

資 料

## 資料 1. 調査団員・氏名

<基本設計調査時> 2003年11月27日 ~ 12月27日

武藤 亜子	【総括】	独立行政法人国際協力機構 無償資金協力部
竹田 美文	【技術参与】	実践女子大学 生活科学部教授
遠藤 建	【業務主任/建築計画】	株式会社 日本設計
日野水 信	【建築設計】	株式会社 日本設計
磯部 剛久	【設備計画】	株式会社 日本設計
内藤 紘	【機材計画】	株式会社 日本設計
山口 良二	【機材計画】	株式会社 日本設計
中嶋 英雄	【調達/積算】	株式会社 日本設計
前原 智	【調達/積算補佐】	株式会社 日本設計
平野 政則	【設備計画 補佐】	株式会社 日本設計
中本 孝男	【機材計画 補佐】	株式会社 日本設計

<基本設計調査概要説明時> 2004年3月10日 ~ 3月24日

酒井 利文	【総括】	独立行政法人国際協力機構 インド事務所
竹田 美文	【技術参与】	実践女子大学 生活科学部教授
遠藤 建	【業務主任/建築計画】	株式会社 日本設計
日野水 信	【建築設計】	株式会社 日本設計
磯部 剛久	【設備計画】	株式会社 日本設計
内藤 紘	【機材計画】	株式会社 日本設計

## 資料 2. 調査行程

### 2.1 現地調査

日数	月日	曜日	日 程
1	11/27	木	(総括・技術参与以外の調査団) 成田 デリー
2	11/28	金	JICA 事務所打合せ、ICMR 打合せ、MOH 打合せ
3	11/29	土	デリー コルカタ
4	11/30	日	午前：コルカタ市内調査 午後：団内協議
5	12/1	月	午前：NICED との協議(紹介・スケジュール・協議内容確認) 午後：NICED 既存施設調査
6	12/2	火	午前：NICED との協議(施設・機材) 午後：NICED との協議・計画地調査・現地再委託業務
7	12/3	水	午前：NICED との協議(施設・機材) 午後：同上
8	12/4	木	午前：NICED との協議(施設・機材) 午後：NICED との協議・現地再委託業務
9	12/5	金	午前：NICED との協議(施設・機材) 午後：NICED との協議・機材市場調査・現地再委託業務
10	12/6	土	午前：NICED との協議(施設・機材) 午後：資料整理
11	12/7	日	午前：資料整理 午後：団内協議
12	12/8	月	午前：NICED との協議(施設・機材) 午後：NICED との協議・機材市場調査・現地再委託業務
13	12/9	火	午前：コルカタ総領事館表敬 午後：NICED との協議・機材市場調査・現地再委託業務
14	12/10	水	午前：NICED との協議(施設・機材) 午後：NICED との協議・機材市場調査・現地再委託業務
15	12/11	木	午前：NICED との協議(施設・機材) 午後：NICED との協議・機材市場調査・現地再委託業務
16	12/12	金	午前：NICED との協議(施設・機材) 午後：州立感染症病院調査・CPWD との協議・電力会社との協議
17	12/13	土	午前：NICED との協議(施設・機材) 午後：資料整理
18	12/14	日	(総括)：成田 デリー (総括・技術参与以外の調査団) 午前：資料整理・午後：団内協議
19	12/15	月	午前：NICED との協議(施設・機材) 午後：同上
20	12/16	火	午前：NICED との協議(施設・機材) 午後：NICED との協議・CPWD との協議・電力会社との協議
21	12/17	水	(総括)：デリー コルカタ (総括・技術参与以外の調査団) 午前：NICED との協議(施設・機材)・ 午後：資料整理
22	12/18	木	(技術参与)成田 コルカタ (技術参与以外の調査団) 午前：NICED との協議(施設・機材)・午後： 同上
23	12/19	金	午前：NICED との協議(施設・機材) 午後：同上
24	12/20	土	午前：NICED との協議(施設・機材) 午後：同上

日数	月日	曜日	日 程
25	12/21	日	午前：資料整理 午後：団内協議
26	12/22	月	午前：NICED との協議(施設・機材) 午後：同上
27	12/23	火	午前：NICED との協議(施設・機材) 午後：NICED との協議・CPWD との協議 (総括・技術参与・業務主任) コルカタ デリー
28	12/24	水	(総括・技術参与・業務主任) 午前：JICA 事務所打合せ、ICMR 打合せ・ 午後：DEA 打合せ、MOH 打合せ (総括・技術参与・業務主任以外の調査団) 午前：NICED との協議(施設・機材)・午後：同上
29	12/25	木	(総括・技術参与・業務主任) 午前：資料整理・午後：団内協議 (総括・技術参与・業務主任以外の調査団): コルカタ デリー
30	12/26	金	午前：ICMR でのミニッツ署名 夕方：デリー
31	12/27	土	成田

## 2.2 基本設計調査概要説明日程

日数	月日	曜日	日 程
1	3/10	水	(業務主任) 成田 バンコク デリー (業務主任以外の調査団) 成田 バンコク コルカタ
2	3/11	木	(業務主任) 午前：ICMR 打合せ・午後：MOH 打合せ、JICA 事務所打合せ (業務主任以外の調査団) 午前：NICED との協議(スケジュール確認・基本設計概要説明)・午後：NICED との協議(施設・機材)・NICED との協議
3	3/12	金	(業務主任) 午前：財務省 DEA 打合せ・午後：在インド日本大使館敬 (業務主任以外の調査団) 午前：NICED との協議(施設・機材)・午後：NICED との協議(施設・機材) NICED との協議
4	3/13	土	(業務主任)：デリー コルカタ (業務主任以外の調査団) 午前：NICED との協議(施設・機材)・午後：資料整理
5	3/14	日	午前：団内協議 午後：資料整理
6	3/15	月	午前：NICED との協議(施設・機材) 午後：CPWD との協議
7	3/16	火	午前：NICED との協議(施設・機材) 午後：現地調査
8	3/17	水	午前：NICED との協議、在コルカタ総領事表敬 午後：州消防局、環境局との協議 (技術参与)：コルカタ デリー
9	3/18	木	(技術参与) 午前：JICA 打合せ・午後：在インド日本大使館敬 夕方：デリー (業務主任以外の調査団) 午前：NICED との協議(施設・機材)・午後：NICED との協議(施設・機材)
10	3/19	金	(技術参与) 成田 (業務主任以外の調査団) 午前：NICED との協議(施設・機材) 午後：CPWD との協議
11	3/20	土	午前：NICED との協議(施設・機材) 午後：資料整理
12	3/21	日	コルカタ デリー
13	3/22	月	午前：JICA 事務所打合せ、ICMR でのミニッツ署名 午後：DEA との協議、ICMR との協議
14	3/23	火	午前：JICA 事務所打合せ 午後：デリー
15	3/24	水	成田

### 資料3. 関係者（面会者）リスト

#### 1. インド側

##### 財務省 (Ministry of Finance)

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

##### 保健家族福祉省 (Ministry of Health & Family Welfare)

Mr. Rajesh Bhushan Director, Department of Health

##### インド医療評議会 (Indian Council of Medical Research : ICMR)

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

##### 西ベンガル州保健家族福祉局

(Department of Health & Family Welfare, Government of West Bengal)

Mr. A. Barman Principal Secretary

##### 西ベンガル州中央公共事業局 (Central Public Work Department, West Bengal Branch)

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

##### 国立コレラ・腸管感染症研究所 (National Institute of Cholera and Enteric Diseases : NICED)

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

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

## 2 . 日本側

### 在インド日本国大使館

小林 浩 史	参事官
中野 智 行	一等書記官

### 在コルカタ日本国総領事館

清水 健 司	総領事
川口 三 男	副領事

### JICA インド事務所

酒井 利 文	所長
松本 隆	所員
飯島 大 輔	所員
Mr. K. V. Janardhan	所員
Mr. R. Dinakar	所員

### JICA 専門家

吉崎 史 明	技プロ・フェーズ2 業務調整
--------	----------------

資料4. 当該国の社会経済状況

## 主要指標一覧

						India
指標項目		1989年	1999年	2000年	2001年	2001年の 地域平均値
社会 指 標 等	国土面積 (1000km <sup>2</sup> )	2,973	2,973	2,973	2,973	n. a.
	人口 (百万人)	832.5	999.0	1,015.9	1,032.4	1,377.8
	人口増加率 (%)	2.0	1.7	1.6	1.5	1.7
	出生時平均余命 (歳)	n. a.	n. a.	63	63	63
	妊産婦死亡率 ( / 10万人)	n. a.	n. a.	n. a.	410 (90-98)	n. a.
	乳児死亡率 ( / 1000人)	91.0	70.0	68.0	67.0	70.6
	一人当たりカロリー摂取量 (kcal/1	2,421	2,499	2,489	2,487	2,701
	初等教育総就学率(男) (%)	n. a.	110.8	n. a.	n. a.	n. a.
	(女) (%)	n. a.	91.7	n. a.	n. a.	n. a.
	中等教育総就学率(男) (%)	n. a.	56.7	n. a.	n. a.	n. a.
	(女) (%)	n. a.	40.1	n. a.	n. a.	n. a.
	高等教育総就学率 (%)	n. a.	10.5	n. a.	n. a.	n. a.
	成人非識字率 (15歳以上の人口の内)	51.5	43.6	42.8	42.0	44.7
	絶対的貧困水準 (1日1\$以下の人口比	n. a.	n. a.	n. a.	34.7 (99-00)	n. a.
	失業率 (%)	n. a.	n. a.	n. a.	n. a.	n. a.
経 済 指 標	GDP (百万USドル)	292,013	445,299	457,049	477,342	613,755
	一人当たりGNI (USドル)	390	440	450	460	450
	実質GDP成長率 (%)	6.4	6.1	4.0	5.4	4.9
	産業構造 (対GDP比: %)					
	農業	31.3	26.2	24.9	25.1	24.9
	工業	27.6	26.0	26.9	26.5	25.9
	サービス業	41.2	47.8	48.2	48.4	49.2
	産業別成長率 (%)					
	農業	1.5	1.3	-0.2	5.7	4.2
	工業	10.3	4.9	6.3	3.1	3.4
	サービス業	8.8	9.5	4.8	6.6	6.0
	消費者物価上昇率 (インフレ: %)	6.2	4.7	4.0	3.7	n. a.
	財政収支 (対GDP比: %)	-7.4	-5.5	-5.2	-4.7	-4.9
	輸出成長率 (金額: %)	13.7	16.7	20.9	9.0	9.1
	輸入成長率 (金額: %)	-0.6	12.7	10.6	4.9	4.6
	経常収支 (対GDP比: %)	-2.5	-1.1	-0.6	0.3	n. a.
	外国直接投資純流入額 (百万ドル)	252	2,169	2,315	3,403	4,066
	総資本形成率 (対GDP比: %)	23.7	23.6	22.9	22.5	21.6
	貯蓄率 (対GDP比: %)	21.4	20.5	20.3	20.7	19.4
	対外債務残高 (対GNI比: %)	2.4	2.3	2.4	2.0	2.3
DSR (対外債務返済比率: %)	29.4	15.3	14.0	11.7	12.7	
外貨準備高 (対輸入月比: %)	3.1	6.0	6.0	7.4	6.9	
名目対ドル為替レート*2 (通貨単位: ルピー Rupee)	16.226	43.055	44.942	47.186	n. a.	
政*	政治体制: 連邦共和制。首相が実質的な権力者					
治	憲法: 1949年11月26日制定、50年1月26日発効					
指	元首: 大統領。アブドゥル・カラム (Abdul KALAM)。間接選挙制。任期5年。2002年7月25日就任					
標	議会: 2院制。上院 (245議席) と下院 (545議席)					

出典 World Development Indicators CD-ROM 2003 WB

\*1 FAO Food Balance Sheets 2003年6月 FAO Homepage

\*2 International Financial Statistics Yearbook 2002 IMF

\*3 世界年鑑 2003 共同通信社

注 ● ( ) に示されている数値は調査年を示す。(90-98) と示されている場合は1990年度から98年度までの間の最新値を示す

● 「人口」、「GDP」及び「外国直接投資純流入額」の「2001年の地域平均値」においては、地域の総数を示す

● 地域は南アジア。ただし「一人当たりカロリー摂取量」における地域はアジア広域

● 就学率が100を超えているのは、学齢人口推計値と実際の就学データの間になずれがあるため



## 政府歳入・歳出 [インド]

	1999年	2000年p	2001年f		2001年
	(十億ルピー)	(十億ルピー)	(十億ルピー)	(百万US\$)*	対GDP比**
歳入+贈与受取額	2,360.7	2,704.2	3,100.7	65,712.3	13.8%
歳入	2,349.7	2,696.9	3,093.7	65,563.9	13.8%
經常歳入	2,326.9	2,667.0	2,968.3	62,906.4	13.2%
租税収入	1,717.5	1,983.2	2,266.5	48,033.3	10.1%
非税収入	609.4	683.8	701.8	14,873.1	3.1%
資本歳入	22.8	29.9	125.4	2,657.6	0.6%
贈与受取額	11.1	7.3	7.0	148.3	0.0%
歳出+純貸付額	3,422.2	3,791.3	4,179.9	88,583.5	18.6%
歳出	3,013.1	3,486.8	3,953.1	83,777.0	17.6%
經常歳出	2,738.6	3,211.4	3,600.1	76,295.94	16.0%
資本歳出	274.5	275.3	353.0	7,481.03	1.6%
純貸付額	409.1	304.5	226.8	4,806.51	1.0%
財政収支	-1,061.5	-1,087.1	-1,079.2	-22,871.2	-4.8%

## 歳出内訳 [インド]

	1999年	2000年p	2001年f		2001年	
	(十億ルピー)	(十億ルピー)	(十億ルピー)	(百万US\$)*	内訳	対GDP比**
歳出	3,013.1	3,486.8	3,953.1	83,777.0	100.0%	17.6%
一般サービス	195.9	227.6	242.3	5,135.0	6.1%	1.1%
国防	467.9	541.7	616.8	13,071.7	15.6%	2.7%
公安	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
教育	77.1	87.1	87.9	1,862.8	2.2%	0.4%
保健・医療	53.5	57.7	71.0	1,504.7	1.8%	0.3%
社会保障・福祉	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
住宅・生活関連	156.2	167.4	175.9	3,727.8	4.4%	0.8%
レクリエーション・文	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
エネルギー	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
農林水産業	174.0	190.8	199.0	4,217.4	5.0%	0.9%
鉱工業・建設業	67.2	66.0	68.3	1,447.5	1.7%	0.3%
運輸・通信	60.0	48.4	50.9	1,078.7	1.3%	0.2%
その他	1,761.3	2,100.1	2,441.0	51,731.4	61.7%	10.9%

会計年度は4月～3月

f: The letter f denotes forecasted or projected data.

p: The letter p denotes data that are preliminary or provisional.

\*: 対ドル換算レートはMarket Rate, Period Average 出典はInternational Financial Statistics

\*\*: GDPの出典はThe World Economic Outlook 2003 IMF Homepage

出典 Government Finance Statistics Yearbook 2002 IMF

## JICAの対インド技術協力

通貨単位	1997年度	1998年度	1999年度	2000年度	2001年度	累計
億円	13.35	10.19	9.83	9.03	10.15	199.71
百万ドル	11.03	7.79	8.63	8.38	8.35	

注: 年の区切りは日本の会計年度(4月～3月)。また対ドル換算レートは国際協力事業団情報1  
出典 国際協力事業団実績表 2002年3月 国際協力事業団

## 我が国の対インドODA実績

(単位: 百万ドル)

暦年	贈与			政府貸付		合計
	無償資金協力	技術協力	計	支出総額	支出純額	
96	35.18 (8)	21.83 (4)	57.01 (10)	728.39	522.28 (90)	579.28 (100)
97	31.84 (8)	23.28 (5)	55.10 (11)	641.28	436.70 (88)	491.80 (100)
98	23.10 (5)	20.51 (4)	43.62 (9)	681.88	461.33 (81)	504.95 (100)
99	14.57 (2)	22.48 (4)	37.05 (8)	684.95	586.97 (84)	634.02 (100)
2000	2.47 (1)	21.38 (6)	24.85 (7)	630.64	343.31 (53)	368.18 (100)
累計	307.38 (7)	208.96 (4)	798.31 (11)	9,819.26	6,599.54 (68)	7,395.87 (100)

注: 年の区切りは1月～12月の暦年。

( )内はODA 合計に占める各形態の割合(%)。

出典 ODA 国別データブック 2001 外務省

## DAC諸国・国際機関の対インドODA実績

(支出純額、単位: 百万)

暦年	1位	2位	3位	4位	5位	うち日本	合計
97	日本 491.8	英国 134.0	ドイツ 55.0	フランス 36.4	デンマーク 34.4	491.8	928.4
98	日本 505.0	英国 186.6	ドイツ 106.5	デンマーク 37.7	オランダ 27.0	505.0	915.1
99	日本 634.0	英国 131.7	ドイツ 29.6	デンマーク 25.1	スイス 19.4	634.0	838.3
暦年	1位	2位	3位	4位	5位	その他	合計
97	IDA 544.7	CEC 92.8	UNICEF 31.1	WFP 24.4	UNDP 17.0	20.6	730.6
98	IDA 578.5	CEC 50.1	UNICEF 29.9	WFP 12.3	UNDP 9.9	19.6	700.2
99	IDA 486.1	CEC 77.9	UNICEF 30.5	WFP 21.4	UNDP 16.0	28.0	660.0

注: 年の区切りは1月～12月の出典 ODA 国別データブック 2001 外務省

資料 5. 討議議事録 ( M / D )

( 1 ) 基本設計調査時

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

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

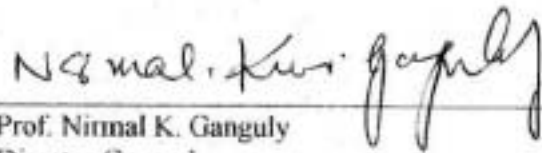
The Team held discussions with the officials concerned of the Government of India and conducted a field survey in the study area.

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

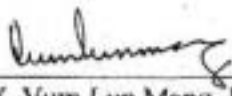
New Delhi, 26 December, 2003



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



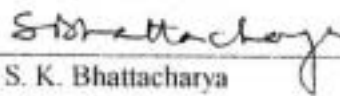
Prof. Nirmla K. Ganguly  
Director General  
Indian Council of Medical Research  
Government of India



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

  
26/12/03

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



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

## ATTACHMENT

### 1. Objective of the Project

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

### 2. Project site

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

### 3. Responsible and Implementing Agency

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

### 4. Items requested by the Indian Side

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

### 5. Japan's Grant Aid Scheme

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

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

### 6. Schedule of the Study

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

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

### 7. Other relevant issues

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

cej

- 2 -

SFS

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

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

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

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

- (i) Existing building: clinical microbiology level diagnoses and the training of researchers and technicians not only from India but also from abroad.
- (ii) Building under construction: supporting clinical laboratory within the campus of the Infectious Disease Hospital.
- (iii) Proposed building: to diagnose molecular microbiology level, to breed good quality of animals for experiments, to establish national surveillance network, and to manage and store strains and diagnostic sera.

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

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

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

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

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

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

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

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

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

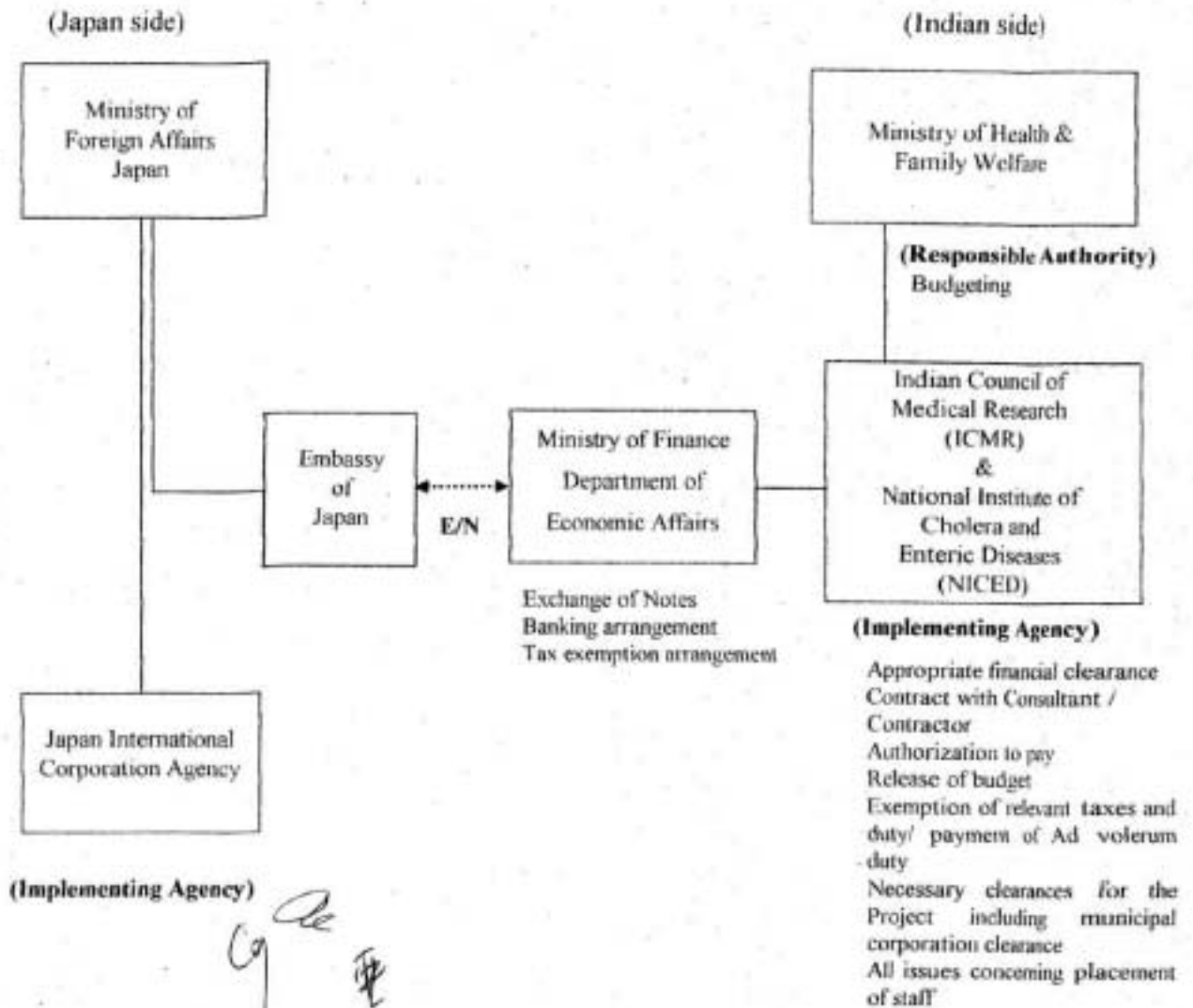
7-12 Ministry of Health and Family Welfare and ICMR shall provide temporary space, access and other necessary measures during construction period of the Project.

#### List of Annexes

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

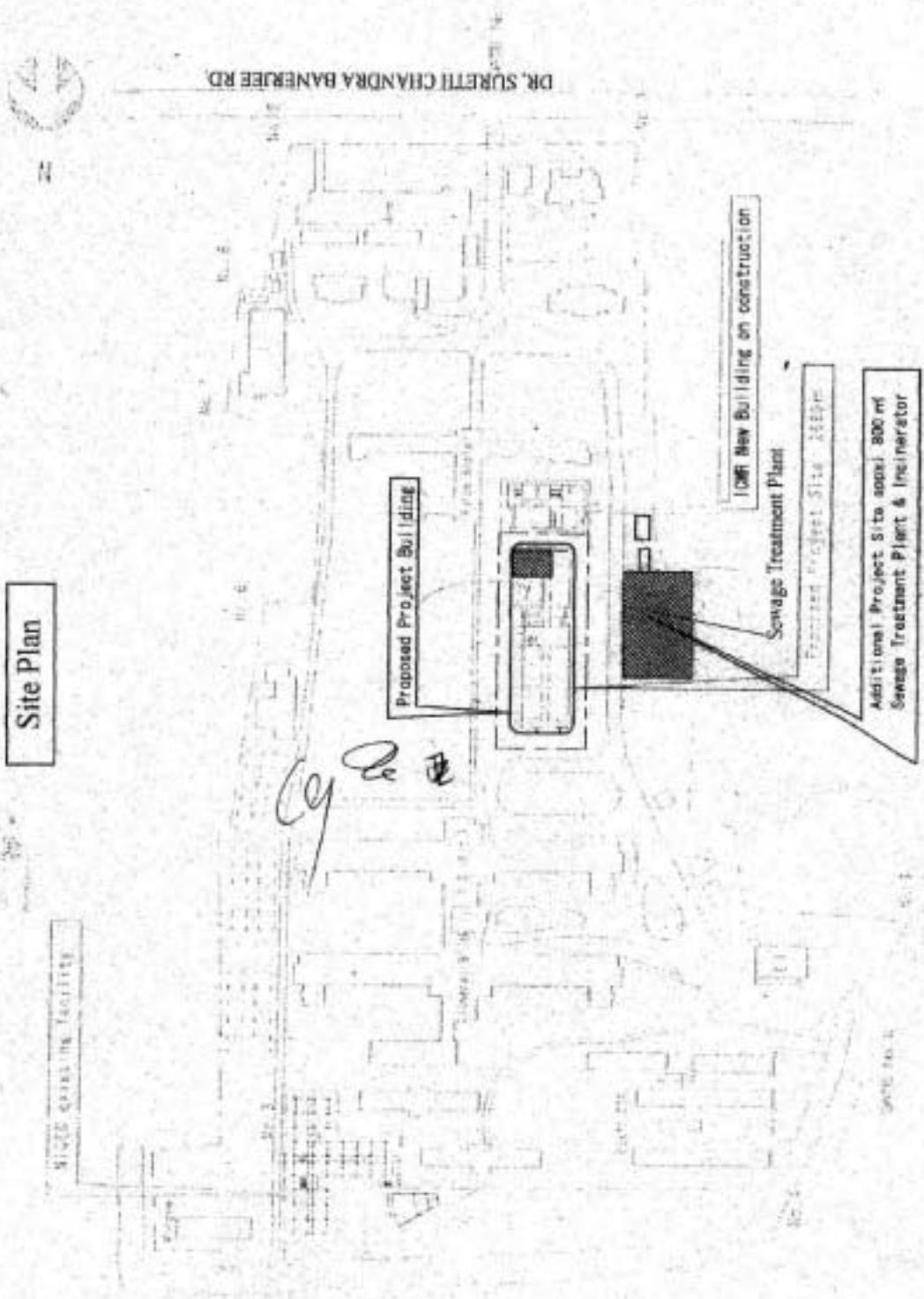
Cg  
I

**Annex-1 Organizational Chart  
Implementation for the Project**



**Annex-2**

**Additional site for Sewage treatment plant and Incinerator**



Site Plan

Proposed Project Building

ICMR New Building on construction

Sewage Treatment Plant

Proposed Project Site 2200m

Additional Project Site approx 800 m²  
Sewage Treatment Plant & Incinerator

DR. SURESH CHANDRA BANERJEE RD

SITAPUR CROSSING FACILITY

8/5

## Equipment List by the Basic Design Study

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

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

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

9




**[Animal House Section]**

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

**[Division of Biochemistry]**

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

Copy 


PKS

**[Division of Clinical Epidemiology]**

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

**[Division of Immunology]**

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

*Cep*  


*SMB*

**[Division of Microbiology]**

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

**[Division of Parasitology]**

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

copy #

8/13

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

**[Division of Virology]**

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

**[Division of Pathophysiology]**

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

CCP  
IF

875

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

**[Electron Microscope Room]**

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

**[Serum Bank]**

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

**[Meeting, Seminar, Office Room and Others]**

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

*Cey*

*SMB*

Japan's Grant Aid Program

1. Japan's Grant Aid Procedures

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

**Application** (request made by a recipient country)

**Study** (Basic Design Study conducted by JICA)

**Appraisal & Approval** (appraisal by the Government of Japan and approval by the Cabinet of Japan)

**Determination of Implementation** (Exchange of Notes between both Governments)

**Implementation** (implementation of the Project)

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

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

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

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

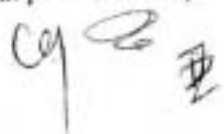
Finally, for the implementation of the Project, JICA assists the recipient country in preparing contracts and so on.

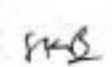
2. Contents of the Study

(1) Contents of the Study

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

- a) confirmation of the background, objectives, benefits of the project and also institutional capacity of agencies concerned of the recipient country necessary for project implementation,
- b) evaluation of the appropriateness of the project for the Grant Aid Scheme from a technical, social and economical point of view,





- c) confirmation of items agreed on by the both parties concerning a basic concept of the project,
- d) preparation of a basic design of the project,
- e) estimation of cost of the project.

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

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

## (2) Selection of Consultants

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

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

## 3. Japan's Grant Aid Scheme

### (1) What is Grant Aid?

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

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

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

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

(4) Under the Grant, in principle, products and services of origins of Japan or the recipient

Cg 2/11

8/11

country are to be purchased.

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

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

(5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. The Government of Japan shall verify those contracts. The "Verification" is deemed necessary to secure accountability to Japanese tax payers.

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

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

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

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

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

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

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

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

(7) Proper Use

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

CCP R  
E

SMS



(8) Re-export

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

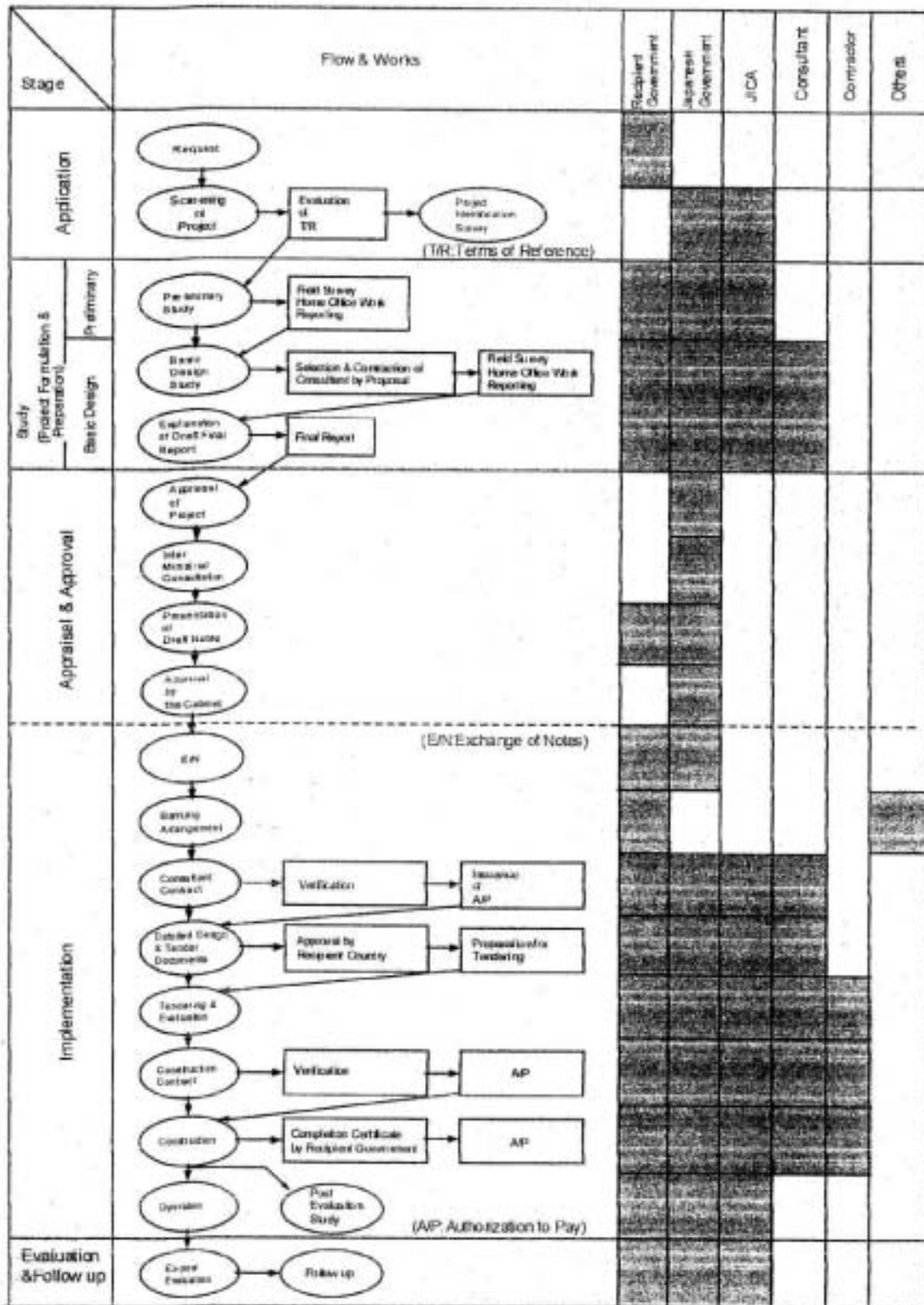
(9) Banking Arrangement (B/A)

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

b) The payments will be made when payment requests are presented by the bank to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.

Cg B  
E

Flow Chart of Japan's Grant Aid Procedures



Copy of [Signature]

[Signature]

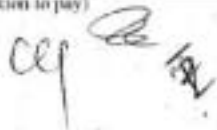
## Annex-6

## Major Undertakings to be taken by Each Government

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To secure land		●
2	To clear, level and reclaim the site when needed		●
3	To construct gates and fences in and around the site		●
4	To construct the parking lot	●	
5	To construct roads		
	1) Within the site	●	
	2) Outside the site		●
6	To construct building facilities	●	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		
	a. The distributing line to the site		●
	b. The drop wiring and internal wiring within the site	●	
	c. The main circuit breaker and transformer	●	
	2) Water Supply		
	a. The city water distribution main to the site		●
	b. The supply system within the site (receiving and elevated tanks)	●	
	3) Drainage		
	a. The city drainage main (for storm, sewer and others to the site)		●
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	●	
	4) Gas Supply		
	a. The city gas main to the site		●
	b. The gas supply system within the site	●	
	5) Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		●
	b. The MDF and the extension after the frame/panel	●	
	6) Furniture and Equipment		
	a. General furniture		●
	b. Project equipment	●	
8	To bear the following commissions to the Japanese bank for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan to the recipient	●	
	2) Tax exemption and custom clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site	(●)	(●)*
10	To accord Japanese nationals, whose services may be required in connection with the supply of the products and the services under the verified 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)

\*to be specified in the contract



JTB

Annex- 7 Equipment Details to be relocated by Indian Side

[Microbiology]

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

CG 20 11

213

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

### [Immunology]

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

### [Virology]

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

*CeRe 15/1*

8143

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

#### [Biochemistry]

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

#### [Pathophysiology]

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

*Handwritten signature/initials*

*Handwritten initials*

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

### [Parasitology]

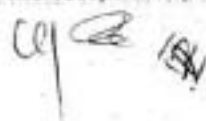
No.	Equipment	Quantity
171	Optical Microscope	1
172	Laser confocal microscope	1
173	Incubator	1
174	Expected in the year 2004-2005	
175	Electroporation unit	1
176	Luminometer	1
177	Mini submarine gel electrophoresis apparatus with power supply	1
178	Vacuum pump	1
179	Mini gel electrophoresis apparatus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

### [Epidemiology]

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

### [Electron Microscope Room]

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

CEP  


END

200	Deep freezer (-20 deg.C)	1
-----	--------------------------	---

CG  
P  
W

MS