

## **APPENDIX**

## APPENDIX 1 MEMBER LIST OF THE STUDY TEAM

### (1) Field Survey

Name	Position	Affiliation
Mr. Koji OTA	Team Leader	Deputy Resident Representative JICA Zambia Office
Mr. Hidetake AOKI	Coordinator	First Project Management Division Grant Aid Management Dept. JICA
Mr. Shoji FUJII	Chief Consultant / Donor Coordination Planner	Japan Techno Co., Ltd.
Ms. David ESCOBAR	Groundwater Development Planner / Geophysical Surveyor	Japan Techno Co., Ltd.
Ms. Mikiko AZUMA	Facility Operation and Maintenance Planner / Public Health Management	Japan Techno Co., Ltd.
Mr. Yusuke ANDO	Construction Planner / Cost Estimation	Japan Techno Co., Ltd.
Mr. Junzo YOSHIWAKA	Equipment Planner / Geophysical Surveyor 2	Japan Techno Co., Ltd.

### (2) Explanation of Draft Final Report

Name	Position	Affiliation
Mr. Katsuichiro SAKAI	Team Leader	Deputy Resident Representative JICA Zambia Office
Mr. Shoji FUJII	Chief Consultant / Donor Coordination Planner	Japan Techno Co., Ltd.
Ms. Mikiko AZUMA	Facility Operation and Maintenance Planner / Public Health Management	Japan Techno Co., Ltd.
Mr. Junzo YOSHIWAKA	Equipment Planner / Geophysical Surveyor 2	Japan Techno Co., Ltd.

## APPENDIX 2 STUDY SCHEDULE

### (1) Basic Design Field Survey

No.	Date	Day	Team Leader	Coordinator	Chief Consultant / Donor Coord. Plan	Groundwater / Geophys.	O&M Plan / HHE	Construction Plan / Cost Estimate	Equipment Plan / Geophys. 2
1	Mar. 6	Thu				Leave Tokyo			
2	7	Fri				Arrive Lusaka			
			CC to EOJ • JICA; Meeting w/DWA			CC to EOJ, JICA; Meeting with DWA, explanation of Inception Report			
3	8	Sat	Move to Kasama, meeting w/ Prov. DWA		Lv. Tokyo	Move to Kasama	Move to Kasama, Meeting with Prov. DWA, Site survey		Move to Kasama
4	9	Sun	Mtg. Mpika DWA, site survey, move to Lusaka		Transit	Prepare geophys	Meetign with Mpika DWA, site survey, move to Lusaka		Prepare geophys
5	10	Mon	CC to MEWD		Ar. Lusaka	Meeting with Mpika Dist, site survey	CC to MEWD		Meeting with Mpika Dist, site survey
6	11	Tue	Discussion with DWA• DISS				Discussion with DWA• DISS		
7	12	Wed	Minutes discussion w/ DWA• DISS			Survey in Mpika	Minutes discussion w/ DWA• DISS		Survey in Mpika
8	13	Thu	Team meeting			Survey in Mpika	Move to Mpika	Survey in Monze	Survey in Mpika
9	14	Fri	Signing of Minutes			Survey in Mpika	Survey in Mpika	Meeting with DWA	Survey in Mpika
10	15	Sat	Report to Embassy of Japan, JICA			Mtg. Chinsali, survey	Move to Lusaka	Cost survey LSK	Mtg. Chinsali, survey
11	16	Sun		Lv. LSK	Survey Ndola, Kitwe	Survey in Chinsali	Move to Mpika	Survey Ndola, Kitwe	Survey in Chinsali
12	17	Mon		Transit	Move to Kasama	Survey in Chinsali	Survey Mpika	Survey Ndola	Survey in Chinsali
13	18	Tue		Ar. TYO	Mtg. w/ P-WASHE	Survey in Chinsali	Mtg. w/ P-WASHE	C.Survey Chingor	Survey in Chinsali
14	19	Wed			Meeting with Chinsali D-WASHE, NGO	Mtg. with Nakonde Dist., survey	Meeting w/ Chinsali, D-WASHE, NGO	Cost survey LSK	Mtg. with Nakonde Dist., survey
15	20	Thu			Survey Chinsali	Survey in Nakonde	Survey Chinsali	Cost survey LSK	Survey in Nakonde
16	21	Fri			Survey Chinsali	Survey in Nakonde	Survey Chinsali	Cost survey LSK	Survey in Nakonde
17	22	Sat			Mtg. Isoka WASHE	Survey in Nakonde	Mtg. Isoka WASHE	Cost survey LSK	Survey in Nakonde
18	23	Sun			Survey Isoka	Mbala mtg., survey	Survey Isoka	Lv. Lusaka	Mbala mtg., survey
19	24	Mon			Survey Mbala	Survey in Mbala	Survey Isoka	Transit	Survey in Mbala
20	25	Tue			Survey Mpulungu	Survey in Mbala	Move to Nakonde	Ar. Tokyo	Survey in Mbala
21	26	Wed			Meeting w/ Nakonde D-WASHE, Survey	Mtg. w/ Mpulungu, survey	Meeting Nakonde D-WASHE		Mtg. w/ Mpulungu, survey
22	27	Thu			Move to Mpulungu	Survey Mpulungu	Survey Nakonde		Survey Mpulungu
23	28	Fri			Survey Mpulungu	Survey Mpulungu	Survey Nakonde		Survey Mpulungu
24	29	Sat			Mtg. w/ Mbala WASHE, Mtg. w/ Prov. DWA	Survey Mpulungu, Move to Luwingu	Move Mbala, Mtg. w/ Mbala WASHE		Survey Mpulungu, Move to Luwingu
25	30	Sun			Move to Luwingu	Luwingu mtg., survey	Survey Mbala		Luwingu mtg., survey
26	31	Mon			Survey Luwingu	Survey Luwingu	Survey Mbala		Survey Luwingu
27	Apr. 1	Tue			Mtg. w/ Prov. DWA, Mpika, Ireland Aid	Survey Luwingu	Mtg. w/ Mpulungu D-WASHE		Survey Luwingu
28	2	Wed			Move Luwingu, Mansa	Luwingu, Mansa	Survey Mpulungu		Survey Luwingu
29	3	Thu			Move to LSK, Mtg DWA	Move to Lusaka	Survey Mpulungu		Prov. DWA, Mbala survey
30	4	Fri			Mtg. with DWA, Donors	Meeting with DWA	Move Luwingu, Luwingu WASHE		Survey Mbala, Mpulungu
31	5	Sat			Mtg. with DWA, Donors	Meeting with DWA	Survey Luwingu		Survey Nakonde, Isoka
32	6	Sun			Data compilation	Data compilation	Move Mbala, Mtg. local consultant		Survey Chinsali, Mpika
33	7	Mon			Move to Kasama	Move to Kasama	Move to Kasama		Survey Mpika, Move to Kasama
34	8	Tue			Meeting with P-WASHE				Mtg. w/ P-WASHE
35	9	Wed			Move to Lusaka, Mtg. with NGO	Move to Lusaka	Survey Mpulungu, Mbala		Move to Lusaka
36	10	Thu			Meeting with Donors, NGO	Data compilation	Mtg. with Mpika, Move to Lusaka		Data compilation
37	11	Fri			Mtg. MLGH, DWA	Data compilation	Mtg. MLGH, DWA		Data compilation
38	12	Sat			Report to Embassy of Japan, JICA				Report EOJ• JICA
39	13	Sun			Team meeting		Lv. Lusaka		Team meeting
40	14	Mon			Data compilation		Transit		Data compilation
41	15	Tue			Leave Lusaka		Ar. Tokyo		Lv. Lusaka
42	16	Wed			Transit				Transit
					Arrive Tokyo				Ar. Tokyo

(2) Explanation of Draft Report

No.	Date	Day	Team Leader	Chief Consultant / Donor Coord. Plan	Facilities O&M Plan / Health &Hygiene Ed.	Equipment Plan / Geophysical
1	July 19	Sat		Leave Tokyo		
2	20	Sun		Arrive Lusaka		
3	21	Mon	C.C. to JICA, MEWD, DWA, MLGH, MFNP, Japanese Embassy			
				Meeting with Ireland Aid		
4	22	Tue	Explanation of Draft Report to DWA and DISS			
5	23	Wed	Discussion on Minutes			
				Meeting with UNICEF, Local Consultants		
6	24	Thu	Finalization of Minutes, Report to JICA			
				Meeting with Local Consultants		
7	25	Fri	Signing of Minutes, Report to JICA			
8	26	Sat		Team meeting, Data compilation		
9	27	Sun		Lv. Lusaka		
10	28	Mon		Ar. Tokyo		

## APPENDIX 3      LIST OF PARTIES CONCERNED IN THE RECIPIENT COUNTRY

### **Ministry of Energy and Water Development (MEWD)**

Geofry Mukala		Permanent Secretary
Dr. Austin Sichinga		(Former) Permanent Secretary
Adam Hussen	Department of Water Affairs (DWA)	Acting Director
Peter Chola	DWA	Assistant Director
Simon Kang'omba	DWA	Principal Hydrogeologist
Ngosa H. Mpamba	DWA	Principal Hydrogeologist
Keneth Nyundu	DWA	Principal Water Quality Officer
Stephen Banda	DWA	Chief Drilling Superintendent
Pascal Mwila	DWA	Senior Hydrogeologist
Langiwe Chandi	DWA	Senior Planner
Nasima Shaskh	DWA	Planner-Water Sector
Andy Monloke	The Water Development Board	Secretary
Reuben Nyambose	Department of Human Resources and Administration	Director
Viola Mtamila	Department of Planning and Information	Chief Planner

### **Ministry of Local Government and Housing ( MLGH )**

Josephine Mapoma		Permanent Secretary
Peter Lubambo	Department of Infrastructure & Support Service (DISS)	Director
B. Hamusonde	DISS	Assistant Director
Cledwin Mulambo	DISS	Senior Engineer Water
Hope C. Nkoloma	Rural Water Supply and Sanitation Unit/DISS	National coordinator
S. F. Shisala	Project Implementation Unit/ADB	

### **Ministry of Finance and National Planning (MFNP)**

S. S. Banda	Department of Economic Technical Cooperation (ETC)	Director
Monde F. Sitwala	ETC	Acting Director
Agnes M. Musunga	ETC	Chief Economist
Chasiya Kazembe	ETC	Principal Economist
Chanda	ETC	Economist
Tsuneno Tsurusaki	ETC	Advisor, JICA expert

### **Northern Province**

N. Sambwa	Provincial Government	Deputy Minister
J. M. Ngo	Provincial Government	Permanent Secretary
D. Mutonga	Provincial Government	Assistant Secretary

### **Provincial DWA, Northern Province**

Sunday Ng'ambi	Provincial DWA	Provincial Water Officer
Moses Gondwe	Provincial DWA	Water Engineer
David T. Tembo	Provincial DWA	Provincial Planner
Amos Chileshe	Provincial DWA	Driller
Daniel Mwanza	Provincial DWA	Laboratory Technician
John Pikinini	Provincial DWA	Mechanical Superintendent

**P-WASHE** (Members from DWA excluded)

Francis Ndlov	Provincial Local Government Office	Provincial Local Government Officer
John Mwamba	Ministry of Health	Environmental Health Specialist
Kelvin S. Syabeene	Provincial Local Government Office	Local Government Officer
Noah H. Banda	Ministry of Education	Inspector of Schools
Henry Amon Banda	Central Statistic Office	Regional Statistician

**D-WASHE**

**MPIKA**

B. Mwamba	District Council	Council Secretary
A. M. Phiri	Health/ District Council	Senior Environmental Health Technician (D-WASHE Desk Officer)
F. Ngulube	Forestry	Extension Assistant
N. Chipapo	Social Welfare	District Social Welfare Officer
K. Mutale	Community Development	Community Development Officer
M. Mwila	District Council	Deputy Treasure
B. Malama	Agriculture	J.T. Officer
S.P. Chilekwa	District Council	District Planning Officer

**CHINSALI**

Chola Chipalo	Zambia Information Services	Information Officer
Mabvuto L. Mhone	District Council	District Planning Officer (D-WASHE Vice Secretary)
M. Mambwe	Fisheries	Aqua-Culturist
T. M. Kafurda	Field Services	Block Extension Officer
Sebastian E. Kunda	DWA	Water Engineering Assistant
F. H. Zimba	District Council	Council Secretary
A. Nawakwi	Community Development	Assistant Community Development Officer
J. M. Mufumbi	Education	Building Officer
M. Nyondo	District Council	Senior Environmental Health Technician
A. Ngoma	District Council	CAO
K. L. Muwala	Provincial Administration	District Administration Officer
J. Mufwaya	District Council	Deputy Director of Works
B. Bwalya	Health	Senior Environmental Health Technician
Dr. Elija Munachongo	District Health Board	District Director of Health
George Mulenga	District Council	Council Secretary

**ISOKA**

Kaputa Paul Chanoa	District Council	Treasurer
C. Chilima	DWA	Officer in Charge (D-WASHE Desk Officer)
L. D. Dipa	Health	SLEN/ZEN, UCI Coordinator
Amiss M. Chendela	Health	Principal Environmental Health Technician
Martin Sichivula	District Council	Council Secretary
R. C. Chanda	DWA	Water Development Officer
Gladys K. Chibeka	Community Development	Community Development Assistant

Fabian Timba	Community Development	District Community Development Officer
F. S. Kanyika	District Council	District Planning Officer
<b>NAKONDE</b>		
Stephen Muntemba	District Council (DWA Water Engineer)	Acting Council Secretary (D-WASHE Chairman)
J. L. Sichivula	DWA	Water Development Officer (D-WASHE Secretary/Desk Officer)
A. B. Phiri	Health	MHRA
B. N. Wasamuwi	Health	Senior Environmental Health Technician
A. Sikalumba	District Council	
J. K. Cchansa	Education	S.O.
R. Chanda	Community Development	District Community Development Officer
C. G. Musonda	Forestry	Senior Technician
A.N. Kamwi	Education	District Education Officer
<b>MBALA</b>		
M. Hamvumba	Agriculture	Senior Technical Officer
D. Hachiswenya	Agriculture	Technical Officer
B. P. Sinyangwe	Municipal Council	Director of Water and Sewerage
Jose Ng'andwe	Buildings	District Works Supervisor
Victor Kakwete	Community Development	Community Development Officer
A. T. Simfukwe	Education	Buildings Officer
Cathy B. Kaunda	Forestry	Extension Assistant
G. W. Chungu	Municipal Council	Chief Community Development Officer
D. Kalima	Municipal Council	Deputy Director of Water and Sewerage
Bwanga K. Kapumpa	Municipal Council	Town Clerk
Kafula Chisanga	Municipal Council	Director of Planning
T. Nganga	Zambia Information Services	
B. Mulimba	District Health Board	Principal Health Inspector
<b>MPULUNGU</b>		
Ernest M. Sumani	District Council	Council Secretary
Harris Phiri	Fisheries	SFRO
Stanley Ndoti	District Council	Internal Auditor
J. P. Simbeya	District Council	District Planning Officer
Friday Simbeya	Department of Health	Environmental Health Technician (D-WASHE Secretary)
J. M. Shawa	Agriculture	DACCO
C. Nyirongo	Forestry	D.F.O
Charles Chanda	District Council	Health Inspector (D-WASHE Desk Officer)
Pater Chasha	Community Development	Assistant Community Development Officer
<b>LUWINGU</b>		
Lewis Chipoya	Social Welfare	District Social Welfare Officer
John Vianney Banda	Forestry	Extension Assistant
Rev. Morgan Mukwamba	United Church of Zambia	Minister of Religion

Ruth C. Banda	Agriculture and Cooperatives	Women & Youth Programme Officer
Lawrence Chileshe	District Council	Deputy Director of Works
Harris J. Bwalya	District Council	Director of Works
Benny Tembo	Agriculture and Cooperatives	Ag. DPO
Kawewe P. Mumbi	District Administration	District Administration Officer
Mwape	Department of Health	Information Officer
Angela Kangwa	District Council	Assistant Planner (D-WASHE Desk Officer)
<b><u>Ireland Aid</u></b>		
Cecil Dulu Nundwe	Water & Sanitation Sector, Embassy of Ireland, Development Cooperation Office	Manager
Kayula Siame	NPDP, Northern Province	Programme Coordinator
James Musonda	NPDP, Northern Province	Manager - Water Sector
Matilda C. Shatunka	NPDP, Northern Province	Project Officer
David N. Mwamba	NPDP, Northern Province	Project Officer
<b><u>DANIDA</u></b>		
Tomas Konigsfeldt	Royal Danish Embassy	Second Secretary
<b><u>DFID</u></b>		
Morgan Mumbwatasai	Economics and Enterprise Development	Senior Programme Officer
<b><u>GTZ</u></b>		
Roland Werchota		Economist, Civil Engineer, Institutional Advisor/Team Leader
<b><u>UNICEF</u></b>		
Dr. Shamvanth Mathur		Programme Officer WASHE
Clement Chibwe		Assistant Programme Officer
Gibson Zulu		WASHE
		WASHE
<b><u>World Bank</u></b>		
Chimwang'a Maseka		Water & Sanitation Specialist
<b><u>Water Aid</u></b>		
John Kelleher		Country Representative
<b><u>World Vision</u></b>		
Kanyata Mukelabai	National Office	Regional Operations Manager
Johans Mtonga	Nakonde Area Development Programme (ADP)	Accountant
Simpasa Elijah	Nakonde ADP	Community Development Officer
<b><u>DOPE (Development Organisation for People's Empowerment)</u></b>		
Evans Lupiya		Organisation Manager
<b><u>CARE</u></b>		
Waleed Rauf		Assistant Country Director



**Christian Children's Fund (CCF)**

Victor Koyi  
Godfrey Mwelwa

Program Manager  
Grants Coordinator

**Embassy of Japan**

Tatsuro Koga

First Secretary (Economic  
Cooperation)  
Second Secretary  
Second Secretary

Tomoyuki Zaitso  
Kenichi Yumoto

**JICA Zambia Office**

Katsuhiro Sasaki  
Katsuichiro Sakai

Resident Representative  
Deputy Resident  
Representative (Explanation of  
Draft Report)  
Deputy Resident  
Representative (Basic Design  
Field Survey)  
Assistant Resident  
Representative  
Programme Officer

Koji Ota

Shiro Kitazawa

Joe P. Njeleka

## **APPENDIX 4      MINUTES OF DISCUSSIONS**

- (1) Minutes of Discussions on Basic Design Study
- (2) Minutes of Discussions on Explanation of Draft Final Report

MINUTES OF DISCUSSIONS  
ON  
THE BASIC DESIGN STUDY  
ON  
GROUNDWATER DEVELOPMENT AND SANITATION IMPROVEMENT PROJECT  
IN THE NORTHERN PROVINCE  
IN THE REPUBLIC OF ZAMBIA

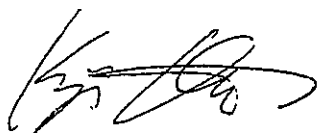
In response to a request from the Government of the Republic of Zambia (hereinafter referred to as "Zambia"), the Government of Japan decided to conduct a Basic Design Study on GROUNDWATER DEVELOPMENT AND SANITATION IMPROVEMENT PROJECT IN THE NORTHERN PROVINCE (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to Zambia the Basic Design Study Team (hereinafter referred to as "the Team"), which was headed by Mr. Koji OTA, Deputy Resident Representative, JICA Zambia Office, JICA. The Team is scheduled to stay in the country from March 7, 2003 to April 15, 2003.

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

In the course of discussions, 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.

Lusaka, March 13, 2003

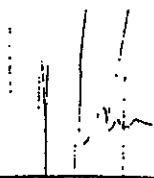


Mr. Koji OTA  
Leader  
Basic Design Study Team  
Japan International Cooperation Agency  
Japan



Dr. Austin C. J. Sichinga  
Permanent Secretary,  
Ministry of Energy and Water  
Development (MEWD),  
The Republic of Zambia

Witness



Ms. Monde F. Sitwala  
Acting Director,  
Economic Technical Cooperation,  
Ministry of Finance and National  
Planning (MFNP)  
The Republic of Zambia



Mr. Peter Lubambo  
Director, DISS  
Ministry of Local Government and  
Housing (MLGH),  
The Republic of Zambia

## ATTACHMENT

### 1. Objective of the Project

The objective of the Project is to improve the living standard of rural population by means of development of groundwater supply for drinking, and capacity building and hygiene education for the community.

### 2. Project sites

The sites of the Project are the selected villages in the Districts of Isoka, Nakonde, Mbala, Chinsali, Mpulungu, Luwingu and Mpika in the Northern Province.

### 3. Responsible and Implementing Agency

The responsible agency is the Ministry of Energy and Water Development (MEWD). The implementing agency is Department of Water Affairs (DWA). The organization charts of National and Provincial DWA are shown in Annex-I.

### 4. Items requested by the Government of Zambia

- 1) The sites and equipment requested by the Zambian side are listed in Annex-II and Annex-III. The Zambian side also requested technical transfer in the "soft component" programme for capacity building for the Operation and Maintenance (O/M), and sanitation and hygiene education for the communities.
- 2) JICA will assess the appropriateness of the request from a technical, social and economic point of view through the further study and analysis during the basic design study, for the proper, effective and efficient utilization of the Grant Aid budget as much as possible. And JICA will recommend it to the Government of Japan for approval. However, the components of the Project will be decided by the Government of Japan.
- 3) The Zambian side explained the reason to request water supply facility construction and equipment supply as stated below. Further, the Zambian side explained to put priority on the equipment supply. Both sides agreed that whether the Project constitutes of the equipment supply, will be decided after the examination of future plans, and crew and budget allocation for construction of water supply facilities have been done;
  - i) Water supply facility construction: in order to cover the target percentage of 50 % of access to safe and adequate water supply for the rural communities as recommended in the "National Water Resources Master Plan" formulated in 1995
  - ii) Equipment facility: in order to develop groundwater supply by the Zambian side with its own budget after the Project
- 4) The Japanese side explained that the number of villages for the Project might be reduced from the requested 300 due to the severe budgetary constraints. However, both sides agreed to cover as many villages as possible by considering the following items;

- i) Design, specification and method of construction of the water supply facilities as well as specification of the equipment should be as appropriate as possible for the sake of saving the construction and O/M cost to secure sustainable O/M of the facilities to be constructed and the equipment to be procured under the Project. The Zambian side requested to maintain the quality of facilities.
  - ii) Crews of DWA shall initially construct water supply facilities in some villages with technical supervision after the technical training by Japanese contractors under the Project. The Zambian side will be responsible for selection of the staff to be trained.
  - iii) The Zambian local contractors will be utilized to construct water supply facilities in some villages if the capacity of local contractors is confirmed.
  - iv) The drilling equipment that belongs to the Zambian side will be allocated for the Project. The Japanese side especially requested to utilize the equipment that will be procured under the Debt Relief Grant Aid Project and that has been operated under the project of "GROUNDWATER DEVELOPMENT AND SANITATION PROJECT IN DROUGHT PRONE RURAL AREA"(Drought Prone Area Project).
- 5) Both sides agreed that the Project sites and the components would be further examined during the basic design study taking into consideration the proposed criteria as described in **Annex-IV**. Both sides also agreed that additional criteria would be developed in the course of the study if found necessary.

#### 5. Japan's Grant Aid Scheme

The Zambian side understood Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Zambia as explained by the Team and described in **Annex-VII** and **Annex-VIII**.

#### 6. Schedule of the Study

- 1) The Team will proceed with the study in Zambia until April 15, 2003.
- 2) JICA will prepare the Draft Final Report in English and dispatch a mission in order to explain its contents in June 2003.
- 3) In case that the content of the report is accepted in principle by the Government of Zambia, JICA will prepare the Final Report and send it to the Government of Zambia by the end of August 2003.

#### 7. Operation and Maintenance (O/M)

- 1) The Zambian side assured that the costs of O/M of the water facilities would be covered entirely by beneficiaries and the Government of Zambia.
- 2) The Zambian side explained the function of WASHE as described in **Annex-V**.
- 3) The Zambian side explained that Ministry of Local Government and Housing (MLGH) is responsible for coordinating the O/M after the Project. The organization chart of MLGH is shown in **Annex-VI**.

## 8. Sanitation and Hygiene education programme

- 1) The Zambian side requested for inclusion of sanitation and hygiene education programme under the Project because communities are prone to suffering from water-borne diseases due to fetching water for drinking from contaminated resources.
- 2) Both sides agreed to include the education to the communities on proper usage of sanitary facilities for excreta disposal in the sanitation and hygiene education programme.
- 3) Further both sides agreed that communities will not be stopped from acquiring rain water for drinking in rainy season but the education for proper treatment of it should be provided to them.

## 9. Role of MLGH through Department of Infrastructure and Support Services (DISS)

The MLGH will participate in the Project implementation as follows;

- 1) At national level through DISS by attendance of site inspections and meetings as scheduled by the Project
- 2) They have to ensure full participation of the council through D-WASHE activities.
- 3) Ensuring that there is no duplication of D-WASHE on development of the sites.
- 4) Respective District Council should avail staff for training on handpump maintenance and other issues.

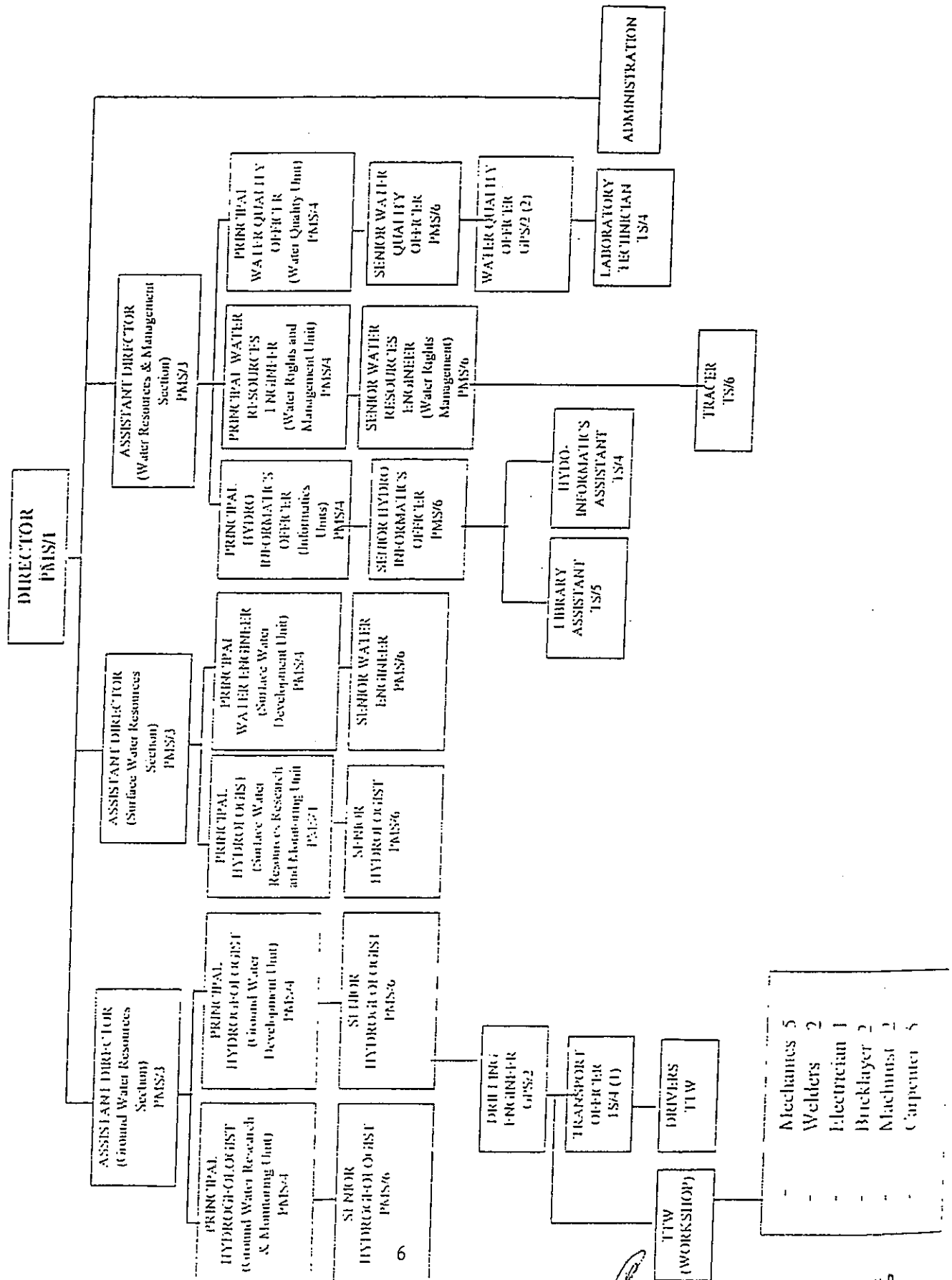
## 10. Coordination of the donors

- 1) The Zambian side explained the involvement of other donors;
  - i) African Development Bank (ADB) under the project of construction / rehabilitation of about 2,000 boreholes, promotion of hygiene education, malaria and HIV control, and catchment protection which is implemented from 2001 to 2006 in Central Province of Zambia,
  - ii) The German Government through KfW is implementing a rural water supply development project in Eastern Province aimed at constructing 820 water points for the period from 2001 to 2005,
  - iii) In the Northwestern Province of Zambia, the Government of Zambia is working with KfW in designing a program aimed at construction and rehabilitation of boreholes, construction of pit latrines, and promotion of hygiene education, and
  - iv) Ireland Aid is undertaking of integrating development project in Northern Province with some elements of construction and rehabilitation of boreholes on a small scale, and also promotion of hygiene education.
- 2) The Zambian side mentioned that there is no duplication of the projects by other donors in the Project sites.
- 3) At the national level there is a Donor/NGO coordination committee whose main function is to coordinate implementation of projects in rural water supply.

## 11. Other relevant issues

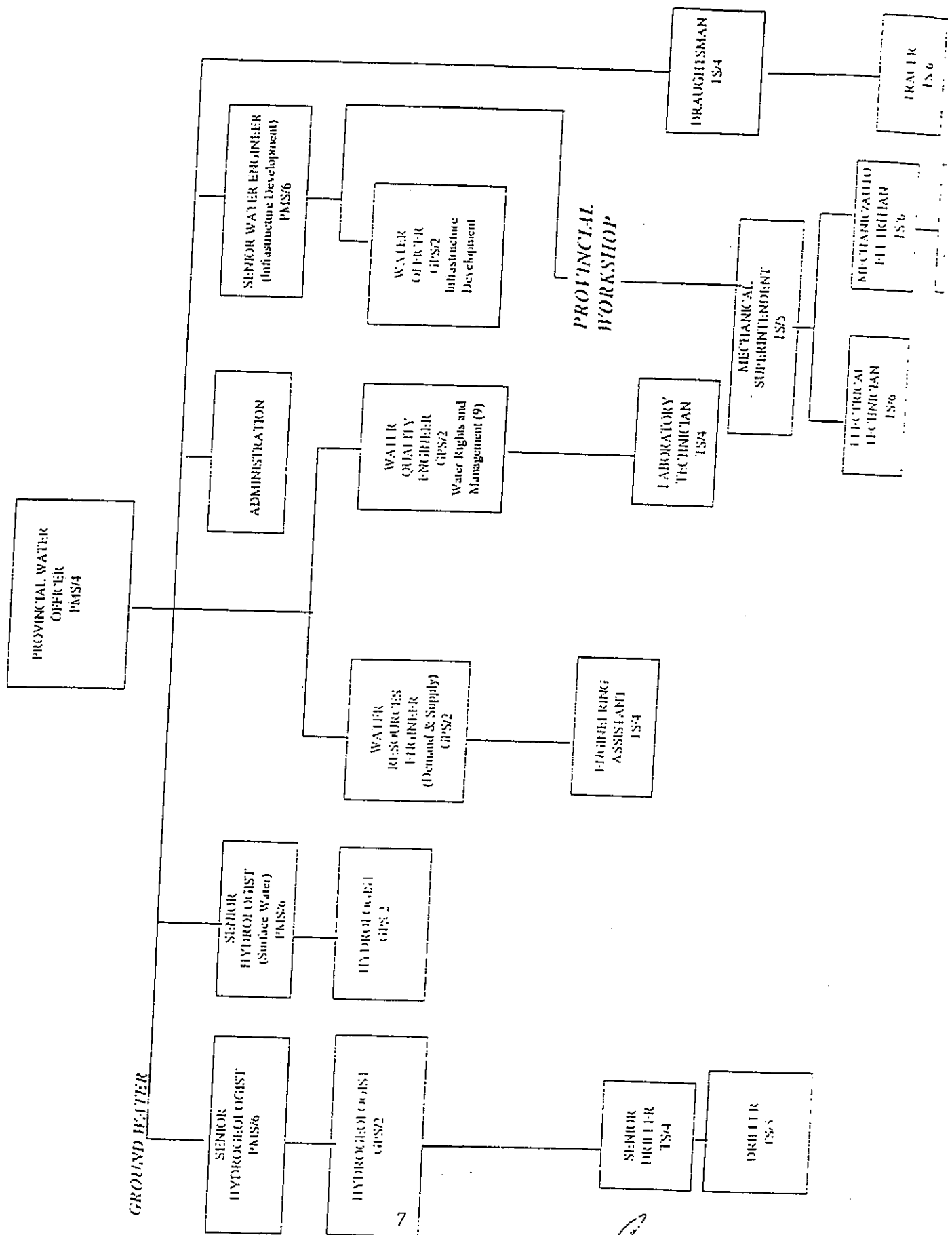
- 1) Both sides agreed in principle to adopt the Zambian water quality standard and to consider WHO guidelines for items which have high health risks.
- 2) The Zambian side requested that Indian Mark II handpumps be installed on the boreholes because of its widely spread usage in Zambia and it is also highest ranked among the five standardized handpumps (Indian Mark II, afridev, consallen, blair and bush pump) in Zambia. The Japanese side, however, explained that the brand of handpumps will be decided after examination of water quality, depth of water level, ease of O/M and accessibility to spare parts in Zambia during Basic Design Study.
- 3) Both sides agreed that there will not be the third trial of drilling after two trials are concluded unsuccessful in terms of water quality, production, etc in the same village.
- 4) The Zambian side informed that there are seven (7) operative existing drilling rigs under DWA; one in Kasama, two under the HIPC's project and 4 under the Drought Prone Area Project. However five of them are in their need of repair and their operation efficiency is below 50%.
- 5) The Zambian side agreed to submit the Project site list with ranking of priority in each district during the study by the mid of April.

## ORGANIZATION CHART OF National DWA





# ORGANIZATION CHART OF PROVINCIAL DWA



# PROJECT SITES REQUESTED BY THE GOVERNMENT OF ZAMBIA (vol.1)

Annex-II

① ISOKA DISTRICT	
No.	Name
IS-1	WENELA
IS-2	KAPWIMBI
IS-3	KAPEMBE
IS-4	NTUMBI
IS-5	MULAMBA
IS-6	CHITETE VILLAGE
IS-7	MUPAPA
IS-8	MWENWISI
IS-9	MPANGALA VILLAGE
IS-10	MWENWISI SCHOOL
IS-11	NAMUSUKUKALINGHO
IS-12	MWESINTI VILLAGE
IS-13	CIANAMA
IS-14	CHIWANDA VILLAGE
IS-15	KAPILONGA
IS-16	TUBALE
IS-17	KATANGA VILLAGE
IS-18	CHUWI
IS-19	MWEMBE
IS-20	LUALILI
IS-21	MUTUKUMBI
IS-22	NOAS VILLAGE
IS-23	KOSAMU VILLAGE
IS-24	NYENGO VILLAGE
IS-25	SICHTAMBULE VILLAGE
IS-26	THENDERI RIC
IS-27	THENDERE BASIC SCHOOL
IS-28	MUYOMBE VILLAGE A
IS-29	CHINYANSI VILLAGE
IS-30	CHIKOKO VILLAGE
IS-31	SANSAMWENDE VILLAGE
IS-32	KANTENSHA
IS-33	SICHINGA VILLAGE
IS-34	KAWENGA
IS-35	KALIMAMUTENGO
IS-36	ZEBEDIA VILLAGE
IS-37	NAMYALA
IS-38	MULUNGWIZA VILLAGE
IS-39	TONTELA VILLAGE
IS-40	MWASENI COMMUNITY
IS-41	NACHSITU VILLAGE
IS-42	CHUMUNGOTO VILLAGE
IS-43	MUPKATENINGO

② NAKONDE DISTRICT	
No.	Name
NA-1	NAKAKOLA VILLAGE
NA-2	KAWELE SCHOOL
NA-3	KANDALALA VILLAGE
NA-4	KAWELE VILLAGE
NA-5	BURTON VILLAGE
NA-6	NEGA
NA-7	KASAI AWE VILLAGE
NA-8	MAYEMBE VILLAGE
NA-9	MIPUJA SCHOOL
NA-10	NACHIPETA VILLAGE
NA-11	ISASA VILLAGE
NA-12	UZINI SCHOOL
NA-13	CHIWETE SCHOOL
NA-14	NANKUNGULU SCHOOL
NA-15	CHINSAMBWE SCHOOL
NA-16	KAZEMBE SCHOOL
NA-17	YOLO COMMUNITY SCHOOL
NA-18	MUSENGOMA SCHOOL
NA-19	SIFUMU RIC
NA-20	KALANDA
NA-21	LUKIMBA VILLAGE
NA-22	ILENGA VILLAGE
NA-23	MUPACHI VILLAGE
NA-24	KAZEMBE VILLAGE
NA-25	LUCHI VILLAGE
NA-26	MUSANKA VILLAGE
NA-27	CHITAMBI VILLAGE
NA-28	MUSENGOMA VILLAGE
NA-29	MWANGA VILLAGE
NA-30	IZUWA VILLAGE (B)
NA-31	CHINSAMBWE VILLAGE
NA-32	KASICHIA VILLAGE
NA-33	CHOZI RIC
NA-34	MULI VILLAGE
NA-35	CHAPANYA SCHOOL
NA-36	MWANGA SCHOOL

③ MBALALA DISTRICT	
No.	Name
MB-1	CHIYANGA SCHOOL
MB-2	NIELESANI VILLAGE
MB-3	MULUNDA VILLAGE
MB-4	ZOMBE SCHOOL
MB-5	CHIPA VILLAGE
MB-6	MUSIPAZI SCHOOL
MB-7	MUPUNGA VILLAGE
MB-8	MASAMBA VILLAGE
MB-9	MUSENKELE VILLAGE
MB-10	LUKWESA VILLAGE
MB-11	MULOWEZA VILLAGE
MB-12	KAZWI SCHOOL
MB-13	REUBEN SCHOOL
MB-14	MWENYI SCHOOL
MB-15	SONGOLO VILLAGE
MB-16	NAKAPANDA VILLAGE
MB-17	CHIPANDA VILLAGE
MB-18	KAPENDA VILLAGE
MB-19	MWAMBIZI CHILINDO VILLAGE
MB-20	MWAMBIZI VILLAGE
MB-21	CHIMENKE VILLAGE
MB-22	KEDRICKS VILLAGE
MB-23	NAMUKALE VILLAGE
MB-24	KAMVANGA VILLAGE
MB-25	CHIMULA VILLAGE
MB-26	CHIMULA SCHOOL
MB-27	VIMBILI VILLAGE
MB-28	MAMBWE SCHOOL
MB-29	NSINDANO SCHOOL
MB-30	JOHN CHIVUTA SCHOOL
MB-31	MWILA VILLAGE
MB-32	KALEWA VILLAGE
MB-33	ELON VILLAGE
MB-34	LOBO VILLAGE
MB-35	CHIKOTI VILLAGE
MB-36	MWAMBWA SCHOOL
MB-37	MOSES SCHOOL
MB-38	MOSES VILLAGE
MB-39	SUNE VILLAGE
MB-40	KALALA VILLAGE
MB-41	ISANYA VILLAGE
MB-42	KANYIKA VILLAGE
MB-43	MUNKALALA VILLAGE
MB-44	KATI VILLAGE
MB-45	LONDE VILLAGE
MB-46	KAKONDE VILLAGE
MB-47	MONTONGA VILLAGE
MB-48	CHASHIA VILLAGE
MB-49	MINDOLO VILLAGE
MB-50	KAVUMBO SCHOOL
MB-51	CHILLESIYA SCHOOL
MB-52	
MB-53	

④ CHINSALI DISTRICT	
No.	Name
CH-1	MUBANGA VILLAGE
CH-2	MPYANAIWAI YA VILLAGE
CH-3	MUSANYA SCHOOL
CH-4	KALIFA VILLAGE-1
CH-5	LUBU SCHEME
CH-6	NAMUTUMA VILLAGE
CH-7	MULANGA VILLAGE
CH-8	MUSAPA VILLAGE
CH-9	CIABALA VILLAGE
CH-10	KALIFA VILLAGE-2
CH-11	CHIBESAKUNDA SCHOOL
CH-12	KABANGAMA SCHOOL
CH-13	CHINKALANGA SCHOOL
CH-14	SELE SCHOOL
CH-15	LUBWA VILLAGE
CH-16	MUNGULUBE SCHOOL
CH-17	POYA SCHOOL
CH-18	CHIBESA SCHOOL
CH-19	MWALALA SCHOOL
CH-20	CHIANDAMALI VILLAGE
CH-21	KANTIMBA SCHOOL
CH-22	VITONDO SCHOOL
CH-23	MATUNBO VILLAGE
CH-24	MUSONKO SCHOOL
CH-25	CHOSHI VILLAGE
CH-26	MUKWIKILE PALACE
CH-27	KAPASHI VILLAGE
CH-28	MUKUNGWA SCHOOL
CH-29	KAPASHA SCHOOL
CH-30	KALISHA SCHOOL
CH-31	SHIMWALUFE SCHOOL
CH-32	CHIESWA SCHOOL
CH-33	CHIPUNGA SCHOOL
CH-34	MUPEKA SCHOOL
CH-35	IBWINAMBO SCHOOL
CH-36	CHILINDA SCHOOL

# PROJECT SITES REQUESTED BY THE GOVERNMENT OF ZAMBIA (vol.2)

MIPUTLENGU DISTRICT	
No.	Name
MI-1	KAMBISA
MI-2	KAMBOLLE
MI-3	KAKOLO
MI-4	LEMBALI
MI-5	MUTIMFUMU
MI-6	CHIMBWA RUC
MI-7	KASTA
MI-8	CHIKONDE
MI-9	KASTUSU
MI-10	NTEMA
MI-11	SHIMWALOTA
MI-12	KABAMBA
MI-13	KOPEKA
MI-14	SIMOCITA
MI-15	JECAP
MI-16	KASASIII
MI-17	CHILWA
MI-18	CHILUJI
MI-19	MENGO
MI-20	MUSWITO
MI-21	KALONGOLA
MI-22	CHIBOTE
MI-23	CHINTA
MI-24	PATRICK
MI-25	KATULA
MI-26	MURAKA
MI-27	MULUWE
MI-28	KAZYA
MI-29	ISOKO
MI-30	MAKOLA
MI-31	CHINAKHA
MI-32	VYAMBA
MI-33	MULIANGONDO
MI-34	MUNGULA
MI-35	KASANSALA
MI-36	KALINDA
MI-37	KASASA
MI-38	MUPATA
MI-39	PUSA
MI-40	MWANAKATWE
MI-41	KAPKO
MI-42	MUSENDE
MI-43	KASAKALAWE

LUNGU DISTRICT	
No.	Name
LU-1	CHANDA CHIPALO
LU-2	SALI
LU-3	PAUNDI
LU-4	SANDULILA
LU-5	KAPISIA
LU-6	MULALA SCHOOL
LU-7	CHUFA SCHOOL
LU-8	MUCHHEKA SCHOOL
LU-9	MPASA SCHOOL
LU-10	CHIBILI COMMUNITY SCHOOL
LU-11	KATUTA SCHOOL
LU-12	CHIFWE SCHOOL
LU-13	MUKANGA SCHOOL
LU-14	MISAMBULA SCHOOL
LU-15	KANDATA SCHOOL
LU-16	LUENA CLINIC
LU-17	MUNGWE SCHOOL
LU-18	NSOLO SCHOOL
LU-19	WASHINI SCHOOL
LU-20	CHIBOFWE
LU-21	KABANGALA SCHOOL
LU-22	CHAKABA VILLAGE
LU-23	MALAYA
LU-24	MUMBA VILLAGE
LU-25	CHABULA SCHOOL
LU-26	MWANIXO SCHOOL
LU-27	NSINDALA VILLAGE
LU-28	LUNDU SCHOOL
LU-29	NSOMBO VILLAGE
LU-30	MWANDO HP
LU-31	CHIEPESII VILLAGE
LU-32	KATUTA RHC
LU-33	BULAMBO SCHOOL
LU-34	CHAMBO SCHOOL
LU-35	NDALAMA VILLAGE
LU-36	MAI EKANI SCHOOL
LU-37	CHIMPAMA SCHOOL
LU-38	TOLOPA VILLAGE
LU-39	KASASA SCHOOL
LU-40	KABOMBO SCHOOL
LU-41	KAPUTI VILLAGE
LU-42	KAPOMA VILLAGE
LU-43	LUENGE SCHOOL
LU-44	SANDIE VILLAGE

MPEKA DISTRICT	
No.	Name
MK-1	KAPOKO
MK-2	KALONGA(CHI ONGA)
MK-3	MPUMBA SCHOOL
MK-4	MPUMBA VILLAGE
MK-5	LUSULU VILLAGE
MK-6	NGWUAI COMMUNITY SCHOOL
MK-7	KATONGO KAPALA
MK-8	MWATESIII
MK-9	CHISONGO VILLAGE
MK-10	MUKUNGULE VILLAGE
MK-11	LUFILA VILLAGE
MK-12	KAKOKO VILLAGE
MK-13	CHIEPESII VILLAGE
MK-14	CHISHALA SCHOOL
MK-15	CHOBELA SCHOOL
MK-16	CHISHALA VILLAGE
MK-17	CHOBELA VILLAGE
MK-18	MWANFUSII VILLAGE
MK-19	KALIBA VILLAGE
MK-20	IFUNDA VILLAGE
MK-21	MUEBUSHII VILLAGE
MK-22	MALAMBWA VILLAGE
MK-23	MPEPO VILLAGE
MK-24	CHAMBESII VILLAGE
MK-25	KABULA MWIKO VILLAGE
MK-26	KACHO VILLAGE
MK-27	NDAKA VILLAGE
MK-28	ALUNI VILLAGE
MK-29	LUCHEMBE VILLAGE
MK-30	CHIPAMBELE VILLAGE
MK-31	CHAKOFU VILLAGE
MK-32	MUKUNGULE PALACE
MK-33	CHIKOLE VILLAGE
MK-34	CHIKWANDA VILLAGE
MK-35	MUNDEMWA SCHOOL
MK-36	CHIKAKALA VILLAGE
MK-37	KOPA VILLAGE
MK-38	KOPA SCHOOL
MK-39	MPANDAFISIARA COMMUNITY
MK-40	NEW KAMWANYA
MK-41	CHUNDAPONDE VILLAGE
MK-42	CHUNDAPONDE SCHOOL
MK-43	CHUNDAPONDE RHC
MK-44	KASHITA VILLAGE
MK-45	KASHITA VILLAGE

## EQUIPMENT REQUESTED BY THE GOVERNMENT OF ZAMBIA

No.	Item	Quantity
1.	DRILLING EQUIPMENT	
1)	Truck-mounted rig, Top-head drive type	1 unit
2)	Standard tools and accessories	1 set
3)	Truck-mounted compressor	1 unit
4)	Logging equipment	1 unit
5)	Pumping test equipment	1 set
6)	Workshop equipment and tools	1 set
2.	SUPPORTING VEHICLES	
1)	Cargo truck with crane for transport containers and casing pipes	1 unit
2)	Cargo truck with crane for transport pumping test equipment	1 unit
3)	Water tanker	1 unit
4)	Fuel tanker	1 unit
5)	Pickup truck, 4WD, double cabin	3 units
3.	GEOLOGICAL SURVEY EQUIPMENT	1 set
4.	SPARE PARTS FOR EXISTING DRILLING MACHINES, VEHICLES AND RELATED MACHINES	1 lot
5.	SUPPORTING EQUIPMENT FOR WASHE ACTIVITIES	
1)	Pickup truck, 4WD, single cabin	3 units
2)	Motorbike	21 units
3)	Data processing equipment	2 sets
4)	Water quality analysis kit	7 sets

CRITERIA FOR SELECTION OF THE PROJECT SITES  
AND COMPONENT OF FACILITIES

Water sources

- 1) Raw water quality of groundwater meets the Zambian standards for drinking water.
- 2) Depth to the water table is not beyond practical and economical pumping range.
- 3) Accessibility to the target sites is secured.

Facilities

- 4) There is neither safe nor sufficient existing water supply facility.
- 5) There are no existing water supply facilities which can be rehabilitated.

Socio-economical situations

- 6) Water committees are established before commencement of construction.
- 7) Communities are ready to participate and contribute to O/M for the Project.
- 8) Water-borne diseases are prevalent.
- 9) There is no apparent obstruction to land acquisition.
- 10) Possibility of money raising by the water committee satisfactorily covers O/M cost requirement for water supply facilities.

Others

- 11) There is no project by other donors overlapping in the drilling sites.
- 12) The project cost efficiency is justifiable.

## WASHE FUNCTION

WASHE stands for Water Sanitation and Hygiene Education. The main role/responsibility of all WASHE committees, be it Provincial WASHE (P-WASHE), District WASHE (D-WASHE), Sub-district WASHE (Sub-WASHE) or Village WASHE (V-WASHE) is to co-ordinate water, sanitation and hygiene education activities.

It should be noted that D-WASHE is a sub-committee of the District Development and coordinating committee (DDCC) whose tasks is to address WASHE concerns. Some of the specific roles and responsibilities of the respective WASHE committees are as given below:

### 1. P-WASHE

- Consolidation of D-WASHE plans to develop the provincial plan;
- To coordinate D-WASHE activities;
- Dissemination of information, e. g. on policy, donors supporting agencies operating in the province;
- Coordinating of donor support;
- Development of systems and strategies; and
- Monitoring and Evaluation of D-WASHE programmes.

### 2. D-WASHE

- Consolidation of Sub-WASHE plans into the District Plan;
- Co-ordination of Sub-WASHE activities;
- Training of Sub-WASHE Committee;
- Monitoring and Evaluation of Sub-WASHE Committees;
- Facilitate the carrying out of major repairs; and
- Community Sensitisation.

### 3. SUB-WASHE

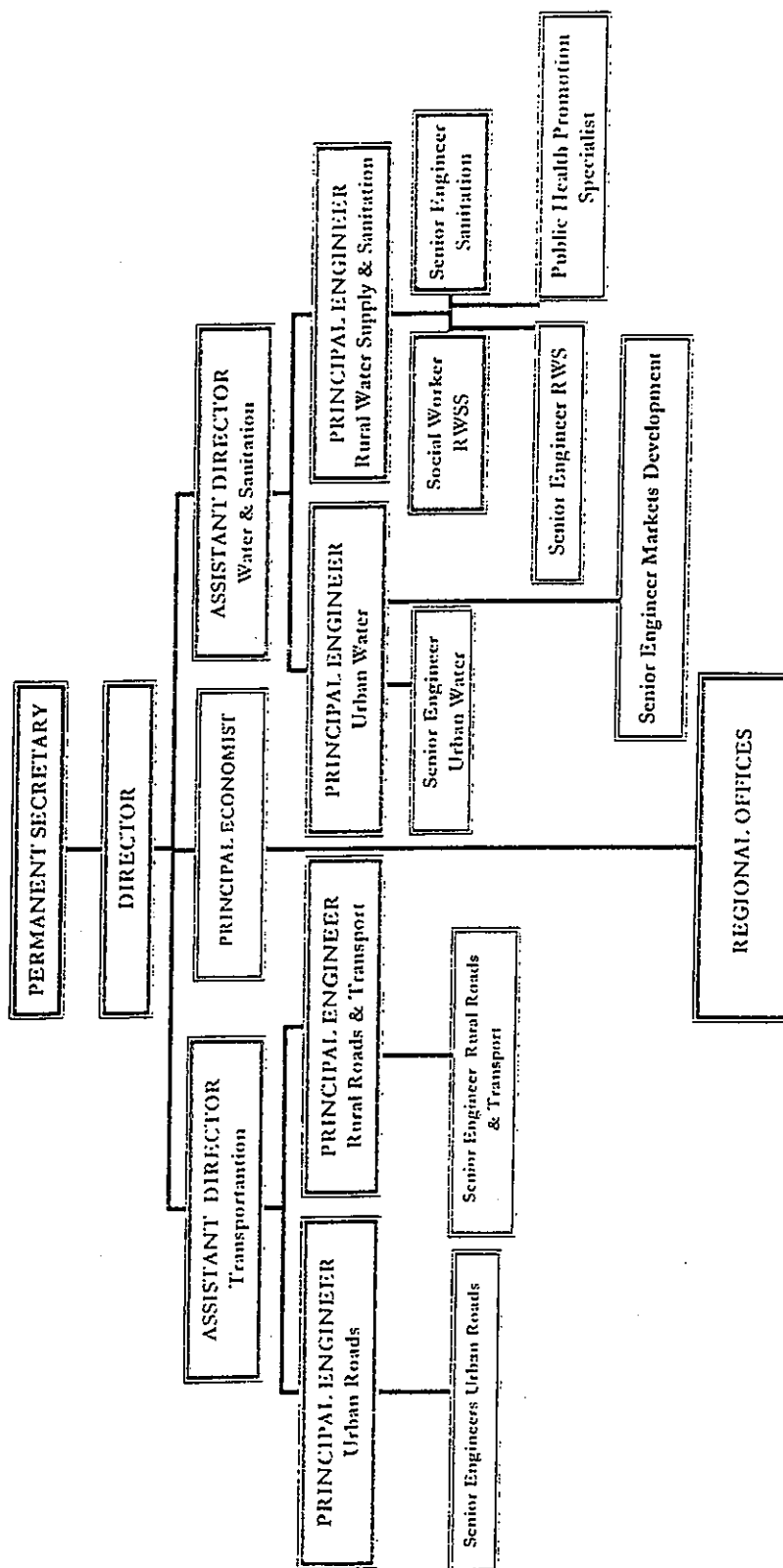
- Assist communities in planning;
- Identification/Selection of pump mender to be trained;
- Co-ordinate V-WASHE activities;
- Monitor and Evaluate performance of V-WASHES; and
- Facilitate carrying out of monitor repairs by pump mender.

### 4. V-WASHE

- Mobilisation of the community;
- Mobilisation of resources for O & M;
- Carry out day to day operation and maintenance;
- Develop rules and regulations on the use of the WATSAN facilities;
- Community needs identification; and
- Provide locally available resources such as unskilled labour, local material and tools.

ORGANIZATION CHART OF MLGH

MINISTRY OF LOCAL GOVERNMENT AND HOUSING  
DEPARTMENT OF INFRASTRUCTURE AND SUPPORT SERVICES



## JAPAN'S GRANT AID SCHEME

## 1. Grant Aid Procedures

- (1) Japan's Grant Aid Program is executed through the following procedures.

Application	(Request made by a recipient country)
Study	(Basic Design Study conducted by JICA)
Appraisal & Approval	(Appraisal by the Government of Japan and Approval by Cabinet)
Determination of Implementation	(The Notes exchanged between the Governments of Japan and the recipient country)

- (2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) 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.

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

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

## 2. Basic Design Study

## (1) Contents of the Study

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

- 1) Confirmation of the background, objectives, and benefits of the requested project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation.



- 2) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economical point of view.
- 3) Confirmation of items agreed on by both parties concerning the basic concept of the Project.
- 4) Preparation of a basic design of the Project.
- 5) Estimation of costs of the Project.

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

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

## (2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consultant firm(s). JICA selects (a) firm(s) based on proposals submitted by 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 the recipient country to also work in the Project's implementation after the Exchange of Notes, in order to maintain technical consistency.

## 3. Japan's Grant Aid Scheme

### (1) Grant Aid

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

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

Japan's Grant Aid is extended in accordance with the Notes exchanged by the Governments concerned, 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 the one fiscal year which the Cabinet

approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) and a 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 by mutual agreement between the two Governments.

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

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

However the prime contractors, namely, consulting, contracting 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 "Verification"

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

- (6) Undertakings required of the Government of the Recipient Country

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

- 1) To secure land necessary for the sites of the Project, and to clear, level and reclaim the land prior to commencement of the construction.
- 2) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites.
- 3) To secure buildings prior to the procurement in case the installation of the equipment.
- 4) To ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid.
- 5) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.
- 6) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into

the recipient country and stay therein for the performance of their work.

7) 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 this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

8) Re-export

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

9) 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 a bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the verified contracts.
- (b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.

## MAJOR UNDERTAKING TO BE TAKEN BY EACH GOVERNMENT

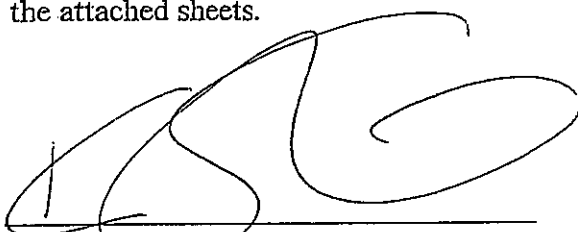
No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To secure land		●
2	To clear, level and reclaim the site when needed		●
3	To construct gates and fences in and around the site		●
4	To bear the following commissions to the Japanese foreign exchange bank for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
5	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 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		●
6	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.		●
7	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.		●
8	To maintain and use properly and effectively the equipment provided under the Grant.		●
9	To bear all the expenses, other than those to be borne by the Grant.		●

MINUTES OF DISCUSSIONS  
ON BASIC DESIGN STUDY  
ON  
GROUNDWATER DEVELOPMENT AND SANITATION IMPROVEMENT  
PROJECT IN THE NORTHERN PROVINCE  
IN THE REPUBLIC OF ZAMBIA  
(EXPLANATION ON DRAFT FINAL REPORT)

In March 2003, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Basic Design Study Team on the GROUNDWATER DEVELOPMENT AND SANITATION IMPROVEMENT PROJECT IN THE NORTHERN PROVINCE (hereinafter referred to as "the Project") to the Republic of Zambia (hereinafter referred to as "Zambia"), and through discussions, field survey, and technical examination of the study results in Japan, JICA prepared a draft final report of the study.

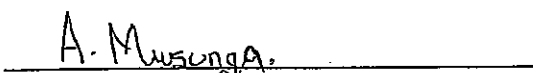
In order to explain and to consult the Government of Zambia on the components of the draft final report, JICA sent to Zambia the Draft Final Report Explanation Team (hereinafter referred to as "the Team"), which is headed by Mr. Katsuichiro Sakai, Deputy Resident Representative, JICA Zambia Office, from 21 July to 25 July 2003.

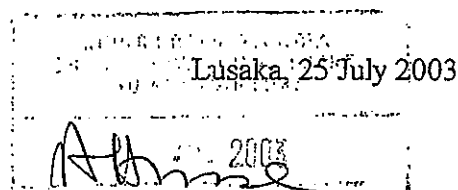
As a result of discussions, both parties confirmed the main items described on the attached sheets.



Mr. Katsuichiro Sakai  
Leader  
Draft Report Explanation Team  
Japan International Cooperation Agency  
Japan

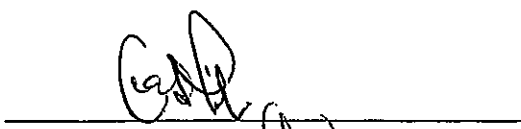
Witness:

  
Ms. Agnes M. Musunga  
Chief Economist, Economic and  
Technical Cooperation (ETC)  
Ministry of Finance and National  
Planning (MFNP)  
The Republic of Zambia



Lusaka, 25 July 2003

Mr. Adam Hussen  
Acting Director  
Department of Water Affairs (DWA)  
Ministry of Energy and Water  
Development (MEWD)  
The Republic of Zambia

  
Mr. Peter Lubambo  
Director, Department of Infrastructure  
and Support Services (DISS)  
Ministry of Local Government and  
Housing (MLGH)  
The Republic of Zambia

## ATTACHMENT

### 1. Components of the Draft Report

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

### 2. Japan's Grant Aid Scheme

The Zambian side understands Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Zambia as explained by the Team and described in Annex-VII and Annex-VIII of the Minutes of Discussions signed by both parties on 13 March 2003.

### 3. Schedule of the Study

JICA will complete the final report in accordance with the confirmed items and send it to the Government of Zambia by September 2003.

### 4. Other Relevant Issues

#### (1) Project Sites

- The Team explained that, from the results of the field survey, 268 sites out of the requested 300 sites were selected as feasible for development using the following criteria.
  - a. The target population is over 100 persons.
  - b. Construction vehicles are accessible into the site.
  - c. The site is not receiving a safe and sufficient supply of water.
  - d. The target residents are willing to maintain the constructed water supply facilities.
  - e. Other water supply projects are not in duplication in the site.
- The Team further explained that, in order to increase possibilities for the Zambian side to carry out construction works by themselves, a short listing was conducted with the following additional criterion.
  - f. The site already has a voluntarily formed water or health related organization
- As a result of the screening, both sides confirmed that the number of Project sites is 175 as listed in ANNEX-1.
- Both sides confirmed that there will not be a third drilling after two trials are concluded as unsuccessful in terms of yield and water quality at the same site. In this case alternative sites, which did not satisfy the additional criterion f. above, will be selected from the list shown in ANNEX-1,.

(2) Project Water Source

- Fundamentally, water should be supplied from confined aquifer, but if the yield or water quality does not satisfy the agreed criteria, then water should be supplied from unconfined aquifer on condition that the yield and quality of unconfined groundwater satisfy the criteria.
- The Zambian side suggested adopting a drinking water quality guideline value of 2 mg/lit for iron in favor of increasing possibilities for securing greater number of confined groundwater sources.

(3) Equipment to be Procured

Both sides confirmed that the items listed in ANNEX-2 would be procured in the project.

(4) Software Component Programme

- The Zambian side requested the consultant services of the “software component” to be included in the Project in order to conduct health and hygiene education and secure sustainable operation and maintenance activities after completion of the Project.
- The Zambian side explained that the D-WASHEs, Sub-WASHEs and V-WASHEs of Project sites require strengthening and capacitating through the software component programme.
- The Zambian side agreed to assign relevant personnel at the Provincial, District and Sub-District levels to implement the software component programme with support from the Japanese consultant and local NGO/consultant, and preparations will be made for the programme.

(5) Operation and Maintenance

- The Ministry of Local Government and Housing (MLGH) should be responsible for coordination of operation and maintenance to ensure sustainability of the water supply facilities constructed under the Project.
- Each level WASHE committees (P-WASHE, D-WASHE, Sub-WASHE, V-WASHE) will function accordingly for proper operation and maintenance of the completed water supply facilities.
- The costs for operation and maintenance of the completed water supply facilities would be covered entirely by the beneficiary residents of the Project sites with support from the government of Zambia.

CS

A.M.

3  
AA

AA

(6) Technology Transfer Programme

- The Zambian side requested training of technicians as conducted in previous Japanese grant aid projects to strengthen the dwindling technical staff of DWA, as well as technology transfer on planning, supervision and management to foster trainers for the future, to be included in the Project.
- For this technology transfer, the Zambian side agreed to select the trainees and make preparations for the programme.

(7) Responsibilities of Zambian Side

- The Zambian side confirmed that land necessary for the main stockyard in Kasama and base camps in the target districts would be provided during the construction works.
- The Zambian side agreed to take necessary measures to allocate the budget required by the Zambian side for implementation of the Project.



## ANNEX-1 Project Site List

Site Code No.	Site Name	D-WASHE Priority	Project Priority	Pop.	Implementation
<b>MPIKA DISTRICT</b>					
MK 22	Malambwa Village	2	1	1326	Project
MK 20	Ifunda Village	5	2	510	Project
MK 19	Kaluba Village	6	3	2500	Project
MK 7	Katongo Kapala	7	4	600	Project
MK 8	Mwaleshi	8	5	130	Project
MK 26	Kaole Village	12	6	1812	Project
MK 32	Mukungule Palace	13	7	243	Project
MK 17	Chobela Village	15	8	105	Project
MK 15	Chobela School	16	9	250	Project
MK 16	Chishala Village	17	10	156	Project
MK 14	Chishala School	18	11	226	Project
MK 11	Lufila Village	19	12	185	Project
MK 6	Ngwai	23	13	205	Project
MK 29	Luchembe Village	24	14	1200	Project
MK 31	Chakopo Village	29	15	3000	Project
MK 24	Chambeshi Village	33	16	2214	Project
MK 21	Mufubushi Village	34	17	100	Project
MK 1	Kapoko	35	18	800	Project
MK 4	Mpumba Village	37	19	600	Project
MK 5	Lukulu Village	38	20	360	Project
MK 33	Chikole Village	44	21	455	Project
MK 40	New Kamwanya	1	22	8500	Alternative
MK 34	Chikwanda Village	3	23	800	Alternative
MK 18	Mwamfushi Village	4	24	2000	Alternative
MK 35	Mundemwa School	11	25	728	Alternative
MK 10	Mukungule Village	14	26	200	Alternative
MK 44	Kashala Village	21	27	800	Alternative
MK 45	Kashala Village	22	28	1000	Alternative
MK 28	Aluni Village	25	29	1300	Alternative
MK 27	Ndakala Village	26	30	300	Alternative
MK 38	Kopa School	27	31	573	Alternative
MK 37	Kopa Village	28	32	1200	Alternative
MK 36	Chikakala Village	30	33	265	Alternative
MK 25	Kamulamwiko Village	31	34	1000	Alternative
MK 23	Mpepo Village	32	35	2000	Alternative
MK 3	Mpumba School	36	36	546	Alternative
MK 30	Chisengo	43	37	516	Alternative
<b>CHINSALI DISTRICT</b>					
CH 4	Kalela Village 1	1	1	1000	Project
CH 21	Kantimba School	2	2	272	Project
CH 30	Kalisha School	6	3	510	Project
CH 24	Musonko School	8	4	272	Project
CH 22	Vitondo School	9	5	229	Project
CH 6	Nambutuma Village	10	6	575	Project
CH 27	Kapishi Village	12	7	574	Project
CH 31	Shimwalule School	13	8	300	Project
CH 33	Chipunga School	14	9	238	Project
CH 10	Kalela Village 2	15	10	1000	Project
CH 34	Mupeka School	16	11	200	Project
CH 16	Mungulube School	17	12	315	Project
CH 14	Sele School	18	13	211	Project
CH 13	Chinkalanga School	19	14	287	Project
CH 9	Chabala Village	21	15	400	Project
CH 7	Mulanga Village	22	16	776	Project
CH 11	Chibesakunda School	23	17	600	Project
CH 12	Kabangama School	24	18	327	Project
CH 19	Mwalala School	25	19	500	Project
CH 18	Chibesa School	26	20	348	Project
CH 28	Mukwikile Palace	28	21	125	Project
CH 29	Kapisha School	29	22	231	Project
CH 32	Cheswa School	30	23	270	Project
CH 1	Mubanga Village	31	24	568	Project
CH 3	Musanya School	32	25	267	Project
CH 15	Lubwa Village	33	26	800	Project
CH 2	Mpyanavwalya Village	34	27	700	Project
CH 36	Chilunda School	3	28	370	Alternative
CH 5	Lubu Scheme	5	29	216	Alternative
CH 28	Mukungwa School	7	30	230	Alternative
CH 17	Poya School	11	31	237	Alternative
CH 8	Musapa Village	20	32	310	Alternative
CH 23	Matumbo Village	27	33	2150	Alternative
CH 25	Choshi Village	35	34	3000	Alternative
CH 20	Chandamali Village	36	35	2000	Alternative

Site Code No.	Site Name	D-WASHE Priority	Project Priority	Pop.	Implementation
<b>ISOKA DISTRICT</b>					
IS 17	Katanga Village	1	1	1803	Project
IS 28	Muyombe Village A	3	2	1209	Project
IS 27	Thendere Basic School	6	3	900	Project
IS 26	Thendere RHC	7	4	200	Project
IS 43	Mulekalembo	11	5	200	Project
IS 39	Ilontela Village	12	6	1000	Project
IS 41	Nachisilu Village	14	7	500	Project
IS 5	Mulamba	17	8	260	Project
IS 2	Kafwimbi C	24	9	1000	Project
IS 21	Mutukumbi	26	10	2000	Project
IS 11	Namisuku (Kalungu)	27	11	1676	Project
IS 31	Sansamwenje Village	28	12	230	Project
IS 38	Mulungwizi Village	30	13	674	Project
IS 34	Kawenga	34	14	1000	Project
IS 32	Kantensha (Yazaza)	38	15	130	Project
IS 12	Mwalseni Village A	39	16	200	Project
IS 42	Chimungoto Village	2	17	600	Alternative
IS 1	Wenela	4	18	784	Alternative
IS 16	Tubale	5	19	200	Alternative
IS 33	Sichinga (Choma) Village	8	20	112	Alternative
IS 3	Kapembe	9	21	157	Alternative
IS 13	Chanama	10	22	350	Alternative
IS 9	Mweni Mpangala	13	23	2500	Alternative
IS 7	Mupapa	16	24	215	Alternative
IS 20	Lualizi	20	25	900	Alternative
IS 6	Chilete Village	21	26	560	Alternative
IS 24	Nyengo Village	22	27	177	Alternative
IS 4	Ntumbi	23	28	105	Alternative
IS 18	Chuwil	32	29	900	Alternative
IS 14	Chiwanda Village	33	30	600	Alternative
IS 22	Noa's Village	35	31	180	Alternative
IS 23	Kosamu Village	36	32	402	Alternative
IS 29	Chinyansi Village	37	33	1008	Alternative
IS 40	Mwalseni Village C	40	34	200	Alternative
IS 15	Kapilllonga	41	35	375	Alternative
<b>NAKONDE DISTRICT</b>					
NA 35	Chapanya School	1	1	300	Project
NA 36	Mwanga School	2	2	219	Project
NA 9	Mipulya School	3	3	320	Project
NA 2	Kawele School	4	4	232	Project
NA 14	Nankungulu School	6	5	175	Project
NA 15	Chisambwe School	7	6	150	Project
NA 27	Chitambi Village	9	7	300	Project
NA 19	Shemu RHC	10	8	108	Project
NA 12	Uzinja School	11	9	243	Project
NA 21	Lukumba Village	13	10	400	Project
NA 23	Mutachi Village	16	11	647	Project
NA 25	Lyuchi Village	17	12	465	Project
NA 28	Musesengoma Village	18	13	107	Project
NA 29	Mwanga Village	19	14	431	Project
NA 33	Chozl	20	15	950	Project
NA 1	Nakakola Village (A)	21	16	1000	Project
NA 3	Kandalala Village	22	17	192	Project
NA 4	Kawele Village	23	18	800	Project
NA 6	Nega (A)	25	19	324	Project
NA 11	Isasa Village	28	20	170	Project
NA 8	Mayembe Village	29	21	309	Project
NA 30	Izuwa Village (B)	32	22	700	Project
NA 32	Nkasichila Village	33	23	1876	Project
NA 34	Muli Village	34	24	560	Project
NA 13	Chiwale school	5	25	135	Alternative
NA 17	Yolo Community School	12	26	240	Alternative
NA 22	Ilenga Village	14	27	105	Alternative
NA 24	Kazembe Village	15	28	425	Alternative
NA 5	Burton Village	24	29	1115	Alternative
NA 7	Kasakalabwe Village	26	30	207	Alternative
NA 26	Musanka Village	31	31	100	Alternative
NA 31	Chinsambwe Village	35	32	170	Alternative

## ANNEX-1 Project Site List

Site Code No.	Site Name	D-WASHE Priority	Project Priority	Pop.	Implementation
<b>MBALA DISTRICT</b>					
MB 7	Musipazi Village	1	1	400	Project
MB 6	Musipazi School	2	2	168	Project
MB 8	Mpunga Village	3	3	894	Project
MB 45	Makala Village	4	4	431	Project
MB 48	Kakonde Village	5	5	500	Project
MB 52	Kavumbo School	7	6	554	Project
MB 28	Vimbuli Village	8	7	720	Project
MB 31	John Chivuta School	9	8	178	Project
MB 25	Kamyanga Village	10	9	600	Project
MB 24	Namukale Village	11	10	436	Project
MB 39	Moses School	13	11	285	Project
MB 42	Kalala Village	16	12	400	Project
MB 12	Mufowezi Village	17	13	355	Project
MB 40	Moses Village	19	14	2400	Project
MB 2	Njelesani Village	24	15	800	Project
MB 46	Kali Village	25	16	630	Project
MB 37	Mfwambo School	27	17	256	Project
MB 38	David Chikoti Village	28	18	400	Project
MB 16	Songolo Village	29	19	426	Project
MB 29	Mambwe School	30	20	603	Project
MB 14	Rueben School	31	21	280	Project
MB 26	Chimula Village	33	22	900	Project
MB 4	Zombe School	37	23	324	Project
MB 5	Chupa Village	38	24	210	Project
MB 43	Isanya Village	43	25	2200	Project
MB 47	Londe Village	46	26	300	Project
MB 3	Mulunda Village	48	27	202	Project
MB 53	Chilehya School	49	28	306	Project
MB 30	Nshindano School	50	29	150	Project
MB 33	Kalekwa Village	52	30	1160	Project
MB 32	Mwila Village	53	31	400	Project
MB 51	Mindolo Village	6	32	340	Alternative
MB 13	Kaziwe School	12	33	108	Alternative
MB 20	Muwambezi Chilino Village	14	34	665	Alternative
MB 22	Chinenke Village	15	35	700	Alternative
MB 41	Sume Village	18	36	402	Alternative
MB 50	Chasha Village	20	37	315	Alternative
MB 23	Kedricks Kalpa Village	21	38	250	Alternative
MB 1	Chiyanga School	23	39	415	Alternative
MB 44	Kanyika Village	26	40	324	Alternative
MB 27	Chimula School	34	41	224	Alternative
MB 18	Chipanda Village	35	42	250	Alternative
MB 19	Kaponda Village	36	43	112	Alternative
MB 34	Elon Village	39	44	236	Alternative
MB 11	Lukwesa Village	40	45	304	Alternative
MB 17	Nakaponda Village	41	46	135	Alternative
MB 35	Lobo Village	42	47	210	Alternative
MB 10	Musekelele Village	44	48	192	Alternative
MB 9	Masamba Village	45	49	345	Alternative
MB 49	Muntonga Village	47	50	700	Alternative
MB 38	Mwamba School	51	51	302	Alternative
<b>MPULUNGU DISTRICT</b>					
ML 20	Muswilo	1	1	530	Project
ML 25	Katula	2	2	192	Project
ML 30	Makola	3	3	284	Project
ML 40	Mwanakatwe	4	4	266	Project
ML 29	Isoko	5	5	320	Project
ML 43	Kasakalawe	7	6	4800	Project
ML 36	Mupata	9	7	6400	Project
ML 42	Musende	11	8	750	Project
ML 24	Patrick	13	9	380	Project
ML 23	Chilinta	14	10	370	Project
ML 41	Kapoko	15	11	680	Project
ML 17	Chilwa	16	12	2400	Project
ML 15	Jecap	21	13	2220	Project
ML 12	Kabamba	23	14	500	Project
ML 13	Kopeka	25	15	4815	Project
ML 6	Chitimbwa RHC	27	16	1380	Project
ML 8	Chikonde	29	17	150	Project
ML 5	Mutemfuma	35	18	270	Project
ML 26	Mukaka	36	19	150	Project
ML 35	Kasansala	39	20	514	Project
ML 27	Mululwe	41	21	1000	Project
ML 31	Chinakila	42	22	3000	Project
ML 33	Mullanondo	43	23	425	Project
ML 37	Kasasa	8	24	1200	Alternative
ML 39	Posa	10	25	504	Alternative
ML 11	Shimwalota	22	26	170	Alternative
ML 10	Niema	24	27	116	Alternative
ML 21	Kalongo	26	28	170	Alternative
ML 18	Chaulu	28	29	370	Alternative
ML 2	Kambole	30	30	150	Alternative
ML 7	Kasita	32	31	630	Alternative
ML 4	Lemba 1	33	32	200	Alternative
ML 3	Kakolo	34	33	357	Alternative
ML 19	Mengo	37	34	360	Alternative
ML 9	Kasusu	38	35	250	Alternative
ML 36	Kaunda	40	36	115	Alternative

Site Code No.	Site Name	D-WASHE Priority	Project Priority	Pop.	Implementation
<b>LUWINGU DISTRICT</b>					
LU 40	Kabombo School	1	1	191	Project
LU 25	Chabula School	2	2	274	Project
LU 32	Katula RHC	3	3	360	Project
LU 28	Lundu School	4	4	520	Project
LU 9	Mpasa School	5	5	223	Project
LU 12	Chifwile School	6	6	250	Project
LU 16	Luen Clinic	8	7	200	Project
LU 36	Malekani School	9	8	236	Project
LU 7	Chilwa School	12	9	126	Project
LU 8	Muchekeleka School	13	10	361	Project
LU 10	Chibilti Community	14	11	348	Project
LU 30	Mwando HP	15	12	150	Project
LU 21	Kabangala School	16	13	221	Project
LU 2	Salli	17	14	405	Project
LU 19	Washeni School	18	15	216	Project
LU 14	Misambula School	19	16	188	Project
LU 44	Sande Village	20	17	731	Project
LU 42	Kapoma Village	21	18	240	Project
LU 33	Bulambo School	22	19	211	Project
LU 15	Kandata School	23	20	234	Project
LU 16	Nsoto School	24	21	106	Project
LU 29	Nsombo Village	25	22	931	Project
LU 26	Mwando School	26	23	200	Project
LU 41	Kaputu Village	27	24	350	Project
LU 37	Chimpama School	29	25	231	Project
LU 39	Kansasa School	30	26	282	Project
LU 3	Paundi	32	27	200	Project
LU 11	Katuta Village	34	28	400	Project
LU 24	Mumba Village	35	29	394	Project
LU 31	Chepeshe Village	37	30	123	Project
LU 27	Shindala Village	38	31	275	Project
LU 6	Mulala School	42	32	286	Project
LU 34	Chambo School	43	33	226	Project
LU 17	Mfungwe School	7	34	368	Alternative
LU 43	Lwenge School	10	35	336	Alternative
LU 20	Chibofwe	11	36	455	Alternative
LU 5	Kapisha	31	37	1124	Alternative
LU 38	Tolopa Village	33	38	360	Alternative
LU 22	Chakaba Village	39	39	360	Alternative
LU 23	Malaya Village	40	40	210	Alternative
LU 1	Chanda Chipalo	41	41	432	Alternative
LU 35	Ndalama Village	44	42	280	Alternative

# ANNEX-2

## List of Equipment and Materials

No.	Item	Request	Project
1.	DRILLING EQUIPMENT		
1)	Truck-mounted rig, Top-head drive type	2 units	1 unit
2)	Standard tools and accessories	2 sets	1 set
3)	Truck-mounted compressor	2 units	1 unit
4)	Logging equipment	2 units	1 unit
5)	Pumping test equipment	3 sets	1 set
6)	Workshop equipment and tools	1 set	1 set
2.	SUPPORTING VEHICLES FOR DRILLING WORKS		
1)	Cargo truck with 3t crane for transport containers and pipes	2 units	1 unit
2)	Cargo truck with 3t crane for transport pumping test equipment	2 units	1 unit
3)	Water tanker, 4 m <sup>3</sup>	2 units	1 unit
4)	Fuel tanker, 4 m <sup>3</sup>	2 units	1 unit
5)	Pickup truck, 4WD, double cabin	6 units	3 units
3.	GEOLOGICAL SURVEY EQUIPMENT	1 set	1 set
4.	SPARE PARTS	1 lot	1 lot
5.	CONSTRUCTION MATERIALS		
1)	Consumable drilling tools	1 lot	Included in construction (175 sets)
2)	Consumable drilling materials	1 lot	
3)	Casing and screen	300 sets	
4)	Handpump with spare parts kit	300 sets	
6.	SUPPORTING EQUIPMENT FOR WASHE ACTIVITIES		
1)	Station wagon, 4WD	2 units	-
2)	Pickup truck, 4WD	8 units	2 units
3)	Motorbike	24 units	21 units
4)	Data processing equipment	2 sets	1 set
5)	Water quality analysis kit	8 sets	7 sets

CS

A.M.

7

HA

AA