No.

THE REPUBLIC OF ZAMBIA

THE PROJECT FOR
INFECTIOUS DISEASE CONTROL
PHASE II

Basic Design Study Report

(Basic Equipment Study)

September 2004

Japan International Cooperation Agency

GM
JR
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PREFACE

In response to a request from the Government of the Republic of Zambia, the Government of Japan decided to conduct a basic design study on the Grant Aid for Infectious Disease, the Project for Infectious Disease Control Phase 2, and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent a study team to the Republic of Zambia between June and July 2004.

The team held discussions with the officials concerned of the Government of the Republic of Zambia, and conducted a field study at the study area. After returning to Japan, the study team conducted further studies and, as a result, is presenting this final report.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our countries.

I wish to express my sincere appreciation to the officials concerned of the Government of the Republic of Zambia for their close cooperation extended to the team.

September 2004

Seiji Kojima

Vice-President

Location Map

Name of Districts

Remarks: 1.Anti-TB drugs and laboratory reagents/supplies will be procured for Lusaka, Copperbelt and Southern Provinces.
2. Health Center Kit will be procured for all Health Centers throughout Zambia.

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ADB	African Development Bank
CBoH	Central Board of Health
CDC	Federal Centers for Disease Control
CDL	Chest Disease Laboratory
CIDA	Canadian International Development Agency
DAC	Development Assistance Committee
DANIDA	Danish International Development Agency
DALY's	Disable Adjusted Life Years
DIFD	Department of International Development
DOTS	Direct Observed Treatment, Short Course
EU	Europe Union
GDF	Global Drug Facility
GTZ	Deutsche Gesellschaft für Techniche Zusammenarbeit
HIV	Human Immunodeficiency Virus
IMF	International Monetary Fund
IUATLD	International Union Against Tuberculosis and Lung Disease
KNCV	Koninklijke Nederlandse Chemische Vereniging
NORAD	Norwegian Agency for Development Cooperation
SIDA	Swedish International Development Authority
TB	Tuberculosis
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
USAID	United Sates Agency for International Development
YLD	Years of Life Lived with a Disability
YLL	Years of Life Lost
WHO	World Health Organization

Contents

Chapter 1 Background of the Project

Stable supply of anti-TB drugs is cited in the DOTS program as one of the major practical problems that have to be resolved. After the Government of the Netherlands, which had been regularly supplying Zambia with anti-TB drugs, discontinued such support in 1996, support of anti-TB drugs was dependent on urgent assistance by foreign donors, and the CBoH hastily requested assistance from Japan and GDF[1] in that respect in 2002 when it was foreseen that the stock thereof would be depleted in two years (2004). In response to that request, Japan implemented its Project for Infectious Disease Control (Phase I) in 2003, procuring anti-TB drugs and laboratory reagents for the three provinces, Lusaka, Copper Belt and Southern Province. GDF also implemented the emergency assistance for supply of anti-TB drugs in 2003 and 2004.

However, CBoH is again looking for donors to furnish support because its budget situation is so tight that about 40 percent of the country's health and medical care the government finances depends on foreign assistance, and it is not clear yet where they can secure support for procurement of the anti-TB drugs and reagents for TB needed for 2005.

What is more, the country's problems in the public health area are not limited to TB, and malaria, pneumonia, diarrhea, dysentery, typhus and other infectious diseases are also widespread. The acute shortage of medicines for treating such infectious diseases at the Health Centers, i.e. the health care structure at the lowest level, still continues. For coping with such frequently occurring infectious and other diseases and improvement of public health service at the regional level, the Government of the Netherlands started in 1990 to procure and supply essential medicines and medical gear in various forms, such as health center kits for urban areas and for rural areas, and emergency kits, etc. The Government integrated the various types of kits

[1] Global Drug Facility: an anti-TB drugs organization supporting procurement of anti-TB drugs under the WHO. It acts in as a go-between for procurement of anti-TB drugs of a certain guaranteed quality on the basis of grant aid and low prices.

into one and started to provide all Health Centers nationwide with such kits in 2004. The Dutch Government has promised to furnish assistance for two-thirds of the 19,680 health kits, the quantity considered as necessary for 2005. As for the remaining one-third, no foreign assistance has yet been secured.

Under such circumstances the Zambian government has requested of Japan grant aid for procurement of that remaining quantity to be used at the country's end medical care facilities, the Health Centers, in addition to the anti-TB drugs and TB test reagents needed for addressing the country's TB problem.

The contents of the request is as presented in Table 1-1 below:

Table 1-1 Contents of the Request from Zambian Government

	Item	Unit	Quantity
1	Rifampicin+Isoniazid	tablet	25,000,000
2	Pyrazinamide	tablet	20,000,000
3	Ethambutol	tablet	11,000,000
4	Ethambutol+Isoniazid	tablet	29,500,000
5	Streptomycin	vial	429,000
6	Microscope slide	sheet	4,600,000
7	Sputum cup	cup	4,600,000
8	Basic fuchsin	g	70,000
9	Methylene blue	g	75,000
10	Spirit	liter	2,475
11	Sulfuric acid	liter	2,475
12	Phenol crystal	kg	1,100
13	Xylene	liter	4,200
14	Immersion oil	ml	4,200,000
15	Hydrochloric acid	liter	250
16	Methanol	liter	1,125
17	Health Center Kit (for 10 urban districts)	kit	5,000

Chapter 2 Contents of the Project

2-1 Basic Concept of the Project

This Project aims at the following:

- the control of TB, which is increasing alarmingly with the spread of HIV/AIDS infection, through procurement of TB test reagents for strengthening TB control measures implemented by the Zambian Government.
- taking measures against “opportunistic” diseases caused by HIV/AIDS infection, malaria, diarrhea, and other infectious diseases, through procurement of health center kits, containing general purpose medicines and sanitary goods for provision to the end health facilities. As a consequence, it will help improve the public health service throughout the country.

Implementation of the Project will provide support to the higher-level "National Health Strategic Plan" and contribute to improvement of Zambia's public health indices and to enhancement of the health of local inhabitants.

2-2 Basic Design of the Requested Japanese Assistance

2-2.1 Design Policy

(1) Basic Policy

i) Areas and Facilities Covered

The TB test reagents are to be distributed to the Health Centers and diagnosis centers of the three provinces, Copper Belt, Lusaka and Southern Province, which have the largest number of TB cases in the country. These three provinces have been selected at the wish of the Zambia's Ministry of Health, which requires the same support as provided last year, and the quantity of reagents to be supplied is equivalent to approximately 70 percent of the

quantity needed for the whole country.

The health center kits will be procured for all Health Centers throughout the country. Up to 2003 the Netherlands provided assistance for procurement of two types of health center kits, one for urban areas and the other for rural areas, which were later integrated into one type in 2004. As in 2004, the Netherlands government will continue to provide assistance for procurement of two-thirds of the necessary quantity of such kits for 2005. Since this Project covers the assistance for the remaining one-third of the total quality needed, outside the Netherlands' scope of assistance, the area to be covered by the Project will be the whole country.

ii) Items to Be Procured

The items to be procured are (1) the TB test reagents indispensable for detection of TB cases for the purpose of expansion of the DOTS program aiming at reinforcement of efforts to cope with tuberculosis and (2) easily transportable health center kits each containing a sufficient quantity of infectious disease treatment medicines and essential medical care gear for 1,000 persons of the population for reinforcement of dealing with frequently occurring infectious diseases at the community level, including "opportunistic" diseases occurring in those infected with HIV, dysentery, pneumonia, malaria, parasite worms, etc.

At first the request included anti-TB drugs, but in view of the fact that the GDF has declared three years of support for procurement of anti-TB drugs the Zambian government has withdrawn them from its request. As a result, the contents of the request is finalized as follows:

Table 2-1 Equipment Lists in the Request and the Minutes

No.	In the Request
1	Rifampicin+Isoniazid
2	Pyrazinamide
3	Ethambutol
4	Ethambutol+Isoniazid
5	Streptomycin
6	Microscope slide
7	Sputum cup
8	Basic fuchsin
9	Methylene blue
10	Spirit
11	Sulfuric acid
12	Phenol crystal
13	Xylene
14	Immersion oil
15	Hydrochloric acid
16	Methanol
17	Health Center Kit (for 10 districts)

No.	In the Minutes
1	Microscope slide
2	Sputum cup
3	Basic fuchsin
4	Methylene blue
5	Spirit
6	Phenol crystal
7	Xylene
8	Immersion oil
9	Hydrochloric acid
10	Methanol
11	Ethanol
12	Health Center Kit (for 10 districts)

iii) Quantities to Be Procured

The plans for procurement of TB test reagents have been determined on the basis of the method for calculation of the necessary quantity adopted by Zambia's CBoH on the basis of the policy of the International Union Against Tuberculosis and Lung Disease (IUATLD). Furthermore, the plans for procurement of health center kits have been formulated on the basis of the procurement policy of the CBoH and the Netherlands government, which has provided guidance in conjunction with the contents thereof. The basis for calculation of the TB reagents is summarized in Table 2-2 below.

Table 2-2 Quantities To Be Procured and its Rationale

No.	Item	Unit	No. of TB cases A	Necessary Q'ty B	Estimated Q'ty for this Project			
					Q'ty needed per year	Reserve stock	Total	Q'ty after adjustment
					C=AxB	D=C*0.5	Total=C+D	
1	Microscope slide	1,000 pcs.	35,000	33 pcs.	1,155,000 pcs.	577,500 pcs.	1,732,500 pcs.	1,733,000 pcs.
2	Sputum cup	1000 pcs.	35,000	33 pcs.	1,155,000 pcs.	577,500 pcs.	1,732,500 pcs.	1,733,000 pcs.
3	Basic fuchsin	100 g	35,000	0.5 g	17,500 g	8,750 g	26,250 g	27,000 g
4	Methylene blue	25 g	35,000	0.5 g	17,500 g	8,750 g	26,250 g	27,000 g
5	Spirit	2.5 litres	35,000	17 ml	595,000 ml	297,500 ml	892,500 ml	892.5 litres
6	Phenol crystal	1 kg	35,000	7.6 g	266,000 g	133,000 g	399,000 g	399,000 g
7	Xylene	1 litre	35,000	30 ml	1,050,000 ml	525,000 ml	1,575,000 ml	1,575,000 ml
8	Immersion oil	100 ml	35,000	3 ml	105,000 ml	52,500 ml	157,500 ml	158,000 ml
9	Hydrochloric acid	1 litre	35,000	1.5 ml	52,500 ml	26,250 ml	78,750 ml	79,000 ml
10	Methanol	1 litre	35,000	17 ml	595,000 ml	297,500 ml	892,500 ml	893,000 ml
11	Ethanol (95%)	1 litre	35,000	45 ml	1,575,000 ml	787,500 ml	2,362,500 ml	2,363,000 ml

The number of TB cases (A) is the number of cases in the three provinces in 2003 (rounded off to the nearest ten). The necessary quantity (B) is the standard quantity for discovery of one case in Zambia as determined on the basis of IUATLD guidance.[2] The case discovery rate has been set at 10%, and the reserve stock (D) has been set at 50% of the annual quantity needed as stipulated by Zambia's Ministry of Health.

Furthermore, the necessary number of health center kits is indicated in Table 2-3. The average rate of issue is one kit per month at a health center. Therefore, the quantity needed for the year 2004 for public health medical facilities throughout the country comes to 19,680 kits. Since the Netherlands government plans to procure and provide 12,500 kits, the balance of these two figures, 7,180, is the Japanese government's share in providing such kits.

[2] Case discovery rate and necessary quantity: The case discovery rate of 10% means that one person in ten tests positive. Since each person is tested three times, the numbers of slides and sputum cups needed for ten persons are both 30. Furthermore, since those who test positive are again tested three times for confirming the results, three more slides and three more sputum cups are needed for each of them. Therefore 33 slides and 33 sputum cups are needed altogether in order to discover one case.

Table 2-3 Health Center Kit

Type of facility	Q'ty E	No. of kits needed per month F	No. of kits per year G E x F	Reserve stock Percentage H	Q'ty of reserve stock K G x H	Total G + K
1Health Center in rural areas	973	1	11,676	33%	3,892	15,568
2Health Center in urban areas	237	1	2,844	33%	948	3,792
3Health post	20	1	240	33%	80	320
Total	1,230		14,760	(4-month buffer)	4,920	19,680
					(To be procured by the Netherlands)	12,500
					To be procured by Japanese grant aid	7,180

(2) Policy on Natural Conditions

In view of difficulty of transportation in the rainy season, the reserve inventory for certain areas has been increased compared with ordinary conditions. Taking the WHO's estimate for Zambia's case discovery rate, 40%, the standard necessary quantity of materials is calculated as 10.5 (= 2.5 x 3 + 3). But the 10% set by the Zambian side as the rate of case discovery is adopted for calculation of the materials needed, and hence the reserve inventory is increased so that there will be no negative effect on implementation of testing even when supply is hindered by transportation difficulties.

Furthermore, the reserve stock of health center kits is set as four month, more than usual three months.

(3) Policy on Operational and Maintenance Capacities of the Implementing Agency

There is already sufficient training regarding how to use each material, and therefore there is no problem concerning use and maintenance thereof. However, regarding TB test reagents, those recommended by the Ministry of Health as standard products shall be procured in order to prevent misuse and other trouble since concentration and other specifications thereof as well as the method of using them may vary with difference of

products.

Furthermore, materials with the same specifications as those of the health center kits procured by the Government of the Netherlands will be procured for the health center kits in order to avoid trouble in the field.

(4) Policy on Construction/Procurement Methods and Construction Period

This Project does not involve any installation work.

2-2.2 Basic Plan

(1) Equipment Plan

The contents and scale of the materials to be supplied are given in Table 2-4 below.

Table 2-4 Contents and Scale of this Project

	Item	Specification	Planned Q'ty	Application
1	Microscope slide	frost	1,733,000 Sheets	For making sputum smears
2	Sputum cup	30ml	1,733,000 cups	For taking sputum samples
3	Basic fuchsin	powder	27,000 g	For staining smears (Ziehl carble fuchsin solution)
4	Methylene blue	powder	27,000 g	For staining smears (Loffler methylene blue solution)
5	Spirit	liquid	892.5 liters	For spirit lamp
6	Phenol crystal	crystal	399 kg	For staining smears (Ziehl carble fuchsin solution)
7	Xylene	liquid	1,575 liters	For cleaning immersion oil
8	Immersion oil	liquid	158 liters	For increasing the resolving power of the objective
9	Hydrochloric acid	36%	79 liters	For decolorizing smears (Hydrochloric acid alcohol)
10	Methanol	99%	893 liters	For dissolving fuchsin
11	Ethanol	Min. 95%	2,363 liters	For decolorizing smears (Hydrochloric acid alcohol)
12	Health Center Kit	59 items	7,180 kits	Medicine kit for Health Centers

Table 2-5 shows a detailed account of the contents of the health center kits.

Table 2-5 Components of Health Center Kit

	Components	Component	Dosage form	Specification	Unit	Qty.	Unit price (US $)	Unit price (JPY)	Package price (JPY)	Remarks
17	Health Center Kits									
1	Acetylsalicylic acid (Aspirin BP)	Acetylsalicylic acid	tablet	Tablet	300mg	1,000tabs.	2	2.70	329	659 Antipholgistic/analgesic/antipyretic
2	Erythromycin (as separate BP)	Erythromycin	tablet	Tablet	250mg	500tabs.	1	19.95	2,434	2,434 Antibiotic
3	Amoxicillin USP	Amoxicillin	tablet / cap	Tablet/capsule	250mg	1,000tabs.	2	21.60	2,636	5,272 Antibiotic
4	Benzathine penicillin BP vials	Benzathine penicillin	injection	Injection	2.4MU	1vial	20	0.27	33	665 Antibiotic (anti-syphilis)
5	Water for injection, sterile vials	Distilled water for injection	injection	Injection	10ml	1amp.	20	0.05	5	110 For diluting injection
6	Benzyl Penicillin G BP, vials	Benzyl penicillin G	injection	Injection	5MU (3g)	1vial	10	0.33	40	398 Antibiotic
7	Benzyl Penicillin G BP, vials	Benzyl penicillin G	injection	Injection	1MU (600mg)	1vial	10	0.13	16	160 Antibiotic
8	Water for injection, sterile vials	Distilled water for injection	injection	Injection	5ml	1vial	10	0.05	6	55 For diluting injection
9	Chlorpheniramine maleate BP	Chlorpheniramin maleate	tablet	Injection	4mg	100tabs.	1	0.25	31	31 Antihistamin
10	Diazapam BP	Diazepam	injection	Injection	5mg/ml	10vial	2	0.44	54	107 Ataractic/antianxiety
11	Ferrous sulfate BP, sugarcoated, red coloured	Ferrous sulfate	tablet	Tablet	200-300mg	1,000tabs.	2	3.90	476	952 Nutrient (to prevent anemia)
12	Ferrous sulfate BP, sugarcoated	Ferrous sulfate 50mg	tablet	Tablet	50mg	1,000tabs.	1		0	0 Nutrient (to prevent anemia)
13	Folic acid BP	Folic acid	tablet	Tablet	5mg	1,000tabs.	1	2.20	268	268 Nutrient (to prevent pernicious anemia)
14	Clotrimazole 20g BP	Clotrimazole	cream	Cream	1%	20g	20	0.39	47	947 Antifungal
15	Hydrocortisone, tube	Hydrocortisone	ointment	Ointment	1%	15g	5	0.77	94	469 Adenocorticotropic hormone
16	Hydrocortisone, tube	Hydrocortisone	cream	Cream	1%	15g	5	0.46	56	282 Adenocorticotropic hormone
17	Lignocaine HCl, vial	Lignocaine hydrochloride	injection	Injection	1%	10ml	1	0.31	38	38 Local anesthetic
18	Magnesium trisillicate co, BPC	Compound magnesium cilicate	tablet	Tablet		1,000tabs.	1	3.80	464	464 Antiulcer
19	Albendazole tablets	Albendazole	tablet	Tablet	400mg	100tabs.	2	4.51	550	1,101 Antiparasitic
20	Methylergometrine maleate BP, amp	Methylergometrine maleate	injection	Injection	0.2mg/ml	1ml	5	0.35	43	214 Hysterotonic
21	Metronidazole BP (scored)	Metronidazole	tablet	Tablet	200mg	1,000pcs.	1	5.00	610	610 Antiprotozoal
22	Multivitamin BPC, formula	Multi-vitamin	tablet	Tablet		1,000tabs.	1	2.70	329	329 Vitamin supplement
23	Nystatin (uncoated tab for oral thrush)	Nystatin	loz / tablet	Chewable tablet	100,000IU	500tabs.	1	7.60	927	927 Antibiotic (anti-candida)
24	Nystain	Nystatin	pessary	Vaginal suppository	100,000IU	500pess.	1	19.65	2,398	2,398 Antibiotic (anti-candida)
25	Nystain	Nystatin	suspension	Suspension	100,000IU/ml	30ml	10	0.99	121	1,208 Antibiotic (anti-candida)
26	ORS (WHO-formula), citrate B.P., sachet	Oral rehydration salt	powder	Powder	27.9g/1L	1pac.	200	0.08	9	1,843 Electrolyte replenisher
27	Paracetamol BP, (scored)	Paracetamol 500mg	tablet	Tablet	500mg	1,000tabs.	5	4.50	549	2,746 Antipholgistic/analgesic/antipyretic
28	Paracetamol BP	Paracetamol 100mg	tablet	Tablet	100mg	1,000tabs.	2	2.20	268	537 Antipholgistic/analgesic/antipyretic
29	Penicillin V potassium BP (scored)	Penicillin V	tablet	Tablet	250mg	1,000tabs.	1	120.11	14,657	14,657 Antibiotic

30	Procaine penicillin BP/USP, vials	Procaine penicillin	injection	Injection	3MU	10ml	30	0.19	23	688	Antibiotic (prolonged)
31	Sulphadoxine/pyrimethamine BP film coated (scored)	Sulfadoxin/pyrimethamine	tablet	Tablet	500mg/25mg	1,000tabs.	2	27.20	3,319	6,638	Anti-malaria
32	Salbutamol (scored)	Salbutamol	tablet	Tablet	2mg	1,000tabs.	1	3.20	390	390	Bronchodilator/antasthmatic
33	Tetracycline USP, with 1.1 wide nozzle	Tetracycline	eye ointment	Eye ointment	1%	5g	75	0.21	26	1,936	Antibiotic (for neonates)
34	Doxycycline Hydrate USP	Doxycycline hydrochloride	tablet	Tablet	100mg	1,000tabs.	1	16.90	2,062	2,062	Antibiotic
35	Quinine Sulphate BP/USP	Quinine sulfate	tablet	Tablet	300mg	100tabs.	2	3.22	393	786	Anti-malaria
36	Bag, Plastic, self-sealing, with white textfield	Plastic bag for dispensing			min. 64 x 83mm	1,000pcs.	2		0	0	For dispensing drugs
37	Bandage, cotton WOW size 5 cm×5m	Gauze bandage			5cm x 4.5-5m	1roll	30	0.90	110	3,300	Bandage
38	Braided silk suture, hospital reels “3/0” 22m	Braided silk suture 3/0			“3/0” 22m	1reel	1	27.00	3,295	3,295	Surgical suture
39	Knotless non-capillary wax finish “2/0” 22m	Braided silk suture 2/0			“2/0” 22m	1reel	1	31.50	3,844	3,844	Surgical suture
40	Ball pen	Ball-point pen				1pc.	2	0.82	100	200	Writing instrument
41	Cetrimide BP, sachets	Cetrimide	powder	Powder	10g/1L	1g	10	0.02	3	25	Disinfectant
42	Chlorhexidine gluconate, guaranteed 20%, solution	Chlorhexidine	solution	Solution	20%	100ml	1	0.63	77	77	Disinfectant
43	Condoms, lubricated	Condom		Rubber latex, plain type, nipple end, lubricated, electronically tested	natural color, size 180x20x52mm approx. , single pack in rectangular sealed aluminum foil	1pc.	1008	0.68	83	84,000	FDA approved
44	Cotton wool absorbent BP	Absorbent cotton			500g	500g	1	6.47	790	790	For surgical procedure
45	Gauze absorbent, non-sterile, 4 fold 0.90×5m	Gauze			0.90×5m	1pc.	1	5.74	700	700	For surgical procedure
46	Gauze, paraffin, dressing, sterile (white paraffin with chlorhexidine acetate 0.5%)	Paraffin gauze			10×10cm	36pcs.	1		0	0	For surgical procedure
47	Gloves, exam, latex, disposable – non sterile M	Latex glove M			medium	50pcs.	1	8.30	1,013	1,013	For medical procedure
48	Gloves, exam, latex, disposable – non sterile L	Latex glove L			large	100pcs.	1	16.60	2,026	2,026	For medical procedure
49	Needles, disposable 23G	Disposable injection needle 23G			0.65×32mm	100pcs.	2	1.50	183	366	For injection (mostly children)
50	Needles, disposable 21G	Disposable injection needle 21G			0.80×38mm	100pcs.	2	1.50	183	366	For injection (mostly adults)
51	Needles, suture, curved 3/8, cutting	Cutting/suture needle 3/8			1L, 3M, 2S	6pcs.	1		0	0	For suturing
52	Note book pad,	Notepad			A5, lined, 100 leaves	1pc.	1		0	0	Foe note taking
53	Strapping tape adhesive, zonc oxide BP (rolls individually wrapped and labeled)	Surgical tape			7.5cm x 5m	1pc.	2		0	0	For surgical procedure
54	Scalpel, surgical blade, carbon steel,	Replacement blade of			No. 15	10pcs.	1	0.45	55	55	For surgical procedure

	sterile, individually hermetically sealed in aluminum foil sachets	scalpel									
55	Swabs, gauze, non-sterile, 12ply	Swab gauze				100pcs.	1		0	0	For surgical procedure
56	Syringe, luer, disposable 2ml (2 tway)	Disposable syringe 2ml			2ml	50pcs.	2	1.17	143	286	For injecting drug
57	Syringe, luer, disposable 5ml (2 way)	Disposable syringe 5ml			5ml	100pcs.	2	2.55	311	622	For injecting drug
58	Toilet soap	Hygiene soap			90-100g	1pc.	5	3.11	380	1,900	For washing hands
59	Out patients register (laying A4), print soft cover, 100pp	Patient Register				1pc.	1		0	0	For recording data

(2) Allocation of the Materials

The CBoH will be responsible for domestic distribution and maintenance of the procured materials, and the central medical supplies warehouse will distribute them to District Health Management Boards and health facilities using the distribution routes already established in Zambia.

2-2.3 Implementation Plan

(1) Procurement Policy

The materials are to be procured in Japan, Zambia or other countries, and procurement thereof will be implemented by Japanese juridical persons selected by the competitive tender method as the contractor. Regarding items procured in third countries, pre-shipment inspection will be based chiefly on commissioning to third-party inspection entities, but as for medical supplies and other materials that require quality control, the procurement supervisor will conduct both pre-ship and acceptance inspections.

(2) Matters to be Considered in Procurement

TB laboratory reagents to be procured for diagnosis of TB cases must have, as clinical test material, quality that complies with the Japan Industrial Standards (JIS) or equivalent standards. Regarding transport of materials that require temperature control, care

must be taken not to affect their quality; assuring appropriate packing, possible quickest transport and inspecting before delivery as rapidly as possible.

(3) Division of Procurement and Installation

Division of procurement and implementation between Zambia and Japan in this Project is indicated in Table 2-6 below. There will be no installation work involved in the Project.

Table 2-6 Division of Implementation

Division	Content
Japan	Procurement of the materials and transportation thereof to the delivery point (the central medical supplies warehouse in Lusaka)
Zambia	Distribution of the materials from the delivery point (the central medical supplies warehouse in Lusaka) to the facilities concerned.

(4) Procurement Supervision Plan

For the work of inspection and acceptance of the procured materials in Zambia a contractor will be dispatched to Zambia as procurement supervisor at the time of delivery of the materials.

(5) Procurement Plan

None of the test reagents are available locally, except for alcohol as a fuel. Although all of them are available in Japan, third-country products are included as possible sources of procurement in view of the need to ensure that the tender is competitive.

Since each health center kit represents a collection of 59 items, a specialized operator is needed who can put them together in a kit. At the same time it is necessary to make sure that there is not excessive variation of the country of origin with the kits to be provided by the Netherlands, i.e. two-thirds of the total kits. In that respect it should be noted that the Netherlands government intends to procure its share of the kits through a tender limited to

seven companies located in Zambia, the Netherlands, Denmark and the U.K. That being the case, it is intended to make the sources of procurement of the kits in the Project match as close as possible to those of the health center kits to be provided with the assistance of the Netherlands. That is to say, it is intended to procure them from Zambia and third countries, mainly European. Namely, the sources of procurement will be as indicated in Table 2-7.

Table 2-7 Sources of Procurement

Item		Source			Remarks
		Zambia	Japan	3rd country	
[Supplies]					
[Equipment]					
1	Microscope slide		○		
2	Sputum cup		○		
3	Basic fuchsin			○	
4	Methylene blue			○	
5	Spirit			○	
6	Phenol crystal		○		
7	Xylene			○	
8	Immersion oil			○	
9	Hydrochloric acid			○	
10	Methanol			○	
11	Ethanol			○	
12	Health Center Kit			○	
Ration (%)		0.00%	19.77%	80.23%	

(6) Implementation Schedule

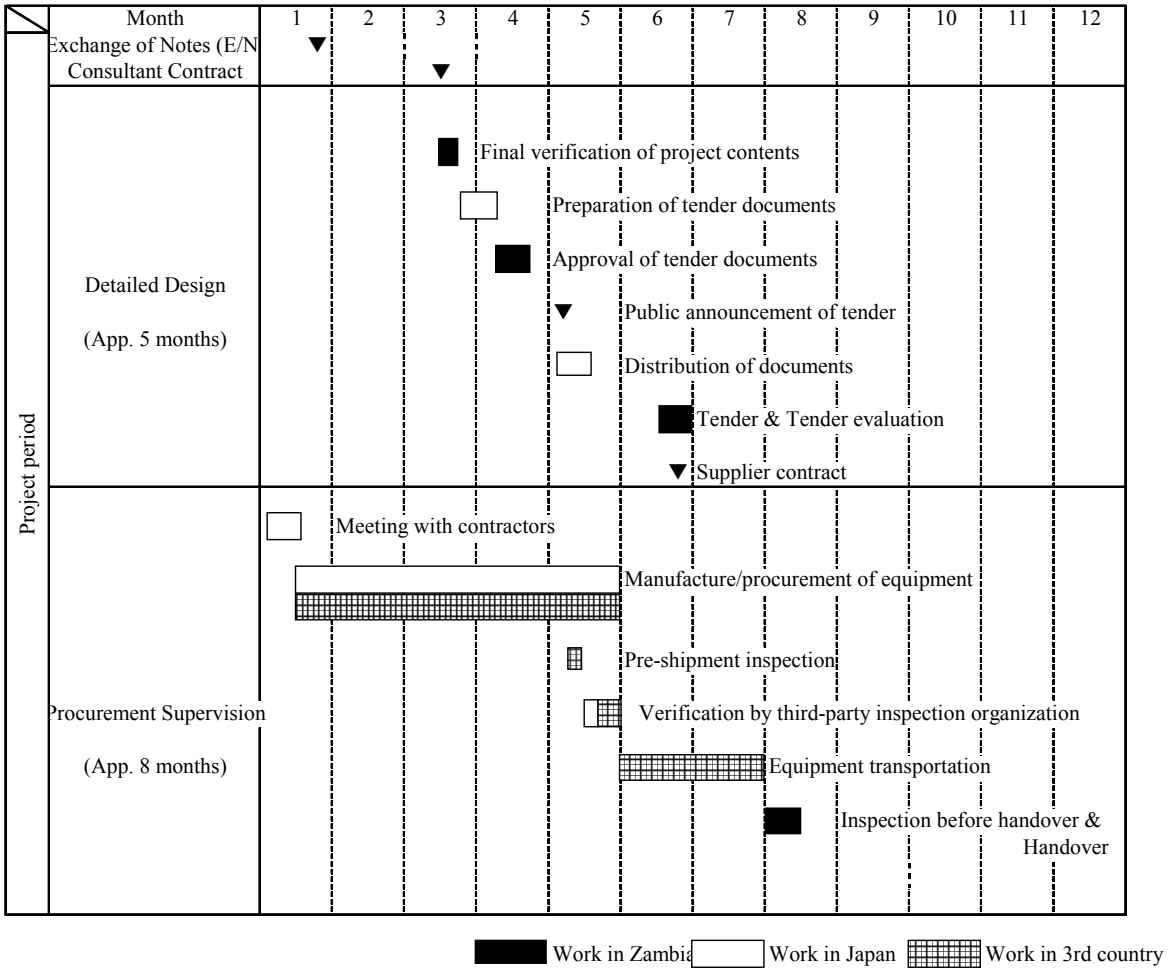
The entire period scheduled for implementation of this Project is 13 months (see Table 2-8), consisting of 5 months for detailed design and 8 months for procurement supervision. After unloading at the Port of Durban in the Republic of South Africa, in the case of procurement from Japan and third countries, these materials will be delivered, along with those procured in Zambia, to the central medical supplies warehouse (MSL) in Lusaka, Zambia.

In the Project, the Japanese side will be delivering only to the above-mentioned

central medical supplies warehouse as the final destination, and subsequent distribution will be carried out by the Zambia side according to needs to District Health Management Boards and medical facilities.

Table 2-8 Implementation Schedule

Project period (from E/N to Handover) : 13 months
From E/N to Supplier Contract : 5 months
Delivery (from Supplier Contract to Handover) : 8 months



2-3 Obligations of the Recipient Country

The following are the matters that the Zambia side must undertake in implementation of this Project:

1. Appropriate and expeditious customs clearance of the procured materials.

2. Securing the necessary warehouse space for keeping the procured materials. Appropriate control thereof.
3. Appropriate accomplishment of distribution to the final destinations in the country, with close coordination between the central medical supplies warehouse (Medical Stores), which will be in charge of storage and transportation, and those on the receiving end (District Health Management Boards and the medical facilities).
4. Bearing the fees associated with issuance of the Authorization to Pay (A/P) based on the banking agreement (B/A) concerning the project implementation.
5. Arranging the necessary budgetary measures and securing the necessary staff for appropriate use and maintenance of the procured materials.
6. Carrying out monitoring surveys regarding the materials procured in the Project for Infectious Diseases Control in 2003 and the Project for Infectious Diseases Control, Second Phase, in 2004 and reporting to the Japanese side on a quarterly basis.

2-4 Project Operation Plan

The materials procured in this Project are to be used and managed on the basis of maximum utilization of Zambia's existing capabilities. In distribution of the TB test reagents there has to be appropriate supervision by the CBoH at all three levels: central, district and health center, and an appropriate storage system must be provided at all the receiving facilities to ensure that the reagents and other medical supplies are preserved in good condition for use.

Most of the entire quantity of the health center kits will be consumed by the end of the project period since they will be furnished in conjunction with normal medical activities, by setting the minimal items and quantities needed at the end level, the health centers. Furthermore, it will be possible to acquire the necessary quantities of general-use medical supplies on the basis of regular reporting of the quantities used. Even if certain medical supplies are found to have been kept for a long time without being used, consumption without waste is ensured by the supervisory

official of District Health Management Boards by means of, for example, redistribution of such unused supplies to other health centers in the same district.

From the above, it is clear that, as in the case of medical supplies in general, there is no problem concerning the system of distribution to the lowest-level medical facilities from the central level through District Health Management Boards, and of management of the items to be procured in this Project.

2-5 Estimated Cost

(1) Cost born by Japan side

This cost estimate is provisional and should be further examined by the Government of Japan for approval of the Grant.

Estimated total project cost Approx. 415 million yen

Item	Estimated cost (mil. yen)
Equipment & supplies	388
Detailed design/ procurement supervision/ technical	27
Total	415

Note) Exchange rate 1 US$ = 109.58 yen
1 EUR = 134.65 yen

(2) Parameters of calculation

1. As of July 2004
2. Exchange rate: 1 US$ = 109.58 yen,
   1 EUR = 134.65 yen
   1 Zambia Kwacha = 0.02 yen
3. Duration: Durations of the detailed design and procurement are as shown in the implementation schedule
4. Other: This Project will be implemented according to the framework of the grant aid scheme of the Government of Japan.

Chapter 3 Project Evaluation and Recommendations

3-1 Project Effect

1) Direct Effect

1. Procurement of the test reagents will enable 350,000 sputum smear tests[3], thereby contributing to detection of some 35,000 TB cases and making it possible to treat them. That quantity will cover approximately 70% of the country's annual sputum smear test reagent requirement.
2. Together with the 12,500 kits to be provided under the Netherlands government's assistance, procurement of health center kits in this Project will make it possible to secure the quantity scheduled for distribution in 2005 (19,680 kits), and that will help suffice the public health services provided by the health centers. Thanks to that, it will be possible to provide 80-90% coverage of Zambia's main diseases and provide treatment for approximately 19.68 million outpatients a year throughout the country.

2) Indirect Effect

1. Since the DOTS program will be further expanded and implemented in a sure manner, that will contribute to reduction of the number of tuberculosis cases in Zambia and thus lowering of the incidence rate, which will also indirectly lead to reduction of poverty.
2. With improvement of the quality of medical service in the target areas and lowering of the incidence rates of main diseases, medical expenses will be reduced.

[3] The number of materials is calculated based on the discovery rate of 10%. This rate indicates that testing 10 persons suspected of infection finds one infected patient. Therefore, this Project will benefit 350,000 of the population through providing test reagents to find out 35,000 cases.

3-2 Recommendations

1) There has been sufficient securing of anti-TB drugs with GDF support, but there is an insufficiency of equipment in laboratories. For example, although microscopes for TB tests have been installed in the laboratories of hospitals and Health Centers and in diagnosis centers, these microscopes in some of the laboratories are scrambled for between laboratory workers doing TB tests and others doing malaria and blood tests (blood corpuscle count, etc.) at the same time, due to lack of microscopes for these other purposes. It is therefore desirable that sufficient test equipment be provided in these laboratories for other purposes as well in order to ensure proper accomplishment of TB tests.

2) Presently the CBoH has one official in charge of TB, and one more personnel is scheduled to be increased this year, but, as KNCV has pointed out, just two officials in charge of TB are hardly enough considering that Kenya, which like Zambia has a high TB burden, has fifteen officials working in that capacity. Since there are also problems like no guidelines for preventative measures of infection of HIV cases with TB or even clear policy for it, it is necessary to increase the personnel in charge of TB so as to make it possible to accomplish such institutional and organizational work and thereby strengthen efforts to effectively tackle on the TB problem.

Appendices

1. Member list of the Study Team
2. Study Schedule
3. List of parties Concerned in the Recipient Country
4. Minutes of Discussions
5. References

1. Member list of the Study Team

(1) Mr. INUI Eiji	Team Leader	Resident Representative JICA Zambia Office
(2) Dr. GOTO Kyoko	Equipment Planner	Project Management Department Japan International Cooperation System
(5) Mr. AOKI Kyota	Procurement Planner	Project Management Division Japan International Cooperation System

2. Study Schedule

No.	Date		Activities	Stay
1	6/23	Wed	Tokyo 18:55 (JL739)→22:25 Hongkong	on board
2	6/24	Thu	Hongkong 01:35 (CX749)→06:55 Johannesburg Johannesburg 11:30 (SA064)→13:30 Lusaka 14:30 Courtesy call on JICA 15:30 Courtesy call on Embassy of the Netherlands	Lusaka
3	6/25	Fri	08:30 Courtesy call on Embassy of Japan 10:00 Courtesy call on Ministry of Health (MOH) (Director of Planning unit Dr. Davis Chifwembwe) 14:00 Meeting with Central Board of Health(CBoH) (Ms. Chisolau, Mr. Banda, Mr. Lupupa, Dr. Kafwabulula) 16:30 Courtesy call on CBoH (DG)	Lusaka
4	6/26	Sat	AM Market research	Lusaka
5	6/27	Sun	Internal Meeting	Lusaka
6	6/28	Mon	09:30 Meeting with TB Focal Person of CBoH	Lusaka
7	6/29	Tue	07:30 Meeting with Laboratory specialist of CBoH 08:30 Leave Lusaka for Central Province 11:00 Visit to Kabwe District Health Office 11:30 Visit to Mahatma Gandhi Clinic 14:00 Visit to Mukululu Health Center, NguNgu Health Center	Kabwe
8	6/30	Wed	00:00 Visit to Chowa Health Center 10:00 Leave Kabwe for Mukushi 14:00 Mukushi District Health Office 15:00 Visit to Mukushi District Hospital and Chibwe Health Center	Mukushi
9	7/1	Thu	08:15 Leave Mukushi for Lusaka 14:30 Meeting with Health Center kit specialist of CBoH 16:00 Meeting with TB Focal Person of CBoH	Lusaka
10	7/2	Fri	07:30 Meeting with Laboratory Specialist of CBoH 10:00 Meeting with Medical Store Ltd.(MSL) 12:00 Courtesy call on WHO 13:00 Meeting with TB Focal Person of CBoH 14:00 Meeting with CDC 17:30 Report ot JICA	Lusaka
11	7/3	Sat	AM Logistic research PM Data analysis	Lusaka
12	7/4	Sun	Data analysis	Lusaka
13	7/5	Mon	Data analysis	Lusaka
14	7/6	Tue	Internal Meeting	Lusaka
15	7/7	Wed	08:15 Meeting with Crown Agent 08:45 Meeting with MOH 10:20 Meeting with Embassy of Canada 14:00 Meeting with Ministry of Finance and National Planning Meeting with Statistic specialist of CBoH 15:30 Meeting with MSL 17:30 Report to JICA	Lusaka
16	7/8	Thu	08:30 Discussion on Minutes of Meeting with CBoH and MOH 14:40 Meeting with Laboratory specialist of CBoH 15:00 Meeting with Embassy of the Netherlands 17:30 Report to JICA	Lusaka
17	7/9	Fri	AM Market research 14:00 MSL 16:00 Signing of Minutes 17:00 Report to Embassy of Japan	Lusaka
18	7/10	Sat	AM Market Survey Lusaka 14:00 → 16:35 (SA065) Johannesburg 22:40 (KL592)	on board
19	7/11	Sun	Amsterdam 09:30	Amsterdam
20	7/12	Mon	09:30 Meeting with IMRES 14:00 Meeting with KNCV (Royal Dutch Antituberculosis funds) 20:15 Amsterdam (JL 412) →	on board
21	7/13	Tue	14:30 Tokyo	

3. List of parties to have a discussion with

1. Ministry of Health

(1) Dr. S. K. Miti	Permanent Secretary
(2) Mr. D.M. Chimfwemeb	Director, Planning & Development
(3) Ms. Christine Mwondela Chisola	Head Procurement & Supply Unit

2. Central Board of Health

(1) Dr. Victor Mukowka	Director General
(2) Mr. C.T. Banda	Chief procurement and Supplies Officer
(3) Dr. Lyndon M. Kafwabulula	TB / Leprosy Specialist
(4) Mr. Grace Kahenya	Laboratory Specialist
(5) Mr. A Lupupa	Purchasing & Supplier Specialist (Pharmaceuticals)
(6) Ms. Rose Andala	Pharmacy technologist
(7) Dr. E. Shinynze	Acting Director Public Health and Research

3. Kabwe District Health Management Board

(1) Dr. Puta	Director of Health - LDHMB
(2) Dr. Wilma Meeus	Senior Health Advisor
(3) MrD. Nauduba	Pharmacy Specialist
(4) Mr. Kolala I Mulenga	Pharmacy technologist
(5) Ms Grace M. sikazwe	Community Partnership Coordinator

4. Mukushi District Health Management Board

(1) Mr. V Silavwe	Manager Planning and Development
(2) Ms. A Nashamo	District Stores Officer

5. Mukushi District Hospital

(1) Ms. Tobias Phin	District TB Focal Person
(2) Ms. S. Muhimba	Dispenser
(3) Mr. Edsor A. Mwangweno	Pharmacy Technologist
(4) Mr. Phu Benson	Laboratory Technician
(5) Mr. Dadry Manpananpa	Laboratory Technician

6. Mahatma Ghandhi Clinic

(1) Ms. Mary M Namata	Nurse In charge
(2) Mr. Andres M. Kalota	TB Focal Person
(3) Mr. Chobana Raymond	Laboratory Technician
(4) Mr. Chikalirah Syoney	TB & Malaria Microscopist
(5) Ms. Grace Nquilibe	Psycho-Social Counselor (VCT)

7. Makululu Health Center

(1) Ms. Brenda Mubita	Registered Nurse and Midwife
(2) Mr. Benson Moonga	Senior Enrolled Nurse
(3) Mr. Musule Kapeshi	Registered Nurse
(4) Mr. I H Chishiko	Laboratory Technician

8. Royal Netherlands Embassy

(1) Mr. Marco Gerritsen	First Secretary
(2) Ms. Marlie Gommans	Program Officer

9. Crown Agents Services Limited

(1) Ms. Antonia Hynd	Country Manager
(2) Mr. Mulenga Muleba	Business development Manager

10. Centers for Disease Control and Prevention (CDC Global AIDS Program, Zambia)

(1) Dr. Alwyn Mwinga, Mmed	Medical Epidemiologist

11. WHO (World Health Organization)

(1) Dr. Eddie M. Limbambala	Medical Officer, Disease Prevention and Control
(2) Dr. Maboshi	Medical Officer

12. CIDA(Canadian International Development Agency)

(1) Ms. Priscilla Likwasi	Development Officer

13. Ministry of Finance and National Planning

(1) Mr. Bernard Phiri	Acting Chief Economist
(2) Mr. Benny Chundu	Director of Economic and Technical Cooperation Department
(3) Mr. Tsuneo Tsurusaki	JICA Expert

14. Community based TB Organization (NGO)

(1) Mr. Webby Mwape	Executive Director
(2) Ms. Rachael Kaluta	Project Manager
(3) Mr. Charles Mfura	Administrator

15. Medical Stores Limited

(1) Mr. Johan Richter	Director
(2) Ms E. N. Kwatu	Diagnostic and Medical supplies officer
(3) Ms. Clara Marigavoi	Assistant Warehouse managers
(4) Mr. Davis Simonga	Warehouse Manager
(5) Ms. Rose Sichalkle	Marketing Manager
(6) Mr. R. Mutati Kamaamba	Acting Managing Director

16. Pharco Limited

(1) Ms. Norma H. Diaz	General Manager

17. International Chemical Limited

(1) Mr. G. M. Simpungwe	Chairman
(2) Mr. Samuel Chingambu	Product Manager

18. Embassy of Japan

(1) Mr. Tatsuro Koga	First Secretary
(2) Mr. Ken-ichi Yumoto	Second Secretary

19. JICA Zambia Office

(1) Mr. Katsuichiro Sakai	Deputy Resident Representative
(2) Mr. Shiro Kitazawa	Assistant Resident Representative
(3) Mr. Lubinga	National Staff
(4) Ms. Tomoko Zama	JICA Expert
(5) Dr. Tomoko Kudo	JICA Expert

MINUTES OF DISCUSSIONS
ON
THE STUDY
ON
THE PROJECT
FOR
INFECTIOUS DISEASE CONTROL PHASE 2 IN ZAMBIA

In response to the request from the Government of the Republic of Zambia (hereinafter referred to as "Zambia"), the Government of Japan decided to conduct a Study on the Project for Infectious Disease Control Phase 2 in Zambia (hereinafter referred to as "the Project") and entrusted the study to Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent the Study Team (hereinafter referred to as "the Team") headed by Mr. Eiji INUI, Resident Representative, JICA Zambia Office, JICA to Zambia from June 24 to July 10, 2004.

The Team had series of discussions with the officials concerned of Zambia and conducted a field survey.

After 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 Study Report.

Lusaka, July 9, 2004

Mr. Eiji INUI
Leader
The Study Team
Japan International Cooperation Agency
Japan

Dr. S. K. MITI
Permanent Secretary
Ministry of Health
The Republic of Zambia

ATTACHMENT

1. Objectives

The Objectives of the Project is to improve the infectious disease control service through procurement of medicines and so on.

2. Project Sites

TB reagents: the maximum project sites are all districts in Southern, Copperbelt, Lusaka provinces of Zambia.

Health Center Kit: the Project sites are 10 districts of Zambia, i.e. Chingola, Chililabombwe, Luanshya, Kalulushi, Kitwe, Mufulira, Ndola, Kabwe, Lusaka, Livingstone.

3. Responsible and Executing Agency

Responsible Agency is Ministry of Health.

Executing Agency is Central Board of Health.

4. Items Requested by the Government of Zambia

After discussion with the Team, the items described in Annex-1 were finally requested by the Zambian 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 studies.

5. Japan's Grant Aid System

5-1. The Zambian side understands the Japan's Grant Aid Scheme explained by the Team, as described in Annex-3 and Annex-4.

5-2. The Zambian side will take necessary measures as described in Annex-5 for the smooth implementation of the Project on the condition that the Grant Aid is extended to the Project by the Government of Japan.

6. Schedule of the Study

6-1. Based on the Minutes of Discussions and technical examination of the study results, JICA will prepare a study report on the Project and send it to Zambia around November 2004 provided that the Government of Japan approves the report.

7. Other relevant issues

7-1 The Zambian side promised to allocate necessary budget at the implementation stage of the Project, such as;

1) Commissions to the Japanese bank for banking services based upon the B/A and A/P.
2) Expenses that cover the transportation of the reagents and health center kit
3) Tax exemption and custom clearance of the medicines at the port of disembarkation

The total amount will appear at the time of approval by Japanese government.

7-2 The Zambian side agreed to submit the confirmation letter to Embassy of Japan and JICA Zambia Office that the TB reagents arrived at each district.

7-3 The Zambian side agreed to submit the confirmation letter to Embassy of Japan and JICA Zambia Office that the Health Center Kits arrived at each district.

7-4 The Zambian side agreed to submit quarterly distribution report for both TB reagents and Health Center Kits to Embassy of Japan and JICA Zambia Office.

7-5 The Team emphasized the importance of necessary budgetary allocation for infectious diseases control.

7-6 The Zambian side agreed to allocate sufficient budgets to operate the Project including the improvement of technical skills and arrangement of laboratory equipment and supplies in diagnostic centers.

7-7 The Zambian side agreed to implement appropriate monitoring activities for TB reagents provided by the Project as well as the phase 1 Project, and submit the monitoring report to Embassy of Japan and JICA Zambia Office.

7-8 The Zambian side agreed to implement appropriate monitoring activities for Health Centre Kits provided by the Project as well as the phase 1 Project, and submit the monitoring report to Embassy of Japan and JICA Zambia Office.

7-9 The Zambian side agreed to implement appropriate monitoring activities for TB drugs provided by the phase 1 Project as well as Global Drug Facility(GDF), and submit the monitoring report to Embassy of Japan and JICA Zambia Office.

7-10 The Zambian side agreed to submit the detailed component of Health Center Kits for 2005 to JICA Zambia Office before the end of July, 2004.

Annex-1 Equipment list
Annex-2 Japan's Grant Aid
Annex-3 Flow chart
Annex-4 Undertakings by both Governments

Annex 1

No	Item
1	Microscope slides
2	Sputum cups
3	Basic fuchsin
4	Methylene blue
5	Methylated spirit
6	Phenol crystals
7	Xylene
8	Immersion oil
9	Hydrochloric acid
10	Ethanol
11	Methanol
12	Health Centre Kits

Annex-2

Japan's Grant Aid

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

1. 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. If necessary, JICA sends a Preliminary Study Team to the recipient country to confirm the contents of the request.

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

Fourthly, 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. Basic Design Study

(1)Contents of the Study

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

a) Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation,
b) Evaluation of the appropriateness of the Project 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.

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

(2)Selection of Consultants

For smooth implementation of the study, JICA uses (a) registered consultant firm(s). JICA selects (a) firm(s) based on 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 to also work in the Project's implementation after Exchange of Notes, in order to maintain technical consistency between the Basic Design and detailed Design.

3. Japan's Grant Aid Scheme

(1) Exchange of Notes (E/N)

Japan's Grant Aid is extend in accordance with the Notes exchanged by the two Government 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 one Japanese fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedure such as exchanging of the Notes, concluding a contract with (a) consulting firm(s) and (a) contractor(s) and final payment to them must be completed.

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

(3) Under the Grant, 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 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.)

(4) Necessity of the "Verification"

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

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

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

a) To secure land necessary for the sites of the project, and to clear, level and reclaim the land prior to commencement for the construction,

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

c) To secure buildings prior to the installation work in case the installation of the equipment,

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

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

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

(6)Proper Use

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

(7) Re-export

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

(8) Banking Arrangement (B/A)

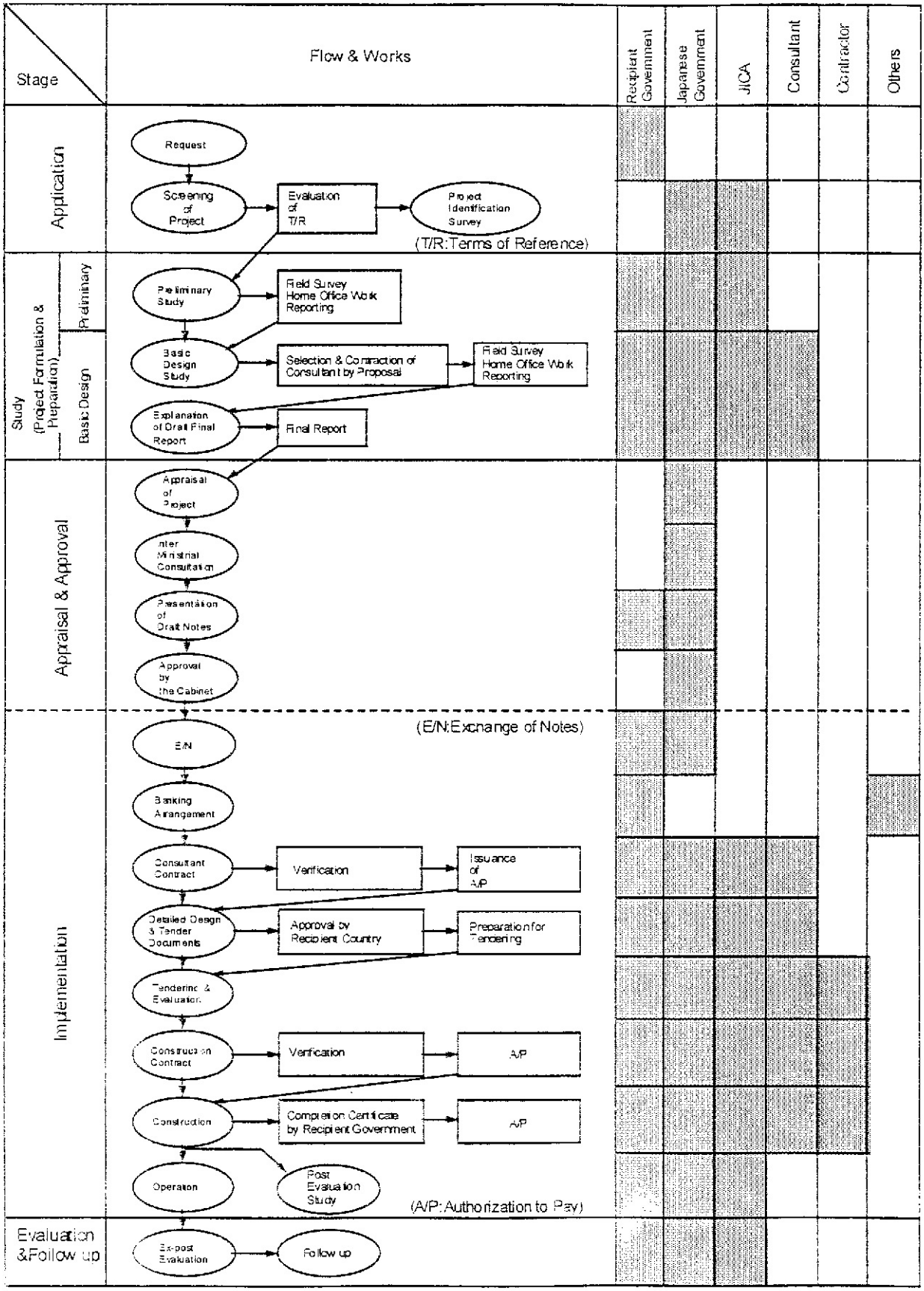
a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments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

Flow Chart of Japan's Grant Aid Procedures



Annex-4

Major Undertakings to be taken by Each Government

NO	Items	To be covered by Grant Aid	To be covered by Recipient side
1	To bear the following commissions to a bank of Japan for the banking services based upon the B/A		
1) Advising commission of A/P			●
2) Payment commission			●
2	To ensure prompt unloading and customs clearance at the port of disembarkation in recipient country		
1) Marine(Air) transportation of the products from Japan to the recipient country		●	
2) Tax exemption and custom clearance of the products at the port of disembarkation			●
3) Internal transportation from the port of disembarkation to the project site		(●)	(●)
3	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country		●
4	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contract.		●
5	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		●
6	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for the transportation and installation of the equipment		●

5. Referencies

No.	Documents	Publisher	Edition	Original or Copy
1	Estimates of Revenues and Expenditure (Activity Based Budget)	MOH	2004	original
2	National HIV/AIDS/STI/TB Intervention Strategic Plan,	National HIV/AIDS/STI/TB Council	2002-2005	original
3	Integrated Technical Guidelines for Frontline Health workers	CBoH	2002	original
4	A listing of Health Facilities According to Levels and Location for 2002	CBoH	2002	original
5	Global Tuberculosis Control; Surveillance, Planning, Financing	WHO	2004	original
6	Information on Supply of TB Drugs by GDF	MOH	2004	copy