

Appendices

1. Member List of the Survey Team

Basic Design Survey (February 4 to March 3, 2007)

No.	Name	Assignment title	Organization
1	Mr. Masaharu KANAMEDA	Leader & Technical Advisor	Senior Adviser (Animal Health and Production) Japan International Cooperation Agency
2	Mr. Naotaka YAMAGUCHI	Project Coordinator	Project Management Third Group, Grant Aid Management Department, Japan International Cooperation Agency
3	Mr. Takeshi ENDO	Project Manager/ Architectural Planner / Environmental & Social Concerns	Nihon Sekkei, Inc.
4	Mr. Shin HINOMIZU	Facility Design	Nihon Sekkei, Inc.
5	Mr. Makoto SUZUKI	Equipment Plan I / Veterinary Diseases Diagnostic System	Fujita Planning Co., Ltd.
6	Mr. Ryoji YAMAGUCHI	Equipment Plan	Fujita Planning Co., Ltd.
7	Ms Masako SUGITA	Procurement and Cost Planner	Fujita Planning Co., Ltd.
8	Mr. Motohiro OKADA	Mechanical Systems Design	Nihon Sekkei, Inc.
9	Mr. Hideo NAKASHIMA	Construction and Cost Planner	Nihon Sekkei, Inc.
10	Mr. Tetsuya FUJITA	Structural Design (Assistant)	Nihon Sekkei, Inc.

Explanation on Draft Report (May 27 to June 7, 2007)

No.	Name	Assignment title	Organization
1	Mr. Naotaka YAMAGUCHI	Leader	Project Management Third Group, Grant Aid Management Department, Japan International Cooperation Agency
2	Mr. Takeshi ENDO	Project Manager/ Architectural Planner / Environmental & Social Concerns	Nihon Sekkei, Inc.
3	Mr. Makoto SUZUKI	Equipment Plan I / Veterinary Diseases Diagnostic System	Fujita Planning Co., Ltd.
4	Ms. Makiko UEMURA	Architectural Design (Assistant)	Nihon Sekkei, Inc.
5	Mr. Takahisa ISOBE	Facilities Planner (Assistant)	Nihon Sekkei, Inc.
6	Mr. Yosuke OTANI	Electricity Planning (Assistant)	Nihon Sekkei, Inc.

2. Study Schedule

Basic Design Survey (February 4 to March 3, 2007)

Team Members		Government Team Members				Consultant Memebers						
		Team Leader, Technical Advisor	Project Coordinator	Project Manager/ Arch. Plan/ Enmr. & Social Concerns	Equipment Plan. /Veterinary Diseases Diagnostic System	Facility Design	Mechanical Systems Design	Equipement Plan	Construction Plan./ Procurement	Structural Design (Assistant)	Equipment Procurement	
1	Feb. 4 (Sun)		Iv. Narita ar. Jakarta									
2	5 (Mon)		Visit JICA Office & Embassy of Japan Visit Ministry of Agriculture, Explanation of Implementation Report, Study Schedule, Visit HAPI				Iv. Jakarta ar. Medan		Visit DIC Medan Inspection & Detailed Study,			
3	6 (Tue)		Iv. Jakarta ar. Yogyakarta Visit & Inspection DIC Yogyakarta				Detailed Study of DIC Medan		Iv. Narita ar. Jakarta			
4	7 (Wed)		Iv. Jakarta ar. Bandar Lampung Visit & Inspection DIC Lampung Iv. Bandar Lampung ar. Jakarta				Detailed Study of DIC Medan		Iv. Jakarta ar. Medan			
5	8 (Thu)		Iv. Jakarta ar. Medan Visit & Inspection DIC Medan Iv. Medan ar. Jakarta				Detailed Study of DIC Medan		Iv. Medan ar. Jakarta			
6	9 (Fri)		Discussions with Ministry of Agriculture (Results of Study on site, others)				Iv. Jakarta ar. Subang (by Land) Study of West Java DIC Site Subang (stay near Subang)					
7	10 (Sat)		Iv. Jakarta ar. Subang (by Land) Study of West Java DIC Site Subang Iv. Subang ar. Jakarta (by land)				Study of West Java DIC Site Subang (stay near Subang)					
8	11 (Sun)	Iv. Narita ar. Jakarta	Internal Discussions/Data Collation				Iv. Subang ar. Jakarta (by land) Internal Discussions/Data Collation				Iv. Narita ar. Jakarta	
9	12 (Mon)	Discussions with Ministry of Agriculture (Draft Facility & Equipment Plan, Items borne by Indonesia, Infrastructure, Social Considerations, etc)						Interview Survey Contractors, Request Estimate		Equipment Procurement Survey		
10	13 (Tue)	Discussions at Ministry of Agriculture on Minutes of Discussions						Survey of Construction & Procurement		Equipment Procurement Survey		
11	14 (Wed)	Signing of M/D Report to JICA Office & EOJ Iv. Jakarta				Iv. Jakarta ar. Bandar Lampung Visit & Detailed Study DIC Lampung				Equipment Procurement Survey		
12	15 (Thu)	ar. Narita	Visit other Doners / Data Collection		Detailed Study DIC Lampung				Equipment Procurement Survey			
13	16 (Fri)		Discussions at Ministry of Agriculture Scope of works, etc)		Detailed Study DIC Lampung		Detailed Study DIC Lampung Iv. Bandar Lampung ar. Jakarta		Equipment Procurement Survey			
14	17 (Sat)		Discussions at Ministry of Agriculture (Evaluation Criteria, confirm requests for appointments, etc)		Detailed Study DIC Lampung Iv. Bandar Lampung ar. Jakarta		Survey of Construction & Procurement Iv. Jakarta		Equipment Procurement Survey			
15	18 (Sun)		Internal Meeting/ Data Collation						ar. Narita		Internal Meeting	
16	19 (Mon)		Study of construction conditions, methods and technology capabilities						Survey Contractor contract		Equipment Procurement Survey	
17	20 (Tue)		Discussions with relevant authorities of Subang site infrastructure				Survey of Construction & Procurement Iv. Jakarta				Equipment Procurement Survey Iv. Jakarta	
18	21 (Wed)		Discussions at Ministry of Agriculture (Social Considerations, etc)				ar. Narita				ar. Narita	
19	22 (Thu)		Baseleine survey for evaluation criteira & data collection									
20	23 (Fri)		Visit to other donars		Preparation of Draft Basic Design							
21	24 (Sat)		Preparation of Draft Basic Design									
22	25 (Sun)		Internal Meeting/ Data Collation									
23	26 (Mon)	Discussions at Ministry of Agriculture (Draft Facility Plan, etc)										
24	27 (Tue)	Discussions at Ministry of Agricultutre (Draft Equipment Plan)										
25	28 (Wed)	Discussions at Ministry of Agricultutre (Draft Technical Memorandum on Facilities)										
26	Mar. 1 (Thu)	Discussions at Ministry of Agricultutre (Draft Technical Memorandum on equipment procurement)										
27	2 (Fri)	Signing of Technical Memorandum Report to JICA Office & EOJ Iv. Jakarta										
28	3 (Sat)	ar. Narita										

Explanation on Draft Report (May 27 to June 7, 2007)

Team Members			Team Leader	Project Manager/ Architectural Planner / Environmental & Social Concerns	Equipment Plan I / Veterinary Diseases Diagnostic System	Architectural Design (Assistant)	Facilities Planner (Assistant)	Electricity Planning (Assistant)
Date								
1	5/27	SUN	Tokyo Jakarta					
2	5/28	MON	Courtesy call to JICA Office Courtesy call to the Embassy of Japan Discussions w ith Ministry of Agriculture					
3	5/29	TUE	Discussions w ith Ministry of Agriculture			AM : Jakarta Bandar Lampung PM: DIC Lampung Site Survey		
4	5/30	WED	Discussions w ith Ministry of Agriculture			AM : DIC Lampung Site Survey PM: Bandar Lampung Jakarta		
5	5/31	THU	Presentation to the authorities Discussions w ith the other doners			AM: Jakarta Medan PM: DIC Medan Site Survey		
6	6/1	FRI	Internal Discussions			AM: DIC Medan Site Survey PM: Medan Jakarta		
7	6/2	SAT	Discussions w ith Ministry of Agriculture Internal Discussions			Internal Discussions/Data Collation		
8	6/3	SUN	Internal Discussions / Data Collation					
9	6/4	MON	Discussions w ith Ministry of Agriculture(Minutes)			AM : Jakarta Sbang PM: DIC Sbang Site Survey		
10	6/5	TUE	Discussions w ith Ministry of Agriculture(Minutes)					
11	6/6	WED	Signing of M/D Report to JICA Office EOJ Departure from Jakarta			Discussions w ith Ministry of Agriculture, DIC Medan & DIC Lampung		
12	6/7	THU	Arrival at Tokyo (7:40)			Preparation of Draft Technical Memorandum		
13	6/8	FRI				AM: Signing of Technical Memorandum PM: Report to JICA Office & Japanese Embassy Departure from Jakarta		
14	6/9	SAT				Arrival at Tokyo		

3. List of Parties Concerned in the Recipient Countries

Indonesian Side

(Ministry of Agriculture)

Directorate General of Livestock Services, Ministry of Agriculture

Ir. Mathur Riady, MA

Director General of Livestock Services

Dr. Itsuo Shimohira

Livestock Development Policy Adviser

* Counterpart for the Preliminary Study Team

Dr. Fauzi Luthan

Director of Ruminant, Directorate of Ruminant Production, DGLS

Dr. Maradoli Hutasuht

Head of Non Poultry sub directorate, Directorate of Non Ruminant, DGLS

Dr. J. Liano

Head of Planning Division, Secretariat, DGLS

Ms. Elly Sudiana, DVM, MSc

Coordinator of AI Campaign Management Unit

Dr. Bagoes Poermadjajdi

Head of Surveillance, Sub-directorate, Directorate of Animal Health

Dr. H. Mastor

Head of Surveillance & Epidemiology

Dr. Muhammad Azhar

Secretary of Campaign, Management Unit of Avian Influenza

Dr. Ronny Mubedo

Staff of Campaign, Management Unit of Avian Influenza

Dr. Nuri Widowati

Officer in charge of International Cooperation

Dr. Elly Sawitri Siregar

Coordinator Avian Influenza Campaign Management Unit

DIC Regional 1 Medan

Dr. Herlin Diah Sumaryani, M.Si

Director

Dr. Ni Wayan Diah P.

Microbiology and food safety

Dr. Martdeliba

Virology Staff

Dr. Suhirajan

Pathology

Mr. Husni

Electrician

Mr. Ruslam Surengar

Facility Maintenance

DIC Regional 3 Lampung

Dr. Soegiarto

Head of DIC Lampung

Dr. Marfiotinagsi

Virology

Ms. Mardiatmi

Epidemiology Staff

Mr. Wisno Adi Saputra

Pathology Staff

Ms. Sulinawati

Idem

Mr. Faizah

Molecular Virology Staff (Biochemistry laboratory)

Dr. Hadi Prabowo

Pathology

Dr. Rismayani Saridewi

Veterinary Public Health

Mr. Eko Agus S.

Molecular Virology Staff (Biochemistry laboratory)

Ms. Diyan Cahyaningsari

Molecular Virology Staff (Biochemistry laboratory)

DIC Regional 4 Yogyakarta

Dr. Sutrisno

Administration

Dr. Tri Bhakti Usman

Virologist

Dr. Sia met Mitomo

Bacteriologist

Dr. Waluyo Brd. Psiyono

Pathology

Dr. Gesit Chejo

Pathology

Dr. Khejalatus . M. P

Parasitology

Dr. Samkan Mp

Epidemiology

Dr. Putut

Epidemiology

Dr. Nasir

Veterinary Public Health

Dr. Maria

Veterinary Public Health

Dr. Sihanoeyani

Virology

Dr. C. Rinioroni

Bacteriology

Dr. Didir Yulianto

Pathology

Dr. Virawatos

Pathology

National Development Planning Agency (BAPPENAS)
Dr. Ir. Endah Murningtyas Msc Director

USAID
Dr. Lloyd H. Lauerman PCR Consultant

Food and Agriculture Organization of United Nations (FAO)
Mr. John Weaver Senior Technical Advisor

PLN Medan
Mr. Suyadi Marketting

TELKOM Medan
Mr. Ketuf Budi Utama General Manager

PDAM Medan
Mr. Heri Batangari Manager

PLN Lampung
Mr. Nur Taufis Assistant Manager

TELKOM Lampung
Mr. Risma Mauu

PDAM Lampung
Mr. Herrie Eajy Director

PWD Subang
Mr. Dondon

PLN Subang
Mr. M. Chaerudeis

TELKOM Subang
Mr. Eri Ernawat

PDAM Subang
Drs.H. Dedy Pujasumedi Patah President Director

Meteorological and Geological Agency Bandung
Mr. M. Hideyat Data Processing sub Division

Japanese Side

Embassy of Japan
Mr. Takashi SEO First Secretary

JICA Indonesia Office
Mr. Keichi KATO Resident Representative
Mr. Nobuhiko HANAZATO Deputy Resident Representative
Mr. Makoto YAMANE Representative

4. MINUTES OF DISCUSSION (Basic Design Survey)

MINUTES OF DISCUSSIONS
ON THE BASIC DESIGN STUDY
ON "PROJECT FOR IMPROVEMENT ON ANIMAL HEALTH LABORATORIES
FOR AVIAN INFLUENZA AND OTHER STRATEGIC ANIMAL INFECTIOUS DISEASES
IN THE REPUBLIC OF INDONESIA

Based on the results of the Preparatory Study, the Government of Japan decided to conduct a Basic Design Study on "Project for Improvement on Animal Health Laboratories for Avian Influenza and Other Strategic Animal Infectious Diseases" (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to the Republic of Indonesia (hereinafter referred to as "Indonesia") the Basic Design Study Team (hereinafter referred to as "the Team"), which is headed by Dr. Masaharu KANAMEDA, Senior Advisor, Institute for International Cooperation, JICA, and is scheduled to stay in the country from February 4, 2007 to March 2, 2007.

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

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

Jakarta, February 14, 2007



Dr. Masaharu Kanameda
Leader
Basic Design Study Team
Japan International Cooperation Agency



Ir. Mathur Riady, MA
Director General of Livestock Services
Ministry of Agriculture
The Republic of Indonesia

ATTACHMENT

1. Objective of the Project

The objective of the Project is to improve the regional Disease Investigation Center (DIC) Regional I Medan, and DIC Regional III Lampung and to establish a new DIC in Subang, West Java in order to carry out the National Strategic Plan for Avian Influenza Control and Pandemic Influenza Preparedness steadily and properly.

2. Project sites

The sites of the Project are the DICs located in Medan, Lampung and Subang.

3. Responsible and Implementing Agency

3-1 The Responsible Agency is the Directorate General of Livestock Services, Ministry of Agriculture of the Government of Indonesia and its organization chart is shown in ANNEX-1.

3-2 The Implementing Agency is the Directorate of Animal Health.

4. Items requested by the Government of Indonesia

After discussions with the Team, the items described in Annex-2 were finally requested by Indonesian side. JICA will assess the appropriateness of the request and will recommend to the Government of Japan for approval.

(1) Construction of the Buildings and Facilities

Details of items are listed in Annex-2-1.

(2) Procurement of the Equipment

Details of items are listed in Annex-2-2.

The maximum components of the facility plan and the equipment are prioritized in the list.

5. Japan's Grant Aid Scheme

Indonesian side understands the Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Indonesia as explained by the Team and described in Annex-3, 4 and 5.

6. Schedule of the Study

6-1. The Team will proceed to further studies in Indonesia until March 2, 2007.

6-2. JICA will prepare the draft report in English and dispatch a mission in order to explain its contents in May, 2007.

6-3. In case that the contents of the report are accepted in principle by the Government of Indonesia, JICA will complete the final report and send it to the Government of Indonesia.



7. Other relevant issues

- 7-1. Both sides agreed that the government of Indonesia form a steering committee of the Project in order to coordinate necessary measures to be taken and implement them properly without delay among the institutions involved. The organization chart is shown in Annex-5.
- 7-2. The Indonesian side agreed that an Operation Plan (including strategy, purposes, activities etc.) of the new DIC in Subang shall be provided to the Team by the end of February, 2007.
- 7-3. The Indonesian side agreed to provide a personnel allocation plan of the new DIC in Subang for its component by the end of February 2007.
- 7-4. The Indonesian side agreed to prepare necessary budget for the Project before, during and after its implementation.
- 7-5. The Indonesian side committed itself to complete the necessary undertakings prior to the commencement of the Project.
- 7-6. The Indonesian side committed itself to carry out a series of environmental briefings to the neighborhood before the construction starts.
- 7-7. Both sides confirmed that the detailed drawings and specifications of the facilities and equipment and other technical information shall not be released before the tender to be held in the implementation stage of the Project.

Annex-1: Organization chart of the Directorate General of Livestock Services, Ministry of Agriculture

Annex-2-1: List of the requested items of buildings and facilities

Annex-2-2: List of the requested items of equipment

Annex-3: Japan's Grant Aid Scheme

Annex-4: Flow Chart of Japan Grant Aid Procedures

Annex-5: Major Undertakings to be taken by Each Government

Annex-6: Organization chart of the Steering Committee of the project



Directorate General of Livestock Services

Secretariat of DGLS

Directorate of
Animal Breeding

Directorate of
Ruminant Animal
Production

Directorate of
Non-Ruminant
Animal Production

Directorate of
Veterinary Public
Health

Directorate of
Animal Health

Sub-Directorate of Veterinary Medical Services

Sub-Directorate of Animal Biosecurity

Sub-Directorate of Animal Drug Control

Sub-Directorate of Animal Disease Surveillance

Sub-Directorate of Animal Disease Control and Eradication

Avian Influenza Campaign Management Unit



List of the requested items of buildings and facilities

- 1 DIC Regional I Medan
 - Avian Influenza (AI) Diagnosis Department Building
AI diagnosis, Necropsy, PCR diagnosis
 - Poultry house
 - Water supply system including filtration

Following facilities shall be provided by Indonesian side are as

- Garage
- Small Animal House
- Incinerator

- 2 DIC Regional III Lampung
 - AI Diagnosis Department Building
AI diagnosis, Necropsy
 - Poultry house

Following facilities shall be provided by Indonesian side are as

- Garage
- Generator Machine
- Incinerator

- 3 New DIC in Subang

New Laboratory

Pathology, Virology (including AI diagnostic laboratories), Bacteriology, Epidemiology, Parasitology, Necropsy, Veterinary Public Health

Lecture room

Administration (General office, Finance, Logistics, Human resource)

Building & Equipment Maintenance

Animal house : Poultry, Small animal

Utilities

Switch gear room, Electrical room, Generator room, Water supply system, Drainage system including chemical treatment, Incinerator

Following facilities shall be provided by Indonesian side are as

- Garage
- Staff Housing

- 4 Following facilities were found to be necessary following the Study. Further analysis in Japan will be conducted;

Veterinary Public Health (for DIC Medan)

Water supply system including filtration (for DIC Lampung)



List of the Requested Items of Equipment for DIC Region I Medan

No	Name of Equipment	Priority		
		A	B	C
1	Autoclave	A		
2	PCR Workstation	A		
3	Egg Incubator	A		
4	Deionized Water Apparatus	A		
5	Pipette Washer	A		
6	Ultrasonic Cleaner	A		
7	CO2 Incubator	A		
8	Binocular Microscope	A		
9	Inverted Microscope	A		
10	Incubator	A		
11	Water Bath	A		
12	Micropipettes	A		
13	Ice Chamber			C
14	Freezing Microtome	A		
15	Microplate Shaker	A		
16	Automatic Staining Apparatus			C
17	Coverslipper		B	
18	Necropsy Instrument Set for Large Animal	A		
19	Necropsy Instrument Set for Small Animal	A		
20	Biosafety Cabinet	A		
21	Reagent for PCR			C
22	Reagent for RT-PCR			C
23	Magnetic Stirrer	A		
24	Freezer -20°C	A		
25	Deep Freezer -80°C	A		
26	Ambulator Car			C
27	UV Transilluminator w/ Polaroid Camera		B	
28	Centrifuge		B	
29	Microplate Centrifuge		B	
30	Microplate Washer		B	
31	Electronic Balance		B	
32	Stereoscopic Microscope		B	
33	pH Meter		B	
34	Liquid Nitrogen Tank		B	
35	Darkfield Microscope		B	
36	Binocular Microscope w/Camera		B	
37	Freezer -50°C		B	
38	Immuno Staining Apparatus		B	
39	Slide Cabinet/Block Cabinet		B	
40	Necropsy Table		B	
41	Dry Block Bath		B	
42	Shaking Water Bath		B	
43	Hot Air Sterilizer		B	
44	Freeze Dryer		B	
45	Flake Ice Maker Machine		B	

Priority: A - It is necessary

B - It is necessary but further study is required

C - Low priority

List of the Requested Items of Equipment for DIC Region III Lampung

No.	Name of Equipment	Priority		
1	Necropsy Instrument Set for Large Animal	A		
2	Necropsy Instrument Set for Small Animal	A		
3	Binocular Microscope w/Camera	A		
4	Parafin Oven			C
5	Automatic Staining Apparatus	A		
6	Multi Block Embedding Set		B	
7	Microtome	A		
8	Section Flotation Bath	A		
9	Parafin Block Cabinet		B	
10	Tissue Embedding Apparatus			C
11	Slide Cabinet/Block Cabinet	A		
12	Pathology Workstation			C
13	Necropsy Table	A		
14	Wax Dispenser	A		
15	Biosafety Cabinet	A		
16	Drying Hot Plate	A		
17	Egg Incubator	A		
18	Deep Freezer -80°C	A		
19	Freezer -50°C	A		
20	Autoclave	A		
21	Incubator	A		
22	Pressure/Vacuum Pump			C
23	Refractometer	A		
24	Vortex Mixer	A		
25	Microplate Shaker	A		
26	Polypropelene Plate			C
27	Centrifuge	A		
28	Dionized Water Apparatus	A		
29	Pipette Washer	A		
30	Hotplate Magnetic Stirrer	A		
31	Stainless Steel Work Table			C
32	DNA Sequencer			C
33	Freezer -20°C	A		
34	CO2 Incubator	A		
35	Ultracentrifuge		B	
36	Freeze Dryer	A		
37	PCR Workstation			C
38	Inverted Microscope	A		
39	Evaporator			C
40	Ultrasonic Cleaner	A		
41	Hot Air Sterilizer	A		
42	Water Bath			C
43	Homogenizer			C
44	Binocular Microscope	A		
45	Glassware			C
46	Ambulatoar Car			C
47	Darkfield Microscopes		B	
48	Spectrophotometer		B	
49	Liquid Nitrogen Tank		B	
50	Magnetic Stirrer		B	
51	Fluorescent Microscope		B	
52	Electronic Balance		B	
53	Automatic Tissue Processor		B	
54	Coverslipper		B	
55	Blood Analyzer		B	
56	Hematocrit Centrifuge		B	
57	Biochemistry Analyzer		B	
58	Freezing Microtome		B	

No.	Name of Equipment	Priority
59	Stereoscopic Microscope	B
60	Micropipettes	B
61	Immuno Staining Apparatus	B
62	Circulation Water Bath	B
63	Dry Block Bath	B
64	Shaking Water Bath	B
65	Flake Ice Maker Machine	B

Priority: A - It is necessary

B - It is necessary but further study is required

C - Low priority



List of the Requested Items of Equipment for DIC Subang

No.	Name of Equipment	Priority		
1	Binocular Microscope	A		
2	Tissue Culture Microscope			C
3	Fluorescent Microscope	A		
4	Inverted Microscope	A		
5	Incubator	A		
6	CO2 Incubator	A		
7	Biosafety Cabinet	A		
8	Refrigerated Centrifuge	A		
9	Centrifuge	A		
10	Ultracentrifuge		B	
11	Dionized Water Apparatus	A		
12	Automatic Tissue Processor	A		
13	Microtome	A		
14	PCR Thermal Cycler	A		
15	UV Transilluminator w/Polaroid Camera	A		
16	Microplate Centrifuge	A		
17	Electrophoresis Apparatus	A		
18	Flake Ice Maker Machine	A		
19	ELISA Machine/ELISA Washer	A		
20	Necropsy Instrument Set for Large Animal	A		
21	Necropsy Instrument Set for Small Animal	A		
22	Gas Chromatograph			C
23	HPLC			C
24	Glassware			C
25	Microplate 96 wells			C
26	Water Bath	A		
27	Micropipettes	A		
28	Microplate Shaker	A		
29	Laminar Flow	A		
30	Refrigerator			C
31	Deep Freezer -80°C	A		
32	Stereoscopic Microscope		B	
33	pH Meter	A		
34	Electronic Balance	A		
35	Operational Vehicle			C
36	Desktop Computer			C
37	Notebook Computer			C
38	LCD Projector			C
39	Freeze Dryer	A		
40	DNA Sequencer			C
41	Autoclave	A		
42	Animal Carrier with Clean Box		B	
43	Real Time PCR		B	
44	Image Acquisition for Electrophoresis Application		B	
45	Egg Incubator		B	
46	Ultrasonic Cleaner		B	
47	Freezer -20°C		B	
48	Water Distiller		B	
49	Hot Air Sterilizer		B	
50	Liquid Nitrogen Tank		B	
51	Necropsy Table		B	
52	Automatic Staining Apparatus		B	
53	Tissue Embedding Apparatus		B	
54	Freezing Microtome		B	
55	Parafin Oven		B	
56	Section Flotation Bath		B	
57	Multi Block Embedding Set		B	
58	Section Flotation Bath		B	

No.	Name of Equipment	Priority
59	Slide Cabinet/Block Cabinet	B
60	Wax Dispenser	B
61	Coverslipper	B
62	Blood Analyzer	B
63	Magnetic Stirrer	B
64	PCR Workstation	B
65	Dry Block Bath	B
66	Shaking Water Bath	B
67	Vortex Mixer	B
68	Pipette Washer	B
69	Freezer -50°C	B
70	Immuno Staining Apparatus	B
71	Binocular Microscope w/Camera	B
72	Darkfield Microscope	B
73	Hematocrite Centrifuge	B
74	Biochemistry Analyzer	B
75	Spectrophotometer	B

Priority: A - It is necessary
 B - It is necessary but further study is required
 C - Low priority

1. Japan's Grant Aid
 1-1 Japan's Grant Aid System

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 regulations of Japan. The Grant Aid is not supplied through the donation of materials as such.

(1) Grant Aid Procedures

Japan's Grant Aid Scheme 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 Exchange of Notes between the Governments of Japan and the recipient country)

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 the 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 Japanese consulting firms.

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Scheme, 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 (E/N) signed by the Governments of Japan and the recipient country.

Finally, for the smooth 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 (hereafter referred to as "the Study"), conducted by JICA on a requested 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:




- 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.
- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view.
- Confirmation of items agreed upon by both parties concerning the basic concept of the Project.
- Preparation of a Basic Design of the Project
- 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.

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 though 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 smooth implementation of the Study, JICA uses registered consulting firm. JICA selects firms based on proposals submitted by interested firms. The firms selected carries out a Basic Design Study and writes 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 on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency.

(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 Aid" means the one fiscal year which the Cabinet approves the Project for within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with consulting 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 natural disaster, 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, the 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 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. The "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

- 5) Undertakings required by 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:

- ① To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to commencement of the construction,
- ② To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
- ③ To secure buildings prior to the procurement in the case the Project is for procurement and installation of equipment;
- ④ 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,
- ⑤ 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,
- ⑥ 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.

- 6) "Proper Use"

The recipient country is required to operate and maintain the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance 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 should not be re-exported from the recipient country.

8) Banking Arrangements (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 a 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 the recipient country or its designated authority.

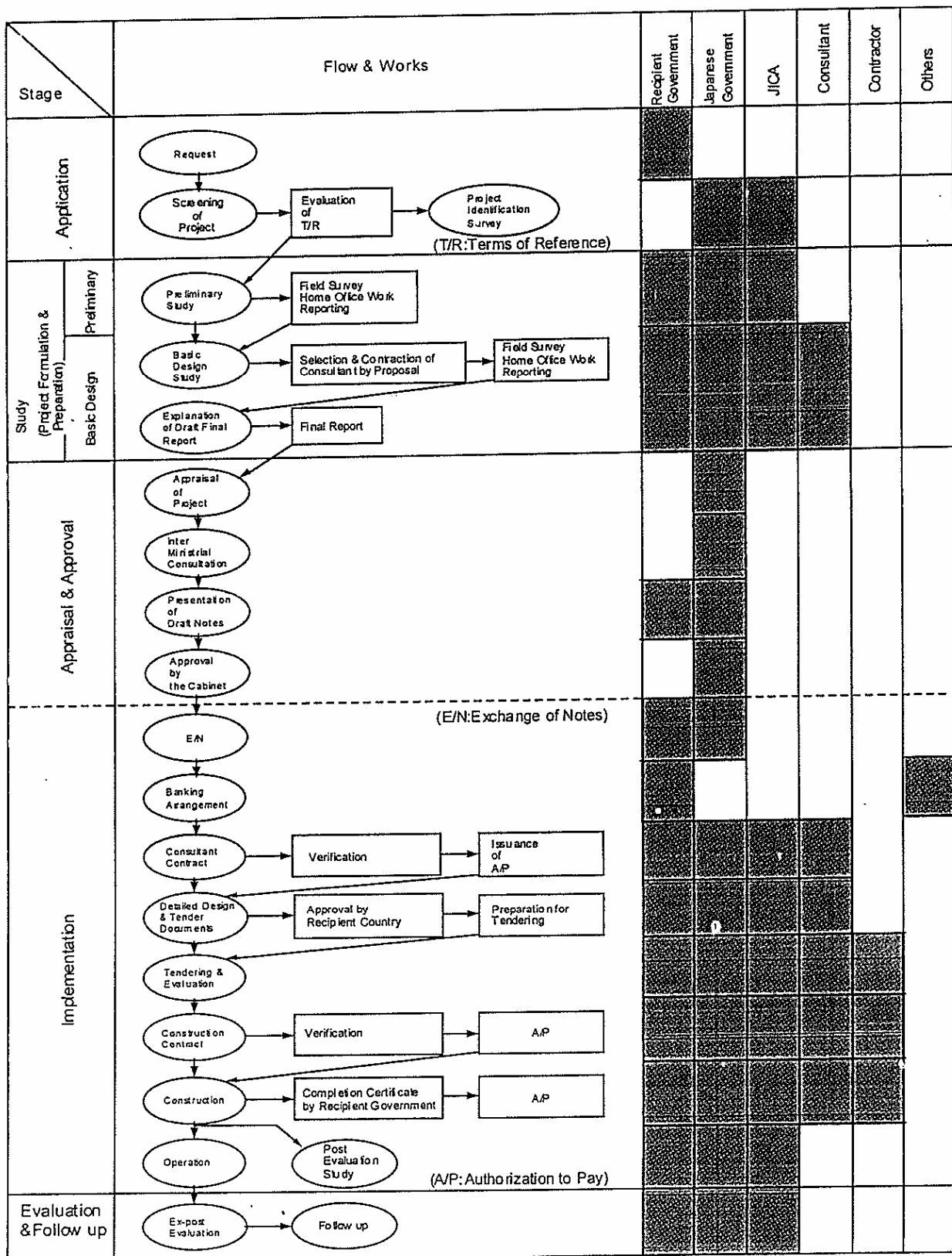
9) Authorization to Pay (A/P)

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



2-2 Grant Aid Procedures

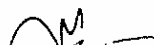
Flow Chart of Japan's Grant Aid Procedures



Major Undertakings to be taken by Each Government

No.	Items		
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 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 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)

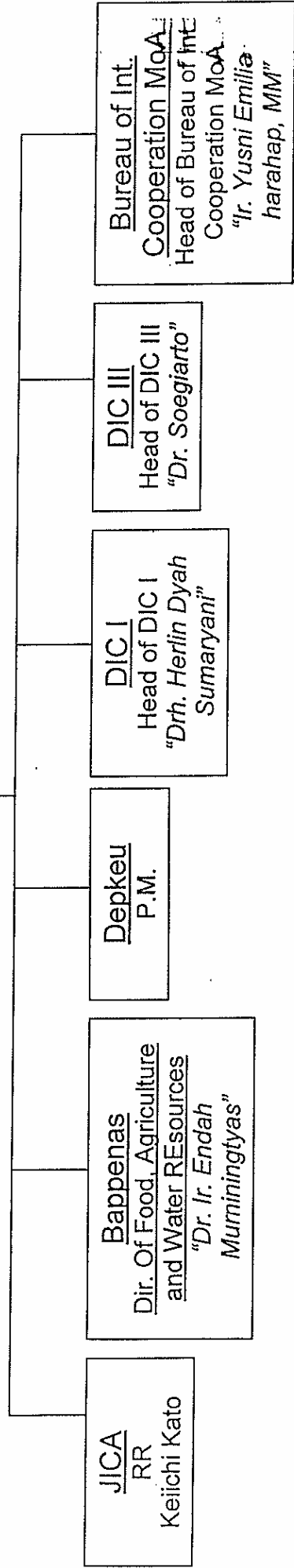



STEERING COMMITTEE
Of the Project for Improvement on Animal Health Laboratories
for Avian Influenza and Other Strategic Animal Infectious Diseases

Chair Person
Dir. General of Livestock Services
"Ir. Mathur Riady, MA."

Co - Chair Person
Secretary of DGLS
"Dr. Tjeppy Sudjana"

Secretary
Dir. Of Animal Health
"Drh. H. Musny Suatmodjo, MM"



(Explanation on Draft Report)

MINUTES OF DISCUSSION
ON THE BASIC DESIGN STUDY
ON "PROJECT FOR IMPROVEMENT ON ANIMAL HEALTH LABORATORIES
FOR AVIAN INFLUENZA AND OTHER STRATEGIC ANIMAL INFECTIOUS DISEASES
IN THE REPUBLIC OF INDONESIA
(EXPLANATION ON DRAFT REPORT)

In February 2007, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Basic Design Study Team on the "Project for Improvement on Animal Health Laboratories for Avian Influenza and Other Strategic Animal Infectious Diseases" (hereinafter referred to as "the Project") to The Republic of Indonesia (hereinafter referred to as "Indonesia"), and through discussion, field survey, and technical examination of the results in Japan, JICA prepared a draft report of the study.

In order to explain and to consult Indonesia on the components of the draft report, JICA sent to Indonesia the Draft Report Explanation Team (hereinafter referred to as "the Team"), which is headed by Mr. Naotaka Yamaguchi, Senior Officer, JICA Grant Aid Management Department, from May 27 to June 6.

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

Jakarta, June 6, 2007

山口尚孝

Naotaka YAMAGUCHI
Leader
Draft Report Explanation Team
Japan International Cooperation Agency



Ir. Mathur Riady, MA
Director General of Livestock Services
Ministry of Agriculture
The Republic of Indonesia

ATTACHMENT

1. Components of the Draft Report

The Government of Indonesia agreed and accepted in principle the components of the draft report explained by the Team.

2. Japan's Grant Aid scheme

The Indonesian side understands the Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Indonesia as explained by the Team and described in Annex-4 and Annex-5 of the Minutes of Discussions signed by both parties on February 14, 2007.

3. Schedule of the Study

JICA will complete the final report in accordance with the confirmed item and send it to the Government of Indonesia by the end of August 2007.

4. Technical Assistance

The Indonesian side requested a technical assistance as soft component of the Project, to ensure the safety and proper use of the facility and equipment on examination and diagnosis in the Disease Investigation Centers (DICs).

5. Other relevant issues

The Indonesian side agrees to implement the following arrangements in accordance with the schedule of the Project;

5.1. The Indonesian side finally requested the facility described in Annex-1 and the equipment listed in Annex-2.

5.2. The estimated cost borne by the Japanese side is shown in Annex-3. The Indonesian side committed itself to allocate necessary budget for the Project before, during and after its implementation mentioned in Annex-4 and to complete the necessary undertakings according to the schedule shown in Annex-5.

5.3. The Indonesian side agreed to arrange infrastructural environment as follows:

- To arrange with PT PLN(Persero) to supply power to the new DIC Subang and to the new Avian Influenza (AI) Laboratories at DICs Medan/Lampung.
- To provide telephone lines to the new DIC Subang and the new AI Laboratories at DICs Medan/Lampung, and to provide PABXs to the new AI Laboratories at DICs Medan/Lampung.

- To provide water supply to the new DIC Subang and the new AI Laboratories at DICs Medan.

The details are described in Annex-6.

- 5.4. The Indonesian side committed itself to identify the staff for DIC Subang and the technical staff for the new AI Laboratories in DICs Lampung and Medan as listed in Annex-7. For proper and sustainable maintenance of the facilities and equipment to be provided by the Project, the Indonesian side promised to employ sufficient number of skilled staff as listed in Annex-8.
- 5.5. The Indonesian side committed itself to carry out a series of environmental briefings to the neighborhood before the construction starts.
- 5.6. Both sides confirmed that the detailed drawings and specifications of the facilities and equipment and other technical information shall not be released before the tender to be held in the implementation stage of the Project.

P

7

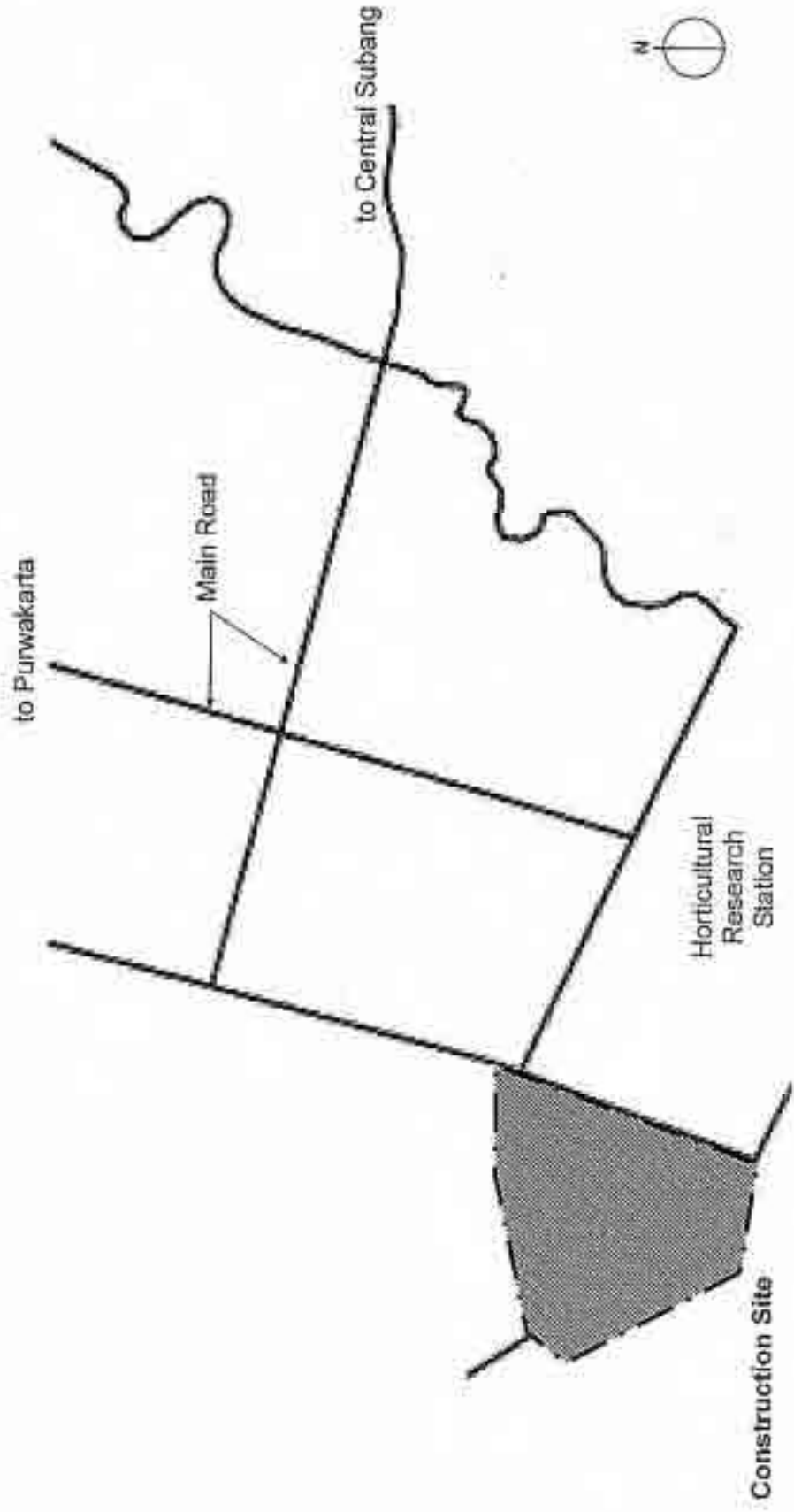
Project outline borne by the Japanese side

Building	Section	Facilities
DIC Subang	Administrative section	Reception, offices, Director's office, Management office
	Training section	Seminar and meeting rooms
	Laboratory block	Epidemiology laboratory and reception Bacteriology, pathology, Parasitology labs Washing room, specimen preparation room, Necropsy room, Sterilization room, Staff changing room Virology and molecular virology labs Cell preparation room Molecular virology necropsy room
	AI diagnosis block	AI examination room, necropsy room, PCR diagnosis lab, sterilization room, staff changing room, epidemiology lab, reception
	Poultry and small animal housing	Animal care staff room: Poultry and small animal housing
	Building services	Water supply and chlorination facility, wastewater treatment system, generator, incinerator
DIC1 Medan	AI diagnosis block	AI examination room, necropsy room, PCR diagnosis lab, sterilization room, staff changing room, epidemiology lab, reception
	Poultry house	Animal care staff room, poultry house
	Building services	Water supply and chlorination facility, wastewater treatment system
DIC 3 Lampung	AI diagnosis block	AI laboratory, necropsy room, sterilization room, staff changing room, epidemiology lab, reception
	Poultry house	Animal care staff room, poultry house
	Building services	Water supply and purification facility, wastewater treatment system

P

4

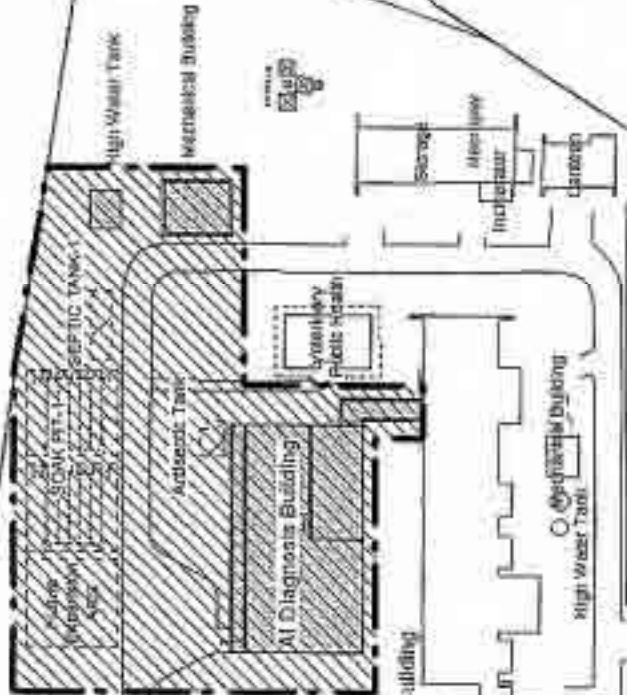
p



A

Jabal Gajah Substrate

Construction Site - 1

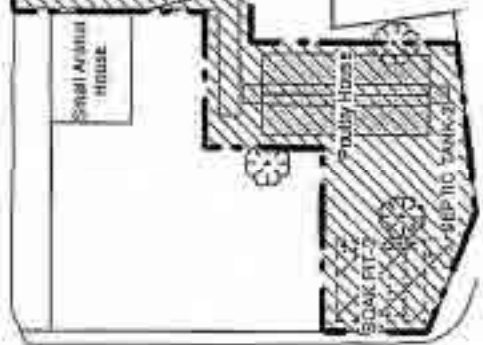


Small Animal House

Administration

Existing Plating House

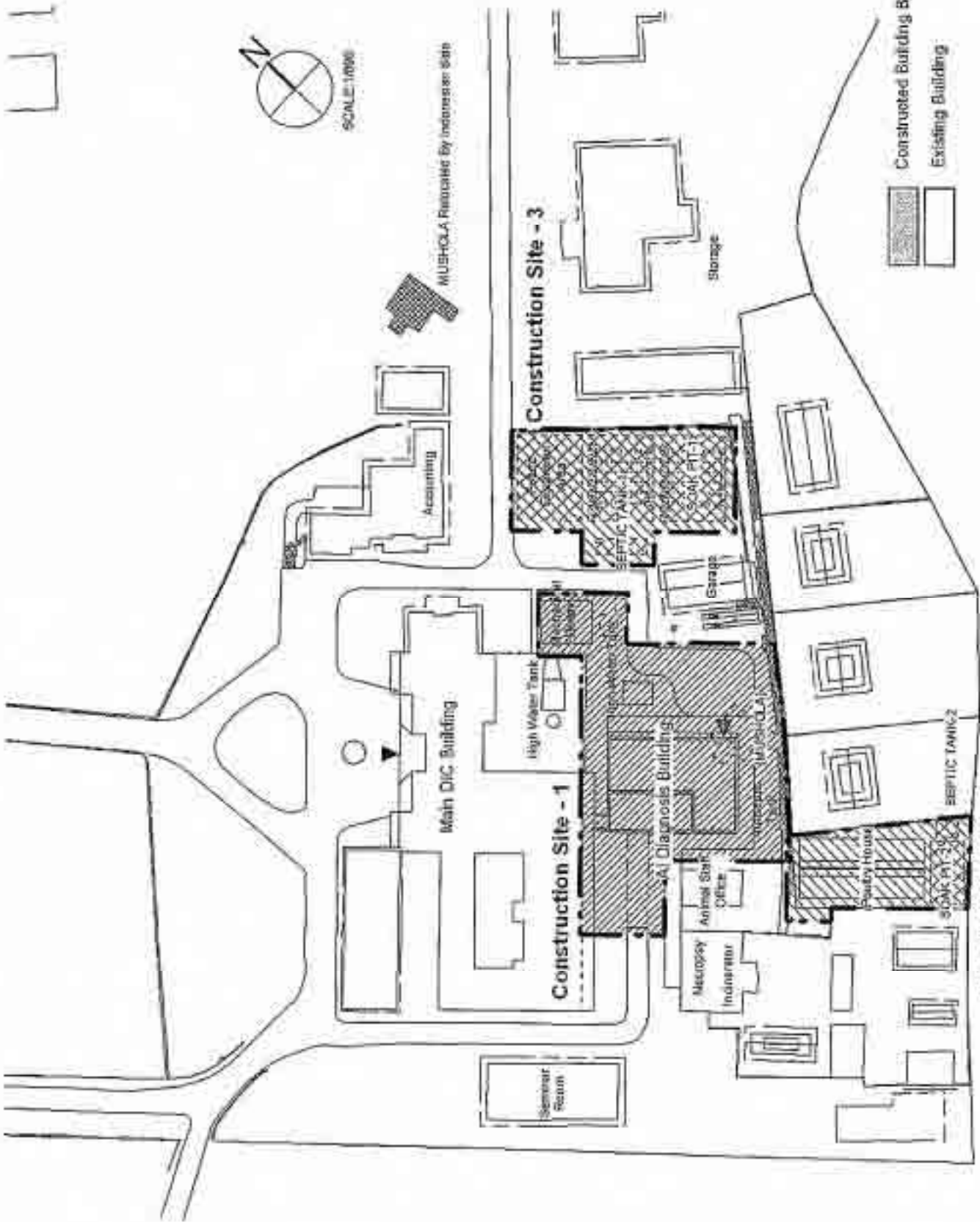
Construction Site - 2





SCALE: 1/600

MUSHOLA Relocated By Indonesian Site



 Constructed Building By Japanese Side
 Existing Building

Construction Site - 2

Construction Site - 3

Construction Site - 1

No.	Name of Equipment	Quantity			Total Quantity
		DIC Medan	DIC Lampung	DIC Subang	
1	Autoclave (A)	2	2	2	6
2	Autoclave (B)	6	6	7	19
3	Autoclave (C)	-	-	1	1
4	Section Flotation Bath	-	1	1	2
5	Wax Dispenser	-	1	1	2
6	Tissue Embedding Apparatus	-	-	1	1
7	Slide Glass Cabinet	1	1	1	3
8	Drying Hot Plate	-	1	1	2
9	Rotary Microtome	-	-	1	1
10	Freezing Microtome	1	1	1	3
11	Automatic Staining Apparatus	-	1	1	2
12	Automatic Tissue Processor	-	1	1	2
13	Binocular Microscope (A)	3	-	3	6
14	Binocular Microscope (B)	1	1	1	3
15	Binocular Microscope (C)	1	1	1	3
16	Inverted Microscope	3	3	4	10
17	Fluorescence Microscope	-	1	1	2
18	Stereoscopic Microscope	1	-	1	2
19	Refrigerated Centrifuge	1	2	3	6
20	Refrigerated Microcentrifuge	-	-	1	1
21	Table-top Type Centrifuge	-	1	2	3
22	High-Speed Refrigerated Centrifuge	-	-	1	1
23	Hematocrite Centrifuge	-	1	1	2
24	Freezer -20°C	2	2	3	7
25	Deep Freezer -80°C	3	3	3	9
26	Incubator	3	3	4	10
27	CO2 Incubator	3	3	3	9
28	Egg Incubator	1	1	3	5
29	Biosafety Cabinet	1	2	5	8
30	Laminar Flow Cabinet	1	1	1	3
31	Fume Extractor	-	-	1	1
32	PCR Workstation	2	-	2	4
33	PCR Thermal Cycler	-	-	1	1
34	Real Time PCR	-	-	1	1
35	Dry Block Bath	1	1	1	3
36	Electrophoresis Apparatus	-	-	1	1
37	Gel Documentation System	-	-	1	1
38	Microplate Reader	-	-	1	1
39	Microplate Washer	1	-	1	2
40	Necropsy Table	1	1	1	3
41	Necropsy Instrument Set for Medium-Sized Animal	2	2	2	6
42	Necropsy Instrument Set for Small Animal	5	5	3	13
43	Micropipette	7	7	9	23
44	Microplate Shaker	2	2	2	6
45	Hot Air Sterilizer	1	2	3	6
46	Magnetic Stirrer	3	4	5	12
47	Electronic Balance	2	2	4	8
48	pH Meter	3	2	4	9
49	Vortex Mixer	-	4	6	10

No.	Name of Equipment	Quantity			Total Quantity
		DIC Medan	DIC Lampung	DIC Subang	
50	Refractometer	-	1	-	1
51	Spectrophotometer (A)	1	1	1	3
52	Spectrophotometer (B)	-	1	1	2
53	Liquid Nitrogen Tank	1	1	1	3
54	Water Bath	3	3	5	11
55	Flake Ice Maker Machine	1	1	1	3
56	Pipette Washer	1	1	1	3
57	Ultrasonic Cleaner	3	3	3	9
58	Water Distiller	-	-	1	1
59	Pure Water Apparatus	-	1	1	2

P

[Handwritten signature]

Scope of Works covered by the Indonesian side

1 Site Preparation

- 1.1 Road widening for construction in DIC Subang by December 2007
- 1.2 Fencing of DIC Subang project site by December 2007
- 1.3 Cutting trees and rough gradation for the Project site at DIC Medan by December 2007
- 1.4 Rough gradation for Project site at DIC Lampung by December 2007
- 1.5 Acquire the right of land use in DIC Subang site by December 2007

2 Relocation of equipment to be done after the completion of the project

Relocation of equipment at DIC Medan after April 2009

Approximately 40sqm of the existing PCR room shall be changed to Freezer's room.

3 Electricity facilities

- 3.1 Coordination with PT PLN (Persero, Electric Power Company) to supply medium voltage power to the sub station in DIC Subang by the end of October 2008
- 3.2 Provide a sub station, an electrical transformer and lead-in works up to the Electrical room at DIC Subang by the end of October 2008
- 3.3 Increment of electric power capacity and lead-in works up to the distribution panel at the new AI lab. in DIC Medan by the end of August 2008
- 3.4 Increment of electric power capacity and lead-in works up to the distribution panel at the new AI lab. in DIC Lampung by the end of August 2008

4 Telephone installations

- 4.1 Lead-in Telephone lines at DIC Subang by the end of October 2008
- 4.2 A New PABX and additional 3 direct telephone lines for DIC Medan by the end of August 2008
- 4.3 A New PABX and additional 2 direct telephone lines for DIC Lampung by the end of August 2008

5 Generator supply

Replacement of a new generator circuit system for DIC Medan shall be done by the end of August 2008.

6 Water

Lead-in a water line at DIC Subang by the end of October 2008

P

A

- 7 Counterpart Budget of the Fiscal Year 2008 for Import Tax corresponded to PP42 (Indonesian Government Regulation No.42)
 - 7.1 Building materials
 - 7.2 Equipment

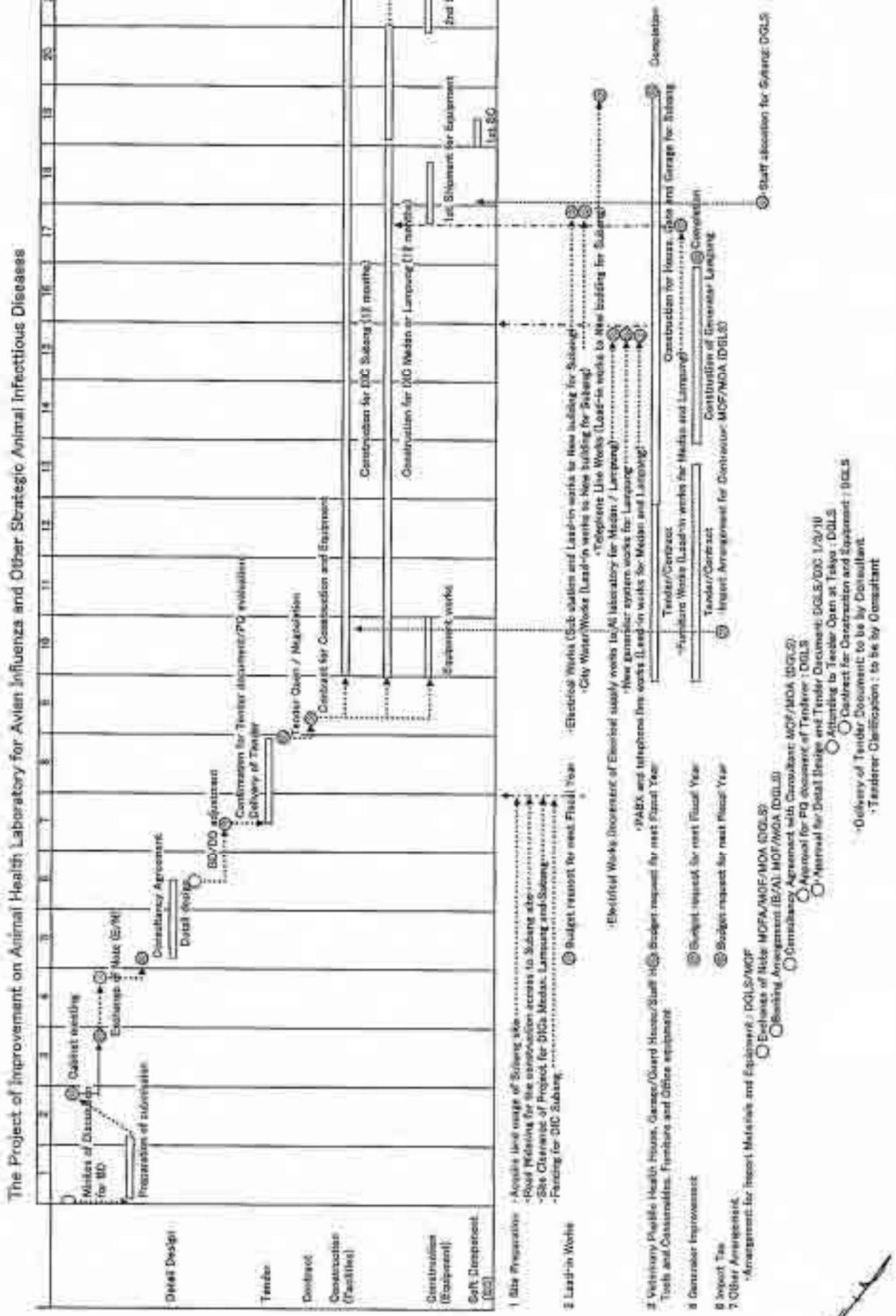
- 8 Purchase of the laboratory equipment, tools and consumable materials for initial operation of DIC Subang and the new AI Labs. in DICs Medan and Lampung which are not provided by the Japanese side by December 2008

- 9 New buildings and construction works shall be completed by the end of December 2008
 - 9.1 Staff house at DIC Subang
 - 9.2 Veterinary Public Health building at DIC Subang
 - 9.3 Garage, guard house, fence and other construction works at DIC Subang
 - 9.4 Furniture in each site

- 10 Counterpart budget (transportation, accommodation and other expenses of the Indonesian counterparts) for Soft Component by September 2008

- 11 Assignment of the staff
Identify the staff for DIC Subang and the technical staff for the new AI Laboratories in DICs Lampung and Medan by October 2008

Tentative Project Schedule and the works to be borne by Indonesia



Infrastructure Environment for each Disease Investigation Center (DIC) to be supplied by the Indonesian side

- Electrical Power for the new DIC Subang and the new Avian Influenza (AI) Laboratories at DICs Medan and Lampung

Power	DIC Subang	DIC Medan	DIC Lampung
Normal Power (Low tension)	○: 300 kVA*	○: 100 kVA	○: 100 kVA
Emergency Power	-※	○: 50 kVA	○: 50 kVA

Note : ○ Indonesian Side Work

* The Government of Indonesia will provide a transformer and housing.

※ Generator will be provided by the Japanese side.

- Telephone Lines and New PABXs for the new DIC Subang and the new AI Laboratories at DICs Medan and Lampung

	DIC Subang	DIC Medan	DIC Lampung
External	○: 5 lines	○: 3 lines	○: 2 lines
Extension	○: 30 lines	○: 15 lines	○: 15 lines
New PABX	-※	○ (3/15)	○ (3/15)

Note : ○ Indonesian Side Work

※ PABX will be provided by the Japanese side.

- Water Supply Lines for the new DIC Subang and the new AI Laboratories at DICs Medan and Lampung

	DIC Subang	DIC Medan	DIC Lampung
Water Consumption	20 m ³ /day	20 m ³ /day	20 m ³ /day
City Water Supply	○	○	-
Deep Well Water Supply	-	-	-※

Note : ○ Indonesian Side Work

※ Deep well will be provided by the Japanese side.

Staff allocation for the 3 DICs

		DIC Subang*	DIC Medan	DIC Lampung
Pathology	Veterinary	2	2	3
	Technician	3	4	4
	Others	1	0	1
Virology	Veterinary	2	3	2
	Technician	3	4	5
	Others	0	0	0
Bacteriology	Veterinary	2	2	2
	Technician	6	5	6
	Others	0	0	1
Parasitology	Veterinary	1	2	1
	Technician	4	4	6
	Others	0	0	0
Epidemiology	Veterinary	1	1	1
	Technician	3	3	3
	Others	0	0	0
Administration	Veterinary	1	1	1
	Others	32	34	18
	Maintenance staff	5	1(5)**	1(5)**
total		65	66(70)	58(62)

*The number of staff mentioned is under planning.

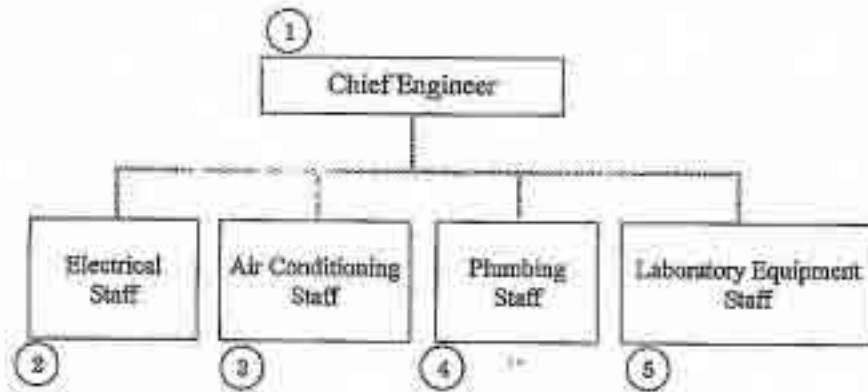
**The numbers in parenthesis are ideal for proper maintenance.

10

1

Maintenance Staff Allocation

■ New Organization Chart of Operation and Maintenance in each Disease Investigation Center (DIC)



■ Number of Skilled Staff Required for Facility and Mechanical Maintenance at each DIC

Position	DIC Subang	DIC Medan	DIC Lampung
① Chief Engineer	○	○	○
② Electrical Staff	○	—※	—※
③ Air Conditioning Staff	○	○	○
④ Plumbing Staff	○	○	○
⑤ Laboratory Equipment	○	○	○
New Total Staff	5 persons	4 persons	4 persons

Note : ○ New skilled staff

※ The electrical staff is already employed at Medan and Lampung.