

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

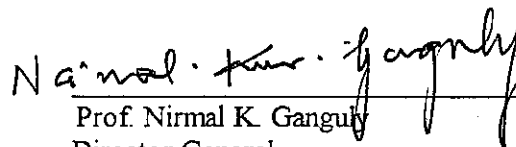
In response to requests from the Government of India (hereinafter referred to as "India"), the Government of Japan decided to conduct a Preliminary Study on Grant Aid Projects in health sector (hereinafter referred to as "the Projects" ) and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

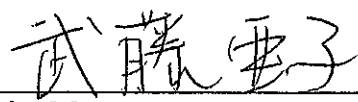
JICA sent to India the Preliminary Study Team (hereinafter referred to as "the Team"), and is scheduled to stay in the country from 16<sup>th</sup> July 2003 to 3<sup>rd</sup> August 2003.

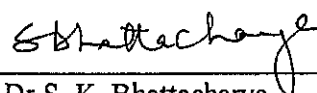
The Team, which is headed by Ms. Muto, Second Project Management Division, Grant Aid Management Department, JICA, held discussions on one of the Projects, the Project for Founding a Collaborative Diarrheal Diseases Research and Control Center (hereinafter referred to as "the Project"), with the officials concerned of the Government of India and conducted a field survey at the study area.

In the course of discussions and field survey, both parties confirmed the main items described in the attached sheets.

Kolkata, 22nd July, 2003

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

  
Ms. Ako Muto  
Leader  
Preliminary Study Team  
Japan International Cooperation Agency  
Japan

  
Dr. S. K. Bhattacharya  
Director  
National Institute of Cholera and  
Enteric Diseases  
Indian Council of Medical  
Research  
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 National Institute of Cholera and Enteric Diseases (hereinafter referred to as "NICED") through founding a Collaborative Diarrheal Diseases Research and Control Center.

### 2. Project site

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

### 3. Responsible and Implementing Agency

The Responsible Agency is Indian Council of Medical Research and Implementing Agency is NICED.

### 4. Items requested by NICED

After discussions with the Team, the items described in Annex-1 were finally requested by NICED. JICA will assess the appropriateness of the request and will report the findings to the Government of Japan. Annex-1 consists of the followings.

Annex 1-1: Lay out plant

Annex 1-2: Equipment List

### 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-2.

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

### 6. Other relevant issues

#### 6-1 Scope of the Project

Both sides confirmed that the scope of the Project was to support achievement of the purpose of the Japanese Technical Cooperation for the Project for Prevention of Diarrheal Diseases (Phase 2).

#### 6-2 Activities of the existing building, the building under construction by the Indian side, and the proposed building in the Project

The activities carried out in the existing NICED building and the building under construction by the Indian side are to be culture level diagnoses.

The activities of the proposed building in the Project are to sustain the molecular level

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diagnosis, which includes breeding good quality of animals for experiment, to establish national surveillance network system, to manage and control strains and diagnostic sera, to train researchers and technicians not only from India but also from abroad.


#### 6-3 Contents of the proposed building

- Laboratories consist of molecular bacteriology, molecular virology, molecular parasitology, molecular biochemistry, molecular immunology, molecular epidemiology, and clinical microbiology
- Animal house for rabbits, mice, hamsters, rats, and guinea pigs
- Microbial depository
- Serum bank
- Administrative offices including rooms for surveillance system network, training room, Japanese experts' room

#### 6-4 Recommendation by the Team

- Allocation of suitable number of skilled scientists, technicians for laboratory, animal house, serum bank and so on
- Allocation of necessary budget to operate, to maintain, and to cover spare parts, consumables, and periodical maintenance contract for facilities and equipment and so on

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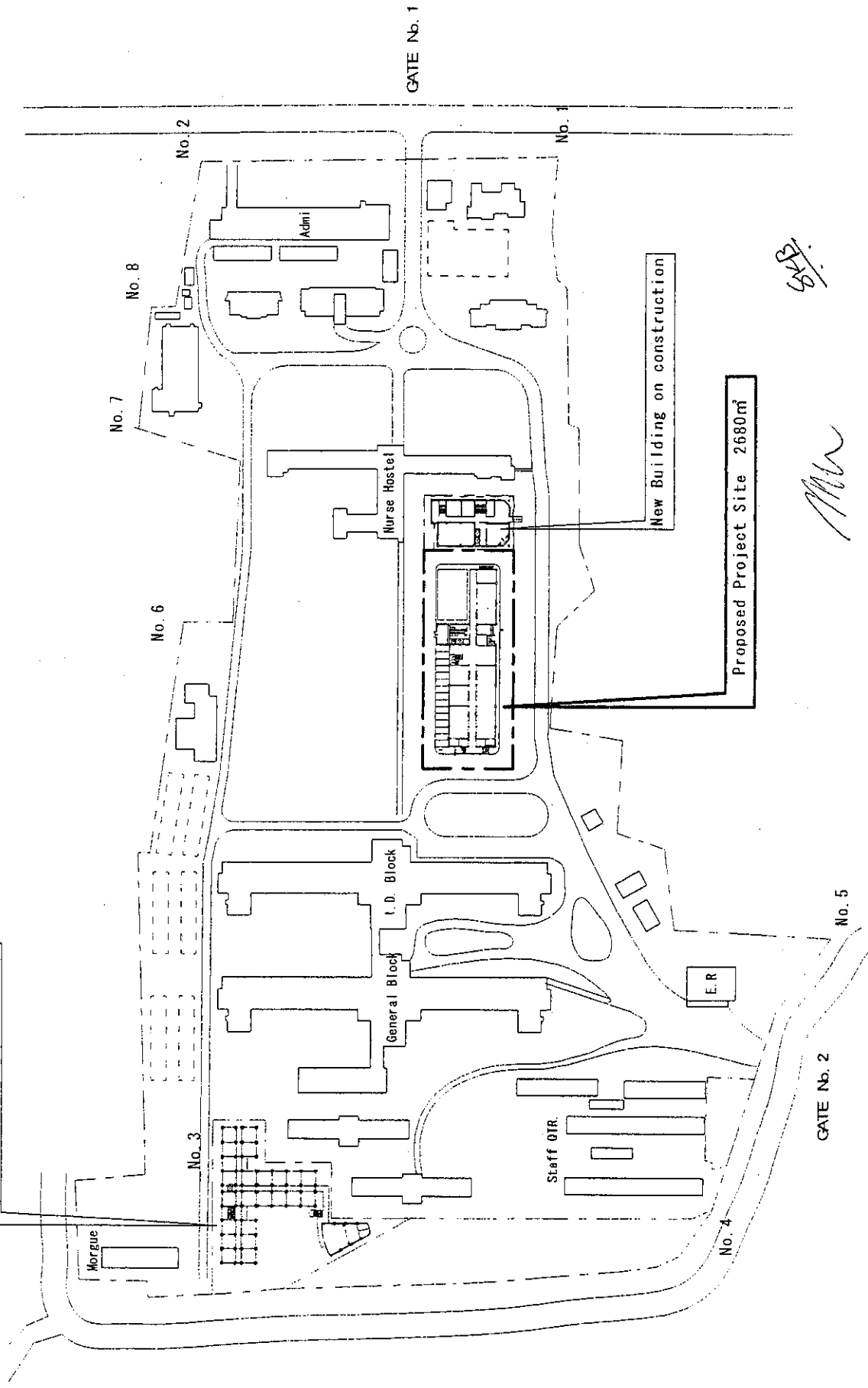
  
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# SITE PLAN of INFECTIOUS DISEASES HOSPITAL

Annex 1-1



NICED existing facility



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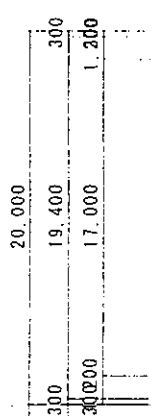
New LAB-a

Site Location

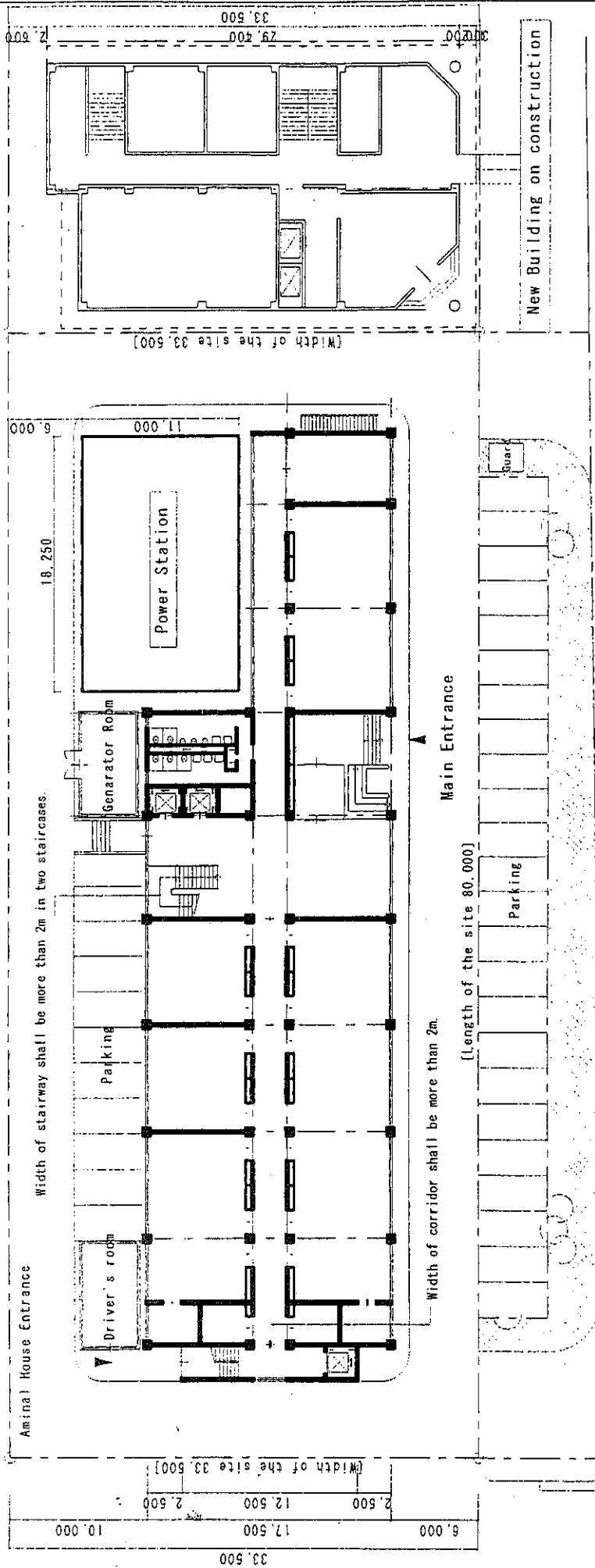
New JICA Laboratory Centre

Republic of INDIA

According to the Building code in Kolta. Two building (more than 14.5m height) must keep 7m distance.  
 But if there is connection corridor between two buildings, no need to keep distance.



[Length of the site 80,000]



Approach Road in the I. D. Hospital

Proposed New JICA Laboratory Centre

The preliminary study team required to use the spare space between the project site and the approach road.  
 The director showed us possibility to use this space for car parking.



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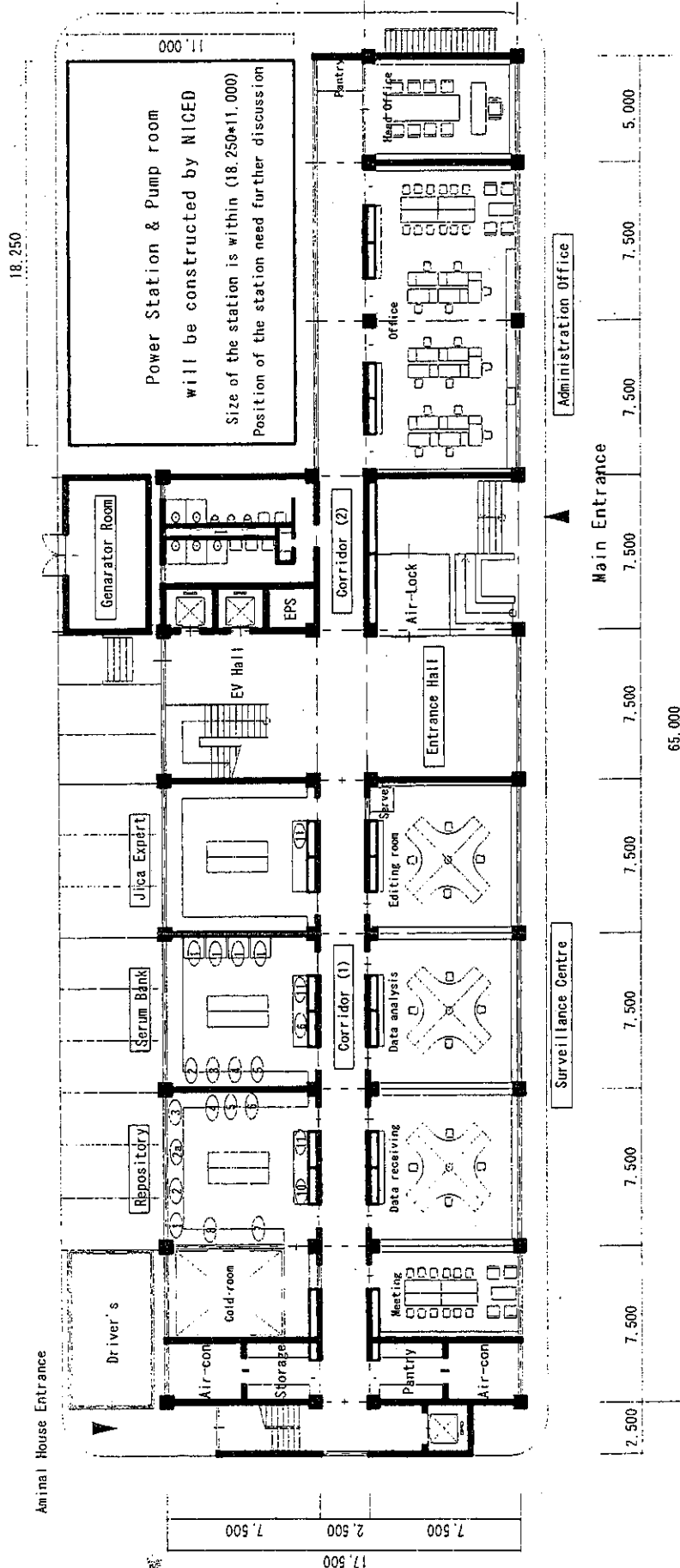
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Annex 1-1



1. Repository Department		2. Serum Bank Department	
1-1	Lyophiliser	2-1	Deep freezer -80°C Vertical
1-2	Table top Refrigerator centrifuge	2-2	Table top Refrigerator centrifuge
1-2a	Centrifuge	2-3	Centrifuge
1-3	PH meter	2-4	PH meter
1-3	Autoclave	2-5	Refrigerated centrifuge
1-4	Hot air oven	2-6	Refrigerator 4°C
1-5	Refrigerator 4°C	2-7	Work bench
1-6		2-8	Sink
1-7	Deep freezer -20°C horizontal	2-9	WB-work bench
1-8	Shaker water bath	2-10	
1-9	Incubator 37°C	2-11	Scientist cabinet
1-10	Biosafety cabinet	2-12	
1-11	Scientist cabinet		
1-12	Working bench		

1-1	Deep freezer -20°C horizontal
1-2	Shaker water bath
1-3	Incubator 37°C
1-4	Biosafety cabinet
1-5	Scientist cabinet
1-6	Working bench



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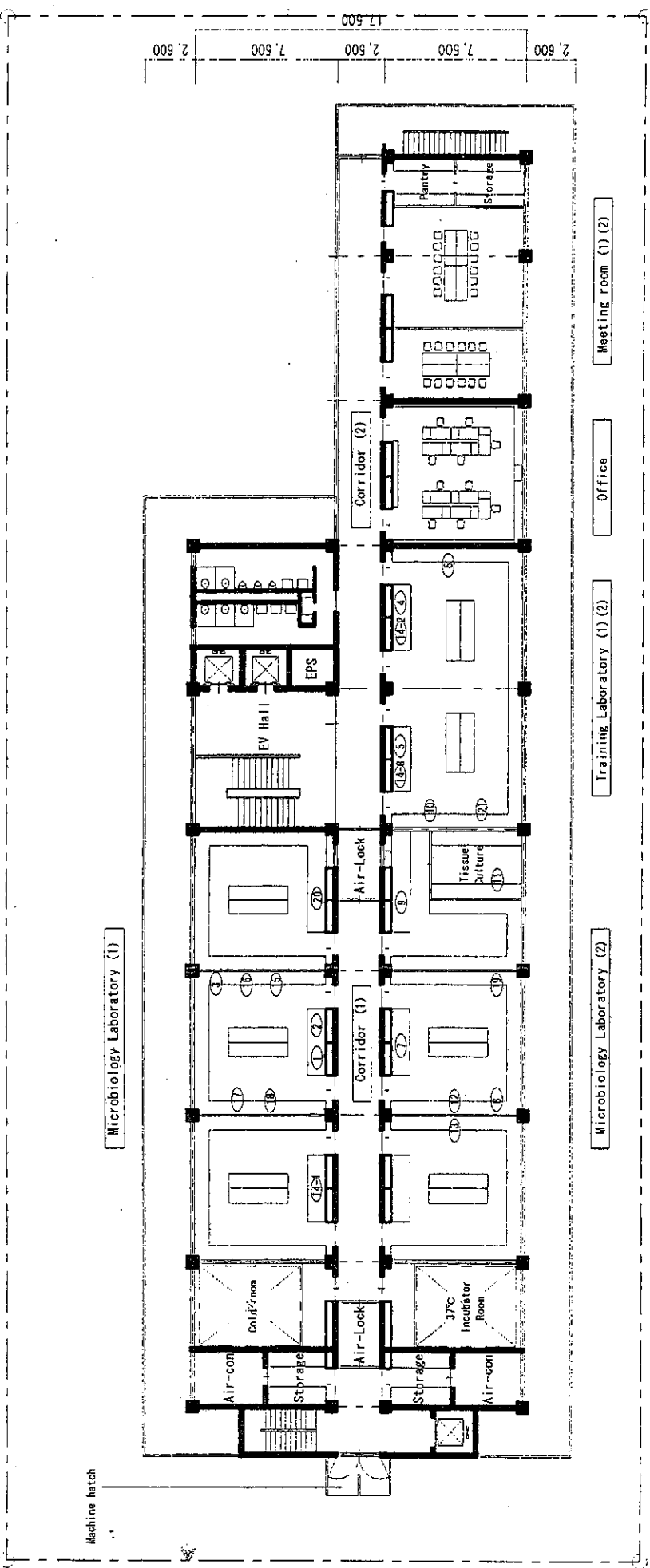
1F floor area 1,074,750m<sup>2</sup>

Seismic level of whole KOLKATE is in the A3 Zone, according to C.P.W.D (Central Public Works Department)

3. Microbiology Lab		3-8	3-14-2	3-20
3-1 Spectrophotometer	Lyophiliser	3-14-3	Speed Freezer (2) -80°C	Table top Centrifuge
3-2 UV-VIS spectrophotometer	Ultra sonicator	3-15	Speed Freezer (3) -165°C	Microfuge
3-3 HPLC	Iceflake machine	3-16	pH meter	POR
3-4 Gel documentation system	CO2 incubator	3-17	Electronic Balance	
3-5 Real time PCR	Incubator 37°C	3-18	Magnetic Stirrer	
3-6 Pulse field Gel Electrophoresis (PFGE)	Refrigerator	3-19	Microwave oven	
3-7 High Speed Centrifuge	Speed Freezer (1) -20°C		Hot air oven	



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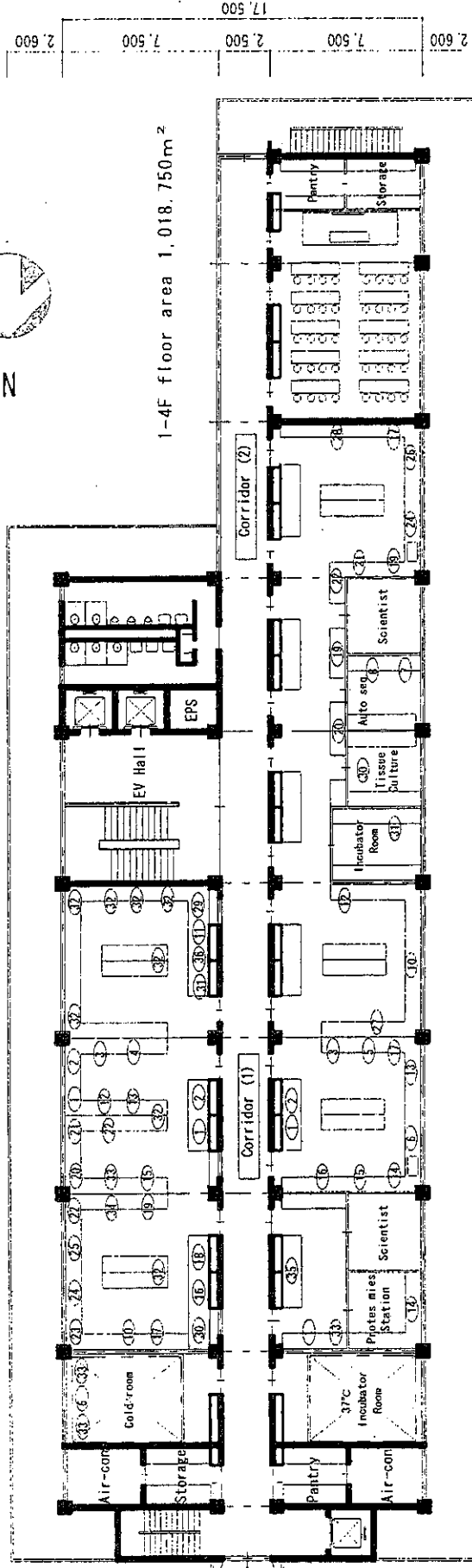
*MW* *SFD*

All laboratories in this building must be in P2 level

65,000

4. Biochemistry Lab		4-8 Biohad prep cell		4-15 Pulse field Gel Electrophoresis(PFGE)		4-22 Refrigerator		4-29 Work bench	
4-1 Silicon graphics	4-8	4-15	4-22	4-29	4-30	4-31	4-32	4-33	4-34
4-2 Circulator diorose spectrophotometer	4-9	4-16 Phosphor imager	4-23 High speed centrifuge	4-30 Deep freezer -20°C	4-31 Deep freezer -60°C	4-32 Deep freezer -185°C	4-33 PH meter	4-34 Oven	4-35 Table top centrifuge
4-3 Pharmacia Biocore-x	4-10	4-17 Syntholizer	4-24 Syncholizer	4-32 Deep freezer -185°C	4-33 PH meter	4-34 Oven	4-35 Table top centrifuge	4-36	4-37
4-4 Differential Scanning & Titration-calorimeter	4-11	4-18 CO2 gel documentation system	4-25 Ultra Sonicator	4-34	4-35	4-36	4-37	4-38	4-39
4-5 HPLC	4-12	4-19 FTIR Spectrophotometer	4-26 Ice flake machine	4-35	4-36	4-37	4-38	4-39	4-40
4-6 FPIC	4-13	4-20 Multiangle Laser Light Scattered Photometer	4-27 CO2 Incubator	4-36	4-37	4-38	4-39	4-40	4-41
4-7 Pharmacia Smart system	4-14	4-21 Proteomics work station	4-28 Incubator	4-37	4-38	4-39	4-40	4-41	4-42

Machine hatch



1-4F floor area 1,018.750m<sup>2</sup>

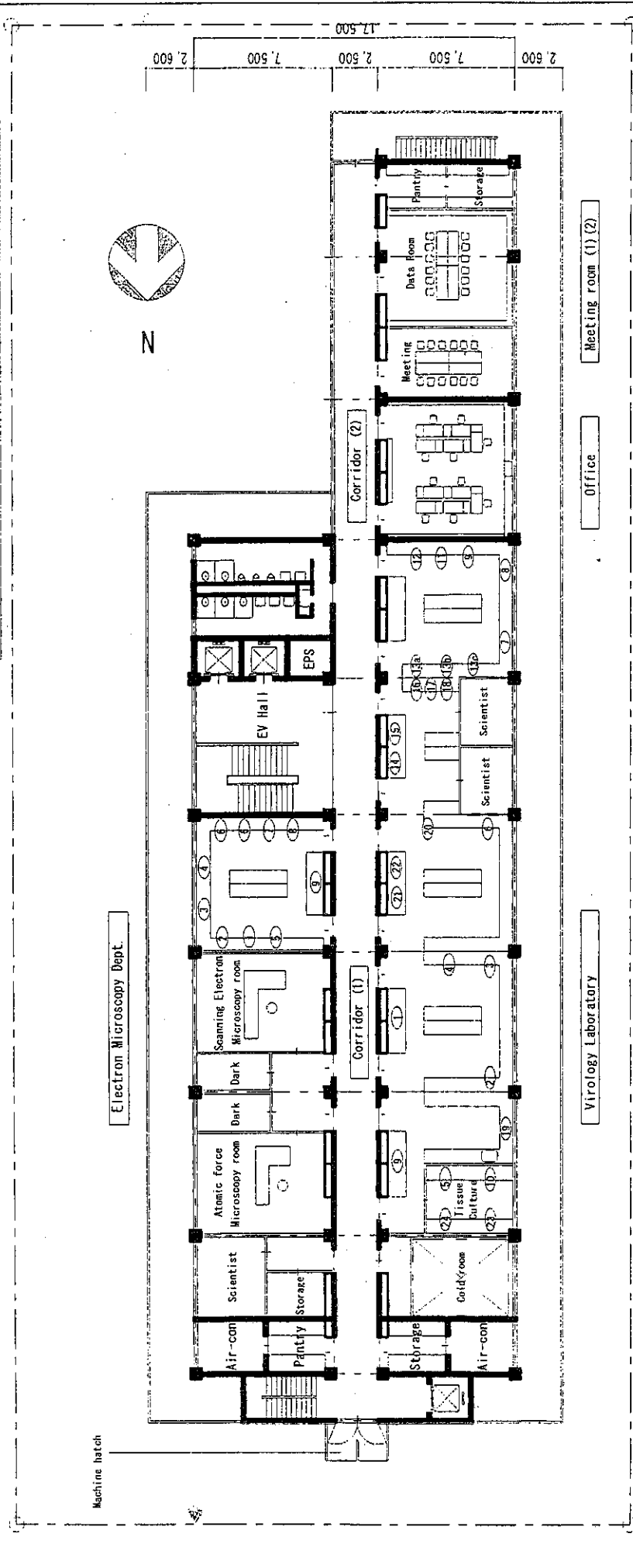
Biochemistry Laboratory (1)		Parasitology Laboratory		Seminar Room	
2.500	7.500	7.500	7.500	7.500	5.000
65.000					

5. Parasitology Lab		5-8 Real time PCR		5-15 Lyophilizer		5-22 Deep freezer -185°C		5-29 Amoeba culture room	
5-1 Spectrofluorometer	5-8	5-15	5-22	5-29	5-30	5-31	5-32	5-33	5-34
5-2 DV/VIS Spectrophotometer	5-9	5-16 Ultra Sonicator	5-23 Table top centrifuge	5-30 Tissue culture facilities	5-31 Incubator	5-32	5-33	5-34	5-35
5-3 HPLC	5-10	5-17 Fluorescence phase contrast microscope	5-24 Microscope (Non refrigerated)	5-32	5-33	5-34	5-35	5-36	5-37
5-4 HPLC	5-11	5-18 Bio-safety cabinet	5-25 Microscope (Refrigerated)	5-33	5-34	5-35	5-36	5-37	5-38
5-5 Pharmacia Smart System	5-12	5-19 LSM-Beta for existing confocal	5-26 Multiphoton laser confocal microscope	5-34	5-35	5-36	5-37	5-38	5-39
5-6 Biohad prep cell	5-13	5-20 Pulse field Gel Electrophoresis(PFGE)	5-27 Water purification system	5-35	5-36	5-37	5-38	5-39	5-40
5-7 Gel documentation System	5-14	5-21 High speed centrifuge	5-28 Bright field phase contrast microscope	5-36	5-37	5-38	5-39	5-40	5-41

Annex 1-1  
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6. Electronmicroscopy Lab			7. Virology Lab		
6-1a	Atomic Force Microscope	6-6	Refrigerator	7-1	UV-VIS Spectrophotometer
6-1b	Scanning Electron Microscope	6-7	Deep freezer	7-2	HPLC
6-1	Critical point dryer	6-8	Balance	7-3	PPC
6-2	Sputter coater	6-9	Microwave oven	7-4	Real time PCR
6-3	Microtome			7-5	Bio-safety cabinet
6-4	Image analyzer			7-6	Pulse field Gel Electrophoresis (PFGE)
6-5	Ultra centrifuge			7-7	High speed centrifuge
				7-8	Ultra Sonicator
				7-9	Ice flake machine
				7-10	CO2 incubator
				7-11	Incubator 37°C
				7-12	Refrigerator 4°C
				7-13a	Deep freezer -20°C
				7-13b	Deep freezer -80°C
				7-13c	Deep freezer -185°C
				7-14	PH meter
				7-15	Balance
				7-16	Magnetic stirrer
				7-17	Microwave oven
				7-18	Hot air oven
				7-19	Table top centrifuge
				7-20	Microfuge (Non-refrigerated)
				7-21	Microfuge (Refrigerated)
				7-22	Tissue culture
				7-23	Inverted microscope

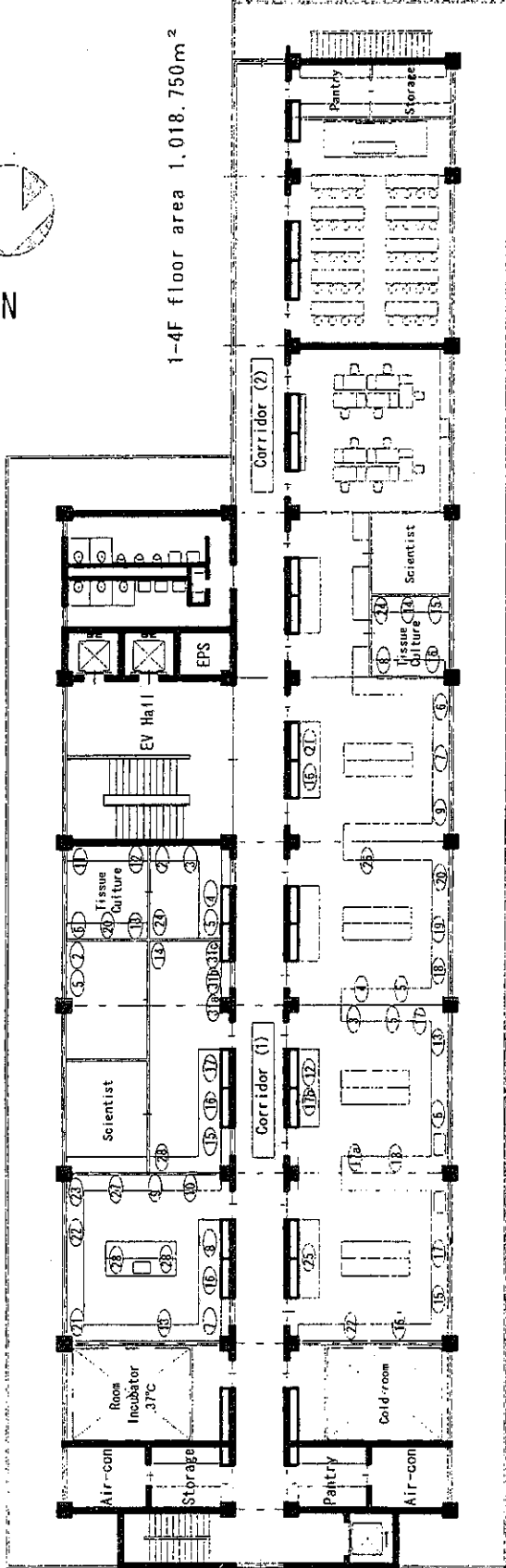


2.500	7.500	7.500	7.500	7.500	7.500	7.500	7.500	5.000
65.000								
Annex 1-1								

8-1	UV-Vis Spectrophotometer	8-8	High speed centrifuge	8-15	PH meter	8-22	Inverted Microscope	8-29	Autoclave
8-2	CD-Gel Documentation	8-9	Lyophilizer	8-16	Balance	8-23	PCR	8-30	Work bench
8-3	Guava Cell Sorter	8-10	Ice flake machine	8-17	Magnetic stirrer	8-24	Microfuge	8-31a	Deep freezer -20°C
8-4	MCS Cell Sorter	8-11	CO2 Incubator	8-18	Microwave oven	8-25	UV-transilluminator	8-31b	Deep freezer -80°C
8-5	ELIS Pt. Reader	8-12	37°C Incubator	8-19	Hot air oven	8-26	Bright field Microscope	8-31c	Deep freezer -185°C
8-6	Bio-safety Cabinet	8-13	Refrigerator	8-20	Table top Centrifuge	8-27	Scientist cabinet		
8-7	Pulse field Gel Electrophoresis (PFGE)	8-14	Freezer	8-21	Shaker water bath	8-28	Wash		

Machine hatch

Immunology Laboratory (1)

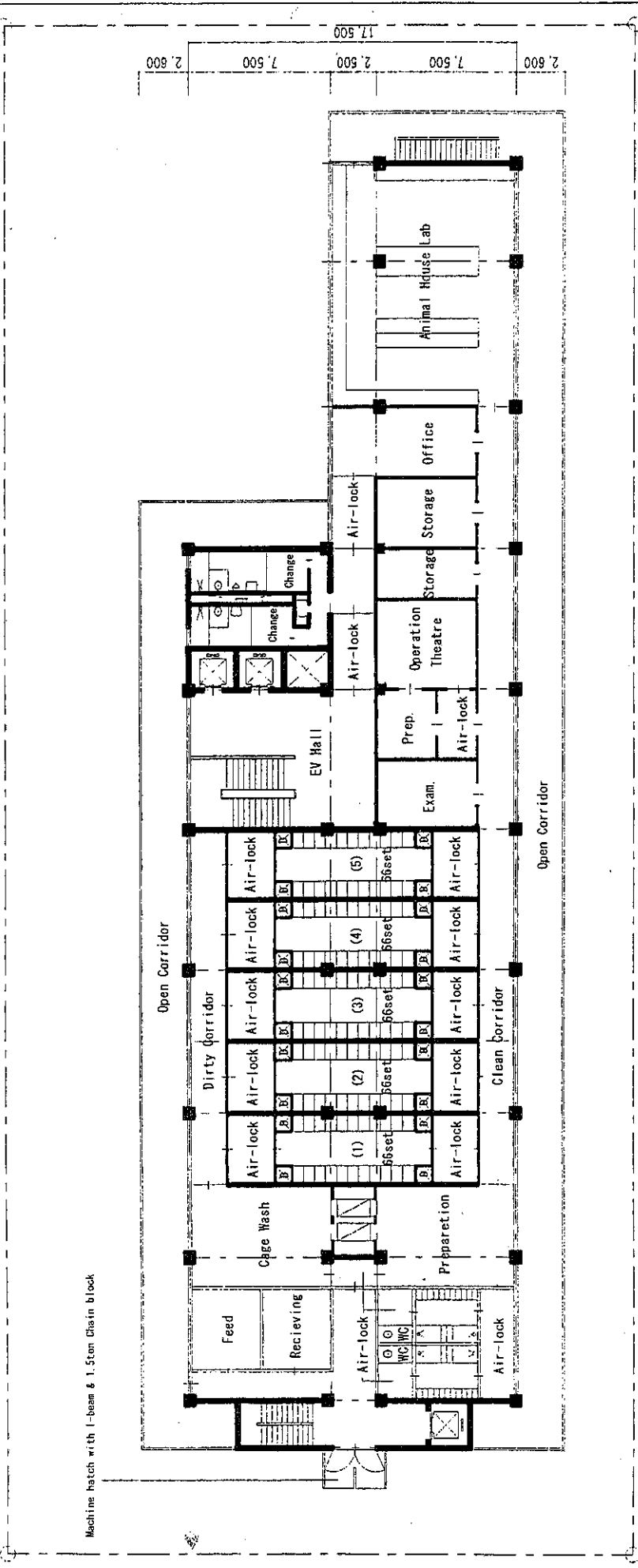


1-4F floor area 1,018.750m<sup>2</sup>

2.500	7.500	7.500	7.500	7.500	7.500	7.500	7.500	5.000
65,000								
Immunology Laboratory (2)			Pathophysiology Laboratory			Seminar Room		

9-1	UV/VIS Spectrophotometer	9-8	Bio-safety Cabinet	9-15	37°C Incubator	9-20	Magnetic stirrer
9-2	HPLC	9-9	Pulse field gel electrophoresis (PFGE)	9-16	Refrigerator	9-21	Microwave oven
9-3	FPLC	9-10	High speed centrifuge	9-17a	Deep freezer -20°C	9-22	Hot air oven
9-4	Pharmacia Smart system	9-11	Lyophilizer	9-17b	Deep freezer -80°C	9-23	Table top centrifuge
9-5	Biorad prep cell	9-12	Ultra Sonicator	9-17c	Deep freezer -185°C	9-24	Microfuge
9-6	Fluorescence Phase Contrast Microscope	9-13	Ice flake machine	9-18	PH meter	9-25	Shaker water bath
9-7	PCR	9-14	CO2 Incubator	9-19	Balance	9-26	UV transilluminator

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Annex 1-1

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2.500	7.500	7.500	7.500	7.500	7.500	7.500	7.500	5.000
65.000								

5f floor area 1.018.750m<sup>2</sup>

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New JICA Laboratory Centre

5F PLAN

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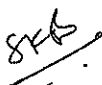
New LAB-03

**(A) List of Requested Equipment****Animal House Section**

1. Stainless steel rabbit holding cages with inbuilt racking device on wheel along with all accessories (complete set of 6 cages)
2. Polycarbonate rodent cages with all relevant accessories
3. Racks for above polycarbonate cages (trolley type)
4. Air curtain (complete set)
5. Humidity control device
6. Automatic light control device
7. Acrylic Rabbit restrainer
8. Universal Rodent restrainer
9. Rabbit ear bleeder
10. Rodent injection cone
11. Animal feeding needles
12. Weighing balance for animals up to 4kgs
13. Weighing balance for animals up to 60kgs
14. Vacuum cleaner and clipper
15. Modern mop
16. Aquaguard
17. Microprocessor control Autoclave
18. Electric geyser
19. Bio-lux- CXT Microscope
20. Refrigerator
21. Deep Freezer (-70°C)
22. Tables
23. Chairs
24. Working bench
25. Inbuilt almirah (cupboard)
26. Electronic calculator
27. Shaking water bath
28. Platform shaker
29. Digital Autoclave of different sizes

**Operation Theater Equipment**

30. Operating table
31. Head band magnifier with halogen light
32. Therapy chamber with accessories

33. Scissors
34. Knife
35. Forceps
36. Instrument tray
37. Medium size animal heated operating table with accessories
38. Utility Electrocautery Products (cutting/coagulation-mode)

**Division of Biochemistry**

1. Silicone Graphics and Digital equipment Alpha complete work station with software
2. Circular dichroism Spectrophotometer
3. Pharmacia Biocore – X
4. Differential Scanning and Titration calorimeter
5. Protein Purification System
  - a. HPLC with accessories
  - b. FPLC with accessories
  - c. Pharmacia SMART system with accessories
  - d. BioRad Prep Cell
6. Phosphorimager
7. Peptide Synthesizer
8. Gel Documentation System with CCD camera
9. FTIR Spectrophotometer
10. Multi Angle Laser Light Scattering (MALLS) Photometer
11. PCR
12. Pulse Field Gel Electrophoresis Apparatus
13. High speed centrifuge
14. Lyophilizer (Freeze dryer)
15. Ultrasonicator
16. CO2 Incubator
17. Incubator (37°C)
18. Refrigerator (4°C)
19. Deep Freezer (-20°C)
20. Deep Freezer (-80°C)
21. Deep Freezer (-185°C)
22. pH meter
23. Electronic balance
24. Magnetic stirrer
25. Microwave oven

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26. Hot air oven
27. Table top centrifuge (refrigerator with various rotors)
28. Microfuge (non-refrigerator)
29. Microfuge (refrigerated)
30. Laptop computer
31. Electronic calculator
32. Shaking water bath (10°C– 80°C)
33. Platform shaker
34. Table for scientists
35. Chairs for scientists
36. Wooden racks
37. Working benches
38. Chairs and stools
39. Wash basins with fittings
40. Built-in Almirah (cupboard)
41. Automated Proteomics workstation with LC-MS-MS
42. Water Purification System
43. Protein Sequencer
44. Digital camera for microscope

#### **Division of Clinical Epidemiology**

1. Digital Camera for microscope
2. BP instrument (Sphygmomanometer)
3. Stethoscope
4. Electronic thermometer
5. Infantometer (Baby height scale)
6. Weighing machine with platform
7. Baby weighing machine
8. Refrigerator (4°C)
9. Deep Freezer (-20°C)
10. pH meter
11. Electronic balance
12. Microwave oven
13. Table top centrifuge (refrigerator with various rotors)
14. Laptop computer
15. Electronic calculator
16. Table for scientists

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17. Chairs for scientists
18. Wooden racks
19. Working benches
20. Chairs and stools
21. Wash basins with fittings
22. Built-in Almirah (cupboard)

**Division of Immunology**

1. UV/VIS Spectrophotometer
2. GUAVA – Live Cell Sorter
3. MACS – Magnetic Cell Sorter
4. ELISA Reader
5. PCR
6. Pulse Field Gel Electrophoresis Apparatus
7. High speed centrifuge
8. Lyophilizer (Freeze dryer)
9. Ultrasonicator
10. Ice Flake Machine
11. CO2 Incubator
12. Incubator (37°C)
13. Refrigerator (4°C)
14. Deep Freezer (-20°C)
15. Deep Freezer (-80°C)
16. Deep Freezer (-185°C)
17. pH meter
18. Electronic balance
19. Magnetic stirrer
20. Microwave oven
21. Hot air oven
22. Table top centrifuge (refrigerator with various rotors)
23. Laptop computer
24. Microfuge (non-refrigerator)
25. Microfuge (refrigerator)
26. Electronic calculator
27. Pre fabricated cold room
28. Pre fabricated warm room, 37°C
29. Shaking water bath (10°C– 80°C)

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30. Platform shaker
31. Table for scientists
32. Chairs for scientists
33. Wooden racks
34. Working benches
35. Chairs and stools
36. Wash basins with fittings
37. Built-in Almirah (cupboard)
38. Gel documentation system with CCD camera
39. Bio-safety cabinet
40. Water Purification System
41. Bright field Phase Contrast Microscope
42. UV transilluminator
43. Digital camera for microscope

#### **Division of Microbiology**

1. Spectrofluorometer
2. UV/VIS Spectrophotometer
3. Protein Purification System
  - a. HPLC with accessories
  - b. FPLC with accessories
4. Gel Documentation System with CCD camera
5. Real Time PCR
6. Bio-safety cabinet
7. PCR
8. Pulse Field Gel Electrophoresis Apparatus
9. High speed centrifuge
10. Lyophilizer (Freeze dryer)
11. Ultrasonicator
12. Ice Flake Machine
13. CO2 Incubator
14. Incubator (37°C)
15. Refrigerator (4°C)
16. Deep Freezer (-20°C)
17. Deep Freezer (-80°C)
18. Deep Freezer (-185°C)
19. pH meter

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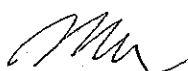
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20. Electronic balance
21. Magnetic stirrer
22. Microwave oven
23. Hot air oven
24. Table top centrifuge (refrigerator with various rotors)
25. Microfuge (non-refrigerated)
26. Microfuge (refrigerated)
27. Laptop computer
28. Electronic calculator
29. Pre fabricated cold room
30. Pre fabricated warm room, 37°C
31. Shaking water bath (10°C– 80°C)
32. Platform shaker
33. Table for scientists
34. Chairs for scientists
35. Wooden racks
36. Working benches
37. Chairs and stools
38. Wash basins with fittings
39. Built-in Almirah (cupboard)
40. Water Purification System
41. Bright field Phase Contrast Microscope
42. UV transilluminator

**Division of Parasitology**

1. UV/VIS Spectrophotometer
2. Analytical Ultracentrifuge
3. Protein Purification System
  - a. HPLC with accessories
  - b. FPLC with accessories
  - c. Pharmacia SMART system with accessories
  - d. BioRad Prep Cell
4. Real Time PCR
5. Inverted Fluorescence – Phase Contrast Microscope with real time video
6. Fluorescence – Phase Contrast Microscope with Screen and Photographic attachment
7. Bio-safety cabinet
8. LSM Laser for existing Conforcal Mircscope



SFD

9. PCR
10. Pulse Field Gel Electrophoresis Apparatus
11. High speed centrifuge
12. Lyophilizer (Freeze dryer)
13. Ultrasonicator
14. Ice Flake Machine
15. CO2 Incubator
16. Incubator (37°C)
17. Refrigerator (4°C)
18. Deep Freezer (-20°C)
19. Deep Freezer (-80°C)
20. Deep Freezer (-185°C)
21. pH meter
22. Electronic balance
23. Magnetic stirrer
24. Microwave oven
25. Hot air oven
26. Table top centrifuge (refrigerator with various rotors)
27. Laptop computer
28. Electronic calculator
29. Pre fabricated cold room
30. Pre fabricated warm room, 37°C
31. Shaking water bath (10°C– 80°C)
32. Platform shaker
33. Table for scientists
34. Chairs for scientists
35. Wooden racks
36. Working benches
37. Chairs and stools
38. Wash basins with fittings
39. Built-in Almirah (cupboard)
40. Multi photon Laser confocal Microscope
41. Water Purification System
42. UV transilluminator
43. Bright field Phase Contrast Microscope
44. Digital camera for microscope

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**Division of Virology**

1. UV/VIS Spectrophotometer
2. Protein Purification System
  - a. HPLC with accessories
  - b. FPLC with accessories
3. Real Time PCR
4. Bio-safety cabinet
5. PCR
6. Pulse Field Gel Electrophoresis Apparatus
7. High speed centrifuge
8. Lyophilizer (Freeze dryer)
9. Ultrasonicator
10. Ice Flake Machine
11. CO2 Incubator
12. Incubator (37°C)
13. Refrigerator (4°C)
14. Deep Freezer (-20°C)
15. Deep Freezer (-80°C)
16. Deep Freezer (-185°C)
17. pH meter
18. Electronic balance
19. Magnetic stirrer
20. Microwave oven
21. Hot air oven
22. Table top centrifuge (refrigerated with various rotors)
23. Laptop computer
24. Electronic calculator
25. Pre fabricated cold room
26. Pre fabricated warm room, 37°C
27. Shaking water bath (10°C– 80°C)
28. Platform shaker
29. Table for scientists
30. Chairs for scientists
31. Wooden racks
32. Working benches
33. Chairs and stools
34. Wash basins with fittings

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*MM*

35. Built-in Almirah (cupboard)
36. Bright field Phase Contrast Microscope
37. UV transilluminator
38. Water Purification System
39. Digital camera for microscope

**Pathophysiology**

1. Spectrofluorometer
2. UV/VIS Spectrophotometer
3. Bio-safety cabinet
4. PCR
5. High speed centrifuge
6. Lyophilizer (Freeze dryer)
7. Ultrasonicator
8. CO2 Incubator
9. Refrigerator, 4°C
10. Deep Freezer (-20°C)
11. Deep Freezer (-80°C)
12. Deep Freezer (-185°C)
13. pH meter
14. Ice flake machine
15. HPLC with accessories
16. FPLC with accessories
17. Pharmacia SMART system with accessories
18. BioRad Prep Cell
19. Water Purification System
20. Bright field Phase Contrast Microscope
21. UV transilluminator
22. Inverted Fluorescence Phase Contrast Microscope with real time video
23. Fluorescence Phase Contrast Microscope with screen and photography attachment
24. Pulse Field Gel Electrophoresis Apparatus
25. Incubator, 37°C
26. Electronic balance
27. Magnetic stirrer
28. Digital camera for microscope
29. Microwave oven
30. Hot air oven

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31. Table top centrifuge – refrigerated with various rotors
32. Microfuge (refrigerated)
33. Microfuge (non-refrigerated)
34. Laptop computer
35. Electronic calculator
36. Pre fabricated cold room
37. Pre fabricated warm room, 37°C
38. Shaking water bath (10°C– 80°C)
39. Platform shaker
40. Tables for scientist
41. Chairs for scientist
42. Wooden racks
43. Wooden benches
44. Chair and Stool
45. Wash basin with fittings
46. Built-in Almirah (cupboard)

**Electron Microscopy Room**

1. Atomic force microscope
2. Scanning Electron Microscope

**Training Laboratory**

1. Thermal Cycler
2. Microfuge
3. Vortex mixer
4. Microtube mixer
5. Rotary platform shaker
6. Water bath
7. Dry bath
8. Freezer, -20°C
9. Freezer, -80°C
10. Refrigerator
11. Water Purification System
12. Vertical Gel Electrophoresis Apparatus
13. Horizontal Gel Electrophoresis Apparatus
14. Pulsed Field Gel Electrophoresis Apparatus
15. UV Transilluminator

SF/S  
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16. White Light Box
17. Power Pack for Gel Electrophoresis Apparatus
18. Bio Safety Hood
19. Micropipettes, 2  $\mu$  L, 20  $\mu$  L, 100  $\mu$  L, 200  $\mu$  L, 1000  $\mu$  L, 5000  $\mu$  L
20. Gel Documentation System
21. Refrigerated Table Top Centrifuge
22. Table Top Centrifuge
23. Speedvac Vacuum Drier
24. Vacuum Pump
25. Compound Light Microscope
26. Inverted Microscope
27. CO2 Incubator
28. Liquid Nitrogen Container, 15 liters
29. Temperature Controlled Incubator fitted with shaking platform inside suitable to hold tubes, flasks of different sizes

**Computer Software**

30. Omega – license for multiple users
31. Sequencher – license for multiple users
32. DNAsis – license for multiple users
33. Clustal X – license for multiple users
34. Treeview – license for multiple users
35. Adobe Photoshop – license for multi users
36. Projection Screen
37. Microphones
38. Amplifier
39. LCD Projector
40. Overhead Projector
41. Laser Pointer
42. 15KVA, 3Phase, Servo Control Voltage Stabilizer

**Meeting Room**

1. Chairs for 75 persons
2. LCD projector
3. Laptop computer
4. Slide projector
5. Overhead projector
6. Screen

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7. Transistor and satellite microphone

**Seminar Room**

1. Table with built-in microphone for 25 persons
2. Chairs for 25 persons
3. LCD projector
4. Slide projector
5. Overhead projector
6. Screen
7. Transistor and satellite microphone
8. Copy machine
9. Color Copy machine
10. Local area network (LAN)
11. Computer
12. Printer
13. Scanner
14. CD writers etc

**Office**

1. Secretariat Table
2. Executive Chair
3. Copy machine
4. Color Copy machine
5. Local area network (LAN)
6. Computer
7. Printer
8. Scanner
9. CD writer etc

**Others**

1. Computers (35 sets for all)
2. Printers (35 sets for all)
3. Scanner (35 sets for all)
4. CD writer etc (35 sets for all)
5. High speed Data transfer facility

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(B) List of Equipment to be shifted from NICED to proposed center

1. Centrifuge
2. Light microscope
3. Fluorescence microscope
4. pH meter
5. Balances
6. Autoclaves
7. CO2 Incubator
8. Microfuge (refrigerated and non-refrigerated)
9. Shaking water bath of various temperature ranges
10. Electrophoresis system (Horizontal, vertical)
11. Vacuum cleaner
12. Refrigerator
13. Baby weighing balances
14. Patient weighing balances
15. Ophthalmoscope
16. Infantometer (Baby height scale)
17. Computers
18. Printers, laser and inkjet
19. Scanner
20. Tables and chairs

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## JAPAN'S GRANT AID

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

### 1. Grant Aid Procedures

1) Japan's Grant Aid Program is executed through 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  
Cabinet)

Determination of Implementation

(The Notes exchanged between the Governments of Japan and the recipient country)

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

Secondly, JICA conducts the study (Basic Design Study), using Japanese consulting firms.

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.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.




## 2. Basic Design Study

### 1) Contents of the Study

The aim of the Basic Design Study (hereinafter referred to as "the Study"), conducted by JICA on a requested project (hereinafter referred to as "the Project"), is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows:

- a) Confirmation of the background, objectives and benefits of the requested Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation;
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social, and economic point of view;
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project;
- d) Preparation of a basic design of the Project and
- e) Estimation of costs 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.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even through they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

### 2) Selection of Consultants

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

The consulting firms used for the Study are recommended by JICA to the recipient country to also work in the Project's implementation after the Exchange of Notes, in order to maintain technical consistency between the Basic Design and detailed Design.




### 3. Japan's Grant Aid Scheme

#### (1) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

(2) "The period of the Grant" means the one fiscal year which the Cabinet approves the project for. Within the fiscal year, all procedure such as exchanging of the Notes, concluding contracts with consultant firms and contractors and final payment to them must be completed.

However, in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

(3) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

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

However, the prime contractors, namely consulting, constructing 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.)

#### (4) Necessity of "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability of Japanese taxpayers.

#### (5) 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 following;

- a) To secure land necessary for the sites of the Project, and to clear, level and reclaim the land prior to commencement for the 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 procurement in case the installation of the 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 purchase under the Grant Aid.
- e) 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;
- 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;
- g) To ensure that the facilities constructed and products purchased under the Grant Aid be maintained and used properly and effectively for the Project; and
- h) To bear all the expenses, other than those covered by the Grant Aid, necessary for the Project.

(6) Proper Use

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

(7) Re-export

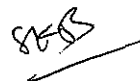
The products purchased under the Grant Aid shall not be re-exported from the recipient country.

(8) Banking Arrangement (B/A)

- a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the 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 (A/P) issued by the Government of recipient country or its designated authority.

(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions to the Bank.



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 the building	●	
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/or 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 a bank of Japan for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9	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 customs 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 contract 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 contract		●
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		●
13	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities as well as for the transportation and installation of the equipment		●

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MINUTES OF DISCUSSIONS  
ON PRELIMINARY STUDY  
ON GRANT AID PROJECTS IN HEALTH SECTOR  
IN INDIA

In response to requests from the Government of India (hereinafter referred to as "India"), the Government of Japan decided to conduct a Preliminary Study on Grant Aid Projects in health sector (hereinafter referred to as "the Projects") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to India the Preliminary Study Team (hereinafter referred to as "the Team"), headed by Dr. O. Kunii, Special Policy Advisor, Research and Programming Division, Economic Cooperation Bureau, Ministry of Foreign Affairs, and Ms. A. Muto, Staff, Second Project Management Division, Grant Aid Management Department, JICA. The Team stayed in India from 16<sup>th</sup> July 2003 to 3<sup>rd</sup> August 2003.

The Team held discussions with the officials concerned of the Government of India and conducted field surveys at the study areas.

In the course of the discussions and field surveys, both parties confirmed the main items described in the attached sheets.


Delhi, 1<sup>st</sup> August, 2003



Osamu KUNII  
Leader  
Preliminary Study Team  
Japan International Cooperation Agency



A.K. JHA  
Director (IH)  
Department of Health  
Ministry of Health & Family  
Welfare (MoH&FW)  
Government of India



V. VUM LUN MANG  
Deputy Secretary  
Department of Economic  
Affairs (DEA)  
Ministry of Finance  
Government of India

## ATTACHMENT

### 1. Objective of the Study

The objective of the study is to confirm present situation and feasibility of the proposed projects.

### 2. Proposed Project Sites

The proposed project sites are as follows:

- 2.1 The Project for Founding a Collaborative Diarrheal Diseases Research and Control Centre, located in Kolkata, West Bengal State
- 2.2 The Project for Augmentation of Primary Rural Health Care Infrastructure for Mother and Child Health and Family Welfare Services, located in Shillong, Meghalaya State.
- 2.3 The Project for Improvement of Medical Equipment in Sardar Vallabhbhai Patel Post Graduate Institute of Pediatrics (SVP PGIP), located in Cuttack, Orissa State

### 3. Responsible and Implementing Agency

The Responsible Agencies and Implementing Agencies are as follows:

- 3.1 The Project for Founding a Collaborative Diarrheal Diseases Research and Control Centre; the responsible agency is the Indian Council of Medical Research (ICMR) and the implementation agency is National Institute of Cholera and Enteric Diseases (NICED)
- 3.2 The Project for Augmentation of Primary Rural Health Care Infrastructure for Mother and Child Health and Family Welfare Services; the responsible agency is Department of Health Services, Government of Meghalaya; and the implementing agency is Shillong Civil Hospital and Ganesh Das Hospital
- 3.3 The Project for Improvement of Medical Equipment in Sardar Vallabhbhai Patel Post Graduate Institute of Pediatrics (SVP PGIP); the responsible agency is Health and Family Welfare Department, Government of Orissa and the implementing agency is Sardar Vallabhbhai Patel Post Graduate Institute of Pediatrics.

### 4. Japan's Grant Aid Scheme

- 4.1 Indian side understands Japan's Grant Aid Scheme explained by the Team, as described in Annex-1
- 4.2 Indian side will take the necessary measures, as described in Annex-2, for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented.



## 5. Schedule of the Study

The team will analyze the results of the Study after returning to Japan and inform the Indian side of the summary of the results.

## 6. Summary of the Study

First of all, the Team appreciated the quick response and kind cooperation received from all responsible and implementing agencies in each state. The following is a brief summary of the Study.

### 6.1 The Project for Founding a Collaborative Diarrheal Diseases Research and Control Centre

Since the Project is closely related to the Technical Cooperation, contents of the request are quite mature. The Team clarified technical matters as attached in Annex-3

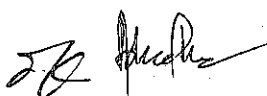
### 6.2 The Project for Augmentation of Primary Rural Health Care Infrastructure for Mother and Child Health and Family Welfare Services

The Team visited the requested project sites, which are Shillong Civil Hospital and Ganesh Das Hospital. Besides, the Team visited Pasteur Institute (Referral Laboratory), Nazareth Hospital (Private), Sohra Community Health Centre, Laitryngen Primary Health Centre, and Umlympung Sub Centre to catch the picture of health sector in Meghalaya State.

The Team highly appreciates that both hospitals are very well managed and organized. All the staff in the hospitals look quite diligent and make full use of the existing equipment and in keeping both hospitals neat and tidy. On the other hand, the Team found a lot of basic equipment not working and lack of essential equipment.

The Team would also like to emphasize the importance of the maintenance of facilities and equipment. This is because the facilities and equipment became non-working even if they are used in a proper way, and they become non-functional very soon without appropriate maintenance. Therefore, to consider this Project, all the following points for existing facilities and equipment should be considered by the Government of Meghalaya beforehand, since the Team found that there was no systematic maintenance in the proposed hospitals;

- Establishment of Hospital Equipment Repair and Maintenance Department in Civil Hospital and giving full mandate to disburse necessary cost for daily maintenance, purchasing spare parts and consumables, repairing and so on. Delivery services from the above mentioned department not only to Ganesh Das Hospital but also to the other hospitals are recommended.



- Allocation of qualified engineers in electronics, electrical and mechanical works and so on, at the Hospital Equipment Repair and Maintenance Department.
- Making annual maintenance contracts with the manufacturers / local agencies on such sophisticated equipment as CT Scanner, X-Ray diagnosis machine, and ultrasound apparatus. Besides daily maintenance and repair, purchase of spare parts and consumables and repairing these sophisticated equipment required periodic maintenance by the manufacturers / local agencies.

Besides the above mentioned comments concerning the requested Project, the Team would like to comment on other issues.

The Team recognized that the Ministry of Health has made great efforts to improve people's health in spite of limited resources.

Major diseases at the facilities from the peripheral to the top level in the state are Diarrhoea, Acute respiratory infection, other infectious diseases and congenital abnormality and other diseases related with mothers and children. Most of patients are mothers and children. A large number of patients from all districts tend to directly come to Civil Hospital, Shillong and Ganesh Das Hospital to seek good quality of medical services even though the Community Health centers locally exist. It means that the appropriate referral system in the state does not seem to be functioning well.

The Team recommends that the function of Community Health Centre should be strengthened to improve medical services to avoid overcrowding at Shillong Civil Hospital and Ganesh Das Hospital.

#### 6-3 The Project for Improvement of Medical Equipment in Sardar Vallvbhai Patel Post Graduate Institute of Pediatrics (hereinafter referred to as "the Institute")

The Team visited the Institute, Civil Hospital, and Mendhasal Primary Health Centre.

The Team realized that the Orissa State has the highest Infant Mortality Rate (IMR:90 per 1000 live births), about 60% of which is attributed to neonatal deaths (that is, deaths less than one month of birth:49 per 1000 live births). Although efforts at all levels from a primary to a tertiary level are needed to reduce IMR, the Team recognized that external assistance including UNICEF and World Bank put focus on the primary and secondary levels and none provides assistance to the tertiary level. The Team recognized that the Institute plays a key and crucial role as the top referral hospital for children, about 30% of the population of 35 million in Orissa and the teaching facility for medical students and doctors, both undergraduate and postgraduate, most of whom would later serve at the primary and secondary medical facilities.

First of all, the Team got impressed with good management and utilization of facility, human resources and equipment of the institute, though in particular some of the medical equipment are old enough to have installed over 40 years ago. The Institute also makes efforts to increase its sustainability though introduction of user fee. However, the Team

found that even basic medical equipment requiring treatment for treatable or death-preventable infant cases, especially neonatal cases, are lacking or non-functioning, although doctors have quite a high standard of knowledge and skills that could handle and operate more sophisticated equipment. The Team also realized that a renewal and installment of medical equipment would improve education and training of both doctors and co-medicals, who would work at a primary and secondary level because they may learn more proper and precise diagnostic and treatment processes.

Through visits to Civil Hospital and Mendhasal Primary Health Centre, the Team was persuaded that the Institute has a good referral link with secondary and primary medical facilities.

#### 7. Other Relevant Issues

The Government of Meghalaya requested to consider reconstruction of Ganesh Das Hospital in case the proposed Project is implemented and the Team took note of it.

The Government of Orissa, during discussion, requested to add renovation of buildings in the Institute to the proposal, which is placed at the second priority next to medical equipment and the Team took note of it.

## JAPAN'S GRANT AID

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

## 1. Grant Aid Procedures

1) Japan's Grant Aid Program is executed through 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  
Cabinet)
- Determination of Implementation  
    (The Notes exchanged between the Governments of Japan and the recipient country)

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

Secondly, JICA conducts the study (Basic Design Study), using Japanese consulting firms.

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.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

## 2. Basic Design Study

### 1) Contents of the Study

The aim of the Basic Design Study (hereinafter referred to as "the Study"), conducted by JICA on a requested project (hereinafter referred to as "the Project"), is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows:

- a) Confirmation of the background, objectives and benefits of the requested Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation;
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social, and economic point of view;
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project;
- d) Preparation of a basic design of the Project and
- e) Estimation of costs 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.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even through they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

### 2) Selection of Consultants

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

The consulting firms used for the Study are recommended by JICA to the recipient country to also work in the Project's implementation after the Exchange of Notes, in order to maintain technical consistency between the Basic Design and detailed Design.

### 3. Japan's Grant Aid Scheme

#### (1) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

#### (2) "The period of the Grant" means the one fiscal year which the Cabinet approves the project for.

Within the fiscal year, all procedure such as exchanging of the Notes, concluding contracts with consultant firms and contractors and final payment to them must be completed.

However, in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

#### (3) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

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

However, the prime contractors, namely consulting, constructing 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.)

#### (4) Necessity of "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability of Japanese taxpayers.

#### (5) 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 following;

- a) To secure land necessary for the sites of the Project, and to clear, level and reclaim the land prior to commencement for the 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 procurement in case the installation of the 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 purchase under the Grant Aid.

- e) 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;
- 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;
- g) To ensure that the facilities constructed and products purchased under the Grant Aid be maintained and used properly and effectively for the Project; and
- h) To bear all the expenses, other than those covered by the Grant Aid, necessary for the Project.

(6) Proper Use

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

(7) Re-export

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

(8) Banking Arrangement (B/A)

- a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the 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 (A/P) issued by the Government of recipient country or its designated authority.

(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions to the Bank.

## 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 the building.	●	
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/or 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 a bank of Japan for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9	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 customs 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 contract 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 contract		•
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		•
13	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities as well as for the transportation and installation of the equipment		•

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

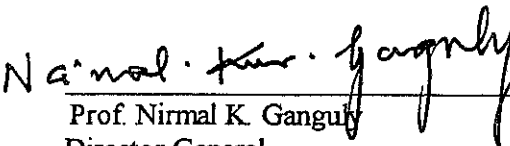
In response to requests from the Government of India (hereinafter referred to as "India"), the Government of Japan decided to conduct a Preliminary Study on Grant Aid Projects in health sector (hereinafter referred to as "the Projects" ) and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA") .

JICA sent to India the Preliminary Study Team (hereinafter referred to as "the Team"), and is scheduled to stay in the country from 16<sup>th</sup> July 2003 to 3<sup>rd</sup> August 2003.

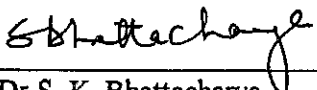
The Team, which is headed by Ms. Muto, Second Project Management Division, Grant Aid Management Department, JICA, held discussions on one of the Projects, the Project for Founding a Collaborative Diarrheal Diseases Research and Control Center (hereinafter referred to as "the Project"), with the officials concerned of the Government of India and conducted a field survey at the study area.

In the course of discussions and field survey, both parties confirmed the main items described in the attached sheets.

Kolkata, 22nd July, 2003

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

  
Ms. Ako Muto  
Leader  
Preliminary Study Team  
Japan International Cooperation Agency  
Japan

  
Dr. S. K. Bhattacharya  
Director  
National Institute of Cholera and  
Enteric Diseases  
Indian Council of Medical  
Research  
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 National Institute of Cholera and Enteric Diseases (hereinafter referred to as "NICED") through founding a Collaborative Diarrheal Diseases Research and Control Center.

### 2. Project site

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

### 3. Responsible and Implementing Agency

The Responsible Agency is Indian Council of Medical Research and Implementing Agency is NICED.

### 4. Items requested by NICED

After discussions with the Team, the items described in Annex-1 were finally requested by NICED. JICA will assess the appropriateness of the request and will report the findings to the Government of Japan. Annex-1 consists of the followings.

Annex 1-1: Lay out plant

Annex 1-2: Equipment List

### 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-2.

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

### 6. Other relevant issues

#### 6-1 Scope of the Project

Both sides confirmed that the scope of the Project was to support achievement of the purpose of the Japanese Technical Cooperation for the Project for Prevention of Diarrheal Diseases (Phase 2).

#### 6-2 Activities of the existing building, the building under construction by the Indian side, and the proposed building in the Project

The activities carried out in the existing NICED building and the building under construction by the Indian side are to be culture level diagnoses.

The activities of the proposed building in the Project are to sustain the molecular level

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diagnosis, which includes breeding good quality of animals for experiment, to establish national surveillance network system, to manage and control strains and diagnostic sera, to train researchers and technicians not only from India but also from abroad.

#### 6-3 Contents of the proposed building

- Laboratories consist of molecular bacteriology, molecular virology, molecular parasitology, molecular biochemistry, molecular immunology, molecular epidemiology, and clinical microbiology
- Animal house for rabbits, mice, hamsters, rats, and guinea pigs
- Microbial depository
- Serum bank
- Administrative offices including rooms for surveillance system network, training room, Japanese experts' room

#### 6-4 Recommendation by the Team

- Allocation of suitable number of skilled scientists, technicians for laboratory, animal house, serum bank and so on
- Allocation of necessary budget to operate, to maintain, and to cover spare parts, consumables, and periodical maintenance contract for facilities and equipment and so on

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