Appendices

Appendices 1

1. Member List of the Survey Team

Basic Design Survey (November 27 to December 27, 2003)

NAME	ROLE	INSTITUTION
Ms. Ako MUTO	Team Leader	Grant Aid Management Department, Japan International Cooperation Agency
Dr. Y. Takeda	Technical Adviser	Professor, Human Environmental Sciences, Jissen University
Mr. Takeshi Endo	Project Manager/ Architectural Planning	Nihon Sekkei, Inc.
Mr. Shin Hinomizu	Architectural Designing	Nihon Sekkei, Inc.
Mr. Takahisa Isobe	Facility Planning	Nihon Sekkei, Inc.
Dr. Hiroshi Naito	Equipment Planning Ⅰ	Nihon Sekkei, Inc.
Mr. Ryouji Yamaguchi	Equipment Planning Ⅱ	Nihon Sekkei, Inc.
Mr. Hideo Nakashima	Cost and Procurement Planning	Nihon Sekkei, Inc.
Mr. Satoshi Maehara	Cost and Procurement Planning (Assistant)	Nihon Sekkei, Inc.
Mr. Hasanori Hirano	Facility Planning (Assistant)	Nihon Sekkei, Inc.
Mr. Takao Nakamoto	Equipment Planning (Assistant)	Nihon Sekkei, Inc.

Explanation on Draft Report (March 10 to March 24, 2004)

NAME	ROLE	INSTITUTION
Mr. T. Sakai	Team Leader	Resident Representative, JICA India Office
Dr. Y. Takeda	Technical Adviser	Professor, Human Environmental Sciences, Jissen University
Mr. Takeshi Endo	Project Manager/ Architectural Planning	Nihon Sekkei, Inc.
Mr. Shin Hinomizu	Architectural Designing	Nihon Sekkei, Inc.
Mr. Takahisa Isobe	Facility Planning	Nihon Sekkei, Inc.
Dr. Hiroshi Naito	Equipment Planning Ⅰ	Nihon Sekkei, Inc.

Appendices 2

2. Survey Schedule

Basic Design Survey (November 27 to December 27, 2003)

		Team Leader	Technical Adviser	Project Manager/ Architectural Planning	Architectural Designing	Facility Planning	Equipment Planning I	Equipment Planning II	Cost & Procurement Planning	Cost & Procurement Planning (Assis.)	Facility Planning (Assis.)	Equipment Planning (Assis.)
1	27-Nov (Ths)			Ditto		Narita- Delhi						
2	28-Nov (Fr)			Ditto		Cortícy visit JICAOffice, DEA, MOH						Narita - CCU
3	29-Nov (Sa)			Ditto		Delhi - CCU						City Survey
4	30-Nov (Su)			Ditto		City survey			Narita - Delhi			Preparation
5	1-Dec (Mo)			Ditto		Meeying NICED, Site survey			Delhi -CCU Site survey			Ditto
6	2-Dec (Tu)			Ditto		Meeying NICED			Tender for Site survey	Meeting NICED		Ditto
7	3-Dec (Wn)			Ditto		Meeying NICED			Tender for Site survey	Meeting NICED		Ditto
8	4-Dec (Ths)			Ditto	Narita - Delhi	Meeying NICED			Report for Site survey	CPWD		Ditto
9	5-Dec (Fr)			Site Survey	Delhi-CCU NICED	CPWD	Meeting NICED		Report for Site survey	Telephone		Ditto
10	6-Dec (Sa)			Meeting NICED	Meeting NICED	Meeting NICED	Meeting NICED		Site survey	Surverance Net work		Ditto
11	7-Dec (Su)			City Survey								Ditto
12	8-Dec (Mo)			NICED Meeting/ Counter Partner			Meeting NICED		Market Survey	Electric BD.		Ditto
13	9-Dec (Tu)			Design Meeting w. NICED				Market survey		Report Delhi -	Natita - Kolkata	Market Survey
14	10-Dec (We)			Design Meeting w. NICED				Market survey			Site Survey	Market Survey
15	11-Dec (Ths)			Design Meeting w. NICED				Market survey			CPWD	Market Survey
16	12-Dec (Fr)			Design Meeting w. NICED				Market survey			Concrete Plant	Market Survey
17	13-Dec (Sa)			Design Meeting w. NICED				Market survey			Site Survey	Market Survey
18	14-Dec (Su)			Team Meeting					CCU - Delhi		CCU - Delhi	Team Meeting
19	15-Dec (Mo)	Narita -Delhi		Design Meeting w. NICED				Market survey	Market Survey at CCU		Market Survey at CCU	Market Survey
20	16-Dec (Tu)	JICA, EOJ, DEA & ICMR		Design Meeting w. NICED				Market survey	Market Delhi -		Market Delhi -	MarketSurvey
21	17-Dec (Wn)	Delhi - CCU Site Survey		Design Meeting w. NICED				Market survey	Narita		Narita	MarketSurvey
22	18-Dec (Ths)	NICED Meetin	Narita - CCU	NICED Meeting				Market survey				Market Survey
23	19-Dec (Fr)	NICED Meeting						Market survey				Market Survey
24	20-Dec (Sa)	Design Meeting w. NICED						Market survey				Market Survey
25	21-Dec (Su)	Team working										Market Survey
26	22-Dec (Mo)	NICED Meeting (Organization for Equipment maintenance, Human resources)						Market survey				Market Survey
27	23-Dec (Tu)	NICED Meeting (Maintenance budget, Human resources)						Market survey				CCU-
28	24-Dec (We)	Meeting with MOH, ICMR and ICED			Meeting for Minites			Market survey				Narita
29	25-Dec (Ths)	National Holiday, CCU - Delhi										
30	26-Dec (Fr)	Signning for Minites with MOH, ICMR, NICED and DEA										
31	27-Dec (St)	Narita										

Explanation on Draft Report (March 10 to March 24, 2004)

		Technical Adviser	Project Manager/ Architectural Planning	Architectural Designing	Facility Planning	Equipment Planning I
1	10 Wn	Narita →Bangkok	Narita → Bangkok → Delhi	Narita ↓ Bangkok		
2	11 Th	Arrive at Kolkata Meeting with NICED (Explain BD Report)	Meeting with JICA Meeting with ICMR Meeting with MOH	Arrive at Kolkata Meeting with NICED (Explain BD Report)		
3	12 Fr	Meeting with NICED (Confirmation with Scientist)	Meeting with DEA Meeting with EOJ	Meeting with NICED (Confirmation with Scientist)		
4	13 Sa	Meeting with NICED (Confirmation with Scientist)	Depart at Delhi Arrive with Kolkwitha	Meeting with NICED (Confirmation with Scientist)		
5	14 Su	Team working				
6	15 Mo	Meeting with NICED (Confirmation with Scientist) Meeting with CPWD				
7	16 Tu	Meeting with NICED (Confirmation with Scientist)				
8	17 Wn	Meeting with NICED Depart at Kolkata Arrive at Delhi	Meeting with NICED (Confirmation with Scientist)			
9	18 Th	Meeting with JICA/EOJ Depart at Delhi	Meeting with NICED (Minutes of Discussion) (Preparation of Technical Note)	Meeting with Consultant Meeting with Fire Dep.		Meeting with NICED (Minutes of Discussion) (Preparation of Technical Note)
10	19 Fr	Arrive at Narita	Meeting with NICED (Minutes of Discussion) (Preparation of Technical Note)	Meeting with CPWD Meeting with Sewer Dep.		Meeting with NICED (Minutes of Discussion) (Preparation of Technical Note)
11	20 Sa		Meeting with NICED Signing for T/N			
12	21 Su		Depart at Kolkata Arrive at Delhi			
13	22 Mo		Meeting with JICA Meeting with ICMR (Minutes of Discussion)			
14	23 Tu		Signing at ICMR Depart at Delhi			
15	24 Wn		↓ Arrive at Narita			

Appendices 3

3. List of Party Concerned in the Recipient Country

1. Indian Side

■Ministry of Finance

Mr. V. Vum Lun Mang	Deputy Secretary
	Department of Economic Affairs
Ms. J. S. Choudhary	Under Secretary

■Ministry of Health & Family Welfare

Mr. Rajesh Bhushan	Director, Department of Health

■Indian Council of Medical Research : ICMR

Prof. Nirmal Kumar Ganguly	Director General
Dr. Lalit Kant	Senior Deputy Director
Dr. Roshani Arora	Deputy Director General、Division of ECD.
Mr. P. D. Seth	Financial Adviser
Mr. Mohinder Singh	Joint Secretary & Sr. DDG

■Department of Health & Family Welfare, Government of West Bengal

Mr. A, Barman	Principal Secretary

■Central Public Work Department, West Bengal Branch

Mr. V K Verma's	Superintendent
Mr. Naskar	Assistant Engineer
Mr.Poddar	Junior Engineer
Mr. Bose	Engineer

■National Institute of Chorea and Enteric Diseases : NICED

Dr. S K Bhattacharya	Director NICED
Dr. S K Chakrabarti	Deputy Director
Dr. M K Chakrabarti	Deputy Director
Dr. T N Naik	Deputy Director
Dr. S K Niyogi	Deputy Director
Dr. A N Ghosh	Deputy Director
Dr. D N Gupta	Deputy Director
Dr. P Dutta	Deputy Director
Dr. T Ramanurthy	Assistant Director
Dr. N Chattesjee	Senior Research Officer
Mr. P K Ghosal	Maintenance Engineer

Dr. R Sarkar	Veterinary Officer
Dr. S Dutta	Assistant Director
Dr. B L Sarkar	Assistant Director
Dr. R K Nandy	Senior Research Officer
Dr. A K Mukhopadhyay	Research Officer
Dr. P Das	Assistant Director
Dr. D Saha	Senior Research Officer
Dr. K Benerjee	Senior Research Officer
Dr. T Biswas	Senior Research Officer
Dr. A K Sinha	Senior Research Officer

2. Japanese Side

■Embassy of Japan

Hirofumi Kobayashi	Counsellor
Tomoyuki Nakano	First Secretary

■Consulate - General of Japan

Kenji Shimizu	Consul - General of Japan
Mitsuo Kawaguchi	Senior Consul

■JICA India Office

Toshifumi Sakai	Resident Representative
Takashi Matsumoto	Assistant Resident Representative
Daisuke Iijima	Assistant Resident Representative
K. V. Janardhan	Adviser
R. Dinakar	Programme Officer

■JICA Expert

Fumiaki Yoshizaki	JICA/NICED Project Coordinator

4-1 MINUTES OF DISCUSSION

MINUTES OF DISCUSSIONS
ON THE BASIC DESIGN STUDY
ON THE PROJECT FOR FOUNDING A COLLABORATIVE DIARRHEAL DISEASE
RESEARCH AND CONTROL CENTER IN INDIA

In response to a request from the Government of India (hereinafter referred to as "India"), and based on the results of preliminary study conducted in July 2003, the Government of Japan decided to conduct a Basic Design Study on a Project for Founding a Collaborative Diarrheal Disease Research and Control Center (hereinafter referred to as "the Project") and entrusted the Basic Design Study to the Japan International Cooperation Agency (hereinafter referred to as "JICA"). JICA sent to India the Basic Design Study Team (hereinafter referred to as "the Team"), headed by Ms. Ako MUTO, Second Project Management Division, Grant Aid Management Department, JICA. The team stayed in the country from November 26 to December 26, 2003.

The Team held discussions with the officials concerned of the Government of India and conducted a field survey in the study area.

After the 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 eport.

New Delhi, 26 December, 2003

Ms. Ako Muto
Leader
Basic Design Study Team
Japan International Cooperation Agency

Prof. Nirmal K. Ganguly
Director General
Indian Council of Medical Research
Government of India

Mr. V. Vum Lun Mang, I.A.S.
Deputy Secretary
Department of Economic Affairs
Ministry of Finance
Government of India

26/12/3

Mr. Rajesh Bhushan, I.A.S.
Director, Department of Health
Ministry of Health and Family Welfare
Government of India

Dr. S. K. Bhattacharya
Director
National Institute of Cholera and Enteric Diseases
Indian Council of Medical Research
Government of India

ATTACHMENT

1. Objective of the Project

The objective of the Project is to strengthen capacities and augment capabilities for prevention and control of Diarrheal diseases at the National Institute of Cholera and Enteric Diseases (hereinafter referred to as "NICED") through founding of a Collaborative Diarrheal Diseases Research and Control Center, in accordance with the activities planned in the Japanese Technical Cooperation for the Project for Prevention of Diarrheal Diseases (Phase 2).

2. Project site

The site of the Project is in NICED, Kolkata, West Bengal State, India.

3. Responsible and Implementing Agency

The Responsible Agency is Ministry of Health and Family Welfare, and the Implementing Agencies are Indian Council of Medical Research (hereinafter referred to as "ICMR") and NICED. The Organizational Chart is attached as Annex-1.

4. Items requested by the Indian Side

After discussions with the Team, the Project site plan for the building and facilities described in Annex-2, and equipment described in Annex-3 were finally requested by the Indian Side. JICA will assess the appropriateness of the request and will recommend to the Government of Japan for approval. However, the final components of the Project will be decided after further review in Japan.

5. Japan's Grant Aid Scheme

5-1 Indian side understands the Japan's Grant Aid Scheme explained by the Team, as described in Annex-4 and Annex-5.

5-2 Indian side will take the necessary measures, as described in Annex-6, for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented.

6. Schedule of the Study

6-1. JICA will prepare the draft report in English and dispatch the Team in order to explain its contents around March 2004.

6-2. In case that the contents of the report are accepted in principle by the Indian side, JICA will complete the Basic Design Study Report and send it to India around May, 2004.

7. Other relevant issues

7-1 Indian side shall take necessary measures at suitable time for customs duties, internal taxes,

and any other charges including *Ad valorem* duty on importing material for constructing the building and on importing the equipment.

7-2 Indian side clarified that the appropriate financial clearance will be obtained from the competent authority as soon as the Japanese side submits the draft of the Basic Design Study Report.

7-3 Ministry of Health & Family Welfare and ICMR would make necessary budget provision for this project in accordance with the standard procedure for fund flow, budgeting and tax treatments under Japan Grand-Aid Programme as prescribed by the Department of Economic Affairs, Ministry of Finance.

7-4 Both sides agreed on the use of the existing building, the building under construction by the Indian side, and the proposed building as follows:

(i) Existing building: clinical microbiology level diagnoses and the training of researchers and technicians not only from India but also from abroad.

(ii) Building under construction: supporting clinical laboratory within the campus of the Infectious Disease Hospital.

(iii) Proposed building: to diagnose molecular microbiology level, to breed good quality of animals for experiments, to establish national surveillance network, and to manage and store strains and diagnostic sera.

7-5 Both sides agreed that the proposed building would house the various laboratories including equipment for molecular virology, molecular parasitology, molecular biochemistry, molecular immunology, molecular pathophysiology, molecular epidemiology, molecular biology, and the following:

- Electron Microscopy facility
- Surveillance system network
- Animal facility for rabbits, mice, hamsters, rats, and guinea pigs, etc.
- Serum bank facility
- Seminar and reference rooms
- Administrative offices including Japanese experts' room

7-6 Ministry of Health and Family Welfare and ICMR shall take responsibility and cover total expenses to re-locate necessary equipment installed in the existing building at suitable timing. Items to be transferred are attached as Annex-7.

7-7 Ministry of Health & Family Welfare and ICMR agreed to re-deploy sufficient number of skilled scientists, qualified technicians and security, cleaning and maintenance personnel etc.,

to operate and maintain the facilities and equipment provided by this Project.

7-8 Ministry of Health & Family Welfare and ICMR agreed to allocate to NICED necessary budget for office operation and maintenance charges including water, electricity, periodical maintenance contracts, repairs, spareparts, chemical reagents, and consumables for facilities and equipment of the Project.

7-9 Both sides agreed on the necessity for the inclusion of a sewage treatment plant and an incinerator specifically for the proposed building. NICED has already taken necessary action on this issue. ICMR agreed to acquire the land ownership for these facilities, as described in Annex-2 before November 1, 2004. Also, Ministry of Health and ICMR will obtain necessary permission in connection with this Project, before the end of October, 2004.

7-10 Ministry of Health & Family Welfare and ICMR shall provide necessary number of parking lot including its finishing works outside of the Project site.

7-11 Ministry of Health and Family Welfare and ICMR shall provide the main distribution electrical power line, direct water supply line, and drainage system to the site.

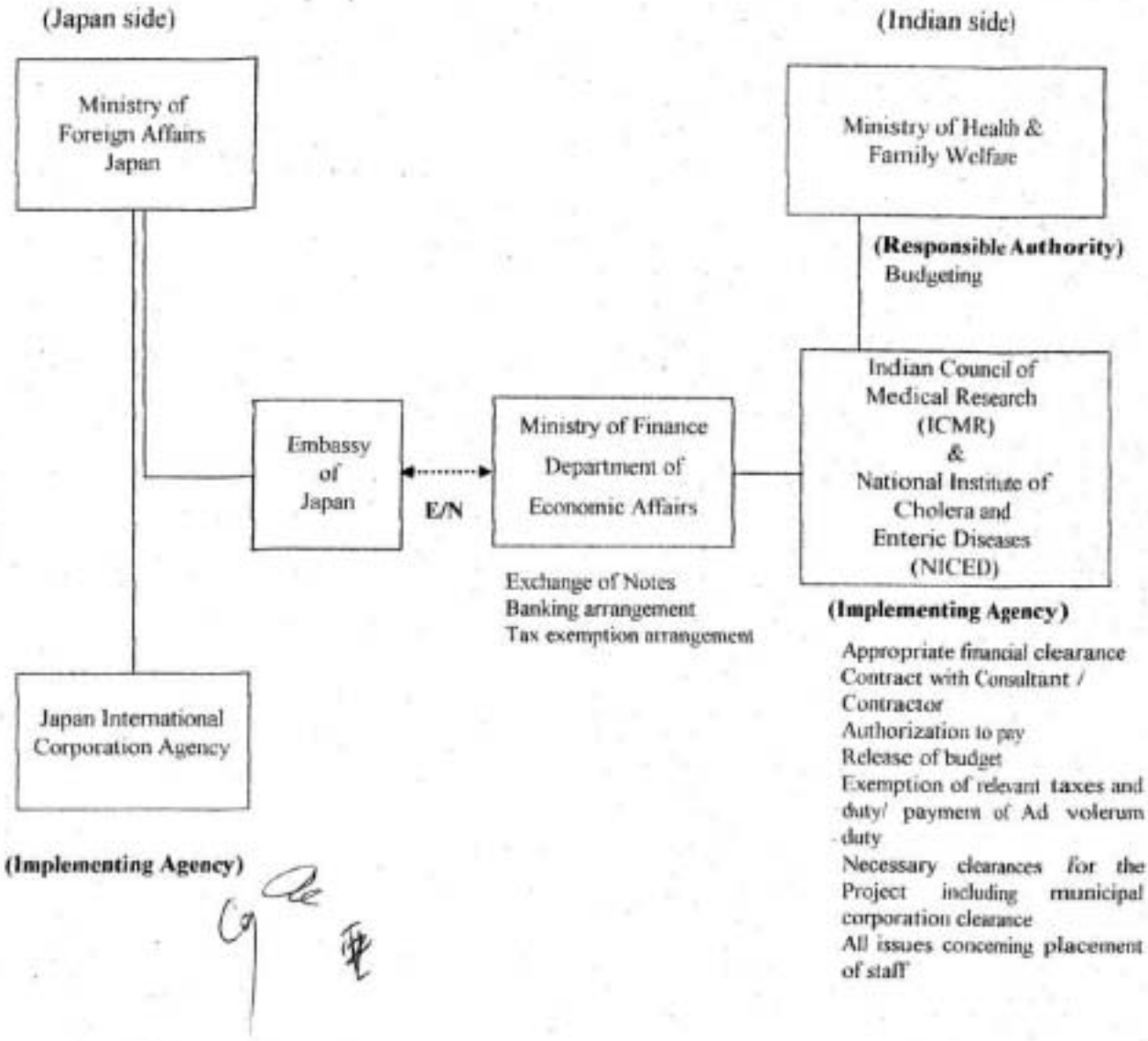
7-12 Ministry of Health and Family Welfare and ICMR shall provide temporary space, access and other necessary measures during construction period of the Project.

List of Annexes

Annex-1	Organizational Chart
Annex-2	Project site plan
Annex-3	Equipment Details
Annex-4	Japan's Grant Aid Scheme
Annex-5	Flow Chart of Japan's Grant Aid Procedures
Annex-6	Major Undertakings to be taken by Each Government
Annex-7	Equipment Details to be relocated by Indian side

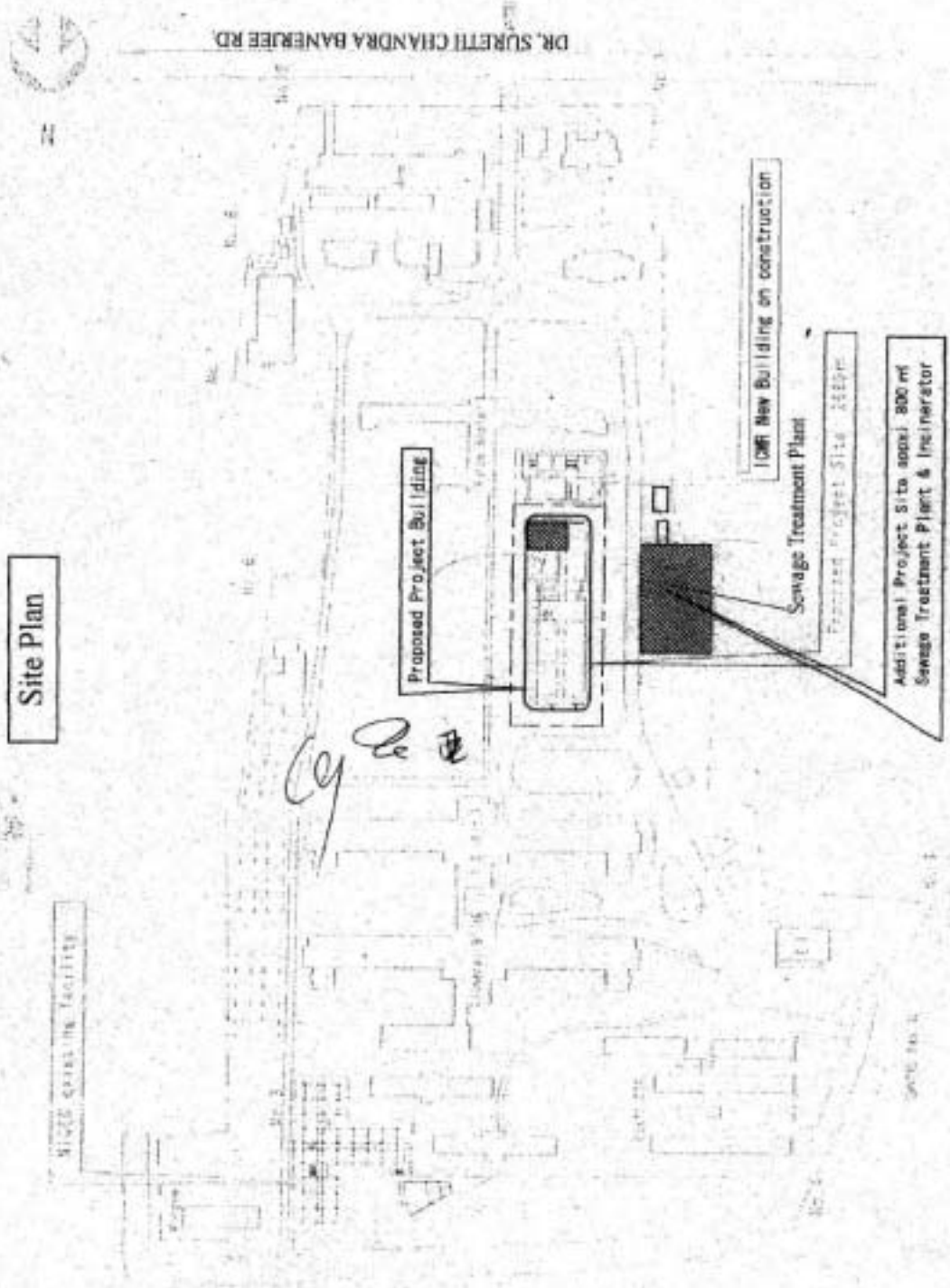
Annex- 1 Organizational Chart

Implementation for the Project



Annex-2

Additional site for Sewage treatment plant and Incinerator



Annex-3 Equipment Details

Equipment List by the Basic Design Study

The equipment for the project has been determined taking into the consideration of the necessity of the project, activities, efficiency, sustainability (possibilityof maintenance).

Selection A The equipment marked A is very essential for continuous and effective molecular biological research acritivities, and possible to maintain the equipemnt even after the warranty period.

Selection B The equipment marked B is considered to be necessary for research activities but further detailed study and analysis is required for the final determination.

[Animal House Section]

Sr. No.	Requested Equipment	Quantity	Selection
1	Stainless steel rabbit holding cages with inbuilt racking device on wheel along with all accessories (complete set of 6 cages)	48	A
2	Polycarbonate rodent cages with all relevant accessories	60	A
3	Racks for above polycarbonate cages (trolley type)	5	A
4	Acrylic Rabbit Restrainer	2	A
5	Universal Rodent Restrainer	2	A
6	Rabbit Ear Bleeder	2	A
7	Rodent Injection Cone	2	A
8	Animal Feeding Needles	12	A
9	Weighing Balance for animals up to 4 kgs	2	A
10	Vacuum Cleaner and Clipper	3	A
11	Aquaguard	7	A
12	Microprocessor Control Autoclave	2	A
13	Bio-lux-CXT Microscope	1	A
14	Refrigerator	1	A
15	Deep Freezer (-70°C)	1	A
16	Digital Autoclave of different sizes	2	A
17	Operating Table	2	A
18	Head band magnifier with halogen light	2	A
19	Therapy chamber with accessories	2	A
20	Operation tool set including scissors, knives, forceps and instrument tray	2	A
21	Unity Electrocautery Products (cutting/coagulation -mode)	1	A

[Division of Biochemistry]

Sr. No.	Requested Equipment	Quantity	Selection
22	Differential Scanning and Titration calorimeter	1	A
	Protein Purification System		
23	a. HPLC with accessories	1	A
24	b. FPLC with accessories	1	A
25	c. Prep Cell	1	A
26	Gel Documentation System with CCD camera	1	A
27	FTIR Spectrophotometer	1	A
28	Multi Angle Laser Light Scattering (MALLS) Photometer	1	B
29	PCR	2	A
30	High Speed Centrifuge	1	A
31	Lyophilizer (Freeze dryer)	1	A
32	Ultrasonicator	1	A
33	Incubator (37°C)	1	A
34	Refrigerator (4°C)	2	A
35	Deep Freezer (-20°C)	1	A
36	Deep Freezer (-80°C)	1	A
37	pH Meter	2	A
38	Electronic Balance	2	A
39	Magnetic Stirrer	3	A
40	Microwave Oven	1	A
41	Hot air Oven	1	A
42	Microfuge (non-refrigerator)	2	A
43	Microfuge (refrigerated)	1	A
44	Shaking Water Bath (10°C-80°C)	1	A
45	Platform Shaker	2	A
46	Automated Proteomics workstation with LC-MS-MS	1	B
47	Water Purification System	1	A
48	Dry Bath	3	A
49	Digital Autoclave	2	A

[Division of Clinical Epidemiology]

Sr. No.	Requested Equipment	Quantity	Selection
50	Microscope with digital camera	1	A
51	BP Instrument (Sphygmomanometer)	4	A
52	Stethoscope	5	A
53	Electronic Thermometer	5	A
54	Infantometer (Baby height scale)	4	A
55	Weighing Machine with platform	2	A
56	Baby Weighing Machine	4	A
57	Refrigerator (4°C)	1	A
58	Deep Freezer (-20°C)	1	A
59	pH Meter	3	A
60	Electronic Balance	2	A
61	Microwave Oven	1	A
62	Table Top Centrifuge (refrigerator with various rotors)	1	A

[Division of Immunology]

Sr. No.	Requested Equipment	Quantity	Selection
63	MACS-Magnetic Sell Sorter	1	A
64	ELISA Reader	1	A
65	PCR	1	A
66	Gel Electrophoresis Apparatus	1	A
67	High Speed Centrifuge	1	A
68	Ice Flake Machine	1	A
69	CO2 Incubator	2	A
70	Incubator (37°C)	1	A
71	Refrigerator (4°C)	2	A
72	Deep Freezer (-20°C)	1	A
73	Deep Freezer (-80°C)	1	A
74	Deep Freezer (-185°C)	1	A
75	Electronic Balance	1	A
76	Magnetic Stirrer	2	A
77	Microwave Oven	1	A
78	Table Top Centrifuge (refrigerator with various rotors)	1	A
79	Microfuge (non-refrigerator)	2	A
80	Microfuge (refrigerator)	2	A
81	Shaking Water Bath (10°C-80°C)	2	A
82	Platform Shaker	2	A
83	Bio-safety Cabinet	2	A
84	Water Purification System	1	A
85	Inverted-Phase Contrast Microscope with digital camera	1	A
86	UV Transilluminator	1	A
87	ELIspot Reader	1	A
88	Shaker Cum Incubator	1	A
89	Autoclave	2	A
90	Fine Pipettes	1	A
91	Mini-subcell GT with power pack 300 system	1	A
92	Mini Trans-blot Transfer Cell with power pack 1,000	2	A
93	High Pressure Washing Tool for Glassware	1	A
94	Negative Pressure Pump	1	A
95	UV/VIS Spectrophotometer	1	A
96	Baby Compressor for filtration (1/2 hp)	1	A
97	Gel Documentation System with CCD camera	1	A

[Division of Microbiology]

Sr. No.	Requested Equipment	Quantity	Selection
98	UV/VIS Spectrophotometer	1	A
99	Gel Documentation System with CCD camera	1	A
100	Bio-safety Cabinet	2	A
101	PCR	2	A
102	Pulse Field Gel Electrophoresis Apparatus	2	A
103	High Speed Centrifuge	1	A
104	Lyophilizer (Freeze dryer)	1	A
105	Ultrasonicator	2	A
106	CO2 Incubator	2	A
107	Incubator (37°C)	2	A
108	Refrigerator (4°C)	4	A
109	Deep Freezer (-20°C)	2	A
110	Deep Freezer (-80°C)	2	A
111	Deep Freezer (-185°C)	1	A
112	Electronic Balance	2	A
113	Magnetic Stirrer	3	A
114	Table Top Centrifuge (refrigerator with various rotors)	2	A
115	Microfuge (non-refrigerator)	2	A
116	Microfuge (refrigerated)	2	A
117	Shaking Water Bath (10°C-80°C)	3	A
118	Platform Shaker	2	A
119	Water Purification System	2	A
120	Bright Field Phase Contrast Microscope with digital camera	1	A
121	UV Transilluminator	2	A
122	Electrophoresis apparatus (sub-marine gel) with power pack 300V	4	A
123	Cold Chamber	1	A
124	Speed Vac	1	A
125	Autopipettes	2	A
126	Light Microscope	1	A
127	Vacuum Pump	2	A
128	Hybridization Oven	1	A
129	DNA Sequencer	1	A
130	DNA Array System	1	A

[Division of Parasitology]

Sr. No.	Requested Equipment	Quantity	Selection
131	Analytical Ultracentrifuge	1	A
132	Real Time PCR	1	A
133	Inverted Fluorescence - Phase Contrast Microscope with real time video	1	A
134	Bio—safety Cabinet	1	A
135	LSM Laser for existing Confocal Microscope	1	B
136	PCR	1	A
137	Pulse Field Gel Electrophoresis Apparatus	1	A
138	CO2 Incubator	1	A
139	Incubator (37°C)	1	A
140	Refrigerator (4°C)	1	A
141	Deep Freezer (-20°C)	1	A
142	Deep Freezer (-80°C)	1	A
143	Deep Freezer (-185°C)	1	A
144	Electronic Balance	1	A
145	Magnetic Stirrer	1	A
146	Hot Air Oven	1	A
147	Table Top Centrifuge (refrigerator with various rotors)	1	A
148	Water Purification System	1	A
149	UV Transilluminator	1	A
150	Bright Field Phase Contrast Microscope with digital camera	2	A
151	Vertical Slab Gel Electrophoresis with power pack 300V	3	A
152	Isoelectric Focusing 2-D Electrophoresis Apparatus	2	A

153	Gel Blot & Imaging System	1	A
154	Dry Bath	1	A
155	Vacuum Pump	2	A
156	Autopipette	3	A
157	Shaker	3	A
158	Microfuge (non refrigerated)	1	A
159	Microfuge (refrigerated)	1	A
160	Electrophoresis Apparatus (submarine) with power pack 3000V	2	A
161	Vortex Mixer	2	A
162	Autoclave	1	A
163	Speed Vac	1	A
164	Hybridization Oven	1	A
165	Gel Dryer	1	A
166	Vacuum Blot Instrument	1	A
167	Multipurpose Flow Cytometer	1	A

[Division of Virology]

Sr. No.	Requested Equipment	Quantity	Selection
168	UV/VIS Spectrophotometer	1	A
169	Bio-safety Cabinet	3	A
170	PCR	2	A
171	High Speed Centrifuge	1	A
172	Ultrasonicator	1	A
173	CO2 Incubator	2	A
174	Incubator (37°C)	2	A
175	Refrigerator (4°C)	4	A
176	Deep Freezer (-20°C)	2	A
177	Deep Freezer (-80°C)	1	A
178	pH Meter	4	A
179	Electronic Balance	2	A
180	Magnetic Stirrer	4	A
181	Table Top Centrifuge (refrigerator with various rotors)	2	A
182	Platform Shaker	2	A
183	UV Transilluminator	1	A
184	Water Purification System	1	A
185	Inverted Microscope	1	A
186	Autoclave	1	A
187	UV Cross Linker	1	A
188	Ultrasonic Cleaner	1	A
189	Pipette Washer	1	A
190	Vacuum Pump	2	A
	Protein Purification System		
191	HPLC with accessories	1	A
192	FPLC with accessories	1	A
193	Real Time PCR	1	A
194	Lyophilizer (Freeze Dryer)	1	A
195	Deep Freezer (-185°C)	1	A
196	Bright Field Phase Contrast Microscope with digital camera	1	A

[Division of Pathophysiology]

Sr. No.	Requested Equipment	Quantity	Selection
197	Spectrofluorometer	1	A
198	PCR	1	A
199	High Speed Centrifuge	1	A
200	Ultrasonicator	1	A
201	CO2 Incubator	1	A
202	Refrigerator (4°C)	1	A
203	Deep Freezer (-20°C)	1	A
204	Deep Freezer (-80°C)	1	A
205	pH Meter	2	A
206	HPLC with accessories	1	A
207	FPLC with accessories	1	A

208	Water Purification System	1	A
209	Bright field Phase Contrast Microscope	1	A
210	UV Transilluminator	1	A
211	Incubator (37℃)	2	A
212	Electronic Balance	2	A
213	Magnetic Stirrer	2	A
214	Hot Air Oven	1	A
215	Microfuge (refrigerated)	1	A
216	Microfuge (non-refrigerated)	1	A
217	Shaking Water Bath (10℃-80℃)	2	A
218	Platform Shaker	1	A
219	ELISA Reader with microplate reader	1	A
220	Autoclave	2	A

[Electron Microscope Room]

Sr. No.	Requested Equipment	Quantity	Selection
221	Atomic Force Microscope	1	B
222	Scanning Electron Microscope	1	A
223	Bio-safety Cabinet	1	A

[Serum Bank]

Sr. No.	Requested Equipment	Quantity	Selection
[for Serum Bank]			
224	Refrigerator	4	A
225	Deep Freezer (-20 deg C)	2	A
226	Deep Freezer (-80 deg C)	2	A
227	Desk Top Computer with printer	1	A
[for Strain Storage Room]			
228	Refrigerator	4	A
229	Deep Freezer (-20 deg C)	2	A
230	Deep Freezer (-80 deg C)	2	A
231	Desk Top Computer with printer	1	A

[Meeting, Seminar, Office Room and Others]

Sr. No.	Requested Equipment	Quantity	Selection
232	LCD Projector	1	A
233	Desk Top Computer	1	A
234	Overhead Projector	1	A
235	LCD Projector	1	A
236	Overhead Projector	1	A
237	Copy Machine	1	A
238	Desk Top Computer	4	A
239	Laser Printer	1	A
240	Scanner	1	A

Annex-4

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 oy 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 uch.

(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.

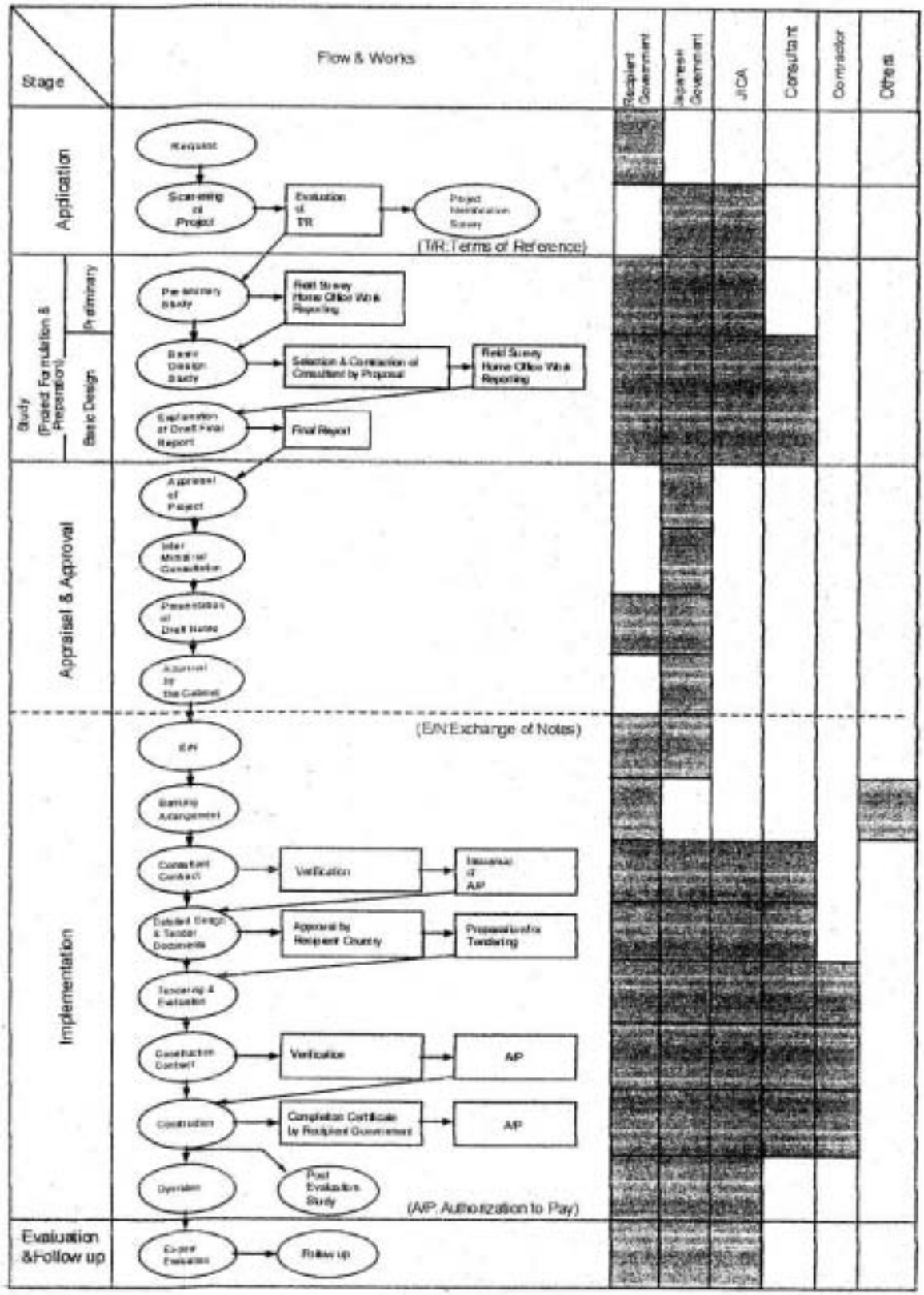
(9) Banking Arrangement (B/A)

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.

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.

ANNEX－5

Flow Chart of Japan's Grant Aid Procedures



Annex-6

Major Undertakings to be taken by Each Government

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To secure land		●
2	To clear, level and reclaim the site when needed		●
3	To construct gates and fences in and around the site		●
4	To construct the parking lot	●	
5	To construct roads		
	1) Within the site	●	
	2) Outside the site		●
6	To construct building facilities	●	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		
	a. The distributing line to the site		●
	b. The drop wiring and internal wiring within the site	●	
	c. The main circuit breaker and transformer	●	
	2) Water Supply		
	a. The city water distribution main to the site		●
	b. The supply system within the site (receiving and elevated tanks)	●	
	3) Drainage		
	a. The city drainage main (for storm, sewer and others to the site)		●
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	●	
	4) Gas Supply		
	a. The city gas main to the site		●
	b. The gas supply system within the site	●	
	5) Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		●
	b. The MDF and the extension after the frame/panel	●	
	6) Furniture and Equipment		
	a. General furniture		●
	b. Project equipment	●	
8	To bear the following commissions to the Japanese bank for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9	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	(●)	(●)*
10	To accord Japanese nationals, whose services may be required in connection with the supply of the products and the services under the verified contact, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●
11	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		●
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant		●
13	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment		●

(B/A: Banking Arrangement, A/P: Authorization to pay)

*To be specified in the contract

Annex- 7 Equipment Details to be relocated by Indian Side

[Microbiology]

No.	Equipment	Quantity
1	Gel documentation system with PC	1
2	Refrigerator	7
3	Water purification system	2
4	PCR machine	3
5	Microcentrifuge	3
6	pH Meter	4
7	Microwave oven	2
8	Electronic Balance	6
9	Bio-safety laminar flow hood	5
10	Autoclave	4
11	Double gas incubator	2
12	Incubator	2
13	Real time PCR	2
14	CHEF mapper	1
15	Ice making machine	1
16	Lyophilizer	1
17	Cold chamber	1
18	Vacuum pump	3
19	Table tope centrifuge	4
20	Microscope	4
21	CO2 incubator	2
22	Gene quont	2
23	Heating block	2
24	Cold block	1
25	Magnetic stirrer	2
26	Constant temp. water bath	2
27	Spectrophotometer	2
28	Shaker	2
29	2D gel spot cutter for proteome work	1
30	ELISA reader	2
31	ELISA washer	2
32	Multi-image analyzer	1
33	Gene pulser	1
34	Hybridization oven	1
35	Centrifuge (non-refrigerated)	1
36	Deep freezer (-20 deg.C)	2
37	Deep freezer (-70 deg.C)	1
38	Deep freezer (-150 deg.C)	1
39	API reader	1
40	VDS system	1
41	Gel dryer	1
42	Vacuum dryer	1
43	Ultrasonicator	1
44	UV transilluminator with Polaroid camera	1
45	UV cross linker	1
46	DNA sequencer with UPS	1
47	Computer with printer	6
48	Photocopy machine	1
49	UPS	6
	Expected in the year 2003-2004	
50	Microscope	2
51	Ice making machine	1
52	Autoclave	1
53	Electronic balance	1
54	Refrigerated microcentrifuge	1
55	PCR thermal cycler	1
56	Constant temp. water bath	1

57	Gel electrophoresis apparatus	1
58	Electrophoresis apparatus with power supply	1
59	Autopipette	7
60	Liquid nitrogen plant	1
61	CO2 incubator	1
62	Distilled water plant	1
	Expected in the year 2004-2005	
63	Table top centrifuge	1
64	Mini submarine gel electrophresis with power supply	1
65	Mini gel electrophoresis with power supply	1
66	Incubator (37 deg.C)	1
67	Electronic Balance	1
68	pH meter	1
69	PCR thermal cycler	1

[Immunology]

No.	Equipment	Quantity
70	FACS-flow cytometer	1
71	Refrigerator	2
72	PCR machine	2
73	Fraction collector	1
74	Peristaltic pump	2
75	Gel electrophoresis apparatus	1
76	Constant temp. water bath	1
77	ERISA reader	1
78	ELISA washer	1
79	Suspension mixer	1
80	Semi-dry blot	1
81	Table top centrifuge	1
82	Cool block bath	1
	Expected in 2003-2004	
83	Refrigerated microcentrifuge	1
84	Non-refrigerated microcentrifuge	1
85	Constant temp. water bath	1
86	Autopipette	6
	Expected in 2004-2005	
87	CO2 incubator	1
88	Bio-safety laminar flow hood	1
89	Inverter phase contrast microscope	1
90	Mini submarine gel electrophoresis with power supply	1
91	Incubator (37 deg.C)	1
92	Electronic balance	1
93	pH meter	1
94	Deep freezer (-20 deg.C)	1
95	PCR thermal cycler	1
96	Table top refrigerated centrifuge	1

[Virology]

No.	Equipment	Quantity
97	Refrigerated centrifuge	2
98	Real time PCR	1
99	Electronic balance	1
100	Inverted microscope	2
101	Refrigerated recirculator	1
102	Shaker	2
103	CO2 Incubator	1
104	Gel electrophoresis apparatus	5
105	Power pack	1

106	Liquid nitrogen container	2
107	UV transilluminator	1
108	Gel Dryer	2
109	Microcentrifuge	2
110	Constant temp. water bath	2
111	UV lamp	1
112	Bio-safety laminar flow hood	1
113	Cyclo-tube mixer	1
114	Vaccugene	1
115	Mini monitor	1
116	Quartz distillation apparatus	1
117	ERISA reader	2
118	Vacuum pump	2
119	ELISA plate washer	1
120	Rollacell	1
121	Tube rotator	1
122	Hybridization oven	1
123	Autoclave	1
124	Constant temp. water bath	2
125	Incubator	1
126	DNA concentrator	1
127	Tube agitator	2
128	Vortex mixer	3
129	Refrigerator	2
130	Ultrasonic pipette cleaner	1
131	Ultrasonic glassware cleaner	1
132	PCR thermal cycler	1
133	PCR work station	1
134	Spectrophotometer	1
135	UV cross linker	1
136	Dry bath	1
137	Digital camera for microscope	1
138	Desk top computer with printer	1
139	Work station for GCG package	1
	Expected in the year 2003-2004	
140	Electronic balance	1
141	Autopipette	6

[Biochemistry]

No.	Equipment	Quantity
142	UV Spectrophotometer	1
143	Semi-autoanalyzer	1
144	Vacuum pump	1
145	Microplate reader	1
146	PCR gradient thermal cycler	1
147	Remi motorized homogenizer	1
148	Ultrafiltration unit (2L)	1
	Expected in the year 2004-2005	
149	Mini-gel electrophoresis apparatus with power supply	1
150	Incubator (37 deg.C)	1
151	Electronic balance	1
152	pH meter	1

[Pathophysiology]

No.	Equipment	Quantity
153	Ussing's chamber	1
154	PCR thermal cycler	1
155	Gel documentation system	1

156	Electrophoresis apparatus	1
157	Refrigerated centrifuge	1
158	Incubator	1
	Expected in the year 2003-2004	
159	Gel electrophoresis apparatus	1
160	Electrophoresis apparatus with power supply	1
162	Autopipette	6
	Expected in the year 2004-2005	
162	ERISA reader	1
163	Spectrophotometer	1
164	Mini submarine gel electrophoresis apparatus with power supply	1
165	Ultrafiltration unit	1
166	Vacuum pump	1
167	Mini gel electrophoresis apparatus with power supply	1
168	Incubator (37 deg.C)	1
169	Electronic balance	1
170	pH meter	1

[Parasitology]

No.	Equipment	Quantity
171	Optical Microscope	1
172	Laser conforcal microscope	1
173	Incubator	1
174	Expected in the year 2004-2005	
175	Electroporation unit	1
176	Luminometer	1
177	Mini submarine gel electrophoresis apparatus with power supply	1
178	Vacuum pump	1
179	Mini gel electrophoresis apparatus with power supply	1
180	Incubator (37 deg.C)	
181	Electronic balance	1
182	pH meter	1

[Epidemiology]

No.	Equipment	Quantity
183	High performance liquid chromatograph	1
184	Fluorescence spectrophotometer	1
185	Centrifuge	1
186	Colony counter	1
187	Autoclave	1
188	UV transilluminator	1
189	Electronic balance	1
189	Biological microscope	1
190	pH meter	1
191	Constant temp. water bath	1

[Electron Microscope Room]

No.	Equipment	Quantity
192	Transmission electron microscope	1
193	Cryostat microtome	1
194	Rotary microtome	1
195	Vacuum evaporator	1
196	Glass knife maker	1
197	Stereo microscope	1
198	Research microscope	1
199	Biological microscope with photo attachment	1

200	Deep freezer (–20 deg.C)	1