution BISHKEK AMBULANCE CENTER

(Sont)

Expectant Expenditure in 1999~2003

		1998			1999			2000			2001			2002			2003		
		Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate
	EXPENSES	5,475,488	100%		5,770,785	100.0%	105.4%	6,636,403	100.0%	115.0%	7,362,550	100.0%	110.9%	8,258,718	100.0%	112.2%	9,276,930	100.0%	112.3%
1	Personnel	3,047,492	55.7%		3,167,441	54.9%	103.9%	3,642,557	54.9%	115.0%	3,944,543	53.6%	108.3%	4,255,167	51.5%	107.9%	4,731,833	51.0%	111.2%
2	Social fund	1,112,334	20.3%		1,156,116	20.0%	103.9%	1,329,533	20.0%	115.0%	1,439,758	19.6%	108.3%	1,553,136	18.8%	107.9%	1,727,119	18.6%	111.2%
3	Medical materials	670,562	12.2%		737,618	12.8%	110.0%	848,261	12.8%	115.0%	1,039,790	14.1%	122.6%	1,195,758	14.5%	115.0%	1,375,122	14.8%	115.0%
	3-1 Reagent																		
	3-2 Consumables	83,000	1.5%		91,300			104,995			120,744			138,856			159,684		
	3-3 X-ray film																		
	3-4 Recording paper										64,290			73,934			85,024		
	3-5 Others	587,562	10.7%		646,318			743,266			854,756			982,969			1,130,415		
4	Medicine	66,100	1.2%		72,710	1.3%	110%	83,617	1.3%	115%	96,159	1.3%	115%	110,583	14.5%	115%	127,170	1.4%	115%
5	Meal materials																		
6	Medical equipment(New)																		
7	Maintenance for equipment	20,600	0.4%		22,660	0.4%	110%	26,059	0.4%	115%	29,968	0.4%	115%	209,892	2.5%	700%	241,376	2.6%	115%
8	Stationary	18,000	0.3%		19,800	0.3%	110%	22,770	0.3%	115%	26,186	0.4%	115%	30,113	0.4%	115%	34,630	0.4%	115%
9	Electric power, water, Tel.	431,400	7.9%		474,540	8.2%	110%	545,721	8.2%	115%	627,579	8.5%	115%	721,716	8.7%	115%	829,973	8.9%	115%
	9-1 Electric power	66,600			73,260			84,249			96,886			111,419			128,132		
	9-2 Heating, cooling	275,400			302,940			348,381			400,638			460,734			529,844		
	9-3 Water supply, swage	68,800			75,680			87,032			100,087			115,100			132,365		
	9-4 Telephone(Communication Exp.)	20,600			22,660			26,059			29,968			34,463			39,632		
10	Traffic expenses																		
11	Laundry	109,000	2.0%		119,900	2.1%	110%	137,885	2.1%	115%	158,568	2.2%	115%	182,353	2.2%	115%	209,706	2.3%	115%
	11-1 Linen																		
	11-2 Uniform	71,300			78,430			90,195			103,724			119,282			137,175		
	11-3 Others	37,700			41,470			47,691			54,844			63,071			72,531		
12	Repairing of facilities																		
13	Others																		
14																			

Medical materials	670,562	12.2%		737,618	12.8%		848,261	12.8%		1,039,790	14.1%	123%	1,195,758	14.5%	115%	1,375,122	14.8%	115%
Maintenance for equipment	20,600	0.4%		22,600	0.4%		26,059	0.4%		29,968	0.4%	115%	209,892	2.5%	700%	241,376	2.6%	115%
Total	691,162	12.6%		760,218	13.2%	110%	874,320	13.2%	115%	1,069,758	14.5%	122%	1,405,650	17.0%	131%	1,616,498	17.4%	115%
Medical materials for project equipment										64,290	0.9%		73,934	0.9%	115%	85,024	0.9%	115%
Maintenace for project equipment										0			175,429	2.1%		201,743	2.2%	115%
Total for project equipment										64,290	0.9%		249,363	3.0%	388%	286,767	3.1%	115%
No. of Medical teams	40			36			36			32			28			26		

1. Expectant estimation is based on the results in 1998
2. Supposed yearly inflation rate : 10% from 1998 to 1999, 15% since 1999
3. Personnel expenses will be decreased according to No. of medical teams

reagent	0
consumables	0
rec. paper	64,290
Total	64,290

990126

Name of Institution_ NATIONAL SURGICAL CENTER

(Som)

Expectant Expenditure in 1999~2003

		1998			1999			2000			2001			2002			2003		
		Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate
	EXPENSES	9,984,000	100.0%		10,982,400		110%	12,629,760	100.0%	115.0%	15,180,319		120.2%	17,781,663	100%	117.1%	20,448,913		115.0%
1	Personnel	2,780,000	27.8%		3,058,000		110%	3,516,700	27.8%	115%	4,044,205	26.6%	115%	4,650,836	26.2%	115%	5,348,461		115%
2	Social fund	1,015,000	10.2%		1,116,500		110%	1,283,975	10.2%	115%	1,476,571	12.0%	115%	1,698,057	9.5%	115%	1,952,765		115%
3	Medical materials	800,000	8.0%		880,000		110%	1,012,000	8.0%	115%	1,819,895	12.0%	180%	2,092,879	11.8%	115%	2,406,810		115%
	3-1 Reagent	14,000			15,400			17,710		115%	24,997		141%	28,746		115%	33,058		
	3-2 Consumables	30,000			33,000			37,950		115%	665,447		1753%	765,264		115%	880,054		
	3-3 X-ray film	35,000			38,500			44,275		115%	50,916		115%	58,554		115%	67,337		
	3-4 Recording paper										29,660			34,109		115%	39,225		
	3-5 Others	721,000			793,100			912,065		115%	1,048,875		115%	1,206,206		115%	1,387,137		
4	Medicine	2,269,000	22.7%		2,495,900		110%	2,870,285	22.7%	115%	3,300,828	21.7%	115%	3,795,952	21.3%	115%	4,365,345		115%
5	Meal materials	470,000	4.7%		517,000		110%	594,550	4.7%	115%	683,733	4.5%	115%	786,292	4.4%	115%	904,236		115%
6	Medical equipment(New)							760,486	6.0%		874,559	5.8%	115%	1,005,743	5.7%	115%	1,156,604		115%
7	Maintenance for equipment	200,000	2.0%		220,000		110%	253,000	2.0%	115%	290,950	1.9%	115%	658,890	3.7%	226%	757,723		115%
8	Stationary																		
9	Electric power, water, Tel.	1,100,000	11.0%		1,210,000		110%	1,391,500	11.0%	115%	1,600,225	10.5%	115%	1,840,259	10.3%	115%	2,116,298		115%
	9-1 Electric power																		
	9-2 Heating, cooling																		
	9-3 Water supply, swage																		
	9-4 Telephone(Communication Exp.)																		
10	Traffic expenses	50,000	0.5%		55,000		110%	63,250	0.5%	115%	72,738	0.5%	115%	83,648	0.5%	115%	96,195		115%
11	Laundry																		
	11-1 Linen																		
	11-2 Uniform																		
	11-3 Others																		
12	Repairing of facilities	1,000,000	10.0%		1,100,000		110%	1,265,000	10.0%	115%	1,454,750	9.6%	115%	1,672,963	9.4%	115%	1,923,907		115%
13	Others	300,000	3.0%		330,000		110%	379,500	3.0%	115%	436,425	2.9%	115%	501,889	2.8%	115%	577,172		115%
14																			

Medical materials	800,000	8%		880,000	8.0%	110%	1,012,000	8.0%	115%	1,819,895	12.0%	180%	2,092,879	11.8%	115%	2,406,810		115%
Maintenance for equipment	200,000	2%		220,000	2.0%	110%	253,000	2.0%	115%	290,950	1.9%	115%	658,890	3.7%	226%	757,723		115%
Total	1,000,000	10%		1,100,000	10.0%	110%	1,265,000	10.0%	115%	2,110,845	13.9%	167%	2,751,768	15.5%	130%	3,164,533		115%
Medical materials for project equipment										657,992	4.3%		756,691	4.3%	115%	870,194		115%
Maintenace for project equipment										0			324,297	1.8%		372,942		115%
Total for project equipment										657,992	4.3%		1,080,988	6.1%	164%	1,243,136		115%

1. Expectant estimation is based on the results in 1998
2. Supposed yearly inflation rate : 10% from 1998 to 1999, 15% since 1999
3. Quantity of bed and staff be fixed.

reagent	4,630
consumables	623,702
rec. paper	29,660
Total	657,992

Name of Institution REPUBLIC INFECTIOUS DISEASE HOSPITAL

990123P
(Som)

Expectant Expenditure in 1999~2003

		1998			1999			2000			2001			2002			2003		
		Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate
	EXPENSES	13,042,300	100.0%		14,368,560		110%	16,498,519	100.0%	115%	19,141,143	100.0%	116.0%	22,362,685	100.0%	116.8%	25,717,088		115%
1	Personnel	2,331,000	17.9%		2,564,100		110%	2,948,720	17.9%	115%	3,391,028	17.7%	115%	3,899,682	17.4%	115%	4,484,635		115%
2	Social fund	850,300	6.5%		935,330		110%	1,075,630	6.5%	115%	1,236,974	6.5%	115%	1,422,520	6.4%	115%	1,635,898		115%
3	Medical materials	20,000	0.2%		22,000		110%	25,300	0.2%	115%	196,941	1.0%	778%	226,482	1.0%	115%	260,454	1.0%	115%
	3-1 Reagent	3,000			3,300			3,795			14,598			16,788			19,306		
	3-2 Consumables	8,000			8,800			10,120			155,381			178,688			205,491		
	3-3 X-ray film	9,000			9,900			11,385			13,093			15,057			17,315		
	3-4 Recording paper										13,869			15,949			18,342		
	3-5 Others																		
4	Medicine	2,700,000	20.7%		2,970,000		110%	3,415,500	20.7%	115%	3,927,825	20.5%	115%	4,516,999	20.2%		5,194,549		115%
5	Meal materials	1,380,000	10.6%		1,518,000		110%	1,745,700	10.6%	115%	2,007,555	10.5%	115%	2,308,688	10.3%		2,654,991		115%
6	Medical equipment(New)	176,300	1.4%		193,930		110%	223,020	1.4%	115%	256,472	1.3%	115%	294,943	1.3%		339,185		115%
7	Maintenance for equipment	30,000	0.2%		33,000		110%	37,950	0.2%	115%	43,643	0.2%	115%	174,078	0.8%	398.9%	200,190		115%
8	Stationary	180,000	1.4%		200,000		111%	230,000	1.4%	115%	264,500	1.4%	115%	304,175	1.4%		349,801		115%
9	Electric power, water, Tel.	3,721,000	28.5%		4,093,100		110%	4,707,000	28.5%	115%	5,413,050	28.3%	115%	6,225,008	27.8%		7,158,759		115%
	9-1 Electric power																		
	9-2 Heating, cooling																		
	9-3 Water supply, swage																		
	9-4 Telephone(Communication Exp.)																		
10	Traffic expenses	90,000	0.7%		99,000		110%	113,850	0.7%	115%	130,928	0.7%	115%	150,567	0.7%		173,152		115%
11	Laundry																		
	11-1 Linen																		
	11-2 Uniform																		
	11-3 Others																		
12	Repairing of facilities	1,170,000	9.0%		1,287,000		110%	1,480,050	9.0%	115%	1,702,058	8.9%	115%	1,957,366	8.8%		2,250,971		115%
13	Others	393,700	3.0%		431,100		109%	495,800	3.0%	115%	570,170	3.0%	115%	655,696	2.9%		754,050		115%
14																			

Medical materials	20,000	0.2%		22,000	0.2%		25,300	0.15%		196,941	1.03%	778.4%	226,482	1.01%	115.0%	260,454	1.01%	
Maintenance for equipment	30,000	0.2%		33,000	0.2%		37,950	0.23%		43,643	0.23%	115.0%	174,078	0.78%	398.9%	200,190	0.78%	
Total	50,000	0.4%		55,000	0.4%	110%	63,250	0.38%	115%	240,584	1.26%	380.4%	400,560	1.79%	166.5%	460,644	1.79%	115%
Medical materials for project equipment										167,846	0.88%		193,023	0.86%	115.0%	221,976	0.86%	
Maintenace for project equipment										0	0.00%		123,889	0.55%		142,472	0.55%	
Total for project equipment										167,846	0.88%		316,912	1.42%	188.8%	364,449	1.42%	115%

1. Expectant estimation is based on the results in 1998
2. Supposed yearly inflation rate : 10% from 1998 to 1999, 15% since 1999
3. Quantity of bed and staff be fixed.

reagent	10,234
consumables	143,743
rec. paper	13,869
Total	167,846

Name of Institution CITY HOSPITAL No.3 for CHILDREN

(Som) 25 Jan. '99

Expectant Expenditure in 1999~2003

		1998			1999			2000			2001			2002			2003		
		Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate
	EXPENSES	7,622,600	100.0%		8,384,560	100.0%	110%	9,642,219	100.0%	115%	11,279,079	100.0%	117.0%	13,195,778	100.0%	117.0%	15,175,145	100.0%	115%
1	Personnel	2,632,100	34.5%		2,895,300	34.5%	110%	3,329,590	34.5%	115%	3,829,029	33.9%	115%	4,403,383	33.4%	115%	5,063,890	33.4%	115%
2	Social fund	969,800	12.7%		1,066,700	12.7%	110%	1,226,700	12.7%	115%	1,411,932	12.5%	115%	1,623,721	12.3%	115%	1,867,280	12.3%	115%
3	Medical materials	190,900	2.5%		210,000	2.5%	110%	241,500	2.5%	115%	467,025	4.1%	193%	537,079	4.1%	115%	617,641	4.1%	115%
	3-1 Reagent										17,520			20,148			23,170		
	3-2 Consumables	12,000			13,200			15,180			164,447			189,114			217,481		
	3-3 X-ray film	178,900			196,800			226,320			260,268			299,308			344,204		
	3-4 Recording paper										24,790			28,509			32,785		
	3-5 Others																		
4	Medicine	865,100	11.3%		951,600	11.3%	110%	1,094,340	11.3%	115%	1,258,491	11.2%	115%	1,447,265	11.0%	115%	1,664,354	11.0%	115%
5	Meal materials	663,900	8.7%		730,300	8.7%	110%	839,840	8.7%	115%	965,816	8.6%	115%	1,110,688	8.4%	115%	1,277,292	8.4%	115%
6	Medical equipment(New)																		
7	Maintenance for equipment	24,000	0.3%		26,400	0.3%	110%	30,360	0.3%	115%	34,914	0.3%	115%	264,989	2.0%	759%	304,737	2.0%	115%
8	Stationary	9,600	0.1%		10,600	0.1%	110%	12,190	0.1%	115%	14,019	0.1%	115%	16,121	0.1%	115%	18,539	0.1%	115%
9	Electric power, water, Tel.	2,155,500	28.3%		2,370,800	28.3%	110%	2,726,410	28.3%	115%	3,135,372	27.8%	115%	3,605,677	27.3%	115%	4,146,529	27.3%	115%
	9-1 Electric power	428,800			471,600			542,340			623,691			717,245			824,831		
	9-2 Heating, cooling	1,189,800			1,308,700			1,505,000			1,730,750			1,990,363			2,288,917		
	9-3 Water supply, swage	522,400			574,600			660,790			759,909			873,895			1,004,979		
	9-4 Telephone(Communication Exp.)	14,500			15,900			18,280			21,022			24,175			27,802		
10	Traffic expenses																		
11	Laundry	21,100	0.3%		23,200	0.3%	110%	26,680	0.3%	115%	30,682	0.3%	115%	35,284	0.3%	115%	40,577	0.3%	115%
	11-1 Linen																		
	11-2 Uniform																		
	11-3 Others																		
12	Repairing of facilities																		
13	Others	90,600	1.2%		99,660	1.2%	110%	114,609	1.2%	115%	131,800	1.2%	115%	151,570	1.1%	115%	174,306	1.1%	115%
14																			

Medical materials	190,900	2.5%		210,000	2.5%		241,500	2.5%		467,025	4.1%	193%	537,079	4.1%	115%	617,641	4.1%	115%
Maintenance for equipment	24,000	0.3%		26,400	0.3%		30,360	0.3%		34,914	0.3%	115%	264,989	2.0%	759%	304,737	2.0%	115%
Total	214,900	2.8%		236,400	2.8%	110%	271,860	2.8%	115%	501,939	4.5%	185%	802,068	6.1%	160%	922,378	6.1%	115%
Medical materials for project equipment										189,300	1.7%		189,114	1.4%	100%	217,481	1.4%	115%
Maintenace for project equipment										0	0.0%		224,838	1.7%		258,564	1.7%	115%
Total for project equipment										189,300	1.7%		413,952	3.1%	219%	476,045	3.1%	115%

1. Expectant estimation is based on the results in 1998
2. Supposed yearly inflation rate : 10% from 1998 to 1999, 15% since 1999
3. Quantity of bed and staff be fixed.

reagent	17,520
consumables	146,990
rec. paper	24,790
Total	189,300

Name of Institution MATERNITY HOUSE NO.2

Expectant Expenditure in 1999~2003

(Som) 24 Jan. '99

		1998			1999			2000			2001			2002			2003		
		Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate
	EXPENSES	9,883,045	100.0%		10,871,345		110%	12,502,047	100.0%	115%	14,595,620	100.0%	116.7%	16,842,875	100.0%	115.4%	19,369,306		115%
1	Personnel	1,761,900	17.8%		1,938,090		110%	2,228,804	17.8%	115%	2,563,124	17.6%		2,947,593	17.5%	115%	3,389,732		115%
2	Social fund	685,598	6.9%		754,157		110%	867,281	6.9%	115%	997,373	6.8%		1,146,979	6.8%	115%	1,319,025		115%
3	Medical materials	193,900	2.0%		213,290		110%	245,284	2.0%	115%	500,342	3.4%	204.0%	575,393	3.4%	115%	661,702		115%
	3-1 Reagent	40,000			44,000			50,600			68,430			78,695			90,499		
	3-2 Consumables										192,700			221,605			254,846		
	3-3 X-ray film	48,000			52,800			60,720			69,828			80,302			92,348		
	3-4 Recording paper	51,000			56,100			64,515			89,518			102,946			118,388		
	3-5 Others	54,900			60,390			69,449			79,866			91,846			105,622		
4	Medicine	1,590,284	16.1%		1,749,312		110%	2,011,709	16.1%	115%	2,313,465	15.9%		2,660,485	15.8%	115%	3,059,558		115%
5	Meal materials	431,693	4.4%		474,862		110%	546,091	4.4%	115%	628,005	4.3%		722,206	4.3%	115%	830,537		115%
6	Medical equipment(New)																		
7	Maintenance for equipment	92,813	0.9%		102,094		110%	117,408	0.9%	115%	135,019	0.9%		213,184	1.3%	158%	245,162		115%
8	Stationary	100,000	1.0%		110,000		110%	126,500	1.0%	115%	145,475	1.0%		167,296	1.0%	115%	192,391		115%
9	Electric power, water, Tel.	4,777,520	48.3%		5,255,270		110%	6,043,561	48.3%	115%	6,950,095	47.6%		7,992,609	47.5%	115%	9,191,500		115%
	9-1 Electric power	300,911			331,002			380,652			437,750			503,413			578,925		
	9-2 Heating, cooling	3,297,989			3,627,787			4,171,955			4,797,748			5,517,411			6,345,022		
	9-3 Water supply, swage	1,167,069			1,283,775			1,476,341			1,697,792			1,952,461			2,245,330		
	9-4 Telephone(Communication Exp.)	11,551			12,706			14,612			16,804			19,324			22,223		
10	Traffic expenses	5,000	0.05%		5,500		110%	6,325	0.05%	115%	7,274	0.05%		8,365	0.0%	115%	9,620		115%
11	Laundry	44,337	0.4%		48,770		110%	56,086	0.4%	115%	64,498	0.4%		74,173	0.4%	115%	85,299		115%
	11-1 Linen	12,000			13,200			15,180			17,457			20,076			23,087		
	11-2 Uniform	6,000			6,600			7,590			8,729			10,038			11,543		
	11-3 Others	26,337			28,970			33,316			38,313			44,060			50,669		
12	Repairing of facilities	200,000	2.0%		220,000		110%	253,000	2.0%	115%	290,950	2.0%		334,593	2.0%	115%	384,781		115%
13	Others																		
14																			

Medical materials	193,900	2.0%		213,290	2.0%		245,284	2.0%		500,342	3.4%	204%	575,393	3.4%	115%	661,702	3.4%	
Maintenance for equipment	92,813	0.9%		102,094	0.9%		117,408	0.9%		135,019	0.9%	115%	213,184	1.3%	158%	245,162	1.3%	
Total	286,713	2.9%		315,384	2.9%	110%	362,692	2.9%	115%	635,361	4.4%	175%	788,578	4.7%	124%	906,864	4.7%	115%
Medical materials for project equipment										218,266	1.5%		251,006	1.5%	115%	288,657	1.5%	
Maintenace for project equipment										0			57,912	0.3%		66,599	0.3%	
Total for project equipment										218,266	1.5%		308,918	1.8%	142%	355,256	1.8%	115%

1. Expectant estimation is based on the results in 1998
2. Supposed yearly inflation rate : 10% from 1998 to 1999, 15% since 1999
3. Quantity of bed and staff be fixed.

reagent	10,240
consumables	192,700
rec. paper	15,326
Total	218,266

Name of Institution MATERNITY HOUSE N0.4

Expectant Expenditure in 1999~2003

(Som) 24Jan. '99

		1998			1999			2000			2001			2002			2003		
		Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate	Amount	Ratio	G. Rate
	EXPENSES	6,276,900	100%		6,904,700		110%	7,940,405		115%	9,312,250	100%	117.3%	10,808,111	100%	116.1%	12,429,327		115.0%
1	Personnel	2,339,300	37.3%		2,573,200		110%	2,959,180		115%	3,403,057	36.5%	115%	3,913,516	36.2%	115%	4,500,543		115%
2	Social fund	855,200	13.6%		940,700		110%	1,081,805		115%	1,244,076	13.4%	115%	1,430,687	13.2%	115%	1,645,290		
3	Medical materials	160,600	2.6%		176,700		110%	203,205		115%	414,470	4.5%	204.0%	476,641	4.4%	115%	548,137		115.0%
	3-1 Reagent	32,000			35,200			40,480			63,522		156.9%	73,050			84,008		115.0%
	3-2 Consumables										138,257			158,996			182,845		
	3-3 X-ray film	12,600			13,900			15,985			17,300		108.2%	19,895			22,879		
	3-4 Recording paper	15,800			17,400			20,010			49,652		248.1%	57,099			65,664		
	3-5 Others	100,200			110,200			126,730			145,740		115.0%	167,600			192,740		115%
4	Medicine	348,500	5.6%		383,400		110%	440,910		115%	507,047	5.4%	115.0%	583,103	5.4%	115%	670,569		
5	Meal materials	337,800	5.4%		371,600		110%	427,340		115%	491,441	5.3%	115.0%	565,157	5.2%	115%	649,931		
6	Medical equipment(New)																		
7	Maintenance for equipment	27,800	0.4%		30,600		110%	35,190		115%	40,469	0.4%	115.0%	145,562	1.3%	360%	167,396		115.0%
8	Stationary	15,900	0.3%		17,500		110%	20,125		115%	23,144	0.2%	115.0%	26,615	0.2%	115%	30,608		
9	Electric power, water, Tel.	1,449,000	23.1%		1,593,900		110%	1,832,985		115%	2,107,933	22.6%	115.0%	2,424,123	22.4%	115%	2,787,741		115.0%
	9-1 Electric power	247,000			271,700			312,455			359,323			413,222			475,205		115.0%
	9-2 Heating, cooling	866,400			953,000			1,095,950			1,260,343			1,449,394			1,666,803		115.0%
	9-3 Water supply, swage	323,900			356,500			409,745			471,207			541,888			623,171		
	9-4 Telephone(Communication Exp.)	11,700			12,900			14,835			17,060			19,619			22,562		
10	Traffic expenses	19,500	0.3%		21,500		110%	24,725		115%	28,434	0.3%	115.0%	32,699	0.3%	115%	37,604		115.0%
11	Laundry	67,000	1.1%		73,700		110%	84,755		115%	97,468	1.0%	115.0%	112,088	1.0%	115%	128,902		115.0%
	11-1 Linen																		
	11-2 Uniform																		
	11-3 Others	67,000			73,700			84,755			97,468			112,088			128,902		
12	Repairing of facilities	39,300	0.6%		43,200		110%	49,680		115%	57,132	0.6%	115.0%	65,702	0.6%	115%	75,557		115.0%
13	Others	617,000	9.8%		678,700		110%	780,505		115%	897,581	9.6%	115.0%	1,032,218	9.6%	115%	1,187,051		115.0%
14																			

Medical materials	160,600	2.6%		176,700			203,205	2.6%	115%	414,470	4.5%	204%	476,641	4.4%	115%	548,137		
Maintenance for equipment	27,800	0.4%		30,600			35,190	0.4%	115%	40,469	0.4%	115%	145,562	1.3%	360%	167,396		
Total	188,400	3.0%		207,300		110%	238,395	3.0%	115%	454,939	4.9%	191%	622,202	5.8%	137%	715,533		115%
Medical materials for project equipment										181,867	2.0%		209,147	1.9%	115%	240,519		
Maintenace for project equipment										0			99,023	0.9%		113,876		
Total for project equipment										181,867	2.0%		308,170	2.9%	169%	354,396		115%

1. Expectant estimation is based on the results in 1998
2. Supposed yearly inflation rate : 10% from 1998 to 1999, 15% since 1999
3. Quantity of bed and staff be fixed.

regent	16,970
consumables	138,257
rec. paper	26,640
Total	181,867

(2) Influence for whole expenditure of each project institutions

1) Bishkek Ambulance Center : The operation cost of these facilities doesn't include the fuel expenses which are most of the expendable consumables. Because the fuel is purchased in lump sum under the vehicle-center of Bishkek city.

The operation / maintenance cost of all equipment in 2002 years is expected with 17% of whole expenditure of this institution, though the necessary operation / maintenance cost born by equipment procured in this project is only 3.0% of whole expenditure and it is , therefore, out of question specially

2) National Surgical Center : Though it is expected with 1,080,000 Som as the operation / maintenance cost of equipment procured in this project in 2002, the cost is 39% only of operation / maintenance cost of all equipment 2,754,000 Som which is only 15.5% of all expenditure in the institution. It is appropriate comparing with the cost of Gunma cardiology medical center 14% and Chiba emergency medical center 17.9% in 1995.

3) Republic Infection Disease Hospital : It is expected with 317,000 Som, as the operation / maintenance cost of the equipment procured in this project. It is 79% of 400,000 Som the cost of all equipment in this institution in 2002. Though, The 4000,000 Som is 1.8% only of the whole expenditure in this institution. Total cost of operation / maintenance cost of all equipment and medicines is expected with 22% of whole expenditure, though, t is appropriate as a infectious disease hospital and is judged as suitable figures from the conditions of the existing equipment.

4) City Hospital No.3 for children: As for the operation / maintenance cost of the equipment procured in this project, 414000 Som is expected in 2002.

The cost is equivalent to 51.6% of 802,000 Som all operation / maintenance cost of all equipment in the institution, though, it is also 3.1% only of whole expenditure and appropriate

5) Maternity House No.2: As for the operation / maintenance cost of the equipment procured in this project , 309,000 Som is expected in 2002.

AS for the operation / maintenance cost of all equipment 677000 ソム (3.9% of whole expenditure of the institution) is summed up, and it is out of question specially.

6) Maternity House No.4 : As for the operation / maintenance cost of the equipment in the same way, 308,000 Som is expected in 2002.

622,000 Som (5.8% of whole expenditure of the institution) is expected as for the operation / maintenance cost of all equipment and it is out of question specially.

Chapter 4

Project Evaluation and Recommendation

CHAPTER 4 PROJECT EVALUATION and RECOMMENDATION

4-1 Project Evaluation and Effect

The beneficiary population of this project is estimated as about one million citizens in Bishkek City. Through implementation of this Project, it will be possible to re-contribute and enhance the more efficient emergency medical care system of Bishkek by procuring ambulance cars and communication equipment for Bishkek Ambulance Center and procuring medical equipment for use in emergency medical care for the project institutions. This project is thus aimed at contributing greatly to the citizens' health, safety and improving the national health care indicators of Kyrgyz.

The objectives of this project is mainly the replacement of the existing equipment for the project institutions including ambulance cars, therefore it is considerable that the operating, managing and maintaining the procured equipment will be proceeded without any technical trouble by the staffs of project institutions.

4-2 Project Benefit

(1) By the procurement of ambulance cars provided equipment and communication equipment, it will be possible that fast and efficient dispatching of ambulance cars, effective medical care on site and delivery to hospital.

(2) By the procurement of basic essential equipment, it will be possible the more effective medical treatment by exactly catching of the vital sign of patient.

(3) By the procurement of ambu bags, defibrillators and intubation sets, it will be possible to upgrade the medical ability for lifesaving of emergency patient.

(4) By the procurement of ultrasonoscope, electrocardiograph and endoscope, it will be possible to perform more effective and adequate diagnosis and treatment for emergency patient.

(5) By the procurement of blood gas analyzer, K, Na, Cl analyzer and blood cell counter, it will be possible to perform more effective and adequate diagnosis and treatment for emergency patient based on clinical data analyzed quickly and exactly.

(6) By the procurement of operation tables, operation lights, anesthesia apparatus and bedside monitors, it will be possible that the more effective and reliable operation and monitoring for emergency patient.

(7) By the procurement of fetal monitor and infusion pump, it will be possible to decrease the mortality of infant and pregnant women by effective monitoring and reliable delivery for emergency patient.

(8) By the procurement of neonatal monitor and infant incubator, it will be possible that the more effective treatment and monitoring for infant and baby with diseases.

(9) Project hospitals are the tertiary hospitals in the each specialties, therefore it will be quite effective for recovering of citizen's trust to emergency medical care system by the upgrading of medical functions mentioned above.

4-3 Recommendation

As stated earlier, this project is expected to produce many beneficial effects and to improve the Basic Human Needs of people of Bishkek. It was concluded, therefore, that it is significant to implement this project. Furthermore, concerning the implementation and management of this project, it is appropriate that there is no obstacle on the staffing and financing in Kyrgyzstan side. However it is desirable that the followings are to be improved in order to implement this project more smoothly and effectively.

This project aims to solve the problems on facilities ("hardware") by procuring ambulance cars and medical equipment for each project institutions to improve the function of emergency medical care. However in order to improve and reform the emergency medical service system drastically in accordance with principle of MANAS Program, not only the improvement of medical equipment but also a wide range of improvement is important and required in Kyrgyzstan side like as followings.

1) Improvement of primary emergency medical system

In present, even medical care for patient in chronic disease is served at home by emergency medical team dispatched from ambulance center. In order to operate the emergency medical service system efficiently, it is desirable that the medical service for chronic disease patient to be transferred from emergency doctor to FGPs (home doctor group) working at polyclinic. Therefore home doctor training shall be fulfilled in program of doctor's brush up training.

The enlightenment and public relations for activity of policlinic and ambulance center shall be encouraged to resident.

The medical service at night and holiday should be performed by policlinic for primary emergency patient.

It is necessary to accelerate introduction of the health insurance system and the user fee system and to clear the remuneration system of medical service. Therefore, it able to be expected to upgrade the quality of medical service and morals of professionals.

2) Establishment of efficient secondary and tertiary emergency medical service system

At present in Bishkek, The emergency medical system consists of Bishkek Ambulance Center and more than 14 designated hospitals over-specialized, therefore it able to say that the system is not operated efficiently and rationally.

As previously mentioned in MANAS program, with the establishment of home doctor system and primary emergency medical care system, it is desirable that over-specialized city hospitals in Bishkek should be generalized like as central rayon hospital in local area. As the result of generalization, Generalized city hospitals are required to perform the secondary emergency medical service.

Concerning tertiary emergency medical care as well, it is necessity that hospital in charge of tertiary emergency medical care should perform synthetic and high-level care. Therefore, it is desirable that a few emergency medical centers should be established for efficient and rational tertiary emergency medical care system by apart from over-specialized national hospitals and institutes.

In order to promote the effect of execution of this project further, maintenance and management system should be established by placement of technical staff for daily maintenance and management of repairing.

A few of equipment procured in this project require additional operation and maintenance cost and maintenance service by manufacturer with contract. The necessary budgeting for maintenance service contract shall be ensured to use equipment under good condition for long period.

Appendices

1. Member List of the Survey Team

1. Member List of the Survey Team

Basic Design Study Team (September 16 - October 20, 1998)

NAME	ROLE	INSTITUTION
Dr. Tsuyoshi Matsuba	Leader	Doctor International Medical Center of Japan Ministry of Health and Welfare
Mr. Norimasa Fujita	Project Coordinator	Grant Aid Project Study Department Japan International Cooperation Agency
Mr. Mamoru Nakajima	Project Manager	Nihon Healthcare Consultants, Inc.
Mr. Makoto Suzuki	Equipment Planner	Nihon Healthcare Consultants, Inc.
Mr. Koichi Murao	Equipment Planner	Nihon Healthcare Consultants, Inc.
Mr. Morihiko Hashi	Interpreter	Nihon Healthcare Consultants, Inc.
Mr. Takahisa Isobe	Facility Planner	Nihon Sekkei, Inc.
Mr. Takafumi Yasuda	Cost Planner	Nihon Sekkei, Inc.
Mr. Shuzo Ishikawa	Facility Planner	Nihon Sekkei, Inc.

Explanation Team for the Draft Basic Design Study (January 10 - January 30, 1999)

NAME	ROLE	INSTITUTION
Dr. Tsuyoshi Matsuba	Leader	Doctor International Medical Center of Japan Ministry of Health and Welfare
Miss. Rina Hirai	Project Coordinator	Grant Aid Project Study Department Japan International Cooperation Agency
Mr. Mamoru Nakajima	Project Manager	Nihon Healthcare Consultants, Inc.
Mr. Makoto Suzuki	Equipment Planner	Nihon Healthcare Consultants, Inc.
Mr. Morihiko Hashi	Interpreter	Nihon Healthcare Consultants, Inc.

2. Survey Schedule

2. Survey Schedule

Basic Design Study Schedule (September 16 - October 20, 1998)

Date	Activities
Sep. 16 Wed)	・ Narita - Frankfurt (JICA Official and Consultant)
17 (Thu)	・ Frankfurt - Almaty
18 (Fri)	・ Courtesy Call to the Embassy of Japan ・ Almaty - Bishkek ・ Courtesy Call to MOH ・ Meeting with MOH, Hospitals , WHO and World Bank ・ Visit to Ambulance Center ・ One member of the Consultant, Islamabad- Almaty
19 (Sat)	・ Visit to National Surgical Center ・ Visit to Republican Infection Disease Hospital ・ One member of the Consultant, Almaty - Bishkek
20 (Sun)	・ Visit to City Hospital No. 3 for Children
21 (Mon)	・ Visit to National Children Hospital ・ Visit to Maternity House No. 2 ・ Visit to Maternity House No. 4
22 (Tue)	・ Workshop ・ Courtesy Call to GOSCOMINVEST
23 (Wed)	・ Meeting with Ambulance Center ・ Meeting with National Surgical Center ・ Meeting with Republican Infection Disease Hospital
24 (Thu)	・ Meeting with City Hospital No. 3 for Children ・ Meeting with Maternity House No. 2 ・ Meeting with Maternity House No. 4
25 (Fri)	・ Discussion on Minutes of Discussions
26 (Sat)	・ Internal meeting within the Team
27 (Sun)	・ Internal meeting within the Team
28 (Mon)	・ Signing of Minutes of Discussions ・ JICA Official, Bishkek - Almaty ・ Report to Embassy of Japan ・ Consultant, meeting with MOH
29 (Tue)	・ JICA Official, Almaty - Frankfurt to Narita ・ Meeting with MOH and World Bank ・ Meeting with Maternity House No. 2 ・ Meeting with Maternity House No. 4
30 (Wed)	・ JICA Official arriving to Narita ・ Meeting with WHO ・ Meeting with City Hospital No. 3 for Children
Oct. 01 (Thu)	・ Meeting with National Surgical Center ・ Meeting with Republican Infection Disease Hospital
02 (Fri)	・ Meeting with Know-How Project Team ・ Visit to City Hospital No. 4
03 (Sat)	・ Survey of ambulance car of Ambulance Center

Oct. 04 (Sun)	· Internal meeting within the Team · Two members of Consultant, Narita - Frankfurt
05 (Mon)	· Meeting with World Bank · Meeting with National Surgical Center · Meeting with Maternity House No. 4 · Two members of the Consultant, Frankfurt - Almaty
06 (Tue)	· Meeting with Maternity House No. 2 · Survey on City Hospital No. 3 for Children · Two members of the Consultant, Almaty - Bishkek
07 (Wed)	· Meeting with WHO · Survey on Republican Infection Disease Hospital · Survey on National Surgical Center
08 (Thu)	· Meeting with Ambulance Center · Survey on City Hospital No. 3 for Children · One member of the Consultant, Bishkek - Almaty
09 (Fri)	· Meeting with Dept. of Public Health Municipality of Bishkek · Survey of National Surgical Center · Survey on Maternity House No. 4 · Survey on Maternity House No. 2 · One member of the Consultant, Almaty - Frankfurt to Narita
10 (Sat)	· Meeting with Ambulance Center · Survey on equipment of third country · One member of the Consultant arriving to Narita
11 (Sun)	· Internal meeting within the Team
12 (Mon)	· Meeting with MOH · Meeting with Ambulance Center · Meeting with Dept. of Public Health Municipality of Bishkek · Survey on equipment of third country
13 (Thu)	· Meeting with MOH and World Bank · Survey on ambulance car of Ambulance Center · Meeting with Maternity House No. 4
14 (Wed)	· Meeting with Kyrgyz Meditechnica · Discussion on Technical Memorandum and PDM with MOH · Discussion on Technical Memorandum with GOSCOMINVEST
15 (Thu)	· Visit to Kyrgyz Meditechnica · Discussion with MOH on PDM · Signing of Technical Memorandum
16 (Fri)	· Consultant, Bishkek - Almaty · Report to the Embassy of Japan
17 (Sat)	· Consultant, Almaty - Frankfurt · Two members of the Consultant, survey on equipment · Three members of the Consultant, Frankfurt to Narita
18 (Sun) 19 (Mon)	· Three members of the Consultant arriving to Narita · Two member s of the Consultant, Frankfurt to Narita
20 (Tue)	· Two members of the Consultant, arriving to Narita

Explanation Schedule for Draft Basic Design Study (January 10 - January 30, 1999)

Date	Activities
Jan. 10 (Sun)	• Consultant, Narita - Frankfurt
11 (Mon)	• Frankfurt - Almaty
12 (Tue)	• Courtesy Call to the Embassy of Japan • Almaty - Bishkek • Meeting with MOH
13 (Wed)	• Meeting with GOSCOMINVEST • Meeting with MOH
14 (Thu)	• Meeting with Ambulance Center • Meeting with National Surgical Center
15 (Fri)	• Meeting with Republican Infection Disease Hospital • Meeting with City Hospital No. 3 for Children
16 (Sat)	• Meeting with Maternity House No. 2 • Meeting with Maternity House No. 4
17 (Sun)	• JICA Official, Narita - Frankfurt
18 (Mon)	• JICA Official, Frankfurt - Tashkent • Meeting with MOH • Meeting with Ambulance Center
19 (Tue)	• JICA Official, Tashkent - Almaty • JICA Official, Courtesy Call to the Embassy of Japan • JICA Official, Almaty - Bishkek • Internal meeting within the Team
20 (Wed)	• Courtesy Call to MOH • Discussion with MOH and related Hospitals and Ambulance Center
21 (Thu)	• Discussion with MOH, WHO and World Bank • Discussion with GOSCOMINVEST
22 (Fri)	• Signing of Minutes of Discussions • JICA Official, Bishkek - Almaty • Report to Embassy of Japan • Consultant, Meeting with Ambulance Center
23 (Sat)	• JICA Official, Almaty - Frankfurt to Narita • Survey on Republican Infection Disease Hospital • Survey on National Surgical Center
24 (Sun)	• JICA Official arriving to Narita
25 (Mon)	• Survey on City Hospital No. 3 for Children • Survey on Maternity House No. 2
26 (Tue)	• Survey on Maternity House No. 4 • Meeting with MOH
27 (Wed)	• Meeting with MOH • Signing of Technical Memorandum
28 (Thu)	• Consultant, Bishkek - Almaty • Report to Embassy of Japan
29 (Fri)	• Consultant, Almaty - Frankfurt to Narita
30 (Sat)	• Consultant arriving to Narita

3. List of Party Concerned in the Recipient Country

3. List of Party Concerned in the Recipient Country

Basic Design Study

〔 THE STATE COMMISSION ON FOREIGN INVESTMENTS AND ECONOMIC ASSISTANCE 〕

Mr. URKALY T. ISAEV	Chairman
Mr. URAN T. ABDYNASYROV	Deputy Chairman

〔 MINISTRY OF HEALTH 〕

Dr. N. KASIEV	Minister
Dr. AALIEV gG. R.	Deputy Health Minister
Dr. K. MAMBETOV	Chief of Medical Prophylactic Department
Dr. R. JAKYPOVA	Chief Therapist

〔 MINISTRY OF FINANCE 〕

Ms. A. OUKTAMKHAN	First Deputy of Minister of Finance

〔 DEPARTMENT OF PUBLIC HEALTH MUNICIPALITY OF BISHKEK 〕

Ms. I. N. MELJNICHUK	Chief of Health Administration of Bishkek City
Dr. A. SADYGALIEV	Deputy Chief of Health Administration of Bishkek City

〔 BISHKEK AMBULANCE CENTER 〕

Dr. V. BELOV	Chief Director
Dr. K. ABDYLDAEV	Deputy Chief Director
Dr. B. ARALBAEVA	Doctor
Mr. SIVKO	Communication Engineer

〔 NATIONAL SURGICAL CENTER 〕

Dr. M. M. MAMABEEV	Director
Dr. K. M. MAMAKEEV	Chief Director
Dr. KALJIKEEV A. A.	Head of Surgery Department
Dr. I. T. BEKTUROV	Head of Scientific Department
Dr. OMURZAKOV M. B.	Manager

〔 REPUBLICAN INFECTION DISEASE HOSPITAL 〕

Dr. N. MURATOVA	Chief Director
Dr. H. SARKINA	Deputy Chief Director

〔 CITY HOSPITAL NO. 3 FOR CHILDREN 〕

Dr. H. CHERNYSHOVA	Deputy Chief Director

〔 MATERNITY HOUSE NO. 2 〕

Dr. ALYBAEV A. A.	Chief Director
Dr. T. KOZLOVA	Deputy Chief Director
Dr. K. LEE	Head of Obstetric Department

〔 MATERNITY HOUSE NO. 4 〕

Dr. G. KACHKINTAEVA	Chief Director
Dr. N. VOICHENKO	Deputy Chief Director]

〔 REPUBLICAN CHILDREN'S CLINICAL HOSPITAL 〕

Dr. K. A. UZAKBAEV	Chief Director

〔 CITY CLINICAL HOSPITAL NO. 1 〕

Dr. Z. T. TOKOGONOVA	Chief Director

〔 CITY CLINICAL HOSPITAL NO. 6 〕

Dr. A. C. USUPBAEV	Chief Director

〔 CITY POLICLINIC NO. 9 〕

Dr. A. A. ASANBEKOVA	Chief Director

〔 WHO LOCAL BUREAU 〕

Dr. O. MOLDOKULOV	Deputy Chief
Dr. A. IMANBAEV	National Professional Officer WHO Liaison Office, Kyrgyz
Dr. M. BOZGUNCHIEV	Director, WHO Inf. Center for Health for Central A. Republics

〔 WORLD BANK 〕

Dr. T. MEIMAMALIEV	Director, Tech. Coord. Committee of Health Reform Project
Dr. M. M. KARATAEV	Coordinator for Provider Payment Reform Component
Ms. D. DJOLDOSHEVA	Operations Officer

〔 PRIVATE CLINIC KAMEK 〕

Dr. E. MAMATOV	Chief Director

〔 MEDICAL SERVICE 051 〕

Dr. I. B. SHAYAKHMETOV	General Director

Explanation for Draft Basic Design Study

〔 THE STATE COMMISSION OF FOREIGN INVESTMENTS AND ECONOMIC ASSITANCE 〕

Mr. URKALY. T. ISAEV	Chairman
Dr. SABYRBEK A. MOLDOKULOV	Deputy Chairman
Mr. URAN T. ABDYNASYROV	Deputy Chairman

〔 MINISTRY OF HEALTH 〕

Dr. N. KASIEV	Minister
Dr. AALIEV G. R.	Deputy Health Minister
Dr. K. MAMBETOV	Chief of Medical Prophylactic Department
Dr. R. JAKYPOVA	Chief Therapist

〔 BISHKEK AMBULANCE CENTER 〕

Dr. SHAYAHMETOV I. S.	Chief Director

〔 NATIONAL SURGICAL CENTER 〕

Dr. K. M. MAMAKEEV	Chief Director
Dr. KALJIKEEV A. A.	Head of Surgery Department
Dr. OMURZAKOV M. B.	Manager

〔 REPUBLICAN INFECTION DISEASE HOSPITAL 〕

Dr. N. MURATOVA	Chief Director
Dr. H. SARKINA	Deputy Chief Director

〔 CITY HOSPITAL NO. 3 FOR CHILDREN 〕

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Dr. H. CHERNYSHOVA	Deputy Chief Director

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Dr. T. KOZLOVA	Deputy Chief Director
Dr. K. LEE	Head of Obstetric Department

〔 MATERNITY HOUSE NO. 4 〕

Dr. G. KACHKINTAEVA	Chief Director
Dr. N. VOICHENKO	Deputy Chief Director

〔 WORLD BANK 〕

Dr. ALMAZ IMANBAEV	Representative

〔 WHO LOCAL BUREAU 〕

Mr. KAZUBA M. STEPANOVICH	Representative

4. Minutes of Discussion

MINUTES OF DISCUSSIONS ON BASIC DESIGN STUDY ON THE PROJECT FOR UPGRADING THE EMERGENCY MEDICAL SYSTEM IN BISHKEK IN THE KYRGYZ REPUBLIC

In response to a request from the Government of Kyrgyz the Government of Japan decided to conduct a Basic Design Study on the Project for Upgrading the Emergency Medical System in Bishkek (hereinafter referred to as "the Project"), and entrusted the study to Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to Kyrgyz a study team (hereinafter referred to as "the Team"), which is headed by Dr. Tsuyoshi MATSUBA, International Medical Center of Japan, Ministry of Health and Welfare, and is scheduled to stay in the country from September 18th to October 16th, 1998.

The Team held discussions with the officials concerned of the Government of Kyrgyz 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.

Bishkek, September 28, 1998

Dr. Tsuyoshi MATSUBA
Leader,
Basic Design Study Team, JICA
Japan

Mr. Urkaly T. Isaev
Chairman,
The State Committee of the
Kyrgyz Republic on Foreign Investment
and Economic Development

Dr. Naken K. Kasiev
Minister,
Ministry of Health
Kyrgyz Republic

ATTACHMENT

1. Objectives of the Project

The objective of the Project is to improve and strengthen the Emergency Medical System in Bishkek through procurement of equipment under Japan's Grant Aid.

2. Responsible Ministry and Executing Agency

(1) Responsible Ministry	:	The State Committee of the Kyrgyz Republic on Foreign Investment and Economic Development
(2) Executing Agency	:	Ministry of Health, the Kyrgyz Republic

3. Items requested by Kyrgyz side

The request from Kyrgyz side to the Team is shown in ANNEX - 1.
However, the final components of the Project will be decided after further studies.

4. Japan's Grant Aid System

(1) Kyrgyz side has understood the system of Japanese Grant Aid System explained by the Team. The system is shown in ANNEX - 2.

(2) Kyrgyz side will take the necessary measures described in ANNEX-3, for smooth implementation of the Project on conditions that the Grant Aid Assistance by the Government of Japan is extended to the Project.

5. Schedule of the Study

(1) The Team will proceed to further studies in Kyrgyz until October 16th, 1998.

(2) JICA will prepare the draft report in English and dispatch a mission in order to explain its contents in January 1999.

(3) In case that the contents of the report is accepted in principle by Kyrgyz side, JICA will complete the final report and send it to Kyrgyz side around March, 1999.

6. Monitoring of the Project

The Executing Agency have responsibility for monitoring the progress of all phases of the Project such as allocation of funds, operation and maintenance of the Bishkek Ambulance Center, three Hospitals and two Maternity Houses.

7. Others

(1) Kyrgyz side has promised to submit the answer to the "Questionnaire" to the Team until September 30, 1998.

(2) Kyrgyz side has promised to submit the documents stating the demand projection of ambulance car, for coming five years, for the improvement of emergency medical system based on the report of "Know-how Project", to the Team until September 30, 1998.

(3) Kyrgyz side has promised to submit the documents stating data regarding the selection of planned equipment with its quantity, the specification identification and the operation purpose with its use frequency of planned equipment for the emergency medical system, to the Team until September 30, 1998.

(4) Kyrgyz side has promised to submit to the Team the documents below until September 30, 1998.

- the proposed plan of revenue and expense of Bishkek Ambulance Center and five Hospitals for coming five years.
- the plan of operation and maintenance cost for each equipment for five years period after the supply the equipment procured through the Japan's Grant Aid.

(5) Kyrgyz side will take the necessary measures for removing the existing equipment such as x-ray apparatus, operating light, steam sterilizer, etc. before the installation work of the equipment procured through the Japan's Grant Aid.

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ANNEX -1.

1. Project Sites

(1) Bishkek Ambulance Center
(2) National Surgical Center
(3) Republican Infection Disease Hospital
(4) City Hospital No. 3 for Children
(5) Maternity House No. 2
(6) Maternity House No. 4

2. Basic Criteria for Selection and Deletion of Equipment

[1] Priority principle

(1) Equipment to be replaced with the existing deteriorated equipment.
(2) Equipment to be supplemented additionally for the existing equipment whose quantity are definitely in short.
(3) Equipment to be utilized for basic diagnosis and treatment activities.
(4) Equipment with no difficulties on the operation and maintenance conditions.
(5) Equipment to be utilized for great benefit because of large number of patients to be treated.
(6) Equipment which produce high cost effectiveness.
(7) Equipment whose medical effect are established.
(8) Equipment to be operated and maintained properly by the present technical level of the hospital staff.
(9) Equipment whose operation and maintenance manpower is established or will be established soon whether in-hospital or out-hospital staff.
(10) Equipment suitable for social background conditions (such as referral system and local needs).
(11) Equipment which might be possible to cooperate and coordinate with other donor.

[2] Deletion principle

(1) Equipment which need high operation and maintenance cost.
(2) Equipment to be utilized for small benefit because of limited number of patients to be treated.
(3) Equipment which produce low cost effectiveness.
(4) Equipment to be utilized for research activities and not for patient treatment purpose.
(5) Equipment to be utilized employing more simple type.

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(6) Equipment which produce waste materials causing environmental contamination problem.

(7) Equipment whose medical effect are not established.

(8) Equipment which might be used for individual use by the hospital staff (not for medical activities).

(9) Equipment which might be requested more than optimal minimum quantity (ineffective and duplicate equipment).

(10) Equipment which some difficulties for spare parts and consumable supplies in local site.

(11) Equipment to be operated and maintained unproperly by the present technical level of the hospital staff.

(12) Equipment whose operation and maintenance manpower is not established or will not be established soon whether in-hospital or out-hospital staff.

(13) Equipment unsuitable for social background conditions (such as referral system and local needs).

(14) Equipment with additional infrastructure improvement work (such as water, electricity and drainage, etc.) for the installation.

(15) Equipment with proper reutilization of the existing equipment.

[3] Principle applicable for international standards

WHO guidelines (for example Radiological Apparatus Installation, etc.) should be applied individually.

3. Equipment Requested by Kyrgyz side

In the Equipment List attached herewith the Priority "A" and "B" will have the meanings below:

A: high priority confirmed - essential equipment to be planned for the Emergency Medical System.

B: medium priority confirmed but to be reviewed in the further study - equipment to be utilized in general medical services but not cleared for emergency medical care.

* After the submission of all necessary doucments listed in item 7. by Kyrgyz side, the equipment B will be have the possibility to be ranked up as priority A with the further studies in Japan.

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Equipment List for
Bishkek Ambulance Center

DESCRIPTION	PRIORITY A/B
Specialized Ambulance Car w/ Std. Acc.	B
Portable Defibrillator	B
Electrocardiograph	B
Electrical Suction Unit	B
Intubation Set	B
Steam Sterilizer	B
Communication Device	A
Charging Device for Battery	B
Mobile Artificial Respiration Apparatus	B
Ambu Bag for Children	A
Ambu Bag for Adults	A
Glucosemeter	B
Electronic Sphygmomanometer for Children	B
Electronic Sphygmomanometer for Adult	B
Bag for Drugs	B
Spare Parts for Existing Ambulance Car	B

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Equipment List for
National Surgical Center

DESCRIPTION	PRIORITY A/B
1. Operating Room & Sterilization	
Electro-surgical Unit	A
Electric Suction Unit	A
Operating Table	B
Operating Light	B
Operating Light/Auxiliary Floor Mobile Type	B
Anesthesia Apparatus w/ Ventilator	B
Patient Monitor	B
Defibrillator	B
Pulse Oxymeter	B
Film Illuminator	B
C-arm X-ray TV System	B
High Pressure Steam Sterilizer	B
Operating Instrument Set	A
Common Surgery Instrument Set	A
Stainless Instrument	B
2. ICU	
Defibrillator	B
Bedside Monitor	B
Ventilator	A
Sphygmomanometer	B
Automatic Resuscitator	B
Low Pressure Continuous Suction Unit	B
Ultrasonic Nebulizer	B
Oxygen Tent	B
Ambu Bag	A
3. Abdominal & Others	
Bronchoscope/Flexible	B
Gastrointestinal Fiberscope	B
Halogen Light Source	B
Endoscopic Suction Pump	B
Endoscopic Trolley	B
Ultrasound/Mobile	B
Thoracoscope	B
Cabinet for Endoscope	B
Blood Gas Analyzer	B
Coagulometer	B

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Equipment List for
National Surgical Center (Cont.)

DESCRIPTION	PRIORITY A/B
4. Basic Essencial Equipment	
Height Measuring Rod	B
Weighing Scale	B
Stethoscope	B
Sphygmomanometer	B
Diagnostic Set	B
Clinical Thermometer	B
Laryngoscope	B
Small Operating Instrument Set	B
Operating Instrument Set	B
Boiling Sterilizer	B
Instrument Sterilizing Case	B
Dressing Jar with Stand	B
Stretcher	B
Instrument Table	B
Instrument Carriage	B
Emergency Cart	B
Mobile Stand Lamp	B

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Equipment List for
Republican Infection Disease Hospital

DESCRIPTION	PRIORITY A/B
1. Pediatric	
Infant Incubator	A
Infant Scale	B
Ultrasonic Nebulizer	A
Infant Ventilator	A
Resuscitator for Neonate and Adult	B
Neonatal Monitor	B
Syringe Infusion Pump	A
Infusion Pump	A
Oxygen Tent	B
Suction Pump	B
2. ICU	
Ventilator	B
Bedside Monitor	B
Defibrillator w/ External Pacer Unit	B
ECG w/ Analyzer	B
Low Pressure Continuos Suction Unit	B
Ultrasonic Nebulizer	B
Endotracheal Set	B
3. X-ray Cabinet	
X-ray Unit	B
X-ray Film Processor	B
X-ray Film Illuminator	A
4. Biochemical Clinic Laboratory	
Blood Cell Counter	B
Binocular Microscope	B
Hematocrit Centrifuge	B
Na, K, Cl Analyzer	B
Glucose Analyzer	B
Versatile Clinical Refractometer	B
Hot Air Sterilizer	B
Digital Micro Pipette Set	B
5. Sterilizing & Others	
Steam Sterilizer	A
Ultrasound	B
CO2, O2, Na, K, Cl Analyzer	B

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Equipment List for

Republican Infection Disease Hospital (Cont.)

DESCRIPTION	PRIORITY A/B
6. Basic Essencial Equipment	
Height Measuring Rod	B
Weighing Scale	B
Stethoscope	B
Sphygmomanometer	B
Diagnostic Set	B
Clinical Thermometer	B
Laryngoscope	B
Small Operating Instrument Set	B
Operating Instrument Set	B
Boiling Sterilizer	B
Instrument Sterilizing Case	B
Dressing Jar with Stand	B
Stretcher	B
Instrument Table	B
Instrument Carriage	B
Emergency Cart	B
Mobile Stand Lamp	B

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Equipment List for

City Hospital No. 3 for Children

DESCRIPTION	PRIORITY A/B
1. X-ray	
X-ray Unit	B
X-ray Unit/Mobile	A
2. Operation Room & Others	
Anesthesia Apparatus w/ Ventilator	A
Defibrillator	B
Pulse Oxymeter	B
Multipurpose Operating Table	A
Electro-Surgical Unit	A
Operating Light	A
Operating Light/Auxiliary Floor Mobile Type	B
Electric Suction Unit	A
Operating Microscope	B
Ventilator	B
Steam Sterilizer	B
Distillator	B
3. Pediatric & Others	
Syringe Infusion Pump	B
Pediatric Surgical Incubator	A
Pulse Oxymeter	A
Suction Unit	B
4. Endoscope & Others	
Rigid Respiratory Bronchoscope	B
Gastroduodeno Fiberscope	B
Halogen Ligth Source	B
Endoscopic Suction Unit	B
Endoscopic Trolley	B
Endoscope Table	B
Blood Gas Analyzer	B
Cysto-urethroscope Set	B
Halogen Light Source	B
Bedside Monitor	B
C02, Na, K, Cl Analyzer	B
Ultrasonic Inhalator	A

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Equipment List for

City Hospital No. 3 for Children (Cont.)

DESCRIPTION	PRIORITY A/B
5. Basic Essencial Equipment	
Height Measuring Rod	B
Weighing Scale	B
Stethoscope	B
Sphygmomanometer	B
Diagnostic Set	B
Clinical Thermometer	B
Laryngoscope	B
Small Operating Instrument Set	B
Operating Instrument Set	B
Boiling Sterilizer	B
Instrument Sterilizing Case	B
Dressing Jar with Stand	B
Stretcher	B
Instrument Table	B
Instrument Carriage	B
Emergency Cart	B
Mobile Stand Lamp	B

Equipment List for
Maternity House No. 2

DESCRIPTION	PRIORITY A/B
1. Pediatric Department	
Infant Incubator	A
Syringe Pump	B
Phototherapy Unit	A
Ambu Bag	B
Infant Warmer with Intensive Therapy Device	B
Infant Ventilator	B
Automatic Resuscitator	B
Oxygen Flowmeter	B
Neonatal Monitor	A
2. Obstetrics	
Fetal Monitor	A
Ultrasound System	B
3. Sterilizing Room	
Steam Sterilizer/Horizontal Type	B
4. Gynecology	
Colposcope	B
5. Reanimation Room & Others	
Reanimation Set	B
Ventilator	B
Bedside Monitor	A
Electrocardiograph	A
Operating Instrument Set (Ob/Gye)	A
Anesthesia Apparatus	B
CO2, O2, Na, K Cl Analyzer	B
Infusion Pump	B

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Equipment List for

Maternity House No. 2 (Cont.)

DESCRIPTION	PRIORITY A/B
6. Basic Essencial Equipment	
Height Measuring Rod	B
Weighing Scale	B
Stethoscope	B
Sphygmomanometer	B
Clinical Thermometer	B
Laryngoscope	B
Small Operating Instrument Set	B
Boiling Sterilizer	B
Instrument Sterilizing Case	B
Dressing Jar with Stand	B
Stretcher	B
Instrument Table	B
Instrument Carriage	B
Emergency Cart	B
Mobile Stand Lamp	B

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Equipment List for

Maternity House No. 4

DESCRIPTION	PRIORITY A/B
Vacuum Extractor	B
Suction Pump	A
Fetal Monitor	A
Neonatal Monitor	B
Automatic Infant Scale	B
Automatic Resuscitator	B
Fetal Doppler	B
Lamp f/ Examination	A
Automatic Resuscitator	B
Infant Incubator	A
Ultrasound Doppler	B
Electrocardiograph	B
Automatic Recording Densitometer	
Electrophoresis Apparatus	B
Ventilator for Adults	B
Ventilator for Children	B
Anesthesia Apparatus	B
CO2, O2, K, Na, Cl Analyzer	B
Operating Table	A
Operating Light	A
Bedside Monitor	B
Ultrasonic Nebulizer	A
Colposcope	B
Basic Essencial Equipment	
Height Measuring Rod	B
Weighing Scale	B
Stethoscope	B
Sphygmomanometer	B
Small Operating Instrument Set	B
Operating Instrument Set	B
Boiling Sterilizer	B
Instrument Sterilizing Case	B
Dressing Jar with Stand	B
Stretcher	B
Instrument Table	B
Instrument Carriage	B
Emergency Cart	B
Mobile Stand Lamp	B

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