

## 資料編

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## 資料1 調査団員氏名、所属

### (1) 基本設計現地調査

総括	岩間 敏之	国際協力事業団無償資金協力部課長代理
技術参与	辻村 信正	長崎県保健福祉部医療保健監
業務主任	関口 一夫	ユニコ インターナショナル (株)
機材計画	牧 賢蔵	ユニコ インターナショナル (株)
設備計画	江戸川 幸男	ユニコ インターナショナル (株)
調達計画/積算	坂東 親史	ユニコ インターナショナル (株)
通訳	村井 義幸	(株)翻訳センターパイオニア

### (2) 基本設計概要説明調査

総括	岩間 敏之	国際協力事業団無償資金協力部課長代理
業務主任	関口 一夫	ユニコ インターナショナル (株)
機材計画	牧 賢蔵	ユニコ インターナショナル (株)
通訳	村井 義幸	(株)翻訳センターパイオニア

## 資料2 調査日程

### (1) 基本設計現地調査

No	月日	曜日	官団員	コンサルタント団員	
				業務主任、機材計画、通訳	設備計画、調達計画
1	10月17日	日	アルマティ着	日本発	
2	10月18日	月	アスタナ着 保健業務庁	アルマティ着	
3	10月19日	火	アルマティ着、日本大使館		
4	10月20日	水	午前:セミパラチンスク市長表敬 午後:保健局/セミパラチンスク医学アカデミー付属病院/腫瘍センター視察・協議		
5	10月21日	木	午前:セミパラチンスク診断センター/市保健局 午後:セミパラチンスク診断センター視察/団内会議		
6	10月22日	金	午前:セミパラチンスク医学アカデミー付属病院 午後:セミパラチンスク腫瘍センター/団内会議		
7	10月23日	土	午前:セミパラチンスク市保健局		
8	10月24日	日	セミパラチンスク→アルマティ		郷村地域調査
9	10月25日	月	アルマティ→アスタナ、戦略計画庁/保健業務庁/外務省		診断センター機材調査
10	10月26日	火	午前:保健業務庁 ミニッツ調印/アスタナ小児病院 午後:戦略計画庁/外務省		診断センター機材調査
11	10月27日	水	午前:アスタナ→アルマティ、日本大使館で経過報告		アカデミー病院機材調査
			午後:アルマティ→セミパラチンスク		
12	10月28日	木	アルマティ発 帰国の途	セミパラチンスク市保健局	アカデミー病院機材調査
13	10月29日	金		医学アカデミー病院/市診断センター/腫瘍センター機材調査	
14	10月30日	土		資料整理/団内会議	
15	10月31日	日		資料整理	セミパラチンスク→アルマティ
16	11月1日	月		市保健局	市場調査
17	11月2日	火		市保健局/腫瘍センター	調達事情調査
18	11月3日	水		市保健局/市診断センター	代理店調査
19	11月4日	木		市保健局	アルマティ発 帰国の途
20	11月5日	金		腫瘍センター/IHI社	成田着
21	11月6日	土		資料整理	
22	11月7日	日		セミパラチンスク→アルマティ→アスタナ	
23	11月8日	月		保健業務庁/戦略計画庁/保健業務庁/外務省	
24	11月9日	火		アスタナ→アルマティ→セミパラチンスク	
25	11月10日	水		市保健局/アカデミー付属病院	
26	11月11日	木		市診断センター	
27	11月12日	金		セミパラチンスク→アルマティ、日本大使館、世銀	
28	11月13日	土		資料整理	
29	11月14日	日		アルマティ発 帰国の途	
30	11月15日	月		成田着	

## (2) 報告書概要説明調査

No	月日	曜日	官団員	コンサルタント団員
				業務主任、機材計画、通訳
1	3月18日	土	タシント	成田→フランクフルト
2	3月19日	日	タシント→アルマティ→アスタナ	フランクフルト→アルマティ
3	3月20日	月	技協ミニッツ署名	アルマティ→アスタナ
4	3月21日	火	ミニッツ協議 アスタナ→アルマティ	
5	3月22日	水	アルマティ→セミパラ	
6	3月23日	木	無償ミニッツ協議	
7	3月24日	金	ミニッツ署名// 岩間団長セミパラ→アルマティ（大使館報告）	
8	3月25日	土	アルマティ→フランクフルト	セミパラ市保健局/スナメカ村
9	3月26日	日	フランクフルト→帰国	市内関係施設方位調査
10	3月27日	月		セミパラ市保健局/ドロン村
11	3月28日	火		セミパラ市保健局/トルクシップ村/チャカマン村/ブケン村
12	3月29日	水		セミパラ市保健局/セミパラ市診断センター
13	3月30日	木		セミパラ市救急センター
14	3月31日	金		がんセンター/セミパラ市保健局
15	4月1日	土		セミパラ市保健局/アカミ付属病院
16	4月2日	日		団内打合せ
17	4月3日	月		アカミ付属病院/セミパラ市保健局/救急センター
18	4月4日	火		セミパラ市保健局/診断センター
19	4月5日	水		セミパラ→アルマティ
20	4月6日	木		アクサイ小児病院フォローアップ/大使館報告/消耗品調査
21	4月7日	金		アルマティ→フランクフルト→
22	4月8日	土		帰国

資料3 相手国関係者リスト

組織・機関名

氏名

役職

1. 保健業務庁

ラヒブベコフ

Raxipubekov

長官（現地訪問中に退任）

オマロワ

Omarova M.N.

長官（現地訪問中に新任）

イブラエフ

Ibraev

次官（概要説明時に面会）

ムシノフ

Musinov

医療・企画調整局長

オスパノフ

Ospanov

共和国放射線診断課長

キルギスバエフ

Kirgizbaev K.C.

共和国医療機材調整官

チヌバエフ

Chinubaeva

上級事務官

2. 外務省

ズベルコフ

Zverkov

国際協力局長

3. 戦略計画庁

アリノフ

Arinov E.A.

海外支援協力管理局长

稲垣 富一

Inagaki T.

ODA企画調整シニアアドバイザー（B/DI時）

橋本

Hashimoto

ODA企画調整シニアアドバイザー（D/F時）

4. セミパラチンスク市

チャイズヌソフ

Chaiznusov M.Z.

市長（D/F時退任）

オマロフ

Omarov N.S.

市長（D/F時就任）

サマエフ

Samaev A.K.

副市長

ウニスムバエフ

Unisumbaev B.C.

教育局長

ツレウバエフ

Tleubaev A.I.

社会調和言語政策局長

マサリモフ

Masalimov M.O.

文化局長

バカタジャロフ

Bakatazharov S.B.

産業交通通信委員会議長

サマエフ

Samaev T.Sh.

小企業・対外関係委員会議長

イブラエフ

Ibraev S.S.

環境保護局次長

マルデノフ

Mardenov M.Sh.

建設局長

イブラエフ

Ibraev Zh.S.

内務局長

スマトラエフ

Smatlaev B.M.

検察官

キディルバエフ

Kydyrbaev M.I.

税務局次長

ゼントロバエフ

Zestrobaev X.

東カザフスタン州診療報酬セクター事務所長

5. セミパラチンスク市保健局

エンセバーエフ

Yensebayev R.

局長

マカショフ

Makashov A.

副局長

ベガミナ

Begamina

副局長

ザイヌラエフ

Zainulaev

課長

ゼストノラエフ

Zestnoraev S.

診療担当主任専門官

6. セミパラチンスク医学教育アカデミー

ライソフ

Raissov T.K.

学長

ツレウタエフ

Tulcutaev M.E.

付属病院院長

マカリモフ

Makalimov E.O.

付属病院副院長

カイラムバエフ

Kayrambaev M.

付属病院副院長

エルヌルスネトフ	Ernulnetov A.	技師長
7. セミパラチンスク市診断センター		
チュビレフ	Chuvilev V.I.	院長
ザクセルバエフ	Zakserbaev	医療部門責任者
アンドレエフ	Andreev V.	財務部長
アフトシェンコ	Aftshenko S.	放射線診断科医長
ムカノフ	Mukanov K.	内視鏡科医長
ジャクブベコバ	Jakpubekova M.	臨床検査部医長
ムカショフ	Mukashov Z.	超音波診断科医長
ミハイレンコ	Mikhilenlo Y.	技師長
8. セミパラチンスク腫瘍センター		
サンディバエフ	Sandybaev M.N.	院長
イブラエフ	Ibraev N.S.	副院長
アビエバ	Abieva Zh.	婦人科医長
カナフィン	Kanafin G.	ICU医長
カルネカヤ	Karneckaya B.	病理部医長
ユセバ	Yuseva R.	臨床検査部医長
イブラエバ	Ibraeva Zh.	医師
ガリンスカヤ	Galinskaya L.	放射線部医長
タバスク	Tavasuk L.	細胞検査部医長
ジャルセンビケ	Jarsenbike L.	外来部医長
9. セミパラチンスク市救急センター		
ムーシン	Mousin K.R.	院長
ナビエフ	Naviev A.	副院長
ツレタエフ	Tuleutaeva	副院長
10. 東カザフスタン州保健局		
ライソフ	Raisov M.K.	保健局次長
11. 放射線医学・生態学研究所		
セケルバエフ	Sekerbaev A.K.	所長
12. 日本大使館		
館山 昭		参事官
西山 薫		一等書記官
須田 篤		二等書記官
森川 幸裕		三等理事官

カザフスタン共和国
Republic of Kazakhstan

一般指標					
政体	共和制	*1	首都	アスタナ (Astana)	*2
元首	大統領 / ヌルスルタン・A・ナザルバエフ (Nursultan A. NAZARBAYEV)	*1,3	主要都市名	アルマティ、セミパラチンスク	*3
			雇用総数	7,584千人 (1997年)	*6
独立年月日	1991年12月16日	*3,4	義務教育年数	11年間 (年)	*13
主要民族/部族名	カザフ人45.9%、ロシア人34.8%、ウクライナ人4.9%	*1,3	初等教育就学率	98.0% (1996年)	*6
主要言語	カザフ語	*1,3	中等教育就学率	87.0% (1996年)	*6
宗教	カザフ人の間ではイスラム教スンニ派が優勢	*1,3	成人非識字率	% (年)	*13
国連加盟年	1992年3月2日	*12	人口密度	5.96人/km2 (1997年)	*6
世銀加盟年	1992年7月	*7	人口増加率	0.4% (1980年)	*6
IMF加盟年	1996年7月	*7	平均寿命	平均 67.60 男 62.80 女 72.50	*6
国土面積	2,717.30 千km2	*6	5歳児未満死亡率	29/1000 (1997年)	*6
総人口	15,801千人 (1997年)	*6	カロリー供給量	3,007.0 cal/日/人 (1996年)	*10

経済指標					
通貨単位	テンゲ (Tenge)	*3	貿易量	(1998年)	
為替レート	1 US\$ = 140.95 (2000年 5月)	*8	商品輸出	5,838.5 百万ドル	*15
会計年度	Dec. 31	*6	商品輸入	-6,588.6 百万ドル	*15
国家予算	(年)		輸入カバー率	3.1(月) (1997年)	*14
歳入総額		*9	主要輸出品目	燃料・石油製品、鉄、銅及び同製品	*1
歳出総額		*9	主要輸入品目	機械類、燃料・石油製品、電気製品	*1
総合収支	-443.2 百万ドル (1998年)	*15	日本への輸出	120 百万ドル (1998年)	*16
ODA受取額	131.4 百万ドル (1997年)	*18	日本からの輸入	52 百万ドル (1998年)	*16
国内総生産(GDP)	22,165.20 百万ドル (1997年)	*6			
一人当たりGNP	1,350.0 ドル (1997年)	*6	粗外貨準備額	1,697.1 百万ドル (1997年)	*6
GDP産業別構成	農業 12.0% (1997年)	*6	対外債務残高	4,278.0 百万ドル (1997年)	*6
	鉱工業 26.8% (1997年)	*6	対外債務返済率(DSR)	6.5% (1997年)	*6
	サービス業 61.2% (1997年)	*6	インフレ率 (消費者価格物価上昇率)	% (1990-97年)	*6
産業別雇用	農業 男 28.1% 女 15.3% (1990年)	*6			
	鉱工業 37.3% 24.8% (1990年)	*6	国家開発計画		
	サービス業 34.5% 60.0% (1990年)	*6			
実質GDP成長率	-7.9% (1990年)	*6			*11

気象	(1961年～1990年平均) 観測地：アルマトイ (北緯43度14分、東経76度56分、標高847m)													*4,5
月	1	2	3	4	5	6	7	8	9	10	11	12	平均/計	
降水量	31.2	36.5	72.1	99.4	106	62.3	31.7	25.1	28.8	60.5	54.4	32.6	640.6 mm	
平均気温	-5.5	-5.1	1.9	10.9	16.2	21.1	23.7	22.2	16.8	9.1	1.8	-3.1	9.2℃	

- \*1 各国概況 (外務省)
- \*2 世界の国々一覧表 (外務省)
- \*3 世界年鑑1999 (共同通信社)
- \*4 最新世界各国要覧9訂版 (東京書籍)
- \*5 理科年表1999 (国立天文台編)
- \*6 World Development Indicators1999
- \*7 The World Bank Public Information Center,  
International Financial Statistics Yearbook 1998
- \*8 Universal Currency Converter

- \*9 Government Finances Statistics Yearbook1998 (IMF)
  - \*10 Human Development Report1999(UNDP)
  - \*11 Country Profile(EIU),外務省資料等
  - \*12 United Nations Member States
  - \*13 Statistical Yearbook 1999(UNESCO)
  - \*14 Global Development Finance1999(WB)
  - \*15 International Finances Statistics 1999(IMF)
  - \*16 世界各国経済情報ファイル1999(日本貿易振興会)
- 注：商品輸入については複式簿記の計上方式を採用しているため  
支払い額はマイナス表記になる



	カザフスタン共和国
	Republic of Kazakhstan

我が国におけるODAの実績		(資金協力は約束額ベース、単位：億円)				* 17
項目	暦年	1995	1996	1997	1998	
技術協力		4.71	9.93	9.13	11.15	
無償資金協力		0.49	8.46	14.13	0.49	
有償資金協力		72.36	215.30	0.00	221.22	
総額		77.56	233.69	23.26	232.86	

当該国に対する我が国ODAの実績		(支出純額、単位：百万ドル)				* 17
項目	暦年	1995	1996	1997	1998	
技術協力		3.89	8.66	10.22	11.43	
無償資金協力		0.51		7.03	0.82	
有償資金協力			0.30	25.84	82.96	
総額		4.40	8.96	43.08	95.21	

OECD 諸国の経済協力実績		(支出純額、単位：百万ドル)				* 18
	贈与 (1) (無償資金協力・ 技術協力)	有償資金協力 (2)	政府開発援助 (ODA) (1)+(2)=(3)	その他政府資金 及び民間資金(4)	経済協力総額 (3)+(4)	
二国間援助 (主要供与国)	65.5	28.2	93.7	189.7	283.4	
1. Japan	17.3	25.8	43.1	53.0	96.1	
2. United States	37.0	0.0	37.0	69.0	106.0	
3. Germany	4.5	2.4	6.9	-11.1	-4.2	
4. United Kingdom	3.8	0.0	3.8	3.9	7.7	
多国間援助 (主要援助機関)	20.0	17.0	37.0	261.5	298.5	
1. AsDB			17.0	54.6	71.6	
2. CEC			12.0	0.0	12.0	
その他	0.8	0.0	0.8	0.0	0.8	
合計	86.3	45.1	131.4	451.2	582.6	

援助受入窓口機関	* 19
技術協力：経済省投資政策局	
無償：経済省投資政策局	
協力隊：	

\* 17 我が国の政府開発援助1999(国際協力推進協会)

\* 18 Geographical Distribution of Financial Flows to Aid Recipients 1999(OECD)

\* 19 JICA資料

MINUTES OF DISCUSSION  
ON THE BASIC DESIGN STUDY  
ON THE PROJECT FOR IMPROVEMENT  
OF MEDICAL EQUIPMENT  
FOR SEMIPALATINSK REGION  
IN THE REPUBLIC OF KAZAKHSTAN

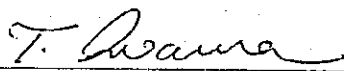
In response to a request from the Government of Kazakhstan (hereinafter referred to as "Kazakhstan") the Government of Japan decided to conduct a Basic Design Study on the Project for Improvement of Medical Equipment for the Semipalatinsk Region (hereinafter referred to as the "Project") and entrusted it to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sends to Kazakhstan the Basic Design Study Team (hereinafter referred to as the "Team") which is headed by Mr. Toshiyuki Iwama, Deputy Director of the Second Project Management Division, Grant Aid Project Management Department, JICA, and is scheduled to stay in the country from October 18 to November 14, 1999.

The Team held discussions with the officials concerned of the Government of Kazakhstan and conducted site surveys.

In the course of the discussions and site surveys, 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.

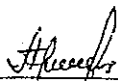
Astana, October 26, 1999



Mr. Toshiyuki Iwama  
Leader  
Basic Design Study Team, JICA



Mr. Tolebai K. Rakhypbekov  
Acting Chairman  
Agency of the Republic of  
Kazakhstan for Health Matters



Mr. Erlan A. Arynov  
Chief of Administration for  
Coordination of External Aid  
Agency of the Republic of  
Kazakhstan for Strategic Planning



Vadim P. Zverkov  
Director, Department of International  
Economic Cooperation  
Ministry of Foreign Affairs  
Republic of Kazakhstan



Mr. Marken J. Chayzhunusov  
Mayor of Semipalatinsk City  
East Kazakhstan Region Deputy Akim

## ATTACHMENT

1. Objective  
The objective of the Project is to improve the medical services to patients with potential health problem as a result of radioactive effects through procurement of medical equipment.
2. Project Sites  
The sites of the Project are the Semipalatinsk Hospital affiliated by Semipalatinsk Medical Academy, the Semipalatinsk Diagnostic-Consultancy Center and the Regional Oncological Hospital.
3. Responsible and Executing Organization  
(1) The responsible agency is the Agency of the Republic of Kazakhstan for Health Matters (hereinafter referred as the "Agency").  
(2) The implementing agencies are the Department of Health of the City of Semipalatinsk and the organizations mentioned under 2. above.
4. Items Requested by the Government of Kazakhstan  
Items necessary to perform activities listed in Annex 1 are confirmed by both sides for further consideration. Concrete number and sites of installation will be determined after further surveys and discussions. JICA will apply the criteria shown in Annex 2 to assess the appropriateness of the request.
5. Japan's Grant Aid System  
The Government of Kazakhstan understands Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Kazakhstan as described in Annex 3 and Annex 4 respectively.
6. Schedule of the Study
  - 6-1. The consultant members of the Team will proceed to further studies in Kazakhstan until November 14, 1999.
  - 6-2. JICA will prepare a draft report in English and dispatch a mission in order to explain its contents around March 2000.
  - 6-3. If the contents of the draft report are accepted in principle by the Government of Kazakhstan, JICA will complete the final report and send it to the Government of Kazakhstan around May 2000.
7. Other Relevant Issues
  - 7-1. A committee to coordinate medical assistance to Semipalatinsk under the chairmanship of the Agency is set up. It coordinates the activities in diagnosis and treatment of the people possibly affected by the radiation in the area. According to the explanation from the Agency, the diagnosis and examination will be performed by the Semipalatinsk Diagnostic-Consultancy Center while the treatment will be done by other medical organizations.
  - 7-2. The number of people targeted by this Project is estimated to be 27,000 who live in the area believed to be exposed to the highest doses of radiation from the Polygon experimental sites.
  - 7-3. Equipment provided by the Grant Aid will have a guarantee period of one year. Thereafter, it is subject to maintenance by the recipient.
  - 7-4. Discussions on the overall program of the improvement of medical services in Semipalatinsk region are held between the Kazakhstani side and the JICA Mission on Technical Cooperation at the same time. Members of the Basic Design Study Team also participated in meetings.

Table of organization and functional section  
which submitted request for equipment

Organization Function	Semipalatinsk Medical Academy Hospital	Semipalatinsk Diagnostic Center	Region Oncological Hospital
Surgery	○		○
Endoscopy	○	○	○
Mobile Examination	○	*	○
Reanimation	○		○
Functional Examination	○	○	
Clinical Laboratory	○	○	○
X-ray/CT Diagnosis	○	○	○
Pathology	○		○

Remark: \* after the discussion between the Kazakhstani side and the Team

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### Criteria for Selection of Equipment

Equipment supporting the activities of the technical cooperation from the Government of Japan will have the highest priority. Moreover, following criteria will be applied.

#### Equipment which has high priority

- (1) Basic medical equipment which contributes to the improvement of medical services to the patients with potential health problem as a result of radioactive effects.
- (2) Renewal or supplement of existing medical equipment.
- (3) High frequency of use.
- (4) Cost effectiveness in terms of operation, maintenance, spare parts and consumable.
- (5) Equipment for the activities of generally established medical viability.
- (6) Organization will exist during the life of the equipment.
- (7) Responsible person is clearly assigned.

#### Equipment which has low priority or to be deleted

- (1) For mainly research purposes.
  - (2) No concrete plan of maintenance.
  - (3) Not consistent with existing equipment and current level of technique.
  - (4) No proof of finance for supply of spare parts and consumable.
  - (5) No proof of supply sources of spare parts and consumable.
  - (6) Easily obtained within the country and within the budget of the organization.
  - (7) Possible negative effects to the environment.
  - (8) Limited manufacturing.
  - (9) Space for installation is not secured or appropriate.
- 7.

## 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

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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 works in case the project is facilities construction,
  - 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.
- b) The payments will be made when payment requests are presented by the bank to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.

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## Major Undertakings to be Taken by Each Government

NO	Items	To be covered by the Grant Aid	To be covered by the Recipient side
1	To bear the following commissions to a bank of Japan for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
2	To ensure prompt unloading and customs clearance at the port of disembarkation in recipient country		
	1) Marine(Air) transportation of the products from Japan to the recipient country	●	
	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 services 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 contract		●
5	To maintain and use properly and effectively the facilities constructed and equipment 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		●

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**MINUTES OF DISCUSSION  
ON THE BASIC DESIGN STUDY  
ON THE PROJECT FOR IMPROVEMENT  
OF MEDICAL EQUIPMENT  
FOR SEMIPALATINSK REGION  
IN THE REPUBLIC OF KAZAKHSTAN  
(EXPLANATION ON DRAFT REPORT)**

In October 1999, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Basic Design Study Team on the Project for Improvement of Medical Equipment for Semipalatinsk Region (hereinafter referred to as "the Project") to the Republic of Kazakhstan (hereinafter referred to as "Kazakhstan"), 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 Kazakhstan on the components of the Grant Aid Project, JICA sent to Kazakhstan the Draft Report Explanation Team (hereinafter referred to as "the Team") which is headed by Mr. Toshiyuki Iwama, Deputy Director of the Second Project Management Division, Grant Aid Project Management Department, JICA from March 19 to April 7, 2000.

As a result of discussions, 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.

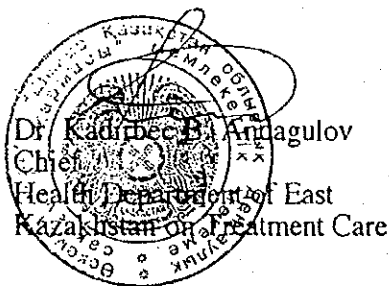
Astana, March 21, 2000

*T. Iwama*

Mr. Toshiyuki Iwama  
Leader  
Basic Design Study Team, JICA

*M. N. Omarova*

Dr. Maria N. Omarova  
Chairperson  
Agency of the Republic of  
Kazakhstan for Health Matters



*R. Yensebayev*

Dr. Ruslan Z. Yensebayev  
Chief  
Health Department  
City of Semipalatinsk

## ATTACHMENT

### 1. Components of the Grant Aid Project

The equipment listed in Annex-1 was explained by the Team. It was revised on site following the agreement between the Kazakhstani side and the JICA Preliminary Study Team on the Technical Cooperation for the Improvement of Health Care Services in the Semipalatinsk Region. Members of that Team contributed to the revision of the equipment list. The Kazakhstani side accepted in principle the reason for the revision. However, the Kazakhstani side strongly requested the Team to convey the equipment list as shown in Annex-2. It reflects the urgent needs of the medical institutions to realize the Project under the tight budget constraints of the Grant Aid. The final decision will thus be done in Japan.

### 2. Japan's Grant Aid Scheme

The Kazakhstani side understands the Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Kazakhstan as explained by the Team and described in Annex 3 and Annex 4 of the Minutes of Discussions signed by both parties on October 26, 1999.

The Team points out that a quick customs clearance and tax exemption of all equipment provided under the Grant, particularly the mobile examination unit, is necessary for the success of the Project.

The equipment list and specification is confidential and should not be revealed to any outside parties before the tender.

### 3. Schedule of the Study

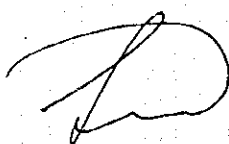
Based on the results of the discussions, JICA will complete the final report and send it to Kazakhstan by May, 2000.

### 4. Others

4.1 The consultant members of the Team will discuss the detailed specification of each equipment with their Kazakhstani counterparts during their stay in Kazakhstan. The final specification will then be determined in Japan in close collaboration with the Technical Cooperation group.

4.2 If the Project is implemented, the Agency of the Republic of Kazakhstan for Health Matters will be the Kazakhstani part to conclude contracts with the Japanese consultant/firm(s).

4.3 If considered necessary, the reagents and other consumable amounting up to one year's consumption will be provided in conjunction with the procured equipment. Thereafter the Kazakhstani part will bear all the running costs.

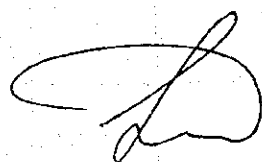


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## Items and Quantity of Medical Equipment for Semipalatinsk Region

Function	No.	Description	Q'ty	Site				
				Academy Hospital	Pediatric Hospital	Diagnosis Center	Oncology Center	HRMA
Mobile Exam	1	Mobile examination unit	2	1		1		
X-ray/CT Function	2	CT Scanner Slip Ring Type	1			1		
	3	X-ray TV system	1			1		
	4	General X-ray unit w/Bucky table & stand	1			1		
	5	Mobile X-ray unit	2	1	1			
	6	Chest X-ray Fluorography	2	1		1		
	7	Automatic X-ray Film Processor	2	1		1		
Functional Examination	8	Ultrasound Unit (Stationary)	2		1	0	1	
	9	Ultrasound Unit (Portable)	2	1		1		
	10	Ultrasound Unit with Color Doppler and different probes	2	1		1		
	11	ECG 6-12 channels	4	1	1	1	1	
Clinical Laboratory Function	12	Biochemical Analyzer	3	1		1	1	
	13	Blood Gas Analyzer	1				1	
	14	Na/K/Cl analyzer	1				1	
	15	Automatic blood cell counter	4	1		1	1	1
	16	Table top autoclave	1		1			
	17	Deep Freeze Refrigerator	3	1		1	1	
	18	Urine Analyzer	3	1		1	1	
	19	ELISA auto plate reader	1			1		
	20	Urinary iodine analyzer	1			1		
	21	Hot air sterilization	1				1	
	22	Mobile sterilizer	1				1	
	23	Distiller	1				1	
	24	Table top centrifuge	1				1	
Pathology Function	25	Automatic tissue processor	1				1	
	26	Set of Instrument for Pathologist	1				1	
	27	Cryostat	1				1	
	28	Microtome	1				1	
	29	Automatic slide stainer	1				1	
	30	Paraffin embedding	1				1	
	31	Stretching hot plate	1				1	
	32	Teaching microscope	1				1	
	33	Photograph exposure unit	1				1	
	34	Blood smearing instrument	3	1		1		1

Pathologic Function	35	Automatic stainer	3	1		1		1
	36	Medical refrigerator (for Mobile Exam)	2	1		1		
Endoscopic Function	37	Gastrofiberscope	3	1		1	1	
	38	Gastrofiberscope pediatric set	1		1			
	39	Bronchofiberscope	3	1		1	1	
	40	Bronchofiberscope pediatric set	1		1			
	41	Colonofiberscope	3	1		1	1	
	42	Binocular microscope	7	2		2	2	1
	43	Multimedia Endovideo Education System	1			1		
	44	Bed for endoscopic examination	2	2				
	45	Laryngoscope	1				1	
	46	Proctomanoscope	1				1	
	47	Colonoscope	1				1	
	48	Coagulator for endoscope	1				1	
Surgical/ reanima- tion Function	49	Patient Monitor	6	2			4	
	50	Electric Suction Unit	4	1			3	
	51	Electrical surgical unit	1				1	
	52	Ventilator for children	1		1			
	53	Ventilator for adult	3	1			2	
	54	Anaesthesia with ventilator for children	1		1			
	55	Anaesthesia with ventilator for adult	3	1			2	
	56	Infusion pump	3	0	3			
	57	Major Surgery Instrument Set	3	1	1		1	
	58	Operating light	4	2			2	
	59	Surgical table	2				2	
	60	General diagnostic set	8	2	2	2	2	
	61	Reanimation System (intubation tubes of different sizes)	3	1			2	
	62	Solid-state bipolar coagulator	2	1			1	
	63	Autoclave	1				1	
	64	Intubation tube	1,000				1000	
	65	Wheel chair	2				2	



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## ANNEX- 2

## Items and Quantity of Medical Equipment for Semipalatinsk Region

Function	No.	Description	Q' ty	Site				
				Academy Hospital	Pediatric Hospital	Diagnosis Center	Oncology Center	HRMA
Mobile Exam	1	Mobile examination unit	1			1		
X-ray/CT Function	2	CT Scanner Slip Ring Type	1			1		
	3	Surgical X-ray unit (C-arm)	1	1				
	4	X-ray TV system	3	1		1	1	
	5	General X-ray unit w/Bucky table & stand	3	1		1	1	
	6	Mobile X-ray unit	2	1			1	
	7	Chest X-ray Fluorography	1			1		
	8	Automatic X-ray Film Processor	3	1		1	1	
Functional Examination	9	Ultrasound Unit (Stationary)	3		1		1	1
	10	Ultrasound Unit (Portable)	2	1		1		
	11	Ultrasound Unit with Color Doppler and different probes	2	1		1		
	12	ECG 6-12 channels	4	1	1	1	1	
Clinical Laboratory Function	13	Biochemical Analyzer	4	1		1	1	1
	14	Blood Gas Analyzer	2	1			1	
	15	Na/K/Cl analyzer	2	1			1	
	16	Automatic blood cell counter	4	1		1	1	1
	17	Deep Freeze Refrigerator	1			1		
	18	Urine Analyzer	3	1		1	1	
	19	ELISA auto plate reader	1			1		
	20	Urinary iodine analyzer	1			1		
Pathological Function	21	Automatic tissue processor	1				1	
	22	Set of Instrument for Pathologist	1				1	
	23	Cryostat	1				1	
	24	Microtome	1				1	
	25	Automatic slide stainer	1				1	
	26	Paraffin embedding	1				1	
	27	Stretching hot plate	1				1	
	28	Teaching microscope	1				1	
	29	Photograph exposure unit	1				1	
	30	Blood smearing instrument	3	1		1		1
	31	Automatic stainer	3	1		1		1
	32	Medical refrigerator (for Mobile Exam)	1			1		
Endoscopic Function	33	Gastrofiberscope	4	1		1	1	1
	34	Gastrofiberscope pediatric set	1		1			

Function	No.	Description	Q' ty	Site				
				Academy Hospital	Pediatric Hospital	Diagnosis Center	Oncology Center	HIRMA
Endoscopic Function	35	Bronchofiberscope	3	1		1	1	
	36	Bronchofiberscope pediatric set	1		1			
	37	Colonofiberscope	3	1		1	1	
	38	Binocular microscope	7	2		2	2	1
	39	Bed for endoscopic examination	2	1			1	
	40	Laryngoscope	2	1			1	
	41	Proctomanoscope	1				1	
	42	Diagnostic laparoscopy with Video	1				1	
	43	Surgical laparoscopy unit with monitor	1	1				
	44	Coagulator for endoscope	1				1	
Surgical/ reanima- tion Function	45	Patient Monitor	6	2	2		2	
	46	Electric Suction Unit	6	1	1	2	2	
	47	Electrical surgical unit	2	1			1	
	48	Ventilator for children	1		1			
	49	Ventilator for adult	4	2			2	
	50	Anaesthesia with ventilator for pediatric	1		1			
	51	Anaesthesia with ventilator for adult	4	2			2	
	52	Major Surgery Instrument Set	3	1	1		1	
	53	Operating light	4	1	1		2	
	54	Surgical table	4	1	1		2	
	55	General diagnostic set	8	2	2	2	2	
	56	Reanimation System (intubation tubes of different sizes)	4	1	1		2	
	57	Solid-state bipolar coagulator	2	1			1	
	58	Intubation tube	1, 000	500			500	

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## 資料6 収集資料リスト

### 1. 保健業務庁

- 1) 保健部門、発展段階
- 2) 放射線被曝疾患の患者に対する国家支援
- 3) 「健康な国民」大統領令 1998. 11. 16
- 4) 保健業務庁への質問書に対する回答
- 5) 国際機関及び外国の支援状況
- 6) 国家発展計画（カザフスタン 2030）とプロジェクトの前提条件と役割
- 7) 1996 年、1998 年、1999 年度保健委員会報告
- 8) カザフスタン共和国法令
- 9) 現行の衛生規則と基準の概要
- 10) 放射線装置利用規則
- 11) 放射性同位元素検査装置実用衛生規則
- 12) 1999 年度保健委員会活動計画
- 13) 医療保険体制
- 14) 国立医学アカデミー情報
- 15) 当該プロジェクトに対する責任
- 16) 各関係機関の組織概要
- 17) 関連基準法例の作成指示表

### 2. セミパラチンスク市

- 1) 気象条件、消費財単価、人件費単価

### 3. セミパラチンスク医学アカデミー付属病院

- 1) 質問状に対する回答書（診療活動内容、組織、人員、財務状況等）
- 2) 建築平面図

### 4. セミパラチンスク市診断センター

- 1) 質問状に対する回答書（診療活動内容、組織、人員、財務状況等）
- 2) 建築平面図

### 5. セミパラチンスクがんセンター

- 1) 質問状に対する回答書（診療活動内容、組織、人員、財務状況等）
- 2) 建築平面図

### 6. セミパラチンスク救急センター

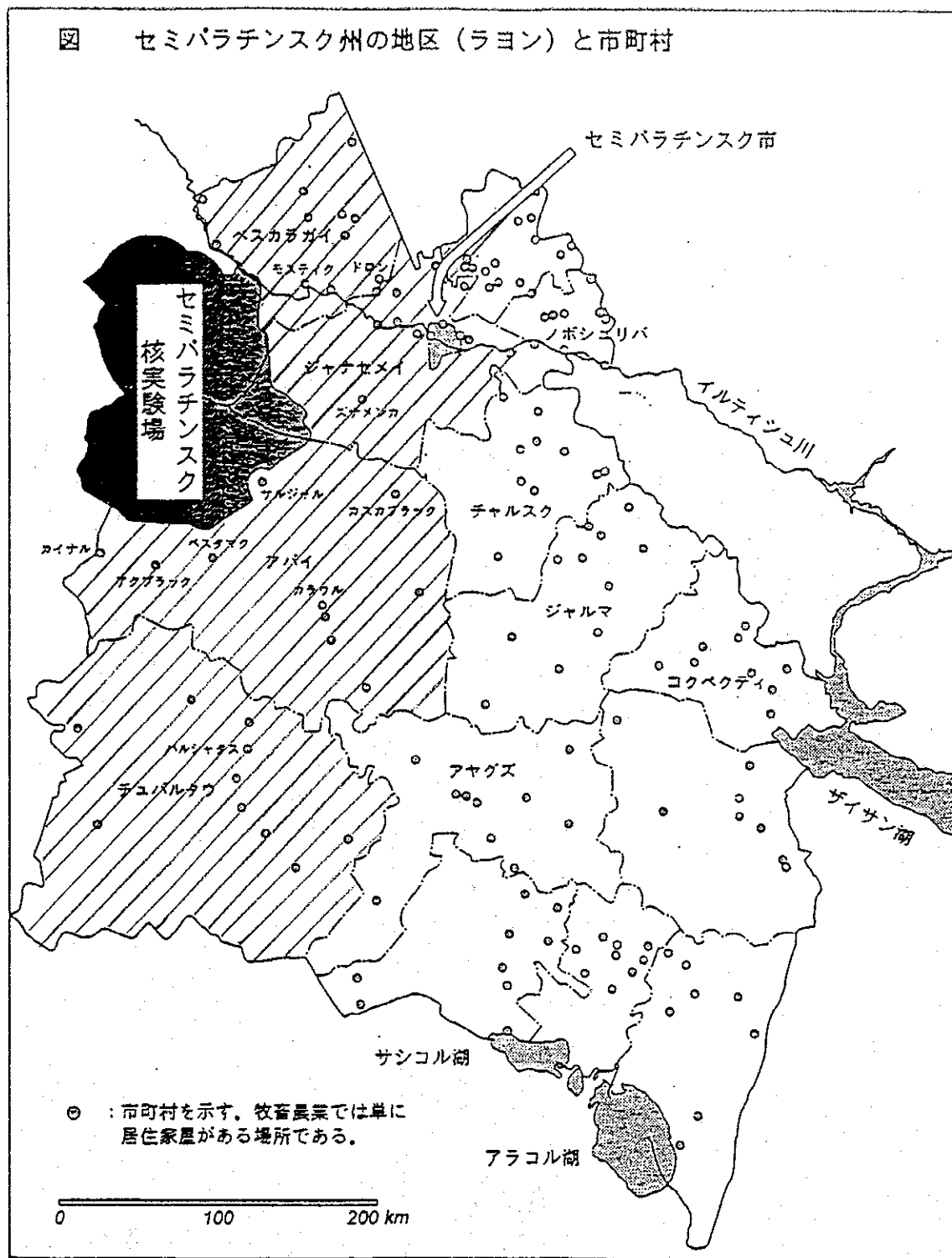
- 1) 質問状に対する回答書（診療活動内容、組織、人員、財務状況等）
- 2) 建築平面図

7. 世界銀行

1) Report 1998

8. その他

1) セミパラチンスク市市街地図



部は高汚染地域で、移動診断車の巡回範囲

核実験場と旧セミパラチンスク州の地区・市町村の関係図















JICA