BASIC DESIGN STUDY REPORT

ON

THE PROJECT

FOR

IMPROVEMENT OF CHILD HEALTH CARE

IN RURAL AREAS

IN

THE KYRGYZ REPUBLIC

JANUARY, 2004

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

INTERNATIONAL TECHNO CENTER CO., LTD.

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PREFACE

In response to a request from the Government of the Kyrgyz Republic, the Government of Japan decided to conduct a basic design study on the Project for Improvement of Child Health Care in Rural Areas and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to Kyrgyzstan a study team from July 23 to August 31, 2003.

The team held discussions with the officials concerned of the Government of Kyrgyzstan, and conducted a field study at the study area. After the team returned to Japan, further studies were made. Then, a mission was sent to Kyrgyzstan in order to discuss a draft basic design, and as this result, the present report was finalized.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of Kyrgyzstan for their close cooperation extended to the teams.

January, 2004

Kunimitsu Yoshinaga
Vice President
Japan International Cooperation Agency

January, 2004

Letter of Transmittal

We are pleased to submit to you the basic design study report on the Project for Improvement of Child Health Care in Rural Areas.

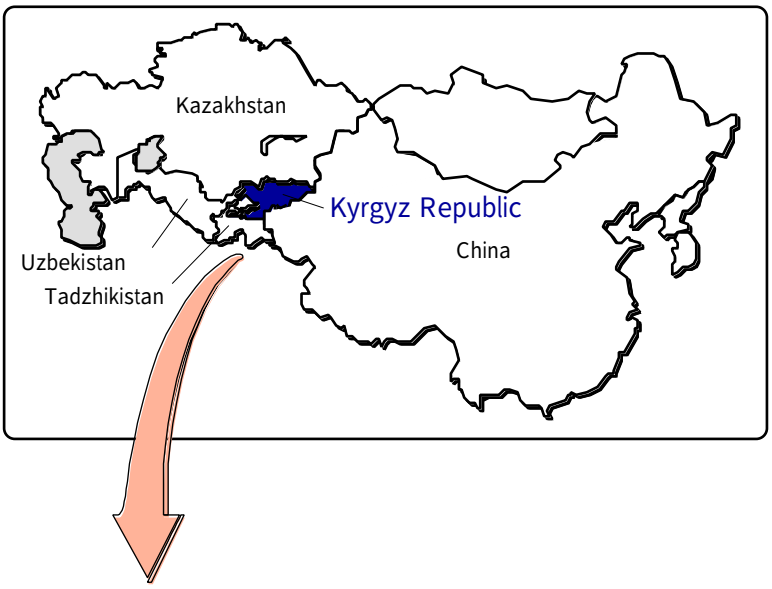
This study was conducted by International Techno Center Co., Ltd., under a contract to JICA, during the period from July 17, 2003 to March 19, 2004. In conducting the study, we have examined the feasibility and rationale of the project with due consideration to the present situation of Kyrgyzstan and formulated the most appropriate basic design for the project under Japan's grant aid scheme.

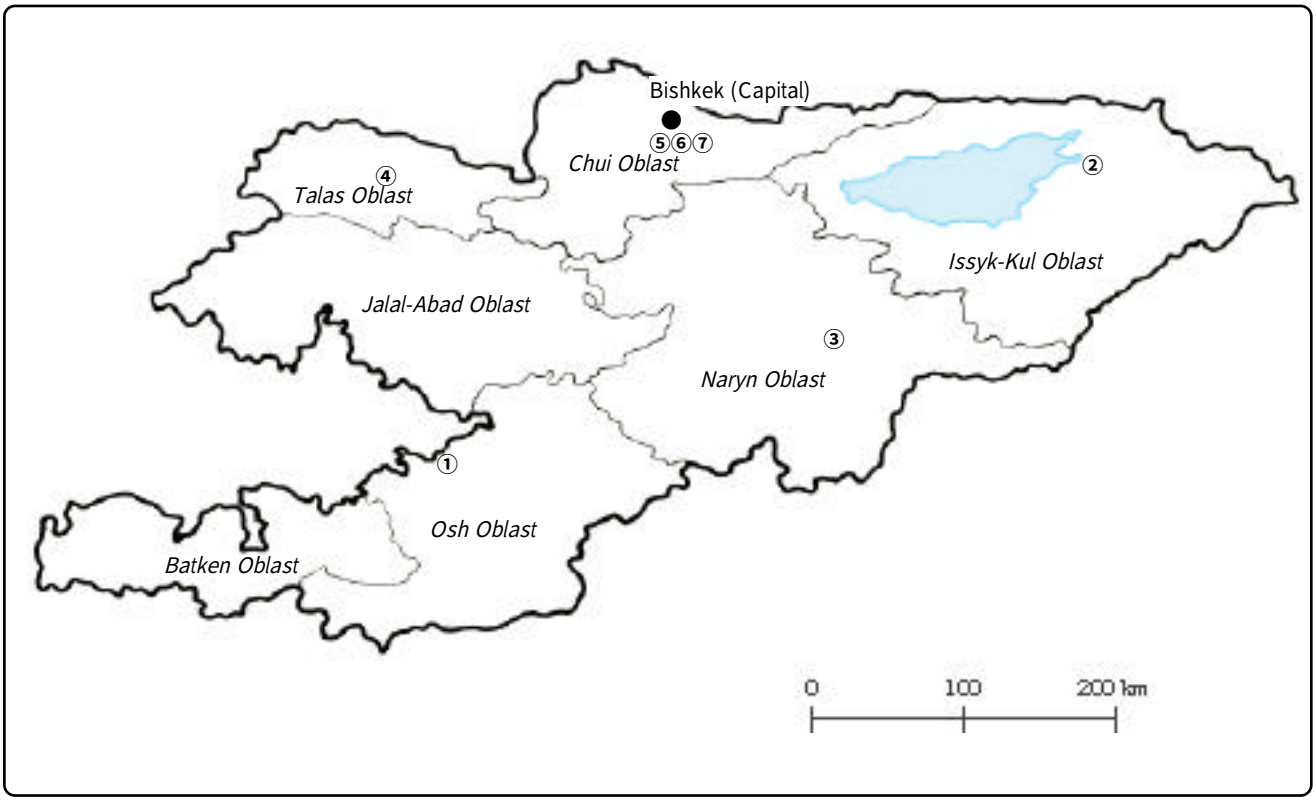
Finally, we hope that this report will contribute to further promotion of the project.

Very truly yours,

Kazuhiro Abe
Project Manager,
Basic design study team on the Project for Improvement of Child Health Care in Rural Areas
International Techno Center Co., Ltd.

KYRGYZ REPUBLIC





7 Project Sites

① **Osh Oblast Merged Hospital**
② **Issyk-Kul Oblast Merged Hospital**
③ **Naryn Oblast Merged Hospital**
④ **Talas Oblast Merged Hospital**
⑤ **Research Institute for Obstetrics and Pediatrics**
⑥ **Bishkek City Children Clinical Emergency Hospital**
⑦ **Republican Children's Hospital**

List of Figures & Tables

Abbreviations

A/P	Authorization to Pay
B/A	Banking Arrangement
B/L	Bill of Lading
CIF	Cost, Insurance and Freight
CIS	Commonwealth of Independent States
CDF	Comprehensive Development Framework
E/N	Exchange of Notes
GDP	Gross Domestic Product
ISO	International Organization for Standardization
IMF	International Monetary Fund
JIS	Japan Industrial Standards
JICA	Japan International Cooperation Agency
PRSP	Poverty Reduction Strategic Paper
WHO	World Health Organization
WTO	World Trade Organization

Summary

Summary

The Kyrgyz Republic is a land-locked country, with an average altitude of 3,600~4,000m, lying on the slopes of the Tian Shan Mountains. The country is adjacent to Kazakhstan in the north and to Uzbekistan and Tajikistan from the west to the south. The current population is about 4.9 million, and the total land area is about 199,945km^2, with more than two-thirds of the area at altitudes higher than 3,000m, consisting of many mountains covered by ice, snow and canyons. The climate in the mountainous area is harsher at higher altitudes, but the valleys enjoy high temperatures with a relatively high rainfall.

Kyrgyzstan became independent in 1991. Since then, the efforts by the government towards democratization and introduction of market economy made the country's economy mark positive growth at the middle of 1990s. The economic growth, however, slowed down again due to stagnation caused by the Russian economic crisis and other external factors. Kyrgyzstan became a pilot country for the Comprehensive Development Framework, and started developing based on the Poverty Reduction Strategy Paper. The health sector has been a priority area in the reform of social services as a component of the CDF. The national health policy puts great importance on children's health in rural areas. The infant mortality rate of Kyrgyzstan indicates its worse situation in children's health than its neighbors. The malnutrition, iodine deficiency, and sideropenia are serious problems for children's health and many infants are suffering from anemia especially in rural areas. Accordingly, the healthcare services in the public sector are very crucial in such circumstances, although the present functions of healthcare facilities are far from adequate healthcare especially in rural areas. Even basic diagnoses and treatments are sometimes hampered by lack of medical equipment, which has not been replaced for a long time due to the economic depression.

Under such circumstances, the government of Kyrgyzstan requested the government of Japan to extend its aid to the four Oblast Merged Hospitals, and the three top referral hospitals in Bishkek. In response to this request, the Japanese government dispatched a preliminary study team to Kyrgyzstan in February 2003. The result of study showed that the assistance should focus on the hospitals in rural areas including the southern part of the country where the conditions were particularly worse. Based on the report of the preliminary report, the Japan International Cooperation Agency (JICA) dispatched a basic design study team to Kyrgyzstan from July 23 to August 31, 2003. The analysis and examinations were continued after the team came back to Japan, and JICA sent the team again from October 7 to November 7, 2003 for explanation of draft basic design of this project.

Based on the preliminary study result and detail examinations in the basic design study, it was confirmed again that the project should focus on assistance for the four rural Oblast Merged Hospitals while it would provide a supplementary assistance to the three hospitals in Bishkek. The project aims at strengthening the healthcare services in regard to childhood diseases through provision of medical equipment to be used in the pediatric departments of these hospitals.

The outlines of the hospitals covered by this project are shown below (as of 2002).

	Location	Beds	Total employees	In-patients (year)	Out-patients (year)	Annual budget (,000 som)
Osh OMH, Pediatric dept.	Osh	508	976	21,543	34,208	14.042
Issyk-kul OMH, Pediatric dept.	Karakol	112	249	995	2,398	31.131
Naryn OMH, Pediatric dept.	Naryn	30	47	1,516	4,758	18.729
Talas OMH, Pediatric dept.	Talas	71	46	6,332	7,845	45.679
Research Institute for Obstetrics and Paediatrics	Bishkek	171	115	4,023	29,117	13.478
Bishkek City Children Clinical Emergency Hospital	Bishkek	393	467	13,530	41,729	17.054
Republican Children's Hospital	Bishkek	322	505	7,351	7,528	17.940

The project was designed with the basic policies shown below.

(1) To give the first priority on the essential equipment most frequently used for basic diagnoses and treatments in general pediatrics.
(2) To make an adequate equipment plan for each hospital taking account of medical activities of the hospitals respectively.
(3) To replace or supplement the equipment of which poor condition or insufficiency hinders the hospitals from providing smooth diagnoses and treatments for patients.
(4) To provide the equipment newly introduced to the hospitals, only when it is judged consistent with both medical technique and medical demand of the hospitals.
(5) To select the equipment which can be operated and maintained enough within the hospitals' financial capacities.
(6) To select the equipment of which the grade and specifications are appropriate for technical level of medical personnel in Kyrgyzstan.
(7) To install the equipment requiring electric power with a voltage stabilizer to avoid the damage caused by voltage fluctuation in the hospitals.

Out of seven hospitals covered by the project, the five hospitals have been assisted by the Japan's grant aid projects in the past, although the departments other than pediatrics were assisted in three hospitals. The assistance to these hospitals in this project has been examined carefully with the current conditions of provided equipment in the past and the medical activities using it. The main equipment to be procured for each hospital under the project is shown below.

Osh Oblast Merged Hospital	Emergency kit, Anaesthetic machine, Autoclave, Defibrillator, ECG, Electro surgical unit, Infant warmer, Operating lamp, Operating table, Patient monitor, Phototherapy unit, Suction unit, Syringe pump, Ultra-sound apparatus, X-ray apparatus.
Issyk-kul Oblast Merged Hospital	Emergency kit, Anaesthetic machine, Autoclave, Bronchofiberscope, Defibrillator, ECG, Electro surgical unit, Infant warmer, Operating lamp, Operating table, Patient monitor, Refrigerator, Suction unit, Syringe pump, Video set, Ultrasound apparatus, X-ray apparatus.
Naryn Oblast Merged Hospital	Emergency kit, Anaesthetic machine, Autoclave, Bronchofiberscope, Defibrillator, ECG, Electro surgical unit, Infant warmer, Operating lamp, Operating table, Patient monitor, Phototherapy unit, Suction unit, Syringe pump, Ultrasound apparatus, X-ray apparatus.
Talas Oblast Merged Hospital	Emergency kit, Anaesthetic machine, Autoclave, Bronchofiberscope, Defibrillator, ECG, Electro surgical unit, Infant warmer, Infant warmer, Operating lamp, Operating table, Patient monitor, Suction unit, Syringe pump, Ultrasonic nebulizer, Ultrasound apparatus, X-ray apparatus.
Research Institute for Obstetrics and Paediatrics	Emergency kit, Anaesthetic machine, Centrifuge、Bronchofiberscope, Defibrillator, ECG, Infant warmer, Fluorescence microscope, Ultrasonic nebulizer, Ultrasound apparatus, X-ray apparatus, Ventilator, X-ray apparatus.
Bishkek City Children Clinical Emergency Hospital	Weighing scale, Phototherapy unit, Suction unit, Syringe pump, Refrigerator, Ultrasound apparatus.
Republican Children’s Hospital	ECG, Bronchofiberscope, Ultrasound apparatus

The implementation of this project takes approximately 11 months, and the estimated project cost is 400 million yen (399 million yen to be borne by Japan and 0.24 million yen by Kyrgyzstan).

The following effects are expected through the implementation of the project:

Direct effects

The health services in the seven institutions will be improved in both quality and quantity.

- The replacement of obsolete equipment and the supplement of insufficient equipment will recover the functions of the hospitals, and more accurate diagnoses will be enabled.
- The replacement and supplement of equipment will improve the abilities of diagnoses and treatments, and the hospitals' services will improve.

Indirect effects

- Children's healthcare services will be strengthened in the regions covered by the seven hospitals.
  The improvement of necessary equipment and its direct effects enable the seven hospitals to provide the more adequate care for the patients referred from lower level, and the number of those referrals will increase. Accordingly, the referral system of the health services in respective regions will be strengthened.
- Children's healthcare services in the whole Kyrgyz Republic will be strengthened.
  The direct effects on the seven hospitals and improvement of regional referral systems will strengthen the national referral system of children's healthcare with the three hospitals in Bishkek as the top referral.

For the smooth implementation and the effective and sustainable use of the equipment to be procured, the followings are recommended.

Improvement of hospital management under the market economy

The hospitals covered by this project were established through integration of several health facilities with different and subdivided specialties. Most of those facilities are still managed in the way before integration. It is however required to integrate various aspects such as organization, medical departments, personnel plan, financial management and patient service in order that the hospitals would be competitive enough in the market economy.

Assuring the financial stability

It is planned to solve the shortage of the government's health budget so far with the introduction of mandatory health insurance fund. However, it is recommended that the hospitals would have the financial resources by themselves not only depending on the payments from the insurance fund but also other resources such as charged beds, rooms, and some services which are not covered by the insurance.

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CONTENTS

Chapter 1 Background of the Project

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Kyrgyzstan became independent from the former Soviet Union in 1991. The government of Kyrgyzstan adopted a tight budget policy and drew up a comprehensive plan for economic reforms in June in the following year with support from the International Monetary Fund (IMF). The various measures were carried out including price liberalization, deregulation of international trade, reduction in public expenditure, development of taxation systems, and promotion of privatization. In May 1993, the country introduced its own currency, "som", ahead of any other CIS countries. The series of reforms brought a turnaround of country's economy in 1996 with a GDP growth rate of 5.6 percent, which was the first positive growth ever since the independence. In December 1998, the country became the first WTO (World Trade Organization) member among the CIS countries. However, the Russian economic crisis in the same year caused the stagnation of economic activities, and the GDP growth rate of Kyrgyzstan slowed down to around 2.0 percent due to various external factors.

Against the background above, Kyrgyzstan became a pilot country for the Comprehensive Development Framework (CDF) proposed by the World Bank, and started the development through the Poverty Reduction Strategy Papers (PRSP). However, in 2002, industrial production reduced by 13.6 percent due to a rock-falling accident and decrease in production of the Kumtor Gold Mine, which accounted for 10 percent of GDP. At the same time agricultural production fell down by 7.4 percent because of abnormal weather with later spring coming and longer rainy season. Energy production mainly hydroelectricity decreased as well. All of these factors resulted in a GDP growth rate of -10.0 percent in the year.

Kyrgyzstan became a pilot country for the Comprehensive Development Framework (CDF) proposed by the World Bank, and started developing based on the Poverty Reduction Strategy Papers (PRSP). The health sector has been a priority area in the reform of social services as a component of the CDF. The Manas National Program was developed as a national health policy in 1996 and revised in 1998. The revised program entitled as "Health Care in Kyrgyzstan in the 21st Century" aims at correction of disparities between health sector in urban and rural areas by 2010. The program puts great importance on children's health in rural areas, with improving nutrition, reducing prevalence of goiter, and strengthening of overall healthcare. The infant mortality rate of Kyrgyzstan was 55 per 1,000 live births, relatively higher than those of its neighbors, 35 in Kazakhstan and 45 inUzbekistan, as of 1999. Respiratory diseases, hormonal

disorders, and infectious diseases accounted for 50 percent of the causes of deaths. The problems of malnutrition, iodine deficiency, and sideropenia are serious risk factors for the children's health. The infants suffering from anemia are seen mainly in rural areas. Accordingly, the healthcare services in the public sector are very crucial in such circumstances, although the present functions of healthcare facilities are far from adequate healthcare especially in rural areas. Even basic diagnosis and treatment of common diseases are hampered by lack of essential medical equipment, because the recent economic depression has not allowed any new investments on healthcare facilities and medical equipment. It is strongly required to solve these problems and improve the children's healthcare especially in rural areas.

Under such circumstances, the Kyrgyz government has drawn up a "plan for improvement of children's healthcare services in rural areas" to improve the service abilities of seven main hospitals playing important roles in children's health of the county, and has requested the Japanese government to extend a grant aid for procurement of medical equipment for these hospitals.

In February 2003, the Japanese government dispatched a preliminary study team to Kyrgyzstan. The team examined the present situation of those hospitals, of which some were included in the Japanese grant aid projects in the past, and the conditions how the procured equipment were operated and maintained, as well as the necessity and adequacy of equipment in new request. The result of study showed that the assistance should focus on the hospitals in rural areas including the southern part of the country where the conditions were particularly worse. The study also found that most equipment is considerably old or out of order at the four rural hospitals and one in Bishkek, and that there exits some need of other equipment even at the hospitals covered by the past projects.

In response to the request from Kyrgyzstan, the government of Japan determined to conduct a basic design study, and the Japan International Cooperation Agency (JICA) dispatched a basic design study team to Kyrgyzstan from July 23 to August 31, 2003. The analysis and examinations were continued after the team came back to Japan, and JICA sent the team again from October 7 to November 7, 2003 for the explanation of draft basic design of this project.

Based on the results of the preliminary and basic design studies, it was determined that this project would include seven hospitals being most important in the field of children's healthcare, aiming at stregthening the medical activities of the pediatric departments of these hospitals, through the provision of essential medical equipment.

Chapter 2 Contents of the Project

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2-1 Basic Concept of the Project

The project focuses on assistance for the pediatric departments in the four rural Oblast Merged Hospitals, and provides a supplementary assistance to the three hospitals in Bishkek. The project aims at strengthening the healthcare services in regard to children's diseases through provision of medical equipment to the pediatric departments of these hospitals.

2-2 Basic Design of the Requested Japanese Assistance

2-2-1 Design Policy

(1) Selection of Equipment

The project aims at strengthening of the medical activities of pediatric departments through provision of basic equipment to the seven hospitals which play the important role in the field of children's healthcare in Kyrgyzstan. As shown in the tables below, out of seven hospitals to be covered by this project, five hospitals have been once covered by the Japanese grant aid projects in the past, and the other two are covered by this project for the first time.

Table 2-1: Hospitals to be included by the project

Oblast Merged Hospitals in rural areas

Hospital	Area	Japanese Grant Aid Project in the Past
Osh Oblast Merged Hospital	South	—
Issyk-kul Oblast Merged Hospital	North	The Project for Improvement of Medical Equipment for Obstetric and Gynecologic Hospitals, in 2002
Naryn Oblast Merged Hospital	North	
Talas Oblast Merged Hospital	North	

Top Referral Hospitals in Bishkek

Hospitals	Area	Japanese Grant Aid
Research Institute for Obstetrics and Pediatrics	Bishkek	—
Bishkek City Children Clinical Emergency Hospital	Bishkek	The Project for Upgrading the Emergency Medical System in Bishkek, 1998
Republican Children's Hospital	Bishkek	The Project for Improvement of Medical Equipment for Republic Children Hospital, 1995

The equipment plan has been determined with the following basic policies.

① The project procures the essential equipment with an emphasis on assistance to the four Oblast Merged Hospitals in rural areas.

② The efficiency should be considered on linked usage between the equipment to be

procured by this project and the others being procured by the previous Japanese grant aid project, in case of three rural Oblast Merged Hospitals,

③ The project includes the two children's hospitals in Bishkek covered by the past projects, and provides some supplementary equipment for diagnoses.

④ The project includes the Research Institute for Obstetrics and Pediatrics, and provides the equipment within the scope of general pediatrics.

(2) Consideration of Natural Environmental Conditions

The transportaion in winter is quite difficult because of natural conditions in Kyrgyzstan, and it should be taken into consideration on the implementation schedule of the project. The equipment should be preferably transportated from April to November to avoid the severest season between December and March.

(3) Consideration of Socioeconomic Conditions

It seems quite difficult from viewpoint of socioeconomic conditions of Kyrgyzstan that the hospitals' budget will drastically increase in short. The equipment plan should be examined to avoid the increment of operation and maintenance cost as far as possible.

(4) Consideration of Procurement

Under the regulation of the Japanese grant aid scheme, the project procures products made in Kyrgyzstan or Japan. As for Kyrgyz products, however, it must be the products of manufacturers authorized by the Ministry of Health of Kyrgyzstan, and be technically confirmed either firsthand and/or regular catalogues. An equipment item, when it requires the technical services, spare parts, and consumables provided by the manufacturer or his authorized agent, should be the products of manufacturers having local agents in Kyrgyzstan or a neighboring country (Kazakhstan, Moscow/Russia). Even Japanese products, if not satisfying this condition, can not be the subject for selection of equipment. Products may be procured from third countries in that case.

(5) Management and Maintenance Capacities of the Executing Agency

It is thought the hospitals' present personnel are able to operate the equipment to be procured without serious technical problems, because the project mainly provides the equipment to replace or supplement the existing equipment. However, guidance on daily inspection shall be provided to use the new equipment in order to prevent misuse in the initial period of operation as well as future good use.

(6) Grades and Specifications of Equipment

The equipment should be basic ones with suitable grade and specification for the technical levels of staff members, and its consumables should be available preferably within Kyrgyzstan. Because of the voltage flacutuation, the project includes a voltage stabilizer in the compostion of equipment vulnerable to such fluctuations.

(7) Implementation Schedule

The project will be implemented in a single fiscal year of Japan. Based on the natural conditions above mentioned, the implementation should be preferably planned to complete transportation, installation, and handover by the end of November.

2-2-2 Basic Plan (Equipment Plan)

The project procures the basic medical equipment to be used for the pediatrics services. The equipment has been planned with special emphasis on replacement and supplement of essential medical equipment, which is easy to maintain. It has been examined taking account of maintaining efficiency when an item is shared by some departments, or of better usage of a certain equipment group when some missing item is given. The basic conditions to replace, supplement or newly introduction of equipment are as follows.

- Equipment to be replaced should be technically and financially manageable in order to keep the level of medical activity of each hospital.
- Equipment can be supplemented when improvement of service performance is expected.
- Equipment to be newly introduced can be procured only when it is justified from clinical, technical and financial aspects all.

The appropriateness of each item has been carefully examined in Table 2-2 .

Table 2-2: Examinations for the appropriateness of equipment

Aspects of examination		Judgements		
		○	△	×
Maintenance costs	Costs for maintenance	None	Low costs	High costs
Medical usage	Level of clinical purpose	Basic	Somewhat advanced	Advanced
Effects on pediatrics	Degree of effect when used in general pediatrics	High	Normal	Low
Necessity	Indispensability for medical activity in the department	Essential	Better, if used	Not necessary
Usefulness	Not for research but for clinical usage, and Being regular in Japan, US and EU.	Useful in clinical usage	Partly for research	Only for research
Usability	Possibility of good use and maintenance at present personnel, system, and budget, Or operational training make it possible.	Very possible	Possible	Continuous assistance required
Benefits	To benefit many patients or not	Many patients	Less patients	Few patients
Others	Any other factors denying propriety	None	Not many	Risk exists

(1) Oblast Merged Hospitals in rural areas

The equipment plan for the four rural Oblast Merged Hospitals was examined with all the points above mentioned and following criteria.

Criteria for priority:

- Equipment essential for basic diagnoses and treatments for general pediatrics
- Equipment which can be operated and maintained within less cost

Criteron for exclusion:

- Equipment with less necessity for basic diagnoses and treatments in pediatrics

The list of equipment for each hospital includes items in the list of basic equipment and necessary items for each hospital other than those. The basic items are shown in the table below, and particular items for each hospital are described respectively. Table 2-4 to 2-7 show the equipment list with examination result for respective hospitals.

Table 2-3: Basic equipment

Category	Equipment
Policlinic/Ward	Examination lamp
Policlinic/Ward	Laryngoscope set
Policlinic/Ward	Ophthalmoscope
Policlinic/Ward	Peakflowmeter
Policlinic/Ward	Sphygmomanometer
Policlinic/Ward	Steriliser
Policlinic/Ward	Ultrasonic nebulizer
Policlinic/Ward	Weighing scale
Policlinic/Ward	Weighing scale(Infant)
Policlinic/Ward	Wheel chair
Policlinic/Ward	ENT treatment unit
Policlinic/Ward	Slit lamp
Policlinic/Ward	Instrument set(Dressing)
Policlinic/Ward	Stretcher
Operation	Operating table
Operation	Suction unit(Operation room)
Operation	Instrument table
Operation	Anaesthetic machine
Operation	Electro surgical unit
Operation	Operating lamp(Mobile)
Operation	Autoclave
Operation	Instrument set(General surgery)
Infant care	Pulse oximetre
Infant care	Suction unit
Infant care	Syringe pump
Infant care	Autoclave(Table top)

Category	Equipment
Infant care	Hot air sterilizer
Infant care	Infant warmer
Infant care	Emergency kit
Infant care	Infant incubator
Infant care	Phototherapy unit
Infant care	Defibrillator
Infant care	Patient monitor
Infant care	Freezer
Infant care	Instruments cabinet
Infant care	Oxygen inhalation set
Infant care	Ventilator
Laboratory	Microscope
Laboratory	Centrifuge
Laboratory	Analytical balance
Laboratory	Incubator
Laboratory	Protein meter
Laboratory	Refregirator(Drug)
Laboratory	Refregirator(Blood)
Laboratory	Water bath
Physiological function	ECG
Endscope	Bronchoscope
Radiology	X-ray unit
Radiology	X-ray unit(Mobile)
Radiology	X-ray film viewer
Physiological function	Ultrasound apparatus

Osh Oblast Merged Hospital

The project procures 41 items of the basic equipment and the other four additional items; drill sets, colonofiberscope, gastrofiberscope, and bronchofiberscope. The hospital has one each drill set, colonofiberscope, gastrofiberscope, and bronchofiberscope, although the they are quite old. The some component of drill set is missing, and the gastrofiberscope has problem in its aspiration. The type of existing fiberscopes are inadequate for pediatric use but for adult. The project provides each one suitable set of colonofiberscope, gastrofiberscope, and bronchofiberscope including forceps and light source.

Table 2-4: Examination result for Osh Oblast Merged Hospital

	Equipment No. : additional items	Maintenance costs	Medical usage	Effects on pediatrics	Necessity	Usefulness	Usability	Benefits	Replacement	Supplement	Newly introduced	Total quantity	Existing equipment ○or●: one >3years △or▲: 3~7years □or■: <10years ○△□: Function ●▲■: Not function
1	Examination lamp	○	○	○	○	○	○	○	2	5		7	△△
2	Laryngoscope set	○	○	○	○	○	○	○	3			3	□□□
3	Ophthalmoscope	○	○	○	○	○	○	○	1			1	□
4	Peakflowmeter	○	○	○	○	○	○	○			10	10	
5	Ultrasonic nebulizer	○	○	○	○	○	○	○			3	3	
6	Weighing scale	○	○	○	○	○	○	○			6	6	
7	Weighing scale (Infant)	○	○	○	○	○	○	○	3	3		6	■■□
8	ENT treatment unit	○	○	○	○	○	○	○	1			1	□
9	Slit lamp	○	○	○	○	○	○	○	1			1	□
10	Instruments set (Dressing)	○	○	○	○	○	○	○	3	1		4	□□□
11	Stretcher	○	○	○	○	○	○	○	1	5		6	□
12	Operating table (Genaral surgery)	○	○	○	○	○	○	○	4			3	□□□■
13	Operating table (Orthopedics)	○	○	○	○	○	○	○	1			1	
14	Suction unit (Operation room)	○	○	○	○	○	○	○	2	6		8	□□
15	Instrument table	○	○	○	○	○	○	○	3			3	□□□□□
16	Anaesthetic machine	○	○	○	○	○	○	○	4			4	■■■□
17	Electro surgical unit	○	○	○	○	○	○	○	3			3	■■■
18	Operating lamp (Mobile)	○	○	○	○	○	○	○	1		3	4	□
19	Autoclave	○	○	○	○	○	○	○	1			1	□
20	Hand drill, mechanical	○	○	○	○	○	○	○	1	1		2	□
21	Instruments set (General surgery)	○	○	○	○	○	○	○	1	5		6	□
22	Pulse oximeter	△	○	○	○	○	○	○			1	1	
23	Suction unit (Portable)	○	○	○	○	○	○	○			7	7	
24	Syringe pump	△	○	○	○	○	○	○	3			3	□□□■
25	Autoclave (Table top)	○	○	○	○	○	○	○			2	2	
26	Infant warmer	○	○	○	○	○	○	○	1	1		2	●
27	Emergency kit (A)	○	○	○	○	○	○	○	3	2		5	□□□
28	Infant incubator	○	○	○	○	○	○	○	1	3		4	■
29	Phototherapy unit	○	○	○	○	○	○	○	2			2	□■
30	Defibrillator	○	○	○	○	○	○	○			2	2	
31	Patient monitor	△	○	○	○	○	○	○			3	3	
32	Microscope	○	○	○	○	○	○	○	2			2	□□□□▲□
33	Centrifuge	○	○	○	○	○	○	○	1			1	□□□□■
34	Analytical balance	○	○	○	○	○	○	○	1			1	□□□□□

	Equipment No. : additional items	Maintenance costs	Medical usage	Effects on pediatrics	Necessity	Usefulness	Usability	Benefits	Replacement	Supplement	Newly introduced	Total quantity	Existing equipment ○or●: one >3years △or▲: 3~7years □or■: <10years ○△□: Function ●▲■: Not function
35	Protein meter	○	○	○	○	○	○	○	1			1	□
36	Refregirator (Drug)	○	○	○	○	○	○	○	2			2	□□□□□□■
37	Refregirator (Blood storage)	○	○	○	○	○	○	○			1	1	
38	ECG (1 channel)	△	○	○	○	○	○	○	1			1	□
39	Colonofiberscope(A)	○	○	○	○	○	○	○	1			1	■
40	Gastrofiberscope(A)	○	○	○	○	○	○	○	1			1	□
41	BronchoFibersope	○	△	○	○	○	○	○	1			1	□
42	X-ray apparatus	○	○	○	○	○	○	○	1			1	□□
43	X-ray film viewer	○	○	○	○	○	○	○	1			1	□□□□
44	Spirometer	○	○	○	○	○	○	○	1			1	
45	Ultrasound apparatus	○	○	○	○	○	○	○	1			1	□

Issyk-kul Oblast Merged Hospital

This hospital has a main hospital and a children's rihabilitation clinic for the disorders of cranial nerves. The project provides 46 items in the basic list and the additional items. The most of additional items are the equipment for rihabilitation, which is not included in the basic list, to be used in the rihabilitation clinic. The existing equipment for children's rihabilitation is very poor in conditions, having many safety problems. The items No. 48 and after it in Table 2-5 with its number column in gray are the additional items of equipment to be procured for the rihabilitation clinic. The gastrofiberscope, which is also an additional item, shall be provided because of the same reason as the Osh Oblast Merged Hospital. The emergency kit, which is in the basic list, shall be provided as two different sizes, one for children and the other for infants.

Table 2-5: Examination result for Issyk-kul Oblast Merged Hospital

	Equipment No. : additional items	Maintenance costs	Medical usage	Effects on pediatrics	Necessity	Usefulness	Usability	Benefits	Replacement	Supplement	Newly introduced	Total quantity	Existing equipment ○or●: one >3years △or▲: 3~7years □or■: <10years ○△□: Function ●▲■: Not function
1	Examination lamp	○	○	○	○	○	○	○	2			2	□□□□□
2	Laryngoscope set	○	○	○	○	○	○	○	1			1	□□□□
3	Ophthalmoscope	○	○	○	○	○	○	○	1			1	□
4	Peakflowmeter	○	○	○	○	○	○	○			2	2	
5	Sphygmomanometer	○	○	○	○	○	○	○	8	1		9	□□□□□□□□□
6	Steriliser (Boiling)	○	○	○	○	○	○	○	5			5	□□□□□
7	Ultrasonic nebulizer	○	○	○	○	○	○	○	2	3		5	□□
8	Weighing scale	○	○	○	○	○	○	○	1	3		4	□
9	Weighing scale (Infant)	○	○	○	○	○	○	○	1	2		3	□
10	Wheel chair	○	○	○	○	○	○	○	3	2		5	□□□
11	ENT treatment unit	○	○	○	○	○	○	○	1			1	□

	Equipment No. : additional items	Maintenance costs	Medical usage	Effects on pediatrics	Necessity	Usefulness	Usability	Benefits	Replacement	Supplement	Newly introduced	Total quantity	Existing equipment ○or●: one >3years △or▲: 3~7years □or■: <10years ○△□: Function ●▲■: Not function
12	Slit lamp	○	○	○	○	○	○	○	1			1	□□
13	Instruments set (Dressing)	○	○	○	○	○	○	○	4			4	□□□□
14	Stretcher	○	○	○	○	○	○	○	2	1		3	□□
15	Operating table (General surgery)	○	○	○	○	○	○	○	2			1	▲□□□□□□
16	Operating table (Orthopedics)	○	○	○	○	○	○	○	1			1	
17	Suction unit (Operation room)	○	○	○	○	○	○	○	2			2	□□
18	Anaesthetic machine	○	○	○	○	○	○	○	2			2	■□□□□
19	Electro surgical unit	○	○	○	○	○	○	○	2			2	□□
20	Operating lamp (Mobile)	○	○	○	○	○	○	○	2			2	□□□
21	Autoclave	○	○	○	○	○	○	○	2			2	■■□
22	Instruments set (General surgery)	○	○	○	○	○	○	○	3	1		4	□□□
23	Pulse oximeter	△	○	○	○	○	○	○			3	3	
24	Suction unit (Portable)	○	○	○	○	○	○	○	5	4		9	■□□□□
25	Syringe pump	△	○	○	○	○	○	○	1	4		5	■
26	Autoclave (Table top)	○	○	○	○	○	○	○			1	1	
27	Hot air sterilizer	○	○	○	○	○	○	○	2			2	■□□□□□□
28	Infant warmer	○	○	○	○	○	○	○	2	1		3	□□
29	Emergency kit (A)	○	○	○	○	○	○	○	1			1	□□□
30	Emergency kit (B)	○	○	○	○	○	○	○	2			2	□
31	Infant incubator	○	○	○	○	○	○	○	1	2		3	□
32	Phototherapy unit	○	○	○	○	○	○	○			1	1	
33	Defibrillator	○	○	○	○	○	○	○			1	1	
34	Patient monitor	△	○	○	○	○	○	○			2	2	
35	Microscope	○	○	○	○	○	○	○	4			4	□□□□□□□□
36	Centrifuge	○	○	○	○	○	○	○	1			1	□□
37	Analytical balance	○	○	○	○	○	○	○	1			1	□
38	Incubator	○	○	○	○	○	○	○	1			1	■■■■□□
39	Refrigerator (Drug)	○	○	○	○	○	○	○	1			1	□□□□
40	Water bath	○	○	○	○	○	○	○	1			1	□
41	ECG (1 channel)	△	○	○	○	○	○	○	1			1	□□
42	Gastrofiberscope (A)	○	△	○	○	○	○	○	1			1	■■▲△
43	Bronchoscope	○	○	○	○	○	○	○	1			1	■
44	X-ray apparatus	△	○	○	○	○	○	○	1			1	□
45	X-ray apparatus (Mobile)	△	○	○	○	○	○	○	1			1	■■□
46	X-ray film viewer	○	○	○	○	○	○	○	1			1	□
47	Ultrasound apparatus	○	○	○	○	○	○	○	1			1	■
48	Corset	○	○	○	○	○	○	○			5	5	
49	Electric stimulator	○	○	○	○	○	○	○	1			1	□
50	Ergo meter	○	○	○	○	○	○	○		1		1	□□
51	Height scale	○	○	○	○	○	○	○	1			1	■
52	Instruments set (Rehabilitation)	○	○	○	○	○	○	○	1			1	□
53	Mattress for exercise	○	○	○	○	○	○	○			3	3	
54	Paraffin bath	○	○	○	○	○	○	○	1			1	□
55	Refrigerator	○	○	○	○	○	○	○	1	1		2	△
56	Shower chair	○	○	○	○	○	○	○			2	2	
57	Portable Toilet	○	○	○	○	○	○	○			3	3	
58	Treadmill	○	○	○	○	○	○	○	2			2	□□
59	Video set	○	△	○	○	○	○	○			1	1	
60	Walker (A)	○	○	○	○	○	○	○	3	2		5	□□□
61	Walker (B)	○	○	○	○	○	○	○		5		5	
62	Walker (C)	○	○	○	○	○	○	○		5		5	

Naryn Oblast Merged Hospital

The project provides 40 items in the basic list and the three additional items, rectoscope, emergency kit and gastrofiberscope. The existing ones are also very old and in poor conditions. The inadequetness in pediatric use are found in existing gastrofiberscope as the other Oblast Merged Hospitals, and one adequate set shall be provided. Emergency kits shall be provided in the same manner as Issyk-kul.

Table 2-6: Examination result for Naryn Oblast Merged Hospital

	Equipment No. : additional items	Maintenance costs	Medical usage	Effects on pediatrics	Necessity	Usefulness	Usability	Benefits	Replacement	Supplement	Newly introduced	Total quantity	Existing equipment ○or●: one >3years △or▲: 3~7years □or■: <10years ○△□: Function ●▲■: Not function
1	Examination lamp	○	○	○	○	○	○	○	1			1	□□□
2	Laryngoscope set	○	○	○	○	○	○	○	2			2	□□□
3	Sphygmomanometer	○	○	○	○	○	○	○	6	3		9	△△△△△△
4	Steriliser (Boiling)	○	○	○	○	○	○	○	1			1	□
5	Ultrasonic nebulizer	○	○	○	○	○	○	○	1	1		2	□
6	Weighing scale	○	○	○	○	○	○	○	2	1		3	□□
7	Weighing scale (Infant)	○	○	○	○	○	○	○	2	1		3	□□
8	Wheel chair	○	○	○	○	○	○	○	1			1	□□
9	ENT treatment unit	○	○	○	○	○	○	○	1			1	□
10	Slit lamp	○	○	○	○	○	○	○	1			1	□
11	Rectoscope	○	○	○	○	○	○	○	1			1	□
12	Instruments set (Dressing)	○	○	○	○	○	○	○	3			3	□□□□
13	Stretcher	○	○	○	○	○	○	○	2			2	□□□
14	Operating table (General surgery)	○	○	○	○	○	○	○	1			1	
15	Operating table (Orthopedics)	○	○	○	○	○	○	○	1			1	
16	Operating table (ENT)	○	○	○	○	○	○	○	1			1	□□□□
17	Suction unit (Operation room)	○	○	○	○	○	○	○	1	1		1	□□
18	Instrument table	○	○	○	○	○	○	○	2			2	□□□□□□
19	Anaesthetic machine	○	○	○	○	○	○	○	1			1	□□
20	Electro surgical unit	○	○	○	○	○	○	○	1			2	□
21	Operating lamp (Mobile)	○	○	○	○	○	○	○	2			2	■■□□□□
22	Autoclave	○	○	○	○	○	○	○			1	1	
23	Instruments set (General surgery)	○	○	○	○	○	○	○	2	2		4	□□
24	Suction unit (Portable)	○	○	○	○	○	○	○	5	1		6	□□□□□
25	Syringe pump	△	○	○	○	○	○	○	2	2		4	□□
26	Hot air sterilizer	○	○	○	○	○	○	○	1	1		2	□
27	Infant warmer	○	○	○	○	○	○	○	1			1	□
28	Emergency kit (A)	○	○	○	○	○	○	○	1	3		2	
29	Emergency kit (B)	○	○	○	○	○	○	○				2	□
30	Infant incubator	○	○	○	○	○	○	○	2			2	■□
31	Phototherapy unit	○	○	○	○	○	○	○			1	1	
32	Defibrillator	○	○	○	○	○	○	○			1	2	
33	Patient monitor	△	○	○	○	○	○	○			3	3	
34	Instruments cabinet	○	○	○	○	○	○	○	2			2	□□□□
35	Oxygen inhalation set	○	○	○	○	○	○	○			1	1	
36	Centrifuge	○	○	○	○	○	○	○		1		1	□
37	Refrigerator (Drug)	○	○	○	○	○	○	○	4			4	□□□□
38	ECG (1 channel)	△	○	○	○	○	○	○	1	1		2	□
39	Gastrofiberscope(A)	○	△	○	○	○	○	○			1	1	
40	BronchoFibersope	○	○	○	○	○	○	○			1	1	
41	X-ray apparatus	△	○	○	○	○	○	○	1			1	□
42	X-ray film viewer	○	○	○	○	○	○	○		1		1	□
43	Ultrasound apparatus	○	○	○	○	○	○	○			1	1	

Talas Oblast Merged Hospital

The project provides 45 items in the basic list and a set of gastrofiberscope. The hospital had an old gastrofiberscope, although its type was for adult patient and transfered to a center of family medicine. The one set for pediatrics shall be provided.

Table 2-7: Examination result for Talas Oblast Merged Hospital

	Equipment No. : additional items	Maintenance costs	Medical usage	Effects on pediatrics	Necessity	Usefulness	Usability	Benefits	Replacement	Supplement	Newly introduced	Total quantity	Existing equipment ○or●: one >3years △or▲: 3~7years □or■: <10years ○△□: Function ●▲■: Not function
1	Examination lamp	○	○	○	○	○	○	○	1	1		2	□
2	Ophthalmoscope	○	○	○	○	○	○	○			2	2	
3	Peakflowmeter	○	○	○	○	○	○	○			2	2	
4	Sphygmomanometer	○	○	○	○	○	○	○	1	5		6	□
5	Steriliser (Boiling)	○	○	○	○	○	○	○			7	7	
6	Ultrasonic nebulizer	○	○	○	○	○	○	○	1	4		5	■
7	Weighing scale	○	○	○	○	○	○	○			4	3	
8	Weighing scale (Infant)	○	○	○	○	○	○	○	2	1		3	□□
9	Wheel chair	○	○	○	○	○	○	○			2	2	
10	ENT treatment unit	○	○	○	○	○	○	○			1	1	
11	Slit lamp	○	○	○	○	○	○	○	1			1	□
12	Instruments set (Dressing)	○	○	○	○	○	○	○			6	6	
13	Stretcher	○	○	○	○	○	○	○			3	3	
14	Operating table (General surgery)	○	○	○	○	○	○	○	1			1	
15	Operating table (Orthopedics)	○	○	○	○	○	○	○	1			1	
16	Operating table (Ophthalmology)	○	○	○	○	○	○	○	1			1	
17	Suction unit (Operation room)	○	○	○	○	○	○	○			2	2	
18	Instrument table	○	○	○	○	○	○	○			6	6	
19	Anaesthetic machine	○	○	○	○	○	○	○	2			2	□□
20	Electro surgical unit	○	○	○	○	○	○	○			1	1	
21	Operating lamp (Mobile)	○	○	○	○	○	○	○			2	2	
22	Autoclave	○	○	○	○	○	○	○	2			2	□■
23	Instruments set (General surgery)	○	○	○	○	○	○	○			4	4	
24	Pulse oximeter	△	○	○	○	○	○	○			2	2	
25	Suction unit (Portable)	○	○	○	○	○	○	○	2	4		6	□□
26	Syringe pump	△	○	○	○	○	○	○	1	7		8	□
27	Autoclave (Table top)	○	○	○	○	○	○	○			3	3	
28	Infant warmer	○	○	○	○	○	○	○			2	2	
29	Emergency kit (A)	○	○	○	○	○	○	○	2	2		4	□□
30	Infant incubator	○	○	○	○	○	○	○	1			1	■
31	Phototherapy unit	○	○	○	○	○	○	○	1			1	■
32	Defibrillator	○	○	○	○	○	○	○	1			1	□
33	Patient monitor	△	○	○	○	○	○	○	1	1		2	□
34	Freezer	○	○	○	○	○	○	○			1	1	
35	Microscope	○	○	○	○	○	○	○	4			4	□□■■
36	Centrifuge	○	○	○	○	○	○	○		1		1	△
37	Analytical balance	○	○	○	○	○	○	○	1			2	□
38	Protein meter	○	○	○	○	○	○	○			2	2	
39	Refrigerator (Drug)	○	○	○	○	○	○	○	1	7		8	□
40	Water bath	○	○	○	○	○	○	○	1			1	□
41	ECG (1 channel)	△	○	○	○	○	○	○	1			1	□
42	Gastrofiberscope (A)	○	△	○	○	○	○	○	1			1	
43	Bronchofiberscope	○	△	○	○	○	○	○			1	1	
44	X-ray apparatus (Mobile)	△	○	○	○	○	○	○			1	1	
45	X-ray film viewer	○	○	○	○	○	○	○			1	1	
46	Ultrasound apparatus	○	○	○	○	○	○	○	1			1	□

(2) Top referral hospitals in Bishkek

The three hospitals located Bishkek are the top referral hospitals in the children's healthcare of the country. Accordingly their medical levels are higher than the four rural hospitals and more specialists are allocated. The project includes supplementary input to these hospitals with the viewpoints previously mentioned.

Research Institute for Obstetrics and Paediatrics

The project provides 28 items of equipment as shown in Table 2-8. These items are mainly basic equipment. The project replaces a fluorescence microscope, a spectoro-photmeter, and a flamephotometer for the hospital's laboratory service. Also the two ventilators, one for newborn babies and the other for children shall be replaced. The project provides a gastrofiberscope, and its composition shall include forceps and light source as well as an electrosurgical unit, taking account of the hospital's level of medical activity. The ultrasound appatus, color doppler shall be replaced.

Table 2-8: Examination result for Research Institute for Obstetrics and Paediatrics

	Equipment	Maintenance costs	Medical usage	Effects on pediatrics	Necessity	Usefulness	Usability	Benefits	Replacement	Supplement	Newly introduced	Total quantity	Existing equipment ○or●: one >3years △or▲: 3~7years □or■: <10years ○△□: Function ●▲■: Not function
1	Laryngoscope set	○	○	○	○	○	○	○	1			1	□
2	Ophthalmoscope	○	○	○	○	○	○	○	1			1	□
3	Peakflowmeter	○	○	○	○	○	○	○			4	4	
4	Ultrasonic nebulizer	○	○	○	○	○	○	○	1			1	□
5	Slit lamp	○	○	○	○	○	○	○	1			1	□
6	Anaesthetic machine	○	○	○	○	○	○	○			1	1	
7	Pulse oximeter	△	○	○	○	○	○	○			1	1	
8	Suction unit (Portable)	○	○	○	○	○	○	○	3			3	□□■
9	Infant warmer	○	○	○	○	○	○	○			1	1	
10	Emergency kit (A)	○	○	○	○	○	○	○	2			2	△
11	Infant incubator	○	○	○	○	○	○	○			2	2	
12	Phototherapy unit	○	○	○	○	○	○	○			1	1	
13	Patient monitor	△	○	○	○	○	○	○			2	2	
14	Oxygen inhalation set	○	○	○	○	○	○	○			3	3	
15	Ventilator (pediatric)	○	○	○	○	○	○	○	1			1	△
16	Ventilator (neonate)	○	○	○	○	○	○	○	1			1	□
17	Fluorescence microscope	○	○	○	○	○	○	○	1			1	□□
18	Centrifuge	○	○	○	○	○	○	○	1			1	□□□
19	Spectrophotometer	△	○	○	○	○	○	○	1			1	□□□
20	Flame photometer	○	○	○	○	○	○	○	1			1	□□□
21	ECG (1 channel)	△	○	○	○	○	○	○	1			1	□△
22	Gastrofiberscope (B)	○	△	○	○	○	○	○	1			1	□□□
23	Bronchofiberscope	○	△	○	○	○	○	○	1			1	□
24	Bronchoscope	○	○	○	○	○	○	○	1			1	■
25	X-ray apparatus	△	○	○	○	○	○	○	1			1	□
26	X-ray apparatus (Mobile)	○	○	○	○	○	○	○	1			1	△
27	Spirometer	○	○	○	○	○	○	○	1			1	□
28	Ultrasound apparatus (Color doppler)	○	○	○	○	○	○	○	1			1	▲

Republican Children's Hospital, and

Bishkek City Children Clinical Emergency Hospital

The Japanese grant aid project in the past once provided the equipment to these hospitals. The equipment for these hospitals was examined with the following conditions.

- Equipment that has been in good enough use, and the number of patients or cases requires its supplementation.
- Equipment in full use, and the constant and continuous usage requires its supplementation.
- Equipment of which supplementation can be justified as to bring more effects in the hospital's medical services.

Table 2-9: Examination result for Republican Children's Hospital

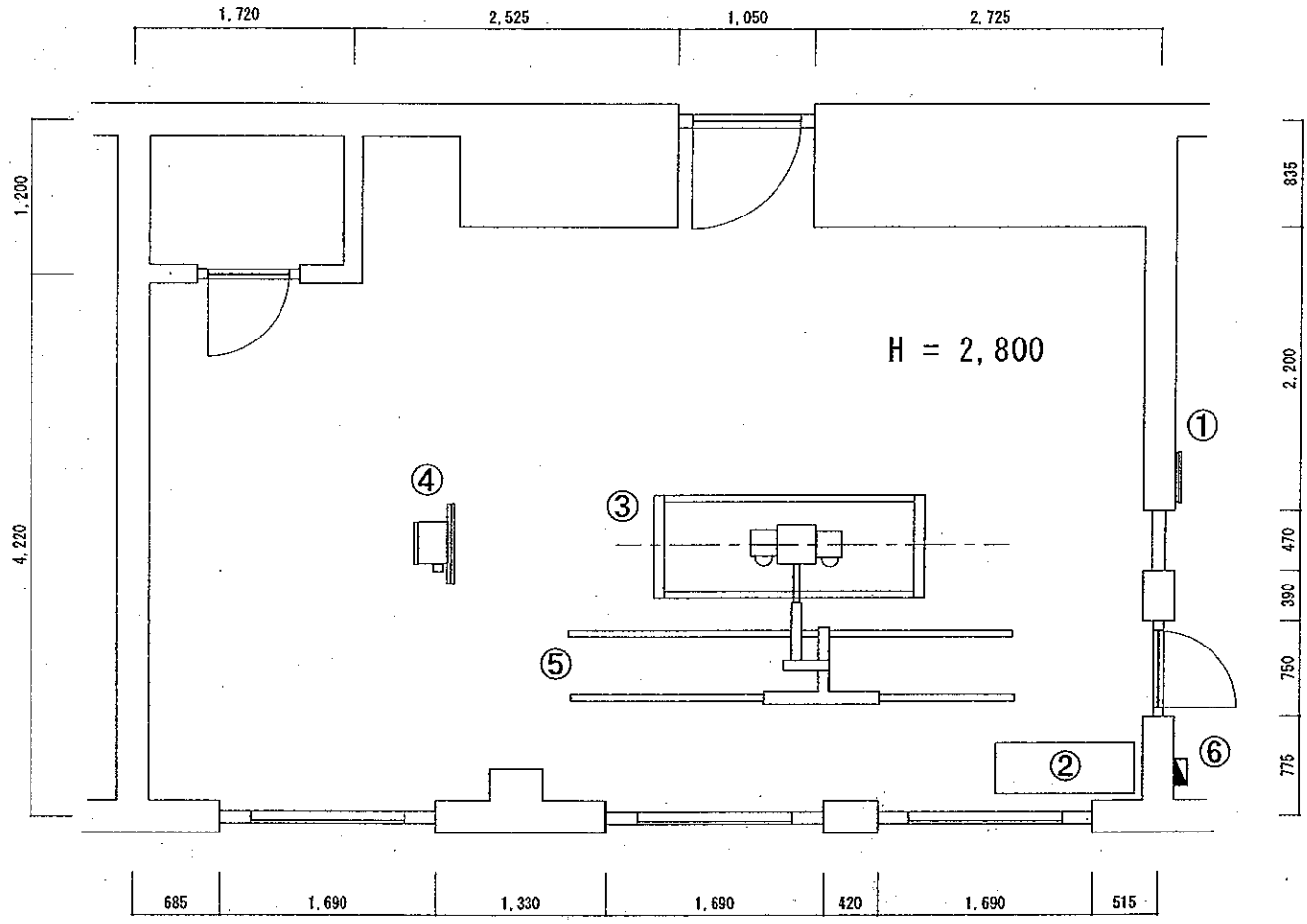
	Equipment	Maintenance costs	Medical usage	Effects on pediatrics	Necessity	Usefulness	Usability	Benefits	Replacement	Supplement	Newly introduced	Total quantity	Existing equipment ○,●: one >3years △,▲: 3~7years □,■: <10years ○△□: Function ●▲■: Not function
1	Weighing scale (Infant)	○	○	○	○	○	○	○	2			2	□□□
2	Suction unit (Operation room)	○	○	○	○	○	○	○	4	1		5	□□□□
3	Suction unit (Portable)	○	○	○	○	○	○	○	2			2	△□
4	Phototherapy unit	○	○	○	○	○	○	○	2			2	▲△
5	Refrigerator (Blood storage)	○	○	○	○	○	○	○	1			1	□
6	ECG (1 channel)	△	○	○	○	○	○	○	2	1		3	□□
7	Colonofiberscope(B)	○	△	○	○	○	○	○			1	1	
8	Ultrasound apparatus	○	○	○	○	○	○	○		1		1	□
9	Ultrasound apparatus (Portable)	○	○	○	○	○	○	○			1	1	

Table 2-10: Examination result for Bishkek City Children Clinical Emergency Hospital

	Equipment	Maintenance costs	Medical usage	Effects on pediatrics	Necessity	Usefulness	Usability	Benefits	Replacement	Supplement	Newly introduced	Total quantity	Existing equipment ○,●: one >3years △,▲: 3~7years □,■: <10years ○△□: Function ●▲■: Not function
1	ECG (1 channel)	△	○	○	○	○	○	○		1		1	△△△
2	Gastrofiberscope	○	△	○	○	○	○	○		1		1	△
3	Ultrasound apparatus (Portable)	○	○	○	○	○	○	○		1		1	△△

2-2-3 Basic Design Drawing

The layout plan for the main equipment that will require installation is as follows.



①X-Ray Controller

②Control Cabinet

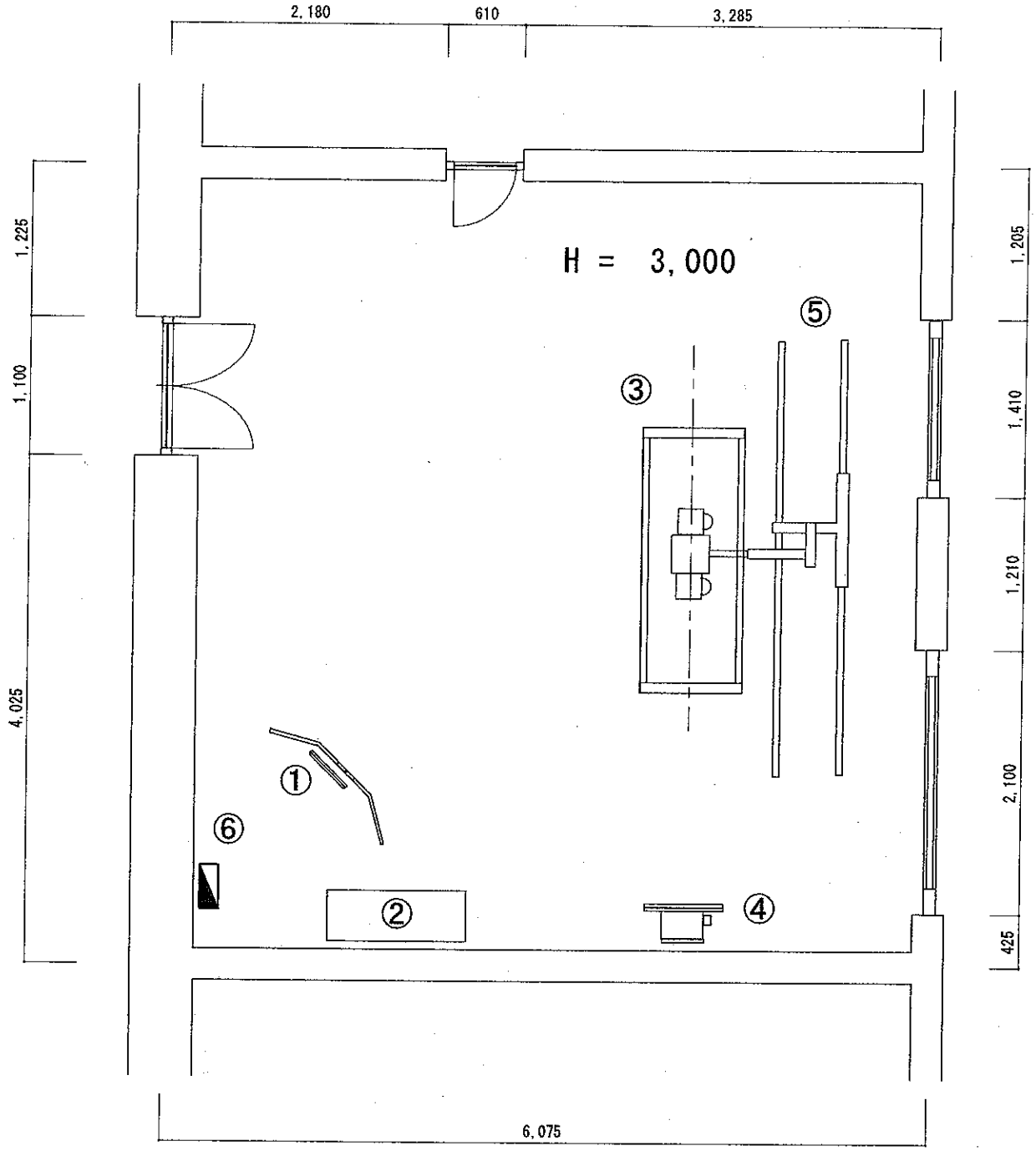
③Bucky Table

④Bucky Stand

⑤X-Ray Tube Support

⑥Distribution Board

Figure 2-1 Osh Oblast Merged Hospital, Pediatric Dept. X-ray Room



①X-Ray Controller

②Control Cabinet

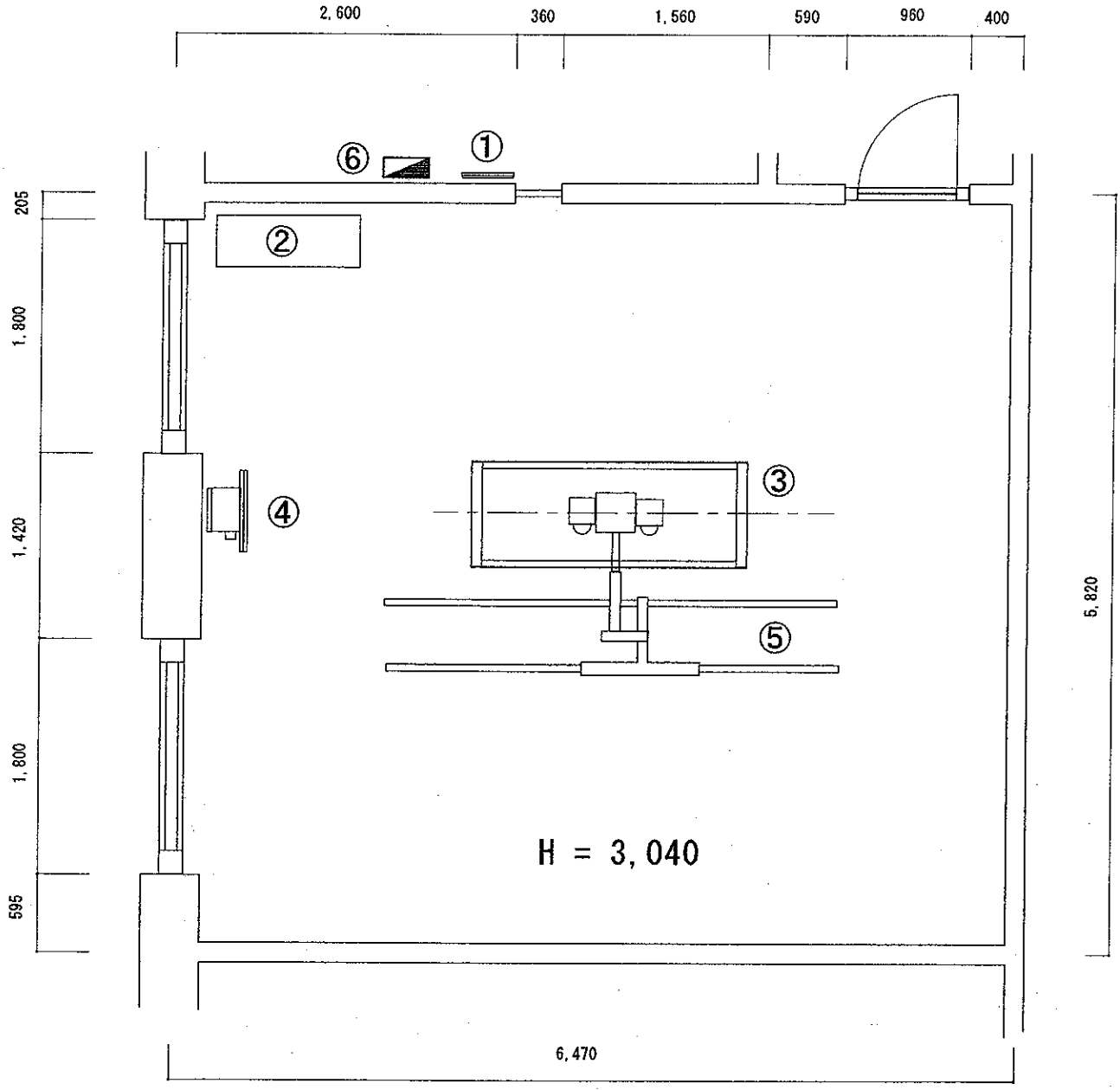
③Bucky Table

④Bucky Stand

⑤X-Ray Tube Support

⑥Distribution Board

Figure 2-2 Issyk-Kul Oblast Merged Hospital, Pediatric Dept. X-ray Room



①X-Ray Controller

②Control Cabinet

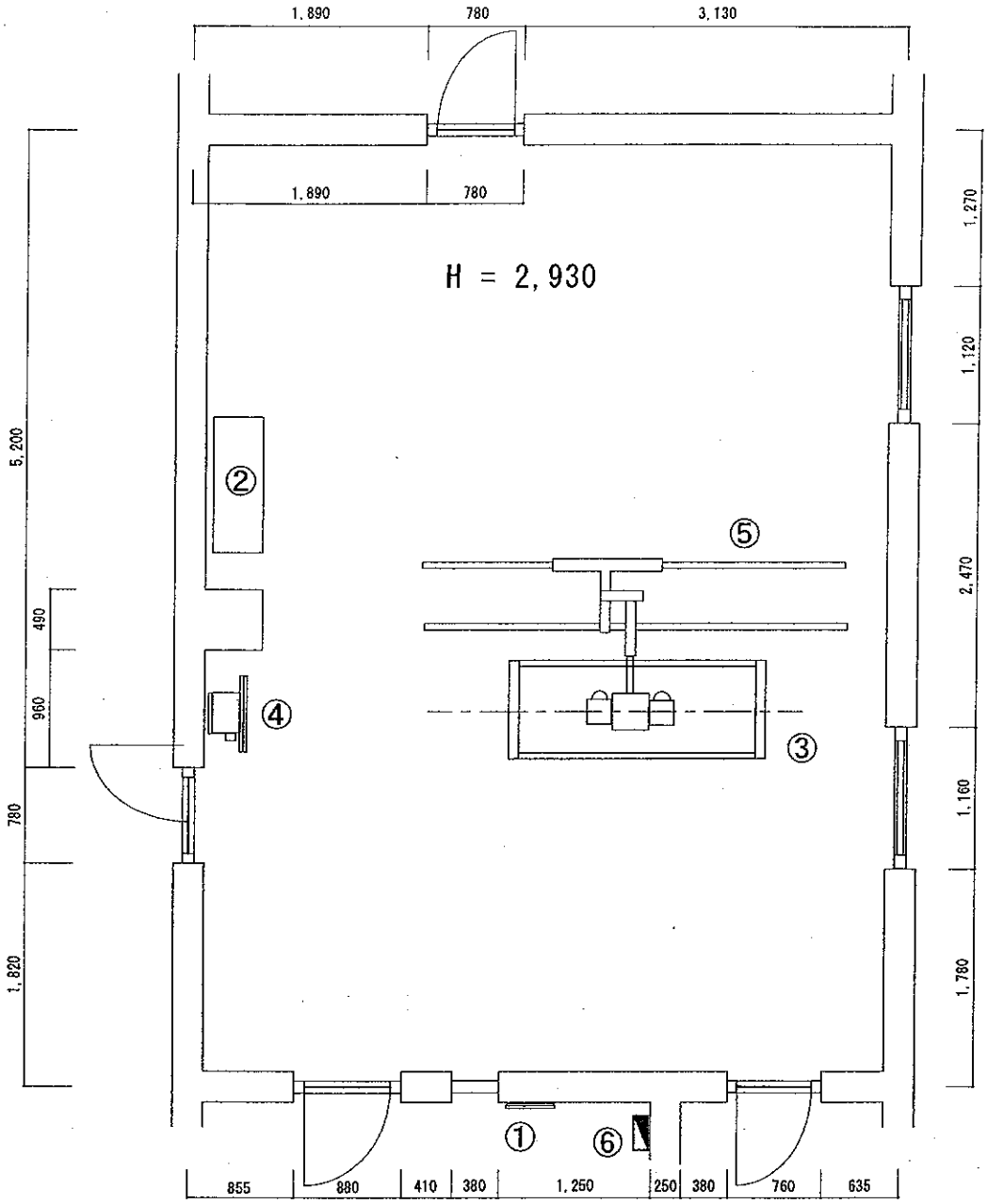
③Bucky Table

④Bucky Stand

⑤X-Ray Tube Support

⑥Distribution Board

Figure 2-3 Naryn Oblast Merged Hospital, Pediatric Dept. X-ray Room



①X-Ray Controller

②Control Cabinet

③Bucky Table

④Bucky Stand

⑤X-Ray Tube Support

⑥Distribution Board

Figure 2-4 Research Institute for Obstetrics and Pediatrics, X-ray Room

2-2-4 Implementation Plan

2-2-4-1 Implementation Policy

This project will require approval by a cabinet meeting of the Japanese government in accordance with the framework of grant aid cooperation of the Japanese government, and will be implemented after an exchange of notes (E/N) concerning the project between the Japanese and the Kyrgyz governments. After the conclusion of the E/N between the two governments, a Japanese consultant company recommended by the Japan International Cooperation Agency will conclude a consultant agreement with the Ministry of Finance of Kyrgyzstan in accordance with the procedures of Japanese grant aid cooperation. The agreement will come to effect upon approval of the Japanese government. The consultant will implement duties related to tender and supervision of procurement on the basis of the agreement. The procurement of equipment is implemented by Japanese corporate companies selected by tender; they will conclude agreements with the Ministry of Finance of Kyrgyzstan, and these agreements will also come into effect upon approval of the Japanese government. The Japanese companies will be responsible for the procurement, carriage and installation of the necessary equipment; the provision of technical guidance concerning the operation and maintenance of individual equipment; and the drawing up of manuals and other technical documents required for the maintenance of the equipment after the procurement, together with a list of manufactures and their agents.

2-2-4-2 Implementation Conditions

In cases where medical equipment is imported into Kyrgyzstan on the basis of grant aid cooperation projects, customs duties alone are subject to tax exemption provided the following documents, translated into Russian, are attached: (a) the contract of sale, (b) bill of lading (B/L), (c) invoice, (d) packing list, and (e) certificates of origin / warranty letter or registration form for import to Kyrgyzstan (GOST STANDARD registration number). Therefore, for this project, the Kyrgyz government is required to take measures for tax exemption for customs procedures (0.15 percent of the CIF prices) and value add tax (20 percent of the CIF prices).

2-2-4-3 Scope of Works

(1) Japanese government

① Procurement of the planned equipment

② Sea and ground transportation to the institutions

③ Installation and setting of the equipment
④ Trial operation of the planned equipment; and technical guidance concerning operation, maintenance and checking

(2) Kyrgyzstan

① Provision of information and source material necessary for transportation, installation, and setting
② Acquisition of permissions or authorizations (concerning tax exemption, import license, and import of medical equipment) required for import
③ Readying of locations where the procured equipment is to be installed
④ Securing sites for the procured equipment to be unloaded
⑤ Provision of places to store equipment before installation and setting
⑥ Securing carriage ways for the procured equipment
⑦ Removal of the existing equipment and repair of the rooms after removal

2-2-4-4 Consultant Supervision

Following the implementation of duties related to the tender to select contractors to procure equipment, the consultant will ensure the smooth progress of the procurement and other duties. The main points in the supervision of procurement are the confirmation of consistency between the equipment to be procured and the list in the agreement; inspection of products before shipping and the state of their packing; confirmation of sea and land transportation/customs clearance; and final inspection at the sites. As for the inspection before shipping, the consultant will confirm whether there is any gap between the content of shipping and the content of the agreement, and conduct, via a third-party organization, a general inspection of the contents of shipping and packing. The consultant will make constant efforts to keep himself informed as to the progress of individual schedules, provide appropriate advice/guidance to organizations on the Kyrgyzstan side in charge of the project and the contractors responsible for the procurement of equipment, and report the progress of project to the responsible organizations of the two countries from time to time. The consultant will conduct spot supervision.

2-2-4-5 Quality Control Plan

Custom-made products are not acceptable as medical equipment to be procured under the project, and the selection will be conducted among products which are distributed in

the market, and have been supplied to medical institutions in each country. As for production standards for each item, Japanese products must satisfy the Japanese Industrial Standards (JIS), European products ISO or other international standards, and Kyrgyz products with equivalent standards in Kyrgyzstan or Russia. Where equipment requiring consumables is concerned, the selection shall be made products requiring consumables not specified by the manufacturers, but among versatile products with consumables available within Kyrgyzstan.

2-2-4-6 Procurement Plan

(1) Countries for procurement of equipment

Equipment in this project will be procured either in Kyrgyzstan or Japan. However, even with Japanese products, equipment whose manufacturers do not have local agent in Kyrgyzstan or a neighboring country (Kazakhstan, Moscow/Russia) is not the subject for selection. In such cases, products made by manufacturers in a third country will be selected.

(2) Transportation Routes

Products procured in Japan will be assembled in Yokohama, and those in third countries will be assembled in Germany, then the products will be transported in containers to the various individual institutions. The transportation routes and the duration are as follows:

Routes from Japan	Mode	Duration
Yokohama -> Lianyungang/China	Sea transport	40～50 days (through China and Kazakhstan)
Lianyungang -> Bishkek	Track transport	
Customs clearance at Bishkek		
Bishkek -> Hospital	Track transport	

2-2-4-7 Implementation Schedule

The schedules for implementing the project are divided into two steps: the process for tender and for procurement of equipment and installation. The schedule after the conclusion of the E/N up to completion of the project is as follows:

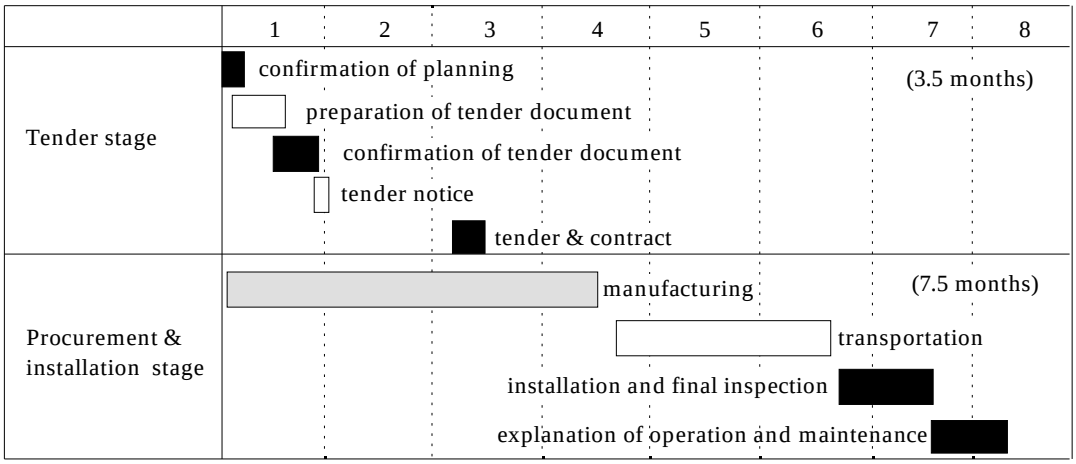


Figure 2-5: Implementation schedule

2-3 Obligations of Recipient Country

The part of the project for which Kyrgyzstan is responsible is shown in 2-4-3 Scopes of Implementation and Procurement/Installation. It is assumed that Kyrgyzstan will be able to take action without delay from the past similar projects in the field of health care in that country.

①Arrangements necessary for smooth customs clearance/transportation in Kyrgyzstan

- Obtaining authorization for tax exemption for customs fees and handling charges for customs clearance
- Obtaining authorization for tax exemption for value added tax
- Obtaining import license
- Obtaining permission from the Ministry of Health to import medical equipment

② Exemption of customs duties/various taxes imposed onto the contractors and related companies procuring equipment

③ Securing special treatment/securing safety of Japanese staff involved in the project

④ Burden of commissions for the Bank Arrangement(B/A)/Authorization to Pay (A/P)

⑤ Human resources/budget (including budget for maintenance) necessary for efficient implementation of the project

⑥ Obtaining other permissions necessary for implementation of the project

⑦ Disclosure of other necessary information and source materials

Prior to the installation of the procured equipment in the project, the following activities will be conducted by the Kyrgyz government: (1) removal of existing equipment; (2) securing of space necessary for carriage ways and installation; and (3) determining places where equipment is to be installed.

2-4 Project Operation Plan

2-4-1 Maintenance Cost

The resources of hospitals' operating budgets come from budgets of state, oblasts, and cities; the Mandatory Health Insurance Fund; and fee payment by patients. Out of the seven hospitals, the Osh Oblast Merged Hospital in the south has not yet introduced patients payment system (to be introduced in January 2004), accordingly the budget is financed by the oblast and the Mandatory Health Insurance Fund. The annual costs required for maintenance of the equipment to be procured under the project are shown below. Details for the respective hospital will be given in the following pages.

Table 2-11: Maintenance cost of the equipment to be procured

Osh Oblast Merged Hospital	152,544 som
Issyk-kul Oblast Merged Hospital	193,464 som
Naryn Oblast Merged Hospital	136,272 som
Talas Oblast Merged Hospital	151,504 som
Research Institute for Obstetrics and Pediatrics	209,392 som
Bishkek City Children Emergency Hospital	50,320 som
Republican Children's Hospital	26,880 som
Total	920,376 som

(1) Osh Oblast Merged Hospital

The hospital's annual budgets from 2000 to 2002 are shown in Table 2-12. Gross revenue in 2002 were 41.042 million som with an increase of 10.7 percent compared to the previous year. Payment by patients is to be launched in January 2004. There is a concern that the number of patients may decrease temporarily, but this is expected to create additional revenue of 7.5 million som per year. Although 1.e, which was 114 percent compared to the previous year. The budget necessary for operation and maintenance of the equipment to be procured by the project including the cost of recording paper, gel, and others, is estimated 153,000 som, accounting for about 0.4 percent of total revenue.

Table 2-12: Annual revenue and expenditure at Osh Oblast Merged Hospital

Revenue	2000	2001		2002	
	,000som	,000som	%	,000som	%
Local Government	20,405.0	31,770.0	55%	32,775.5	3%
Mandatory Health Insurance	5,534.5	5,298.0	-4%	8,266.5	56%
Patient Participation	0.0	0.0	-	0.0	-
Total	25,939.5	37,068.0	43%	41,042.0	10.70%

Expenditure	2000	2001		2002	
	,000som	,000som	%	,000som	%
Wages	8,059.8	13,770.3	118%	14,894.5	8%
Social Insurance	2,495.8	3,963.8	59%	4,119.0	4%
Acquisition of new equipment	130.0	156.3	20%	128.0	-8%
Medicine and supply	4,616.9	4,598.7	0%	6,037.5	31%
Catering	1,794.9	3,512.0	96%	3,358.7	-4%
Public Utilities	6,558.2	7,592.6	16%	8,631.2	14%
Transportation and Travel	19.0	19.0	0%	12.0	-37%
Maintenance and repair of building	547.2	1,119.0	105%	1,164.8	4%
Maintenance of equipment	98.2	590.5	501%	1,475.6	150%
Others	1,629.5	1,815.0	11%	1,265.0	-30%
total	1,727.7	2,405.5		2,740.6	
Total	25,949.5	37,137.2		41,086.3	

(2) Issyk-kul Oblast Merged Hospital

The total revenue in 2002 increased by 6.8 percent from the previous year to 31.131 million som, partly due to the introduction of patients payment system. In 2002, the expenditure on operation and mainteinance was included in the amount of 7.856 million som as total of the expenditure for medicine and supply and others. The amount of operation and mainteinance was 426,000 som, which was 5.1 percent of the expenditure for medicine and supply and 7.2 percent of others. The budget necessary for operation and maintenance of the equipment to be procured by the project is estimated as 193,000 som, accounting for about 0.6 percent of total revenue.

Table 2-13: Annual revenue and expenditure at Issyk-kul Oblast Merged Hospital

Revenue	2000	2001		2002	
	,000som	,000som	%	,000som	%
Local Government	26,142.30	25,569.80	-2%	26,784.50	4%
Mandatory Health Insurance	2,523.00	3,593.60	42%	2,395.20	-33%
Patient Participation	-	-	-	1,952.20	100%
Others	-	-	-	-	-
Total	28,665.30	29,163.40	2%	31,131.90	6.80%

Expenditure	2000	2001		2002	
	,000som	,000som	%	,000som	%
Wages	8,583.30	9,838.30	15%	11,278.30	15%
Social Insurance	2,415.80	2,941.80	22%	2,213.10	-28%
Acquisition of new equipment	333.4	382.2	15%	434	14%
Catering	3,258.90	3,735.50	9%	3,596.90	-4%
Public Utilities	8,682.40	9,425.50	9%	8,106.00	-14%
Transportation and Travel	321	367.9	15%	492.1	34%
Maintenance and repair of building	-	45	100%	769	17%
Maintenance of equipment	-	-	-	-	-
Medicine and supply	4,901.90	5,617.80	15%	6,632.30	18%
Others	438.6	562.2	28%	1,223.90	118%
total	5,340.50	6,180.00	15%	7,856.20	27%
Total	28,935.30	32,916.20		34,657.30	

(3) Naryn Oblast Merged Hospital

The total revenue in 2002 increased by 3 percent from the previous year to 18.729 million som. In 2002, the expenditure on operation and mainteinance was included in the amount of equipment maintenance and medical supply. The amount of operation and mainteinance was in the year was 388,000 som with the increase of 135 percent to the previous year. The necessary cost for operation and maintenance of the equipment to be procured by the project is estimated as 136,000 som annually, accounting for about 0.7 percent of total revenue.

Table 2-14: Annual revenue and expenditure at Naryn Oblast Merged Hospital

Revenue	2000	2001		2002	
	,000som	,000som	%	,000som	%
Local Government	13,807.0	16,218.7	17%	14,514.2	-11%
Mandatory Health Insurance	1,985.6	1,905.7	-4%	2,095.1	10%
Patient Participation	-	-	-	2,119.8	100%
Others	-	-	-	-	-
Total	15,793.5	18,124.4	15%	18,729.1	3%

Expenditure	2000	2001		2002	
	,000som	,000som	%	,000som	%
Wages	7,689.1	9,045.7	18%	8,358.1	-8%
Social Insurance	2,389.8	2,738.6	15%	2,092.3	-24%
Acquisition of new equipment	75.8	67.5	-11%	127.9	89%
Catering	642.1	600.0	-7%	409.8	-32%
Public Utilities	561.0	549.0	-2%	381.2	-31%
Transportation and Travel	1,806.5	2,658.8	47%	2,334.0	-12%
Maintenance and repair of building	403.5	393.6	-2%	422.0	7%
Maintenance of equipment	20.0	-	-	30.0	100%
Medicine and supply	67.0	14.6	-72%	25.0	71%
Others	153.1	150.5	-2%	333.9	135%
total	240.1	165.1	-32%	388.9	135%
Total	13,807.9	16,218.3		14,514.2	

(4) Talas Oblast Merged Hospital

The total revenue in 2002 was 45.679 million som, four times the revenue in the previous year. This was because the amount included the budget for construction of four departments transfered from other hospitals in the region to this hospital. In 2002, the expenditure on operation and mainteinance was included in the expenditure of medicine and supply and others, and the amount was 1.722 million som increased by 21 percent from the previous year. The necessary cost for operation and maintenance of the equipment to be procured by the project is estimated as 151,000 som annually, accounting for about 0.3 percent of total revenue.

Table 2-15: Annual revenue and expenditure at Talas Oblast Merged Hospital

Revenue	2000	2001		2002	
	,000som	,000som	%	,000som	%
Local Government	7,372.0	10,207.0	38%	40,763.2	399%
Mandatory Health Insurance	1,740.0	1,107.0	-36%	195.0	-83%
Patient Participation	-	-	-	3,125.1	100%
Others	167.0	116.0	-31%	596.2	513%
Total	9,279.0	11,430.0	23%	45,679.5	390%

Expenditure	2000	2001		2002	
	,000som	,000som	%	,000som	%
Wages	3,357.0	3,564.0	6%	3,685.0	3%
Social Insurance	1,039.0	1,031.0	-1%	925.0	-10%
Acquisition of new equipment	-	-	-	-	-
Maintenance of equipment	-	-	-	-	-
Public Utilities	2,772.0	3,981.0	44%	3,121.0	-22%
Transportation and Travel	22.0	14.0	-36%	28.0	100%
Maintenance and repair of building	-	7.0	100%	-	-
Medicine and supply	1,696.0	1,232.0	-27%	1,540.0	25%
Others	193.0	191.0	-1%	182.0	-5%
total	1,889.0	1,423.0	-25%	1,722.0	21%
Total	9,575.0	10,488.0		10,058.0	

(5) Research Institute for Obstetrics and Paediatrics

The total revenue in 2002 increased by 7 percent from the previous year to 13.478 million som. In 2002, the expenditure on operation and mainteinance, included in the expenditure of medicine/supply and others, was 2.2616 million som with an increase of 13 percent against the previous year. The necessary cost for operation and maintenance of the equipment to be procured by the project is estimated as 209,000 som annually, accounting for about 1.5 percent of total revenue.

Table 2-16: Annual revenue and expenditure at Research Institute for Obstetrics and Paediatrics

Revenue	2000	2001		2002	
	,000som	,000som	%	,000som	%
Government	5,935.4	9,715.1	63%	10,350.6	6.5%
Mandatory Health Insurance	-	1,072.5	100%	1,142.3	6.5%
Patient Participation	-	-	-	-	-
Others	1,531.1	1,811.4	18%	1,985.3	9.6%
Total	7,466.5	12,599.0	68%	13,478.2	7.0%

Expenditure	2000	2001		2002	
	,000som	,000som	%	,000som	%
Wages	3,654.5	4,542.6	24%	4,944.5	9.0%
Social Insurance	1,132.9	1,599.5	41%	1,236.1	-23.0%
Acquisition of new equipment	54.6	117.6	115%	149.4	27.0%
Catering	1,259.7	986.2	-0.22	1,032.9	5.0%
Public Utilities	3,073.8	3,432.0	12%	2,756.3	-20.0%
Transportation and Travel	176.4	156.4	-11%	130.1	-17.0%
Maintenance and repair of building	-	241.9	100%	365.2	51.0%
Maintenance of equipment	-	-	-	-	-
Medicine and supply	1,079.4	1,495.0	39%	1,851.7	24.0%
Others	474.7	509.4	7%	409.9	-20.0%
total	1,554.1	2,004.4	29%	2,261.6	13.0%
Total	10,906.0	13,080.6		12,876.1	

(6) Bishkek City Children Clinical Emergency Hospital

The total revenue in 2002 increased by 20 percent from the previous year to 17.054 million som. In 2002, the expenditure on operation and mainteinance, included in the expenditure of medicine/supply and others, was 3.308 million som with a decrease of 33 percent against the previous year. The necessary cost for operation and maintenance of the equipment to be procured by the project is estimated as 50,000 som annually, accounting for only 0.3 percent of total revenue.

Table 2-17: Annual revenue and expenditure at Bishkek City Children Clinicak Emergency Hospital

Revenue	2000	2001		2002	
	,000som	,000som	%	,000som	%
Local Government	8,951.30	10,724.80	20%	13,984.10	30%
Mandatory Health Insurance	2,513.60	3,087.10	23%	2,790.40	-10%
Patient Participation	479	359.6	-25%	280	-22%
Others	-	-	-	-	-
Total	11,943.90	14,171.50	20%	17,054.50	20%

Expenditure	2000	2001		2002	
	,000som	,000som	%	,000som	%
Wages	3,815.60	4,671.10	22%	5,281.30	13%
Social Insurance	1,182.80	1,372.10	16%	1,322.00	-4%
Acquisition of new equipment	-	-	-	-	-
Catering	1,463.30	1,681.70	15%	1,947.20	16%
Public Utilities	2,297.60	2,644.60	15%	2,887.60	)%
Transportation and Travel	-	-	-	-	-
Maintenance and repair of building	-	-	-	-	-
Maintenance of equipment	-	-	-	-	-
Medicine and supply	2,585.60	4,481.80	73%	2,731.00	-40%
Others	341.4	430.3	26%	577.9	34%
total	2,927.00	4,912.10	68%	3,308.90	-33%
Total	11,686.30	15,281.60	31%	14,747.00	-4%

(7) Republican Children's Hospital

The total revenue in 2002 decreased a little by 1 percent from the previous year to 17.940 million som. In 2002, the expenditure on operation and mainteinance, included in the expenditure of medicine/supply and others, was 4.371 million som with an increase of 55 percent against the previous year. The necessary cost for operation and maintenance of the three equipment items to be procured by the project is estimated as 27,000 som annually, accounting for only 0.2 percent of total revenue.

Table 2-18: Annual revenue and expenditure at Republican Children's Hospital

Revenue	2000	2001		2002	
	,000som	,000som	%	,000som	%
Local Government	11,221.00	13,998.00	25%	12,203.10	-13%
Mandatory Health Insurance	854	2,260.00	165%	2,404.90	6%
Patient Participation	-	-	-	-	-
Others	1,402.00	1,937.10	38%	3,332.20	72%
Total	13,477.00	18,195.10	35%	17,940.20	-1%

Expenditure	2000	2001		2002	
	,000som	,000som	%	,000som	%
Wages	2,523.00	3,246.00	29%	3,742.00	15%
Social Insurance	781	943	21%	890	-6%
Acquisition of new equipment	-	-	-	-	-
Catering	1,255.90	11,080.00	782%	1,222.00	11%
Public Utilities	3,793.00	5,535.00	46%	5,592.00	1%
Transportation and Travel	321	412	28%	326	-21%
Maintenance and repair of building	0	248	100%	34	-84%
Maintenance of equipment	107	4,866.00	3548%	910	-81%
Medicine and supply	1,908.00	2,248.00	18%	3,276.00	46%
Others	1,031.00	569	-45%	1,095.00	92%
Total	2,939.00	2,817.00	-4%	4,371.00	55%
Total	11,719.90	29,147.00	149%	17,087.00	-41%

2-4-2 Project Cost

The total estimate cost of the project amounts to 400 million yen. The expenses to be borne by Japan and Kyrgyzstan respectively are estimated as follows:

This estimate is provisional and will be further examined by the Government of Japan for approval of the Grant.

(1) Expenses borne by Japan

Contents		Estimated Cost
Equipment	Osh Oblast Merged Hospital	0.85 Million Yen
	Issyk-Kul Oblast Merged Hospital	0.77 Million Yen
	Naryn Oblast Merged Hospital	0.60 Million Yen
	Talas Oblast Merged Hospital	0.61 Million Yen
	Research Institute for Obstetrics and Paediatrics	0.51 Million Yen
	Bishkek City Children Clinical Emergency Hospital	0.18 Million Yen
	Republican Children's Hospital	0.07 Million Yen
Consulting Fee		0.40 Million Yen
Total		3.99 Million Yen

(2) Expenses borne by Kyrgyzstan

Contents	Expense
Removal of X-Ray Machine at Osh Oblast Merged Hospital	$500
Removal of X-Ray Machine at Issyk-Kul Oblast Merged Hospital	$500
Removal of X-Ray Machine at Naryn Oblast Merged Hospital	$500
Removal of X-Ray Machine at Research Institute at Obstetrics and Paediatrics	$500
Total	$2,000

(3) Parameters of Cost Estimation

①Time of calculation	November 2003
② Exchange rate	1US dollar = 119.79 yen, 1 euro = 134.93 yen
③ Project period	11 months
④ Method of placing orders	Lump or divided
⑤ Others	To be implemented in accordance with the scheme of grant aid cooperation of the Japanese government.

Chapter 3 Project Evaluation and Recommendations

Chapter 3 Project Evaluation and Recommendations

3-1 Project Effect

The effects of implementation of the project and the extent of improvements are shown in Table 3-1.

Table 3-1 Effects of implementation of the project and improvements in the current situation

Present situation and problems	Relevant measures to be taken in the project (work covered by the grant)	Project effect and extent of improvement
The 7 hospitals are most important in the healthcare for children of 40% of population in Kyrgyzstan. The recent economic depression has caused the financial difficulties in the health sector. The budget is not sufficient for replace the too old medical equipment. The inadequate and insufficient equipment hampers the basic diagnoses and treatments in the hospitals.	Procurement of equipment Osh Oblast Merged Hospital 45 items Issyk-kul Oblast Merged Hospital 62 items Naryn Oblast Merged Hospital 43 items Talas Oblast Merged Hospital 46 items Research Institute for Obstetrics & Paediatrics 28 items Bishkek City Children Clinical Emergency Hospital 9 items Republican Children’s Hospital 3 items	The hospitals' diagnosis and treatment will be strengthened, and the children's healthcare service system in Kyrgyzstan will improve. The capacity of hospitals will be increase, and the number of tests will be increase. The the quality of children's healthcare service in Kyrgyzstan will improved. The indices to measure the effect: - Number, X-ray examinations - Number, ultrasound examinations - Number, endoscopic examinations

The following effects are expected through the implementation of the project:

(1) Direct effects

The health services in the seven institutions will be improved in both quality and quantity.

(a)The replacement of obsolete equipment and the supplement of insufficient equipment will recover the functions of the hospitals, and more accurate diagnoses will be enabled.

(b)The replacement and supplement of equipment will improve the abilities of diagnoses and treatments, and the hospitals' services improve.

(2) Indirect effects

(a)Children's healthcare services will be strengthened in the regions covered by the seven hospitals.

The improvement of necessary equipment and its direct effects enable the seven hospitals to provide the more adequate care for the patients referred from lower level, and the number of those referrals will increase. Accordingly, the referral system of the health services in respective regions will be strengthened.

(b)Children's healthcare services in the whole Kyrgyz Republic will be strengthened.

The direct effects on the seven hospitals and improvement of regional referral systems will strengthen the national referral system of children's healthcare with the three hospitals in Bishkek as the top referral.

3-2 Recommendations

(1) Improvement of hospital management under the market economy

The hospitals covered by this project were established through integration of several health facilities with different and subdivided specialties. Most of those facilities are still managed in the way before integration. Namely, it is required to complete the consolidation in various aspects such as organization, medical departments, personnel plan, financial management and patient service in order that the hospitals would be competitive enough in the market economy.

(2) Assuring the financial stability

It is planned to solve the shortage of the government's health budget so far with the introduction of mandatory health insurance fund. However, it is recommended that the hospitals would have the financial resources by themselves not only depending on the payments from the insurance fund but also other resources such as charged beds, rooms, and some services which are not covered by the insurance.

[Appendices]

1. Member List of the Study Team

2. Study Schedule

3. List of the Parties Concerned in the Recipient Country

4. Minutes of Discussion

5. Reference

1. Member List of the Study Team

(1) Basic Design Study (July 23 to August 31, 2003)

Prof. Iwao TAKAKURA	Team Leader Professor Emeritus, Tokai University
Ms. Akiko KAWATA	Programme Coordinator Second Project Management Division Grant Aid Management Department Japan International Cooperation Agency
Mr. Kazuhiro ABE	Project Manager/Health Sector Survey International Techno Center, Co., Ltd.
Mr. Hiroshi TASEI	Equipment Planner I International Techno Center, Co., Ltd.
Mr. Akio KANEKO	Equipment Planner II International Techno Center, Co., Ltd.
Mr. Naoki MIMURO	Procurement and Cost Planner I International Techno Center, Co., Ltd.
Ms. Sakie NAITO	Procurement and Cost Planner II International Techno Center, Co., Ltd.
Mr. Yukichi GOTO	Interpreter (Russian) International Techno Center, Co., Ltd.

(2) Explanation of Draft Report (October 19 to November 5, 2003)

Prof. Iwao TAKAKURA	Team Leader Professor Emeritus, Tokai University
Mr. Kazuhiro ABE	Project Manager/Health Sector Survey International Techno Center, Co., Ltd.
Mr. Hiroshi TASEI	Equipment Planner I International Techno Center, Co., Ltd.
Mr. Akio KANEKO	Equipment Planner II International Techno Center, Co., Ltd.
Mr. Naoki MIMURO	Procurement and Cost Planner I International Techno Center, Co., Ltd.
Ms. Sakie NAITO	Procurement and Cost Planner II International Techno Center, Co., Ltd.
Mr. Yukichi GOTO	Interpreter (Russian) International Techno Center, Co., Ltd.

2. Study Schedule

(1) Basic Design Study

NO.	DATE		Team Leader Iwao TAKAKURA	Programme Coordinator Akiko KAWATA	Project Manager/ Health Sector Survey Kazuhiro ABE(PM)	Equipment Planner I Hiroshi TASEI(EP-I)	Equipment Planner II Akio KANEKO (EP-II)	Procurement and Cost Planner I Naoki MIMURO	Procurement and Cost Planner II Sakie NAITO	Interpreter Yukichi GOTO
1	23-Jul	wed			Narita→Frankfurt			Same as PM		Same as PM
2	24-Jul	thu			Frankfurt→Almaty			Same as PM		Same as PM
3	25-Jul	fri			Almaty→Bishkek JICA Kyrgyzstan Office Ministry of Health of Kyrgyz Republic Ministry of Finance of Kyrgyz Republic			Same as PM		Same as PM
4	26-Jul	sat			Research Institute			Same as PM		Same as PM
								Local Survey		
5	27-Jul	sun			Transportation Company			Same as PM		Same as PM
6	28-Jul	mon			Republican Children's Hospital			Same as PM		Same as PM
					Japanese Embassy					Same as PM
7	29-Jul	tue			Bishkek Emergency Hospital			Same as PM		Same as PM
					Ministry of Health of Kyrgyz Republic			Same as PM		Same as PM
					AVANCO(Local Supplyer)			Same as PM		Same as PM
8	30-Jul	wed			Kyrmedtechnica(Maintenance Company) Bishkek→Talas			Same as PM		Same as PM
9	31-Jul	thu			Talas Merged Hospital			Same as PM		Same as PM
10	1-Aug	fri			Talas Merged Hospital			Same as PM		Same as PM
11	2-Aug	sat			Talas Merged Hospital Talas→Bishkek		Narita→Frankfurt	Same as PM	Same as EP-II	Same as PM
12	3-Aug	sun			Internal Meeting		Frankfurt→Almaty	Internal Meeting	Same as EP-II	Internal Meeting
13	4-Aug	mon			Bishkek→Osh		Almaty→Bishkek	Same as PM	Same as EP-II	Same as PM
					Osh Merged Hospital			Same as PM		Same as PM
14	5-Aug	tue			Osh Merged Hospital		Bishkek→Osh		Same as EP-II	
							Same as PM			
15	6-Aug	wed			Osh City Perinatal Center					
16	7-Aug	thu			Osh→Jalal-Abad Jalal-Abad Merged Hospital	Osh City Perinatal Center	Same as PM		Same as EP-I	Same as PM
17	8-Aug	fri			Jalal-Abad Merged Hospital	Osh Merged Hospital	Same as PM		Same as EP-I	Same as PM
18	9-Aug	sat			Jalal-Abad →Osh	Osh Merged Hospital	Same as PM		Same as EP-I	Same as PM
					Osh Merged Hospital					
					Osh→Bishkek					
19	10-Aug	sun			Bishkek→Karakol					
20	11-Aug	mon			Issyk-Kul Merged Hospital					
21	12-Aug	tue			Issyk-Kul Merged Hospital					
22	13-Aug	wed			Karakol→Naryn Naryn Merged Hospital	Issyk-Kul Merged Hospital Karakol→Bishkek	Same as PM	Same as EP-I	Same as EP-I	Same as PM
23	14-Aug	thu			Naryn Merged Hospital	Research Institute	Same as PM	Local Survey	Same as EP-I	Same as PM
24	15-Aug	fri	Narita→Munich		Naryn Merged Hospital Naryn→Issyk-Kul Ministry of Health of Kyrgyz Republic	Republican Children's Hospital Bishkek Emergency Hospital	Naryn Merged Hospital Naryn→Bishkek	Local Survey	Same as EP-I	Same as PM
25	16-Aug	sat	Munich→Istanbul→		Issyk-Kul→Bishkek	KfW	Same as EP-I	Same as EP-I	Same as EP-I	Same as PM
26	17-Aug	sun	Bishkek		Internal Meeting					
27	18-Aug	mon	JICA Kyrgyzstan Office Japanese Embassy Ministry of Finance of Kyrgyz Republic Ministry of Health of Kyrgyz Republic				Local Survey			Same as PM
28	19-Aug	tue	Research Institute Republican Children's Hospital					Bishkek→Almaty	Same as PM	
29	20-Aug	wed	Bishkek→Osh Osh Merged Hospital				Research Institute	Almaty→Frankfurt →	Same as EP-II	Same as PM
30	21-Aug	thu	Osh City Perinatal Center Osh Oblast Government Osh→Bishkek				Republican Children's Hospital	Narita	Same as EP-II	Same as PM
31	22-Aug	fri	Ministry of Finance of Kyrgyz Republic Ministry of Health of Kyrgyz Republic						Same as EP-I	Same as PM
			Kyrgyzstan Vice Prime Minister							
			Bishkek Emergency Hospital							
32	23-Aug	sat	Ministry of Health of Kyrgyz Republic						Same as PM	
33	24-Aug	sun	Internal Meeting						Internal Meeting	
34	25-Aug	mon	Ministry of Health of Kyrgyz Republic						Same as PM	
35	26-Aug	tue	Signature of Minites of Discussion						Same as PM	
36	27-Aug	wed	Bishkek→Istanbul→		World Bank Swiss	Ministry of Health of Kyrgyz Republic Bishkek Emergency Hospital			Same as PM	
37	28-Aug	thu	Kansai→Haneda		Transportation Company				Same as PM	
38	29-Aug	fri			Bishkek→Almaty				Same as PM	
39	30-Aug	土			Almaty→Frankfurt→				Same as PM	
40	31-Aug	日			Narita				Same as PM	

(2) Explanation of Draft Report

NO.	DATE		Team Leader Iwao TAKAKURA	Project Manager/ Health Sector Survey Kazuhiro ABE(PM)	Equipment Planner I Hiroshi TASEI (EP-I)	Procurement and Cost Planner I Naoki MIMURO	Equipment Planner II Akio KANEKO (EP-II)	Procurement and Cost Planner II Sakie NAITO	Interpreter Yukichi GOTO
1	17-Oct	fri		Narita→Frankfurt					
2	18-Oct	sat		Frankfurt→Almaty					
3	19-Oct	sun		Almaty→Bishkek					
4	20-Oct	mon		JICA Kyrgyzstan Office					
				Ministry of Health of Kyrgyz Republic					
				Republican Children's Hospital					
				Bishkek Emergency Hospital					
				Courtesy Call to Minister, Ministry of Health of Kyrgyz Republic					
				Japanese Embassy					
5	21-Oct	tue		Research Institute					
				Mandatry Health Insurenace Fund	JICA Kyrgyzstan Office				Same as PM
6	22-Oct	wed		Bishkek→Osh Osh Merged Hospital			Bishkek→Karakol		Same as PM
7	23-Oct	thu		Osh Merged Hospital			Issyk-Kul Merged Hospital		Same as PM
8	24-Oct	fri		Osh Merged Hospital Osh→Bishkek			Issyk-Kul Merged Hospital		Same as PM
9	25-Oct	say		Internal Meeting			Karakol→Bishkek		Same as PM
10	26-Oct	sun		Bishkek→Talas			Internal Meeting		Same as PM
11	27-Oct	mon	Narita→Frankfurt	Talas Merged Hospital			Naryn Merged Hospital		Same as PM
12	28-Oct	tue	Frankfurt→ Istanbul→	Talas Merged Hospital Talas→Bishkek			Naryn Merged Hospital Naryn→Bishkek		Same as PM
13	29-Oct	wed	Bishkek						
				JICA Kyrgyzstan Office					
				Ministry of Health of Kyrgyz Republic					
				Ministry of Health of Kyrgyz Republic					
				Courtesy Call to Minister, Ministry of Health of Kyrgyz Republic					
14	30-Oct	thu		Mandatry Health Insurenace Fund					
					Ministry of Health of Kyrgyz Republic				
			Japanese Embassy						
15	31-Oct	fri	Ministry of Health of Kyrgyz Republic	Research Institute	Ministry of Health of Kyrgyz Republic			Same as PM	Same as EP-I
				Republican Children's Hospital					
				Bishkek Emergency Hospital					
				Ministry of Health of Kyrgyz Republic					
16	1-Nov	sat		Internal Meeting					
17	2-Nov	sun		Internal Meeting					
18	3-Nov	mon	Ministry of Finance of Kyrgyz Republic	Same as Team Leader	Internal Meeting				Same as PM
			Research Institute						
			Republican Children's Hospital						
			Bishkek Emergency Hospital						
			Ministry of Health of Kyrgyz Republic						
19	4-Nov	tue		Signature of Minites of Discussion					
			Internal Meeting	Mandatry Health Insurenace Fund	Internal Meeting				
20	5-Nov	wed	Bishkek→	Bishkek→Almaty					
21	6-Nov	thu	Narita	Almaty→Frankfurt→					
22	7-Nov	fri		Narita					

3. List of the Parties Concerned in the Recipient Country

Kyrgyz Repblic, Prime-Minister's Offic

Otorbaev Joomart	Vice-Prime-Minister
Ibraimova Chinara	Head of International Cooperation Dept., the Prime-Minister's Office
Sarybaev A.M.	Head, Social-Cultural Development Dept., the Prime-Minister's Office
Rysmendeeva Klara	Secretary, Social-Cultural Development Dept., the Prime-Minister's Office

Ministry of Finance of Kyrgyz Republic

Mukanbetov Sanjar	Director of the Investment Policy Dept.
Tashbaev Uchkunbek	Head of External Relations Unit.

Ministry of Health of Kyrgyz Republic

Mamytov Mitalip Mamytovich	Minister of Health
Aaliev Guljigit Kenjekarayevich	1st Deputy Minister
Mambetov Marat Avalovich	Head of the Dept. of Health Care Reform
Mambetov Kasymbek Beishenbekovich	Chief of the Medical Assistance to Population and Licensing
Dimitrov Boris Ivanovich	Head of External Relations Unit
Doskeeva Jumabubu	Chief of Pediatrician
Koshmuratov Alimjan	Advisor of the Health Minister
Abdikarimov Sabyrjam Toktosunovic	State Sanitary Epidemiologic
Ibraimova Ainura Sultanovna	General Director, Mandatory Health Insurance Fund
Ninel A. Kadyrova	Deputy Director, Mandatory Health Insurance Fund

Republican Children's Hospital

Uzakbaev Kamchybek Askarbekovich	Director
Abdykadyrova Jyldyz	Deputy Director

Babadjanov Nurmuhamed Jamalovich	Deputy Chief Doctor
Usupova Maral Sabykeevna	Head of Ophthalmology
Shamsudinov Nadyr Ashatovich	Head of ICU
Ibraimov Sharip Anataevich	Head of Operation block

Research Institute for Obstetrics and Pediatrics

Kudayarov Duishen Kudayarovich	Director
Builashev Talantbek	Deputy Director
Guljan Kitarova	Head Doctor for Pediatrics Clinic
Uldashev Erkin Abidovich	Deputy Chief Director on Administration
Skorik Adelya Sagidovna	Executive Head of Pulomology
Shukurova Venera Kojonovna	Head of Reanimation
Tulebekov Beisenbay	Head of Bacteriology, Immunology, Hormonal Tests Laboratory
Rysalieva Bermet Jamashevna	Senior Laboratory Assistant – Hematology
Abdyrkeeva Zamira Toktosunovna	Laboratory Doctor – Biochemistry
Akmotova Burul Akjoltoyevna	Chief Nurse of Reanimation
Zobnina Valentina Ivanovna	X-ray Laboratory Specialist
Shaisanbekov Akbar Shahmadovich	Oxygen Technician

Bishkek City Children Clinical Emergency Hospital

Omurbekov Talant	Director
Uzakova Ihvol	Head of Ambulance-Diagnostic
Minbayev Jenish Moltashevich	Head of Day Care Surgery
Shaibekov Daniar	Head of Emergency Surgery No. 1
Duishenov Kiyazbek	Head of Infection Surgery
Samsoliyev Abdymalik	Head of Lungs Surgery
Abdykerimov Sultan	Head of Neurosurgery
Svotina Nataliya Pavlovna	Head of Newborn and Premature
Toktosunov Adyl Begalievich	Head of Newborn Reanimation
Kagarlinshyi Albert Yakovlevich	Head of Reanimation and Toxicology
Smirnov Vadim	Head of Rectum (Proctology)
Joroyev Minbay	Head of Traumatology

Mambetova Kunduz Jangazievna	Chief Nurse
Makeshova Ainura Sharsheevna	Chief Nurse of Newborn Pathology

Talas Oblast Merged Hospital

Mombekov Zamirbek Kanayevich	Director
Baicharayev Rustam Satybekovich	Deputy Director on General Treatment
Omurbekov Nurlan Shabdanbekovich	Head of Pediatrics
Beshisakirov Sanjar Nurbanovich	Director of Children's ICU
Kubanychbekova Nurilya Koichubekovna	Head of Children Infections
Isanova Nazira Nazarbekovna	Oblast Coordinator on Childhood
Karmysheva Damira Amanovna	Head of Children's Reanimation
Kochmuratova Tunum Berdikeevna	Head of Laboratory
Beisheeva Azime	Head of Ophthalmology

Issyk-Kul Oblast Merged Hospital

Abdykanov Esen Jumabayevich	Deputy Director of Issyk-Kul Oblast Merged Hospital
Beishebayev Keneshbek Usenalievich	Executive Manager of Hospital Complex
Samudinova Aigul Samudinovna	Head of Pediatrician of Issyk-Kul Oblast
Kurmanalieva Jyldyz Kalykovna	Head of General Children's Dept. (Somatic)
Ryspaev Kojebil	Head of Laryngal
Kulubayeva Sheishekan Kulubayevna	Head of Newborn Pathology
Dagaziev Usup Shafurovich	Head of the Reanimation Dept. Unit No.2
Beishenbayev Baishbek	Chief of Rehabilitation Dept.
Malabekov Berdibay	Head of Traumatology
Berdibai Asanalievich Malabekov	Head of Traumatology and Orthopedics
Urbayev Kadyrakun	Children Surgery
Urbaev Kadyrakun	Children Surgery Doctor of Surgery Dept.
Karabaeva Nazgul	Doctor Neonatologist of Maternity House
Jakeeva Gulnara	Doctor of Infection Dept.
Dvornikova Ludmila Petrovna	Head Nurse of Complex No.1
Tagirova Marina	Head Nurse of Maternity House

Teldebaeva Dinara	Nurse of Reception Dept., Newborn Pathology
Klementyeva Svetlana	Laboratory Specialist Complex No.1
Bedelova Ajil	Therapist of the Rehabilitation
Daniyarov Kanatbek	Chief of Organizational and Methodic Dept.
Suusar Sharshenalieva	Deputy of Chief Accountant of United Hospital

Naryn Oblast Merged Hospital

Munat Atbaevich Atbaev	Director
Kalmanbetova Anara Kadykovna	Deputy Director
Sadykova Burul Arpachievna	Head of Pediatrics
Joldoshev Asanbay Joldoshevich	Head of ENT
Kasmalieva Kulbubu Kemelovna	Head of Infection
Mamyrova Gulzat Usenkulovna	Head of Ophthalmology
Arzygulov Tokon Arzygulovich	Head of Surgery
Mamatbekov Jumabek Mamatbekovich	Head of Traumatology
Akmatova Damira Kubanychbekovna	Doctor of Children's Dept.
Borsokeev Kubat	Doctor of Traumatology Dept.

Osh Oblast Local Government

Bostonova Svetlana	Governor's Deputy of Osh Oblast
Imanbaev Damir	Chief (Parliament)
Maripov Asamitdin	Deputy of the Assembly of the People's Representative of the Kyrgyz Republic

Osh Oblast Merged Hospital

Baisalov Akylbek	Director of the Osh Oblast Merged Hospital
Shainazarov Tolon	Chief of the Oblast Merged Hospital Pediatric Section
Ahunbaev Raimdjan	Chief Assistant
Zulpueva Baktygul	Secretary of the chief.

Shekeev Zulpukar	Head of the Infection
Duisheev Said	Head of NICU
Jolboldueva Dastan	Head of Neurology
Djumabaev Abdurazak	Head of Operation
Anarbaev Kanybek	Head of Surgery I
Nematov Muhitdin	Head of Surgery II
Saliev Alisher	Head of Traumatology
Djoldosheva Gulbara	Head of Pharmacy
Nagaeva Shefika	Head of the Clinical-Diagnostic Laboratory
Kutbaev Sadyk	Assistant Head of ENT
Hosinov Kasym	Doctor of Cardiology Dept.
Ibragimov Jarkynbai	Doctor of Ultrasound Apparatus
Surapbaev Abdulla	Doctor of X-ray
Akinbaeva Gulbara	Endoscope Specialist
Artykov Mahmudjan	Medical Equipment Engineer
Kasymov Abdulatip	Electro Engineer
Gazin Ravshan	Electro Technician

Osh City Perinatal Center

Stanbekov Myrza	Chief Doctor of Osh Perinatal Center
Razaeva Myrzaiym	Head of the Delivery Dept.
Anarbaeva Buajar	Head of the Infant Pathology and Premature Infant Dept.
Khodzaev Tohir	Head of the Newborn Reanimation Dept.
Ryspekova Nurilla	Head of the Clinical-Diagnostic Laboratory

Jalal-Abad Oblast Merged Hospital

Omurzakov Jahongir	Head Doctor
Teshebaev Nurjamal T.	Head Doctor Assistant
Gazibaev Mirkamil	Head Doctor Assistant, Head Doctor of Pediatric Hospital
Satarov Kamil	Head of Anesthesiology and Reanimation
Kadyrbaev Bolush	Head of ENT

Kocherov Avangard M.	Head of Ophthalmology
Mlisaev Joomart	Head of Orthopedic and Traumatology
Jumukov Joialaibek A.	Ophthalmologist, Children
Orozmamatova Suyunbubu	Head Nurse

KFW

Joachim Schuurmann	Consultant, Neonatology Pediatrician
Hanns Joachim Schmidt	Consultant, Gynecology Doctor
Olga Gorovenko	Local Expert

AVANCO

Titov Vladimir	President
Bajutkin Nikolay	Deputy Director

World Bank

Djoldosheva	Country Officer
Asel Sargaldakova	Program Officer

Swiss

Svetlana Rogozhnikiva	Program Officer

Embassy of Japan

Shusuke WATANABE	Charge’d Affaires
Hideto WATANABE	Third Secretary

JICA/JOCV Kyrgyz Republic Office

Kiyoshi ISHII	Resident Representative
Megumi SHUTO	Project Formulation Advisor

MINUTES OF DISCUSSIONS
ON THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT OF CHILD HEALTH CARE IN THE RURAL AREAS IN THE KYRGYZ REPUBLIC

In response to a request from the Government of the Kyrgyz Republic, the Government of Japan decided to conduct a Basic Design Study on the project for improvement of children hospitals in the Kyrgyz Republic (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent the Basic Design Study Team (hereinafter referred to as "the Team") headed by Dr. Iwao Takakura, Professor Emeritus, Tokai University, and is scheduled to stay in the Kyrgyz Republic from July 25 to August 29, 2003.

The Team held discussions with the officials concerned of the Government of the Kyrgyz Republic and conducted a field survey at the study areas.

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

Bishkek, August 26, 2003

Prof. Iwao Takakura
Leader
Basic Design Study Team
Japan International Cooperation Agency

Mr. Sanjar Mukanbetov
Director of Investment and Policy Department
Ministry of Finance
The Kyrgyz Republic

Mr. Aaliev Guljigit Kenjecaraevich
Deputy Minister
Ministry of Health
The Kyrgyz Republic

ATTACHMENT

1. Objective of the Project

The objective of the Project is to improve child health care especially in the rural areas.

2. Project Site

Sites of the Project are the followings.

Osh Oblast Merged Hospital
Issyk-Kul Oblast Merged Hospital
Naryn Oblast Merged Hospital
Talas Oblast Merged Hospital
Republican Children's Hospital
Bishkek City Children Clinical Emergency Hospital
Research Institute for Obstetrics and Pediatrics

3. Responsible and Implementing Agency

3-1. The Responsible Agency is the Ministry of Finance.

3-2. The Implementing Agency is the Ministry of Health.

4. Items requested by the Government of Kyrgyz Republic

4-1. After discussions among concerned parties, the Kyrgyz side submitted the request of equipment attached as Annex 1.

4-2. The Team will study the requested items and select the equipment in accordance with each criterion of the followings.

(i) Equipment that can be technically/budgetary operated and maintained by each hospital of the Project.
(ii) Equipment that is imperative for diagnosis and treatment.
(iii) Equipment to be urgently replaced with old/decrepit equipment.
(iv) Equipment that lacks in its quantity
(v) Equipment that is used very frequently.

4-3. The final components of the Project will be decided based on the further studies in Japan.

5. Japan's Grant Aid Scheme

5-1. The Kyrgyz side understood the Japan's Grant Aid Scheme explained by the Team, as described in Annex-2.

5-2. The Kyrgyz side will take the necessary measures described in Annex-3 for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented.

6. Schedule of the Study

6-1. The consultants will proceed to further studies in the Kyrgyz Republic until August 29, 2003.

6-2. After the Team leaves the country, further discussions necessary for the basic design of the Project will be made through such means as facsimile and e-mail.

6-3. JICA will prepare the draft report and dispatch a mission in order to explain its contents around October, 2003.

6-4. In case that the contents of the report is accepted in principle by the Government of Kyrgyz Republic, JICA will complete the final report and send it to the Government of Kyrgyz Republic around March, 2004.

7. Other relevant issues

7-1. Both parties confirmed that the Kyrgyz Government would secure budget necessary for operation and maintenance of the procured equipment including spare parts and consumables.

7-2. Both parties confirmed that the Kyrgyz Government should complete the following measures by the new equipment reaches at the Project Site.

- Osh Oblast Merged Hospital
  removal of the existing X ray machine
- Issyk-Kul Oblast Merged Hospital
  removal of the existing X ray machine and autoclave
- Naryn Oblast Merged Hospital
  removal of the existing X ray machine and renovation of the surgical theater for children
- Talas Oblast Merged Hospital
  transfer of surgical department, traumatology department, urology department and ENT department from district hospitals
- Research Institute for Obstetrics and Pediatrics
  removal of the existing X ray machine

7-3. The Kyrgyz side understood to exempt Japanese nationals from all custom duties, expenses charged during the custom procedure and value added taxes that will be imposed in the Kyrgyz Republic with respect to import and transportation of the equipment.

7-4. The Kyrgyz side agreed to promote publicity activities of Japanese cooperation under the Project and take actions to disseminate information to peoples of the Kyrgyz Republic in case that the Project is approved for implementation by the Cabinet.

Osh Oblast Marged Hospital

No.	Equipment	Q'ty
1	Emergency kit	5
2	Anaesthetic machine	4
3	Analytical balance	1
4	Autoclave	1
5	Autoclave (Table top)	2
6	Bronchoscope	1
7	Centrifuge	1
8	Colonofiberscope	1
9	Cystoscope	1
10	Defibrillator	2
11	ECG	1
12	Electro surgical unit	3
13	ENT treatment unit	1
14	Examination lamp	7
15	Gastorofiberscope	1
16	Hand drill, mechanical	2
17	Infant incubator	4
18	Infant warmer	2
19	Instrument table	3
20	Instruments set (Dressing)	4
21	Instruments set (General surgery)	6
22	Laryngoscope set	3
23	Microscope	2
24	Operating lamp (Mobile)	4
25	Operating table	4
26	Ophthalmoscope	1
27	Patient monitor	3
28	Peakflowmeter	10
29	Phototherapy unit	2
30	Protein meter	1
31	Pulse oximetre	1
32	Refrigerator (Blood storage)	1
33	Refrigerator (Drug)	2
34	Slit lamp	1
35	Stretcher	6
36	Suction unit (Portable)	7
37	Suction unit (Operation room)	8
38	Syringe pump	3
39	Ultrasonic nebulizer	3
40	Ultrasound apparatus	1
41	Weighing scale	6
42	Weighing scale(Infant)	6
43	X-ray apparatus	1
44	X-ray film viewer	1

Naryn Oblast Merged Hospital

No.	Equipment	Q'ty
1	Emergency kit	4
2	Anaesthetic machine	1
3	Autoclave	1
4	Bronchoscope	1
5	Centrifuge	1
6	Defibrillator	2
7	ECG	2
8	Electro surgical unit	2
9	ENT treatment unit	1
10	Examination lamp	1
11	Gastrofiberscope	1
12	Hot air sterilizer	2
13	Infant incubator	2
14	Infant warmer	1
15	Instrument table	2
16	Instruments cabinet	2
17	Instruments set (Dressing)	3
18	Instruments set (General surgery)	4
19	Laryngoscope set	1
20	Operating lamp (Mobile)	2
21	Operating table	3
22	Oxygen inhalation set	1
23	Patient monitor	3
24	Phototherapy unit	1
25	Rectoscope	1
26	Refrigerator (Drug)	4
27	Slit lamp	1
28	Sphygmomanometer	9
29	Steriliser (Boiling)	1
30	Stretcher	2
31	Suction unit (Operation room)	1
32	Suction unit (Portable)	6
33	Syringe pump	4
34	Ultrasonic nebulizer	2
35	Ultrasound apparatus	1
36	Weighing scale	3
37	Weighing scale (Infant)	3
38	Wheel chair	1
39	X-ray apparatus	1
40	X-ray film viewer	1

Issyk-kul Oblast Merged Hospital

No.	Equipment	Q'ty
1	Emergency kit	3
2	Anaesthetic machine	2
3	Analytical balance	1
4	Autoclave	2
5	Autoclave (Table top)	1
6	Bronchoscope	1
7	Centrifuge	1
8	Corset	5
9	Defibrillator	1
10	ECG	1
11	Electric stimulator	1
12	Electro surgical unit	2
13	ENT treatment unit	1
14	Ergo meter	1
15	Examination lamp	2
16	Gastorfiberscope	1
17	Height scale	1
18	Hot air sterilizer	2
19	Incubator	1
20	Infant incubator	3
21	Infant warmer	3
22	Instruments set (Dressing)	4
23	Instruments set (General surgery)	4
24	Instruments set (Rehabilitation)	1
25	Laryngoscope set	1
26	Mattress for exercise	3
27	Microscope	4
28	Operating lamp (Mobile)	2
29	Operating table	2
30	Ophthalmoscope	1
31	Paraffin bath	1
32	Patient monitor	2
33	Peakflowmeter	2
34	Phototherapy unit	1
35	Portable Toilet	3
36	Pulse oximetre	3
37	Refrigerator (Drug)	1
38	Refrigerator	2
39	Shower chair	2
40	Slit lamp	1
41	Sphygmomanometer	9
42	Steriliser (Boiling)	5
43	Stretcher	3
44	Suction unit (Operation room)	2
45	Suction unit (Portable)	9
46	Syringe pump	5
47	Treadmill	2
48	Ultrasonic nebulizer	5

Issyk-kul Oblast Merged Hospital

No.	Equipment	Q'ty
49	Ultrasound apparatus	1
50	Video set	1
51	Walker (A)	10
52	Walker (B)	5
53	Washing machine, 8kg	1
54	Water bath	1
55	Weighing scale	4
56	Weighing scale (Infant)	3
57	Wheel chair	5
58	X-ray apparatus	1
59	X-ray apparatus (Mobile)	1
60	X-ray film viewer	1

Talas Oblast Merged Hospital

No.	Equipment	Q'ty
1	Emergency kit	4
2	Anaesthetic machine	2
3	Analytical balance	1
4	Autoclave	2
5	Autoclave (Table top)	3
6	Bronchoscope	1
7	Centrifuge	1
8	Defibrillator	1
9	ECG	1
10	Electro surgical unit	1
11	Emergency trolley	2
12	ENT treatment unit	1
13	Examination lamp	2
14	Freezer	1
15	Infant incubator	1
16	Infant warmer	2
17	Instrument table	6
18	Instruments set (Dressing)	6
19	Instruments set (General surgery)	4
21	Microscope	4
22	Operating lamp (Mobile)	2
23	Operating table	3
24	Ophthalmoscope	1
25	Patient monitor	2
26	Peakflowmeter	2
27	Phototherapy unit	1
28	Protein meter	2
29	Pulse oximetre	2
30	Refrigerator (Drug)	8
31	Slit lamp	1
32	Sphygmomanometer	6
33	Steriliser (Boiling)	7
34	Stretcher	3
35	Suction unit	6
36	Suction unit (Operation room)	2
37	Syringe pump	8
38	Ultrasonic nebulizer	5
39	Ultrasound apparatus	1
40	Water bath	1
41	Weighing scale	3
42	Weighing scale (Infant)	3
43	Wheel chair	2
44	X-ray film viewer	1
45	X-ray apparatus (Mobile)	1

Research Institute for Obstetrics and Paediatrics

No.	Equipment	Q'ty
1	Emergency kit	2
2	Anesthetic machine	1
3	Bronchofiberscope	1
4	Bronchoscope	1
5	Centrifuge	1
6	ECG	1
7	Flame photometer	1
8	Gastrofiberscope	1
9	Infant warmer	1
10	Laryngoscope set	1
11	Luminescent microscope	1
12	Ophthalmoscope	1
13	Oxygen inhalation set	1
14	Patient monitor	2
15	Peakflowmeter	4
16	Phototherapy unit	1
17	Pulse oximeter	1
18	Slit lamp	1
19	Spectrophotometer	1
20	Spirometer	1
21	Suction unit (Portable)	3
22	Ultrasonic nebulizer	1
23	Ultrasound apparatus (Color doppler)	1
24	Ventilator (Neonate)	1
25	Ventilator (Child)	1
26	X-ray apparatus	1
27	X-ray apparatus (Mobile)	1

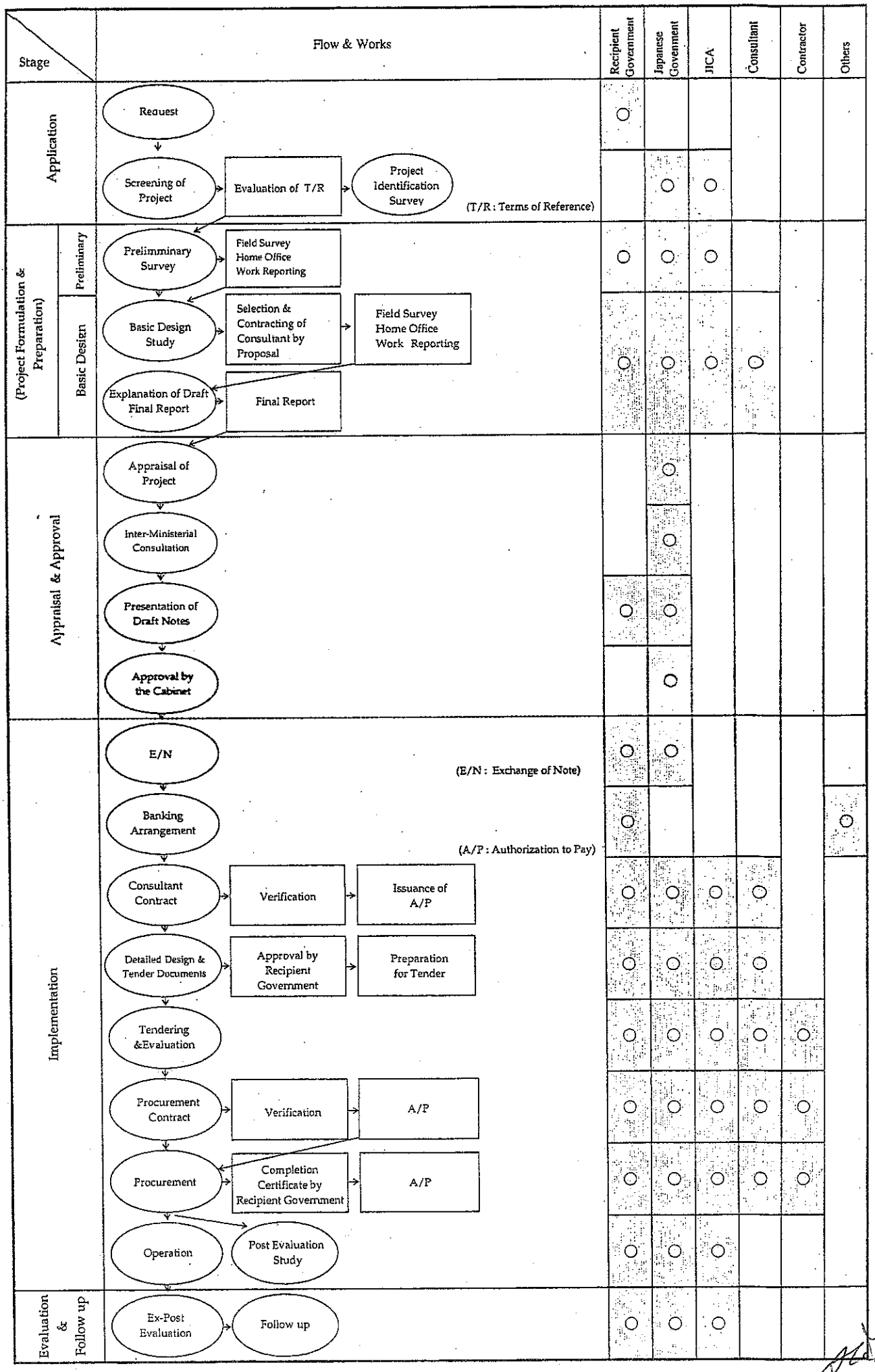
Bishkek City Children Clinical Emergency Hospital

No.	Equipment	Q'ty
1	Colonofiberscope	1
2	ECG	3
3	Phototherapy unit	2
4	Refrigerator (Blood Storage)	1
5	Suction unit (Operation room)	5
6	Suction unit (Portable)	2
7	Ultrasound apparatus	1
8	Ultrasound apparatus (Portable)	1
9	Weighing scale (Infant)	2

Republican Children's Hospital

No.	Equipment	Q'ty
1	ECG	1
2	Gastorfiberscope	1
3	Ultrasound apparatus (Portable)	1

FLOW CHART OF JAPAN's GRANT AID PROCEDURES



Japan's Grant Aid Program

1. Japan's Grant Aid Procedures

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

Application	(request made by a recipient country)
Study	(Basic Design Study conducted by JICA)
Appraisal & Approval	(appraisal by the Government of Japan and approval by the Cabinet of Japan)
Determination of Implementation	(Exchange of Notes between both Governments)
Implementation	(implementation of the Project)

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

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

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

Fourth, the project approved by the cabinet becomes official with the Exchange of Notes signed by the Government of Japan and the recipient country.

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

2. Contents of the Study

(1) Contents of the Study

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

a) confirmation of the background, objectives, benefits of the project and also institutional capacity of agencies concerned of the recipient country necessary for project implementation,

b) evaluation of the appropriateness of the project for the Grant Aid Scheme from a technical, social and economical point of view,

c) confirmation of items agreed on by the both parties concerning a basic concept of the project,

d) preparation of a basic design of the project,

e) estimation of cost of the project.

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

Final project components are subject to approval by the Government of Japan and therefore may differ from an original request. Implementing the project, the Government of Japan requests the recipient country to take necessary measures involved which are itemized on Exchange of Notes.

(2) Selection of Consultants

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

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

3. Japan's Grant Aid Scheme

(1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non reimbursable funds to procure the equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with relevant laws and regulations of Japan. The Grant Aid is not supplied through the donation of materials or such.

(2) Exchange of Notes (E/N)

Both Governments concerned extend Japan's Grant Aid in accordance with the Exchange of Notes in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid etc., are confirmed.

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

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

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

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

(5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude

contracts denominated in Japanese yen with Japanese nationals. The Government of Japan shall verify those contracts. The "Verification" is deemed necessary to secure accountability to Japanese tax payers.

(6) Undertakings Required to the Government of the Recipient Country

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

a) to secure land necessary for the sites of the project prior to the installation work in case the project is providing equipment,

b) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,

c) to secure buildings prior to the installation work in case the project is providing equipment,

d) to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,

e) to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,

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

(7) Proper Use

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

(8) Re-export

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

(9) Banking Arrangement (B/A)

a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in a bank in Japan. The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by Government of the recipient country or its designated authority under the Verified Contracts.

Major Undertakings to be taken by Each Government

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To bear the following commissions to the Japanese bank for banking services based upon the Banking Arrangement		
	1) Advising commission of Authorization to Pay		●
	2) Payment commission		●
2	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan to the recipient	●	
	2) Tax exemption and custom clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site	●	
3	To accord Japanese nationals, whose service may be required in connection with the supply of the products and the services under the verified contract, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●
4	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts		●
5	To maintain and use the equipment properly and effectively provided under the Grant Aid		●
6	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for the transportation and installation of the equipment		●

MINUTES OF DISCUSSIONS
ON THE BASIC DESIGN STUDY ON THE PROJECT FOR
IMPROVEMENT OF CHILD HEALTH CARE IN THE RURAL AREAS
IN THE KYRGYZ REPUBLIC
(EXPLANATION ON DRAFT REPORT)

In August 2003, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Basic Design Study Team on the project for improvement of child health care in the rural areas (hereinafter referred to as "the Project") to the Kyrgyz Republic and through discussion, field survey, and technical examination of the results in Japan, JICA prepared a draft report of the study.

In order to explain and to consult the Kyrgyz Republic on the components of the draft report, JICA sent to the Kyrgyz Republic the Draft Report Explanation Team (hereinafter referred to as "the Team"), which is headed by Dr. Iwao Takakura, Professor Emeritus, Tokai University, from October 19 to November 5, 2003.

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

Bishkek, November 4, 2003

Prof. Iwao Takakura
Leader
Draft Report Explanation Team
Japan International Cooperation Agency

Mr. Sanjar Mukanbetov
Director of Investment Policy Department
Ministry of Finance
The Kyrgyz Republic

Mr. Mitalip M. Mamytov
Minister
Ministry of Health
The Kyrgyz Republic

ATTACHMENT

1. Components of the Draft Report

The Government of the Kyrgyz Republic agreed and accepted in principle the components of the draft report explained by the Team. The agreed list of equipment is attached as Annex 1.

2. Japan's Grant Aid Scheme

The Kyrgyz side understood the Japan's Grant Aid Scheme and the necessary measures to be taken by the Kyrgyz Government as explained by the Team and described in Annex-2 and Annex-3 of the Minutes of Discussions signed by both parties on August 26, 2003.

3. Schedule of the Study

JICA will complete the final report in accordance with the confirmed item and send it to the Kyrgyz Government around February 2004.

4. Other relevant issues

4-1. Both parties confirmed that the Kyrgyz Government would secure budget necessary for operation and maintenance of the procured equipment including spare parts and consumables.

4-2. Both parties confirmed that the Kyrgyz Government should complete the following measures by the new equipment reaches at the Project Site.

- Osh Oblast Merged Hospital
  removal of the existing X ray machine and preparation of infrastructures
  preparation of power supply and drainage for Autoclave
- Issyk-Kul Oblast Merged Hospital
  removal of the existing X ray machine and preparation of infrastructures
  removal of the existing Autoclave
  preparation of power supply and drainage for Autoclave
- Naryn Oblast Merged Hospital
  removal of the existing X ray machine and preparation of infrastructures
  preparation of power supply and drainage for Autoclave
- Talas Oblast Merged Hospital
  transfer of surgical department, traumatology department, urology department and ENT department from district hospitals
  preparation of power supply and drainage for Autoclave
- Research Institute for Obstetrics and Pediatrics
  removal of the existing X ray machine and preparation of infrastructures

4-3. Both parties confirmed that eligible countries of manufacturer's local agent(s) should be the Kyrgyz Rupublic, Republic of Kazakhstan or Russian Federation.

4-4. The Kyrgyz side understood to exempt Japanese nationals from all custom duties, expenses charged during the custom procedure and value added taxes that will be imposed in the Kyrgyz Republic with respect to import and transportation of the equipment.

4-5. The Kyrgyz side agreed to promote publicity activities of Japanese cooperation under the Project and take actions to disseminate information to peoples of the Kyrgyz Republic in case that the Project is approved for implementation by the Cabinet.

I.T

Osh Oblast Merged Hospital

No.	Equipment	Q'ty
1	Examination lamp	7
2	Laryngoscope set	3
3	Ophthalmoscope	1
4	Peakflowmeter	10
5	Ultrasonic nebulizer	5
6	Weighing scale	7
7	Weighing scale (Infant)	6
8	ENT treatment unit	1
9	Slit lamp	1
10	Instruments set (Dressing)	4
11	Stretcher	6
12	Operating table (General surgery)	3
13	Operating table (Orthopedics)	1
14	Suction unit (Operation room)	8
15	Instrument table	3
16	Anaesthetic machine	4
17	Electro surgical unit	3
18	Operating lamp (Mobile)	4
19	Autoclave	1
20	Hand drill, mechanical	2
21	Instruments set (General surgery)	6
22	Pulse oximeter	1
23	Suction unit (Portable)	7
24	Syringe pump	3
25	Autoclave (Table top)	2
26	Infant warmer	2
27	Emergency kit (A)	5
28	Infant incubator	4
29	Phototherapy unit	2

Osh Oblast Merged Hospital

No.	Equipment	Q'ty
30	Defibrillator	2
31	Patient monitor	3
32	Microscope	2
33	Centrifuge	1
34	Analytical balance	1
35	Protein meter	1
36	Refrigerator (Drug)	3
37	Refrigerator (Blood storage)	1
38	ECG (1 channel)	1
39	Colonofiberscope (A)	1
40	Gastrofiberscope (A)	1
41	Bronchofiberscope	1
42	X-ray apparatus	1
43	X-ray film viewer	1
44	Spirometer	1
45	Ultrasound apparatus	1

IT

Issyk-Kul Oblast Merged Hospital

No	Equipment	Q'ty
1	Examination lamp	2
2	Laryngoscope set	1
3	Ophthalmoscope	1
4	Peakflowmeter	2
5	Sphygmomanometer	9
6	Steriliser (Boiling)	5
7	Ultrasonic nebulizer	5
8	Weighing scale	4
9	Weighing scale (Infant)	3
10	Wheel chair	5
11	ENT treatment unit	1
12	Slit lamp	1
13	Instruments set (Dressing)	4
14	Stretcher	3
15	Operating table (General surgery)	1
16	Operating table (Orthopedics)	1
17	Suction unit (Operation room)	2
18	Anaesthetic machine	2
19	Electro surgical unit	2
20	Operating lamp (Mobile)	2
21	Autoclave	2
22	Instruments set (General surgery)	4
23	Pulse oximeter	3
24	Suction unit (Portable)	9
25	Syringe pump	5
26	Autoclave (Table top)	1
27	Hot air sterilizer	2
28	Infant warmer	3
29	Emergency kit (A)	1
30	Emergency kit (B)	2
31	Infant incubator	3

Issyk-Kul Oblast Merged Hospital

No	Equipment	Q'ty
32	Phototherapy unit	1
33	Defibrillator	1
34	Patient monitor	2
35	Microscope	4
36	Centrifuge	1
37	Analytical balance	1
38	Incubator	1
39	Refrigerator (Drug)	2
40	Water bath	1
41	ECG (1 channel)	1
42	Gastrofiberscope (A)	1
43	Bronchoscope	1
44	X-ray apparatus	1
45	X-ray apparatus (Mobile)	1
46	X-ray film viewer	1
47	Ultrasound apparatus	1
48	Corset	5
49	Electric stimulator	1
50	Ergo meter	1
51	Height scale	1
52	Instruments set (Rehabilitation)	1
53	Mattress for exercise	7
54	Paraffin bath	1
55	Refrigerator	2
56	Shower chair	2
57	Portable Toilet	3
58	Treadmill	2
59	Video set	1
60	Walker (A)	5
61	Walker (B)	5
62	Walker (C)	5

Naryn Oblast Merged Hospital

No	Equipment	Q'ty
1	Examination lamp	1
2	Laryngoscope set	1
3	Sphygmomanometer	9
4	Steriliser (Boiling)	1
5	Ultrasonic nebulizer	2
6	Weighing scale	3
7	Weighing scale (Infant)	3
8	Wheel chair	1
9	ENT treatment unit	1
10	Slit lamp	1
11	Rectoscope	1
12	Instruments set (Dressing)	3
13	Stretcher	2
14	Operating table (General surgery)	1
15	Operating table (Orthopedics)	1
16	Operating table (ENT)	1
17	Suction unit (Operation room)	1
18	Instrument table	2
19	Anaesthetic machine	1
20	Electro surgical unit	2
21	Operating lamp (Mobile)	2
22	Autoclave	1
23	Instruments set (General surgery)	4
24	Suction unit (Portable)	6
25	Syringe pump	4
26	Hot air sterilizer	2
27	Infant warmer	1
28	Emergency kit (A)	2
29	Emergency kit (B)	2

CT

Naryn Oblast Merged Hospital

No	Equipment	Q'ty
30	Infant incubator	2
31	Phototherapy unit	1
32	Defibrillator	2
33	Patient monitor	3
34	Instruments cabinet	2
35	Oxygen inhalation set	1
36	Centrifuge	1
37	Refrigerator (Drug)	4
38	ECG (1 channel)	2
39	Gastrofiberscope (A)	1
40	Bronchofiberscope	1
41	X-ray apparatus	1
42	X-ray film viewer	1
43	Ultrasound apparatus	1

RT

Talas Oblast Merged Hospital

No	Equipment	Q'ty
1	Examination lamp	2
2	Ophthalmoscope	2
3	Peakflowmeter	2
4	Sphygmomanometer	6
5	Steriliser (Boiling)	7
6	Ultrasonic nebulizer	5
7	Weighing scale	4
8	Weighing scale (Infant)	3
9	Wheel chair	2
10	ENT treatment unit	1
11	Slit lamp	1
12	Instruments set (Dressing)	6
13	Stretcher	3
14	Operating table (General surgery)	1
15	Operating table (Orthopedics)	1
16	Operating table (Ophthalmology)	1
17	Suction unit (Operation room)	2
18	Instrument table	6
19	Anaesthetic machine	2
20	Electro surgical unit	1
21	Operating lamp (Mobile)	2
22	Autoclave	2
23	Instruments set (General surgery)	4
24	Pulse oximeter	2
25	Suction unit (Portable)	6
26	Syringe pump	8
27	Autoclave (Table top)	3
28	Infant warmer	2
29	Emergency kit (A)	4
30	Infant incubator	1

Talas Oblast Merged Hospital

No	Equipment	Q'ty
31	Phototherapy unit	1
32	Defibrillator	1
33	Patient monitor	2
34	Freezer	1
35	Microscope	4
36	Centrifuge	1
37	Analytical balance	2
38	Protein meter	2
39	Refrigerator (Drug)	8
40	Water bath	1
41	ECG (1 channel)	1
42	Gastrofiberscope (A)	1
43	Bronchofiberscope	1
44	X-ray apparatus (Mobile)	1
45	X-ray film viewer	1
46	Ultrasound apparatus	1

Research Institute for Obstetrics and Pediatrics

No	Equipment	Q'ty
1	Laryngoscope set	1
2	Ophthalmoscope	1
3	Peakflowmeter	4
4	Ultrasonic nebulizer	1
5	Slit lamp	1
6	Anaesthetic machine	1
7	Pulse oximeter	1
8	Suction unit (Portable)	3
9	Infant warmer	1
10	Emergency kit (A)	2
11	Infant incubator	2
12	Phototherapy unit	1
13	Patient monitor	2
14	Oxygen inhalation set	3
15	Ventilator (pediatric)	1
16	Ventilator (neonate)	1
17	Fluorescence microscope	1
18	Centrifuge	1
19	Spectrophotometer	1
20	Flame photometer	1
21	ECG (1 channel)	1
22	Gastrofiberscope (B)	1
23	Bronchofiberscope	1
24	Bronchoscope	1
25	X-ray apparatus	1
26	X-ray apparatus (Mobile)	1
27	Spirometer	1
28	Ultrasound apparatus (Color doppler)	1

Biskek City Children Clinical Emergency Hospital

No.	Equipment	Q'ty
1	Weighing scale (Infant)	2
2	Suction unit (Operation room)	5
3	Suction unit (Portable)	2
4	Phototherapy unit	2
5	Refrigerator (Blood storage)	1
6	ECG (1 channel)	3
7	Colonofiberscope (B)	1
8	Ultrasound apparatus	1
9	Ultrasound apparatus (Portable)	1

IT

Republican Children's Hospital

No	Equipment	Q'ty
1	ECG (1 channel)	1
2	Gastrofiberscope (C)	1
3	Ultrasound apparatus (Portable)	1

CT

5. References

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