

APPENDICES

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Appendix 1 Member List of the Study Team

(1) Member List of the Basic Design Study

	Name	Assignment	Position	Remarks
1	Mr. Norio Shimomura	Team Leader	Deputy Managing Director Grand Aid Managing Dept., JICA	10/21 ~11/5
2	Mr. Hirotaka Nakamura	Coordinator	First Project Management Division Grand Aid Managing Dept., JICA	ditto
3	Ms. Akiko Shimohira	Cooperation Plan	JICA South Africa Office	ditto
4	Mr. Soichiro Yumoto	Chief Consultant/ Groundwater Planner	Pacific Consultants International Co., Ltd	10/22 ~12/10
5	Ms. Rie Kawahara	Operation and Maintenance Planner	Pacific Consultants International Co., Ltd	10/28 ~12/13
6	Mr. Osamu Yamamoto	Water Supply Planner	Pacific Consultants International Co., Ltd	10/22 ~12/10
7	Mr. Chifumi Yamashita	Hydrogeologist	Pacific Consultants International Co., Ltd	ditto
8	Mr. Toru Yoritate	Physical Survey	Pacific Consultants International Co., Ltd	11/05 ~12/10
9	Mr. Yuichi Matsumoto	Procurement / Cost Planning	Pacific Consultants International Co., Ltd	ditto
10	Ms. Eiko Wada	Interpreter	Pacific Consultants International Co., Ltd	10/22 ~12/10

(2) Member List of Explanation Team for the Draft Basic Design

	Name	Assignment	Position	Remarks
1	Dr. Yuji Maruo	Team Leader	Senior Technical Advisor JICA South Africa Office	2/18 ~2/24
2	Mr. Kimihiko Ikezaki	Coordinator	Personnel Affairs Dept. Remuneration Section, JICA	2/15 ~2/26
3	Mr. Soichiro Yumoto	Chief Consultant/ Groundwater Planner	Pacific Consultants International Co., Ltd	2/15 ~3/1
4	Ms. Rie Kawahara	Operation and Maintenance Planner	Pacific Consultants International Co.	ditto
5	Mr. Yuichi Matsumoto	Procurement / Cost Planning	Pacific Consultants International Co.	ditto
6	Ms. Eiko Wada	Interpreter	Pacific Consultants International Co., Ltd	ditto

Appendix 2 Itinerary of Study Team

(1) Itinerary of the Basic Design Study

Date	Shimomura/ Nakamura/ Shimohira	Yumoto/Wada	Yamamoto	Yamashita	Kawahara	Yoritake	Matsumoto
Oct. 21, 2000 (Sat.)	NRT - SIN	-	-	-			
Oct. 22, (Sun.)	SIN - JNB	NRT - BAK					
Oct. 23, (Mon.)		BAK - JNB					
Oct. 24, (Tue.)	Courtesy Call to JICA & EOJ						
Oct. 25, (Wed.)	JMB - MPO Courtesy Call to EOJ						
Oct. 26, (Thu.)	Discussions with DNA						
Oct. 27, (Fri.)	Explanation of Inception Report and Site Survey Schedule						
Oct. 28, (Sat.)	Discussions with DNA						
Oct. 29, (Sun.)	MPO - QLM, Discussions with DPOPH, DA, EPAR						
Oct. 28, (Sat.)	Site Survey (Quelimane: EPAR Workshop; Mocuba: DA Office, EPAR Workshop, PEC Office; Gurue: DA Office, PEC Office)			NRT - HKG			
Oct. 29, (Sun.)	Site Survey (Ile, Alto Molocue, Gile)			HKG - JNB - MPO			
Oct. 30, (Mon.)	Site Survey (Namarroi, Milange, Lugela)			MPO - QLM			
Oct. 31, (Tue.)	QLM - MPO		Site Survey (Mocuba)	Site Survey (Mocuba)			
Nov. 1, 2000 (Wed.)	Discussions with DNA			Site Survey (Gurue)	Site Survey (Gurue)		
Nov. 2, (Thu.)	Signing on M/D, Report to EOJ			Site Survey (Milange)	Site Survey (Milange)		
Nov. 3, (Fri.)	MPO - JNB Report to JICA & EOJ	Data Collection		Site Survey (Alto Molocue)	Site Survey (Alto Molocue)		
Nov. 4, (Sat.)	Lev. JNB	Data Collection		Site Survey (Gile)	Site Survey (Gile)		
Nov. 5, (Sun.)	Arr. at SIG and Lev. for NRT	Data Collection		Site Survey (Ile)	Site Survey (Ile)	NRT - HKG	NRT - HKG
Nov. 6, (Mon.)	-	Data Collection		Site Survey (Lugela)	Site Survey (Lugela)	HKG - JNB -MPO	HKG - JNB -MPO
Nov. 7, (Tue.)	-	MPO - QLM		Site Survey (Namarroi)	Site Survey (Namarroi)	Site Survey (Quelimane)	Site Survey (Quelimane)
Nov. 8, (Wed.)	-	Site Survey (Mocuba)	Site Survey (Mocuba)	Site Survey (Mocuba)	Interview Survey (Mocuba)	Site Survey (Mocuba)	Site Survey (Mocuba)
Nov. 9, (Thu.)	-	Site Survey (Gurue)	Site Survey (Gurue)	Site Survey (Gurue)	Interview Survey (Mocuba)	Site Survey (Gurue)	Site Survey (Gurue)
Nov. 10, (Fri.)	-	Site Survey (Milange)	Site Survey (Milange)	Site Survey (Milange)	Interview Survey (Gurue)	Site Survey (Milange)	Site Survey (Milange)
Nov. 11, (Sat.)	-	Site Survey (Alto Molocue)	Site Survey (Alto Molocue)	Site Survey (Alto Molocue)	Interview Survey (Gurue)	Site Survey (Alto Molocue)	Site Survey (Alto Molocue)
Nov. 12, (Sun.)	-	Site Survey (Gile)	Site Survey (Gile)	Site Survey (Gile)	Interview Survey (Milange)	Site Survey (Gile)	Site Survey (Gile)
Nov. 13, (Mon.)	-	Site Survey (Ile)	Site Survey (Ile)	Site Survey (Ile)	Interview Survey (Milange)	Site Survey (Ile)	Site Survey (Ile)
Nov. 14, (Tue.)	-	Site Survey (Lugela)	Site Survey (Lugela)	Site Survey (Lugela)	Interview Survey (Alto Molocue)	Site Survey (Lugela)	Site Survey (Lugela)
Nov. 15, (Wed.)	-	Site Survey (Namarroi)	Site Survey (Namarroi)	Site Survey (Namarroi)	Interview Survey (Alto Molocue)	Site Survey (Namarroi)	Site Survey (Namarroi)
Nov. 16, (Thu.)	-	Site Survey (QLM)	Site Survey (QLM)	Site Survey (WA. Sampling)	Interview Survey (Gile)	Supervision of Geoelectric Survey (G.S)	Data Collection
Nov. 17, (Fri.)	-	Site Survey (QLM)	Site Survey (QLM)	Site Survey (WA. Sampling)	Interview Survey (Gile)	Supervision G.S	Data Collection
Nov. 18, (Sat.)	-	Site Survey (QLM)	Site Survey (QLM)	Site Survey (WA. Sampling)	Interview Survey (Ile)	Supervision G.S	Data Collection
Nov. 19, (Sun.)	-	Site Survey (QLM)	Site Survey (QLM)	Site Survey (WA. Sampling)	Interview Survey (Ile)	Supervision G.S	Data Collection
Nov. 20, (Mon.)	-	Site Survey (QLM)	Site Survey (QLM)	Site Survey (WA. Sampling)	Interview Survey (Lugela)	Supervision G.S	Data Collection
Nov. 21, (Tue.)	-	Site Survey (QLM)	Site Survey (QLM)	Site Survey (WA. Sampling)	Interview Survey (Lugela)	Supervision G.S	Data Collection
Nov. 22, (Wed.)	-	Site Survey (QLM)	Site Survey (QLM)	Site Survey (WA. Sampling)	Interview Survey (Namarroi)	Supervision G.S	Data Collection
Nov. 23, (Thu.)	-	Site Survey (QLM)	Site Survey (QLM)	Survey in QLM	Interview Survey (Namarroi)	Supervision G.S	Data Collection
Nov. 24, (Fri.)	-	Site Survey (QLM)	Site Survey (QLM)	Survey in QLM	Socio economic Survey	Supervision G.S	Data Collection
Nov. 25, (Sat.)	-	Site Survey (QLM)	Site Survey (QLM)	Survey in QLM	Socio economic Survey	Supervision G.S	Data Collection

Date	Shimomura/ Nakamura/ Shimohira	Yumoto/Wada	Yamamoto	Yamashita	Kawahara	Yoritate	Matsumoto
Nov. 26, (Sun.)	-	QLM - MPO	Site Survey (QLM)	Survey in QLM	Socio economic Survey	Supervision G.S	QLM - MPO
Nov. 27, (Mon.)		Survey in Gaza	Data Collection	Survey in QLM	Socio economic Survey	Supervision G.S	Survey in MPO
Nov. 28, (Tue.)		Survey in MPO	Data Collection	Survey in QLM	Socio economic Survey	Supervision G.S	Survey in MPO
Nov. 29, (Wed.)		Survey in MPO	Data Collection	Survey in QLM	Socio economic Survey	Supervision G.S	Survey in MPO
Nov. 30, (Thu)		Survey in MPO	Data Collection	Arrangement of Data	Arrangement of Data	Arrangement of Data	Survey in MPO
Dec. 1, 2000 (Fri.)		Survey in MPO	Data Collection	QLM - MPO	Arrangement of Data	Arrangement of Data	Survey in MPO
Dec. 2, (Sat.)		Survey in MPO	Data Collection	Arrangement of Data	Arrangement of Data	Arrangement of Data	Survey in MPO
Dec. 3, (Sun.)		Survey in MPO	Data Collection	Arrangement of Data	Arrangement of Data	Arrangement of Data	Survey in MPO
Dec. 4, (Mon.)		Discussion with DNA	Data Collection	Discussion with DNA	Arrangement of Data	Arrangement of Data	Survey in MPO
Dec. 5, (Tue.)		Discussion with DNA	Data Collection	Discussion with DNA	Arrangement of Data	Arrangement of Data	Survey in MPO
Dec. 6, (Wed.)		Signing on Technical Note	QLM - MPO	Signing on Technical Note	QLM - MPO	QLM - MPO	MPO - JMB
Dec. 7, (Thu)		Report to EOJ,	Report to EOJ	Report to EOJ	Survey in MPO	Arrangement of Data	Survey in JNB
Dec. 8, (Fri.)		MPO - JNB, Report to JICA			Survey in MPO	Arrangement of Data	Survey in JNB
Dec. 9, (Sat.)		Lev. JNB			Survey in MPO	Lev. JNB	
Dec. 10, (Sun.)		Arr. at HKG and Lev. for NRT			Survey in MPO	Arr. at HKG and Lev. for NRT	
Dec.11 (Mon)					MPO - JNB		
Dec.12 (Tue.)					JNB - BAK		
Dec.13 (Wed.)					BAK - NRT		

(2) Itinerary of Explanation for the Draft Basic Design

Date	Maruo	Ikezaki	Yumoto	Kawahara	Matsumoto	Wada
Feb. 15, 2001 (Thu.)	-	NRT - SIN	NRT - HKG			
Feb. 16, (Fri.)	-	SIN - JNB	HKG - JNB			
Feb. 17, (Sat.)	-	JNB - MPO	JNB - MPO			
Feb. 18, (Sun.)	JNB- MPO Meeting	Meeting				
Feb. 19, (Mon.)	Courtesy Call to EOJ and MOFC, Discussions with DNA, Explanation of Draft Report					
Feb. 20, (Tue.)	Discussions with DNA					
Feb. 21, (Wed.)	Visiting to DFID and Discussions	Discussions with DNA, Arrangement of Data				
Feb. 22, (Thu.)	Discussions with DNA, Signing on M/D					
Feb. 23, (Fri.)	Arrangement of Data, Report to EOJ					
Feb. 24, (Sat.)	Collection and Arrangement of Data					
Feb. 25, (Sun.)	Collection and Arrangement of Data					
Feb. 26, (Mon.)	Discussions with DNA, UNICEF, CFPAS, Visiting to Hand Pump Maker (STENAKS, AGRO ALFA) Collection of Data					
Feb. 27, (Tue)	Discussions with DFID, CFPAS MPO - JNB					
Feb. 28, (Wed.)	JNB - HKG					
March 1, (Thu.)	HKG - NRT					

Appendix 3 List of Officials Concerned

(1) Officials of Japan

1.Embassy of Japan in South Africa

Mr. Youichiro Nishimura Consul
Mr. Yuto Ishizuka First Secretary

2.JICA South Africa Office

Mr. Yosiyuki Takahasi Resident Representative
Mr. Yosihiko Imamura Assistant Resident Representative
Ms. Akiko Shimohira Cooperation Plan Advisor

3.Embassy of Japan in Mozambique

Mr. Yosihiko Nose Ambassador
Mr. Kohei Nagashima Minister - Counsellor
Mr. Takuo Sato Attache

4.JICA Expert

Mr. Kazuyoshi Oyama Adviser in Development Planning, MFAC

(2) Officials of Mozambique

1.Ministry of Foreign Affairs and Cooperation (MFAC)

Mr. Arthur Jossefa Jamo Deputy Director, Directorate for Asia and Oceania
Mr. Hergild Caetano First Secretary, Department for North, Central and South Asia

2.Ministério das Obras Públicas e Habitação (MOPH)

Direcção Nacional de Águas (DNA)

Mr. Americo Muianga Natinal Director
Dept. de Água Rural (DAR)
Ms. Ivone de Jesus Amaral Department Manager
Mr. Inacio M. Chilengue Investigator Social

3.Ministry of Health

Ms. Maria Isabel Amado Technical Profesional, LNHAAs (Laboratório Nacional de Higiene dos Alimentos e Águas)
Ms. Josefina M. Maniça Technical Assistant, LNHAAs
Dr. Antonio Noja Epidemiologist, DNS-DEE
Ms. Adelia Aly Moela Tec. Estaistica

4.National Directorate of Geography and Map

Mr. Salvador Jossias Secretary

5.Direcção Provincial das Obras Públicas e Habitação

Mr. Santos Alberto Director of DPOPH, Zambezia Province
Mr. Leonardo Chambe Head of Water and Sanitation Department, Quelimane
Mr. Tarcisio Omega Chief of Section, DAS-DPOPH-2-section, Quelimane

6.Estaleiros Provinciais de Água Rural (EPAR)

Mr. Mauricio E. Munequele Director, Quelimane

Mr. Tomás Brito	Chief of Production Section, Quelimane
7.Participação e Educação Comunitaria (PEC)	
Mr. Tomé Varela	Chief of PEC, Quelimane
8.Morrumbala District	
Mr. David Manhacha	Administrator
Mr. Gabriel Carimo	D.D.O.P, District Director
9.Mocuba District	
Mr. Rafael José Manso	Administrator
Mr. Paulo Julio Paulino	EPAR, Director of Mocuba
10.Ire District	
Mr. Marcelino Wilson Suphelo	Administrator
Mr. Moisés Sebastião Ngomane	PEC, Activist
11.Namarroi District	
Mr. Orácio Figueiredo	Acting Administrator
12.Gurue District	
Mr. Jose Cherequejane	Administrator
Mr. Cordeiro Mucufu	Director of OPH
13.Alto Molocue District	
Mr. Guilherme A. Petersbrugo	Administrator
Mr. Felezardo Anselmo	DPOPH, District Director
Mr. Anselmo Joaquin	Chief of Administration Secretariat
14.Gile District	
Mr. Rodrigues A. Encarnação	Administrator
15.Lugela District	
Mr. Jose Rafio Arfinado	Director of Education
16.Milange District	
Mr. Cristene Joaquim Consula	Administrator
17.Centro de Formação Profissional de Águas e Saneamento (CFPAS)	
Mr. Carlos Macôo	Director
Ms. Carlota Isac Nuianga	Coodinator of PEC

(3) Officials of International Organization

1.UNICEF

Mr. Dermot Carty	Programme Officer
Mr. Samuel Mawunganidce	Project Officer
Ms. Angelina Xavier	Assistant Project Officer

2.British High Commission Maputo

Ms. Julia Compton	First Secretary, DFID
Mr. Clare Barrington	Assistant Engineering Adviser, DFID

3.World Vision

Mr. Veronique Kollhoff	Health Programme Officer
Mr. S. Adriano Máquina	Agriculture Economist

- 4.Swiss Agency for Development and Cooperation (SDC)
Ms. Ana Lúcia Obiols Programme Counselor of PEC
- 5.ACTIONAID
Mr. Manuel Luís Human Resource Manager
- 6.COSV (UNIÃO EUROPIA)
Dr. Alessandro Basilicó Chief of Hydro Project
- 7.MOVIMONDO
Mr. Jorge Gallego Socio-economist
- 8.CONSELHO CRISTÃO DE MOÇAMBIQUE
Mr. Jorge Samuel Regional Coordinator

Appendix 4 Minutes of Discussions and Technical Notes

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1. Minutes of Discussions signed on November 1, 2000 for the Inception Report	A- 8
2. Minutes of Discussions signed on February, 20001 for the explanation of Draft Report	A- 16
3. Technical Notes signed on December 6, 2000 for the Field Survey	A- 25

MINUTES OF DISCUSSIONS
BASIC DESIGN STUDY
ON
THE PROJECT
FOR
GROUNDWATER DEVELOPMENT FOR RURAL WATER SUPPLY
IN
ZAMBEZIA PROVINCE
IN
THE REPUBLIC OF MOZAMBIQUE

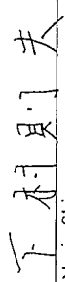
In response to a request from the Government of the Republic of Mozambique (hereinafter referred to as "GOM"), the Government of Japan decided to conduct a basic design study on the Project for Groundwater Development for Rural Water Supply in Zambezia Province in the Republic of Mozambique (hereinafter referred to as "the Project") and entrusted the study to Japan International Cooperation Agency (hereinafter referred to as "JICA").


JICA sent to GOM a study team, headed by Mr. Norio SHIMOMURA, Deputy Managing Director, Grant Aid Management Department, JICA, and scheduled to stay in GOM from October 24 to December 8, 2000.


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

In the course of the discussions and field surveys, 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.

Maputo, November 1, 2000


Mr. Norio Shimomura
Leader
Basic Design Study Team
JICA


Mr. Americo Muiranga
National Director,
National Directorate of Water Affairs,
Ministry of Public Works and Housing,
Government of Republic of Mozambique


Mr. Santos Alberto
Provincial Director of Public Works
and Housing of Zambezia Province,
Government of Republic of Mozambique

ATTACHMENT

1. Objective

The objective of the Project is to improve the health and living standard of the people who live in rural areas by providing potable water through the construction of water supply facilities.

2. Project Sites

The Project sites are the eight (8) districts of Lugela, Gurue, Alto Molocue, Namarroí, Ite, Milange, Mocuba and Gile in the Zambezia province for drilling of new boreholes as shown in Annex-I.

3. Responsible and Implementing Agencies

- (1) Coordinating organization : Ministry of Foreign Affairs and Cooperation
- (2) Responsible organization : Ministry of Public Works and Housing
- (3) Implementing organization : National Directorate for Water Affairs (DPOPH-Zambezia)

4. Items requested by GOM

After a series of discussions with the Team, GOM requested the items shown in Annex-II. JICA will assess the appropriateness of the request and will recommend to the Government of Japan for approval.

5. Japan's Grant Aid System

- (1) GOM side has understood Japan's Grant Aid system explained by the Team, as described in Annex-III.
- (2) GOM side will take necessary measures, as described in Annex-IV, for smooth implementation of the Project, on condition that the Grant Aid Assistance by the Government of Japan is extended to the Project.

6. Schedule of the Study

- (1) The consultant of the Team will proceed to further studies in GOM until December 8, 2000.
- (2) Based on the Minutes of Discussions and technical examination of the study results, JICA will prepare a draft report in English and dispatch a mission to GOM in order to explain its contents around the middle of February 2001.
- (3) In case that the contents of the draft report are accepted in principal by GOM, JICA will complete the final report and send it to GOM by the middle of April 2001.

7. Other Relevant Issues

The following issues have been discussed and confirmed by both parties.

- (1) Responsible organization for operation and maintenance
The equipment and facilities requested by GOM shall be properly operated and maintained by the respective organizations as stated below.
 - Drilling and related equipment: EPAR-Zambezia
 - Vehicles and motorcycles: PEC-Zambezia
 - Geophysical survey equipment: DRH/DNA in Maputo
 - Constructed 150 tubewells: Respective villages under the assistance by EPAR/PEC-Zambezia
 - 30 tubewells of which hand pumps are replaced: Respective villages under the assistance by EPAR/PEC-Zambezia

(2) Number of required animadors

Since the many tubewells will be constructed and have to be handed over to villages in a short period, GOM side agreed to increase the numbers of animadors to be assigned for the project implementation as required in order to avoid the delay of such implementation which may be caused by the shortage of animadors' number during the implementation.

(3) Preparation of village groups for O & M of the constructed tubewells

The GOM agreed to make his best efforts to set up the organization or group in each village for proper proceeding with the operation and maintenance of the provided tubewells before the commencement of implementation.

(4) Preparation of spaces for the provided equipment and materials

The GOM agreed that he shall prepare enough garages and store places to keep them properly before the implementation of the project.

(5) Screening of villages for tubewell construction

The GOM agreed that the villages requested for tubewell construction are to be examined in views of socio-economy, easiness of construction and hydrogeology, and the following items of field surveys will be conducted.

- Survey on socio-economy: Questionnaire surveys will be made for all of the requested 150 villages, and interview surveys will be made meanwhile for the selected villages.
- Survey on construction condition: Questionnaire surveys will be made together with the above socio-economy survey for all the villages, and reconnaissance surveys will also made along the access roads in order to confirm the accessibilities.
- Survey on hydrogeology: Geophysical investigation will be made for all the villages, and hydrogeological study will also be made based on such survey results together with available data and information.

(6) Equipment and materials requested for provision

Both sides agreed that the necessity of the equipment and material requested by GOM shall be examined from the view points of purpose of use, operation and maintenance, conditions of the existing equipment, etc. including the necessary quantities of such equipment and materials requested. The type, quantity and specification of these equipment and materials shall be determined on the minimum required and the easiest operation level.

(7) Works to be done by GOM side

The GOM agreed that he should be responsible for instructing villagers to construct the access roads, fences around the completed apron and the drainage pit in time.

(8) The Mozambican side requested the consultant services for assisting him in reinforcing the animadors' activities in order to facilitate community mobilization in the villages considered in the project as one of the components of the GRANT Aid.

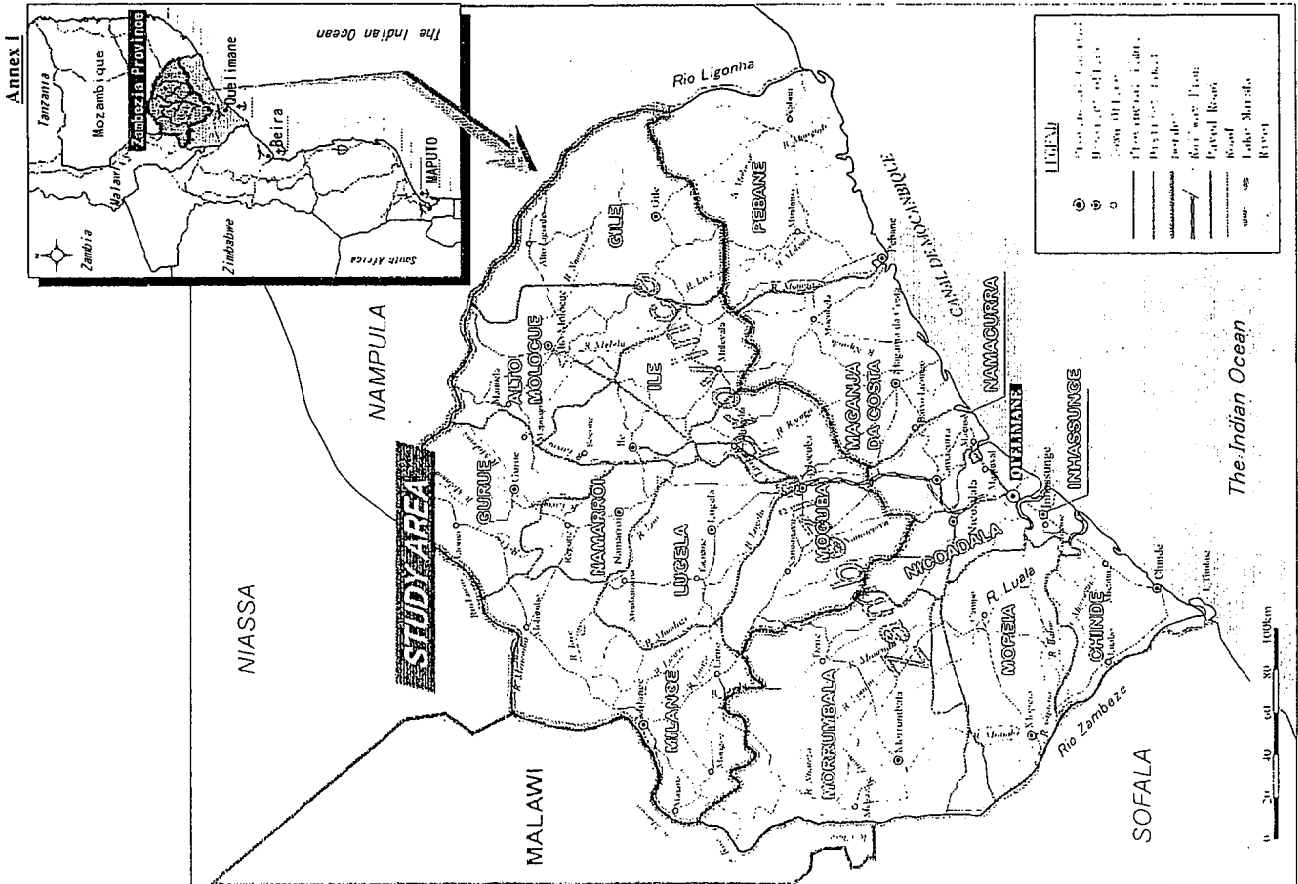
Items Requested by GOM

List of Equipment and Materials Requested

Items	Req. No
(1) Truck Mounted Drilling Rig	2 unit
(2) Standard Accessories and Tools for Rig	
Standard Accessories	2 lot
Drilling Tools	2 lot
Casing and Tools	2 lot
Fishing Tools	2 lot
Air Lifting and Miscellaneous Tools	2 lot
(3) High Pressure Compressor	2 unit
(4) Pumping Test Apparatus	2 lot
High Capacity Submersible Pump	2 lot
Low Capacity Submersible Pump	2 lot
Diesel Engine Generator	
(5) Motor Vehicles	
Cargo Truck with 3 t Crane	2 set
Water Tank Trailer	2 set
Cargo Truck with 3 t Crane	2 set
Pick-up Type Vehicle	3 sets
Motorcycle	7 sets
(6) Fuel Tank	5 sets
(7) Pump Unit (VLOM) Type	1 lot
(8) Casing and Screen Pipes	2 lot
(9) Water Quality Analysis Equipment	3 sets
(10) Trailer Type Mobile Workshop	1 lot
(11) Truck Mounted Hydro-fracturing Unit to increase the Production Ratio	
(12) Spare Parts	1 lot
(13) Personal Computer and Copy Machine	1 lot
(14) Tractor (110 HP)	1 no.
(15) Geophysical Research Equipment	2 sets
(16) GPS	2 sets
(17) Complete Topographical Equipment	1 set
(18) Pick-up Type Vehicle	2 units
(19) Water Quality analysis Equipment	4 sets

List of Villages Requesting Tubewell Construction

District	Villages	No. of Tubewells	Beneficiaries
Lugela	Mwabana, Comonc, Mpcmuma, Munhamade, Cuba, Mulide, Mussanga, Putine, Nagobo, Ira, Mucula, Murrumela, Comos, Tenode, Eblde, Mahi, Tanamc, Alto Lugela, Mvencuela, Montigitr	20	10,000
Guruc	Lioma, Naniwacha, Conoli (Nepuagda), Nintulo, Chicopera, Welasse, Mussangula, Muuljane, Naprotela, Magigs, Nepungua, Injabo, Vebu, Mahihara, Nipive, Nicoropalc, Incisc, Murimo, Covea, Nanzui, Nahemo	23	11,500
Alto Molocuc	Napuria, Cherru, Rucela, Vacha, Guiva, Tata, Inagui, Munepa, Natulo, Murrucha, Caromano, Chapala, Campira (Murepuetico), Nicaa, Nachapa, Namucuna, Narise, Napala, Nawela, Malua, Mutala, Muirro, Ulela	23	11,500
Namaroi	Lipalc, Marcia, Sagura, Mudine, Muemuc, Altata Continua, Moccua, Namarua, Cacthua, Inlugo, Munhenere, Muhere, Niagu, Muicpun, Namauna, Metatala, Mutuela, Liassc, Rumala	19	9,500



Annex II

List of Villages Requesting Tubewell Construction

District	Villages	No. of Tubewells	Beneficiaries
Ile	Erupu, Namanda, Nampevo (Nacucu), Nipiodi, Vierua, Muozua, Mufuqela, Nania, Malalea, Tribina, Ejaju (Ruge), Muquitua, Napala, Mulevala, Namigonha, Chiraco, Micalane, Inturo, Namuduma, Macuo, Socone, Corruane, Molalela, Murecu, Lava	26	13,000
Milungu	Mebirina, Nesassa, Nanuto, Cadonic, Picuni, Chitambo, Intocola, Caria, Nohia, Malico, Mogolisa, Mucha, Miciusse, Nacupa, Lipale, Mongué, Cortico, Tundo, Chuluc, Chinangua, Namaja	21	10,500
Mocuba	Romba, Murramba, Chimbus, Malava, Tonga, Mchudana, Niguane, Muazuwa, Alto Bonifica	9	4,500
Gile	Mamala, Moncia, Puri, Kianac, Mulanc, Namihale, Muifajohob, Muacoxaia, Nanhope	9	4,500
Total	150 villages	150	75,000

REPÚBLICA DE MOZAMBIQUE
PROVINCIA DE ZAMBEZIA
ADMINISTRAÇÃO DO GOVERNO DE MOZAMBIQUE

N.º de	ACTIVIDADE	TIPO DE	ORCA	LOCAL	DISTRITO
01	Colocação de uma nova bomba	APRI DA	1 furo normal	Joaquim Chissano	Morrumbala Sote
02	Colocação de uma nova bomba	"	1 poço	Júlys Myerara	Morrumbala Sote
03	Reabilitação total da bomba	"	1 poço	Gamora Machel	Morrumbala Sote
04	Reabilitação total da bomba	"	1 poço	Coonelro	Morrumbala Sote
05	Reabilitação total da bomba	"	1 poço	Joaquim Taira	Morrumbala Sote
06	Reabilitação total da bomba	"	1 furo mecânica	Kuanhane L.S.Hospital	Morrumbala
07	Reabilitação total da bomba	"	1 furo mecânica	Boroma Localidade Sote	Morrumbala
08	Reabilitação da bomba	"	1 poço	Sabe Localidade Sote	Morrumbala
09	Reabilitação total da bomba	"	1 poço	Mapinha Localidade	Morrumbala
10	Aumento de capacidade de um poço	"	1 poço	Kambui P.A. Sote	0. de Morrumbala
11	Reabilitação total da bomba	"	1 furo mecânica	Mapinha P. Regumba	0. de Morrumbala
12	Colocação de uma nova bomba	"	1 poço	Agocumbo Sote	Sote Morrumbala
13	Reabilitação total da bomba	"	1 poço	L. Ponta P. Sote Mepaza	0. de Morrumbala
14	Reabilitação total da bomba	"	1 poço	P.A. de Morrumbala	0. de Morrumbala
15	Reabilitação total da bomba	"	1 poço	P.A. de Morrumbala	0. de Morrumbala

JAPAN'S GRANT AID

1. Japan's Grant Aid System

(1) Grant Aid Procedures

- 1) Japan's Grant Aid Program is executed through the following procedures:
 (Request made by a recipient country)
 • Application (Basic Design Study conducted by JICA)
 • Study (Appraisal by the Government of Japan and Approval by the Cabinet of Japan)
 • Determination of Implementation (The Notes exchanged between the Governments of Japan and the recipient country)
 • Implementation (Implementation of the Project)
- 2) Firstly, the application or a 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 Japan's 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 (hereafter referred to as "the Study") conducted by JICA on a requested project (hereafter 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:
 - i) 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.
 - ii) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economical point of view.
 - iii) Confirmation of items agreed on by both parties concerning the basic concept of the Project.

Nº DE ORDEM	ATIVIDADE	TIPO DE BOMBA	ORCA	LOCAL	DISTRITO
16	Reabilitação total da bomba	"	1 pogo	P.A. Chire P. Tensane II M'bone	D. Morrumbala
17	Colocação de uma nova bomba e tampa de pogo	"	1 pogo	P.A. Chire Chilomo-Funde	D. Morrumbala
18	Colocação de uma nova bomba e tampa de pogo	"	1 pogo	P.A. de Chire Chi-Lomo	D. Morrumbala
19	Reabilitação total	"	1 pogo	Cumbapo	Morrumbala-Sede
20	Reabilitação total da bomba	"	1 pogo	Aeroporto I	Morrumbala-Sede
21	Reabilitação total da bomba	"	1 furo man	manduro	Morrumbala-Sede
22	Reabilitação total da bomba	"	1 pogo	Muaniva semente	Morrumbala-Sede
23	Reabilitação total da bomba	"	1 furo mecanice	Mepinha sede	Morrumbala-Sede
24	Reabilitação total da bomba	"	1 pogo	P.A. Chire sopulal	D. Morrumbala
25	Reabilitação total da bomba	"	1 pogo	Libartale	Morrumbala-Sede
26	Reabilitação total da bomba	"	1 pogo	P.A. Megaza Camanga	D. de Morrumbala
27	Reabilitação da bomba	"	1 pogo	P.A. Megaza Chingo	D. de Morrumbala
28	Reabilitação total da bomba	"	1 pogo	Mepinha P. Mandumba	D. de Morrumbala
29	Reabilitação total da bomba	"	1 pogo	P.A. Megaza-Tomo	D. de Morrumbala
30	Reabilitação total da bomba	"	1 furo mecanice	Localitate Sabe	Morrumbala sede

- iv) Preparation of a basic design of the Project,
- v) 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 and also to avoid any undue delay in implementation should the selection process be repeated.

(3) Japan's Grant Aid Scheme

- 1) What is Grant Aid?
The Grant Aid Program provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. The Grant Aid is not supplied through the donation of materials as such.
- 2) Exchange of Notes (E/N)
Japan's Grant Aid is extended in accordance with the Notes exchanged by two 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 Japanese 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 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.

- 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, constructing, and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

5) Necessity of the "Verification"

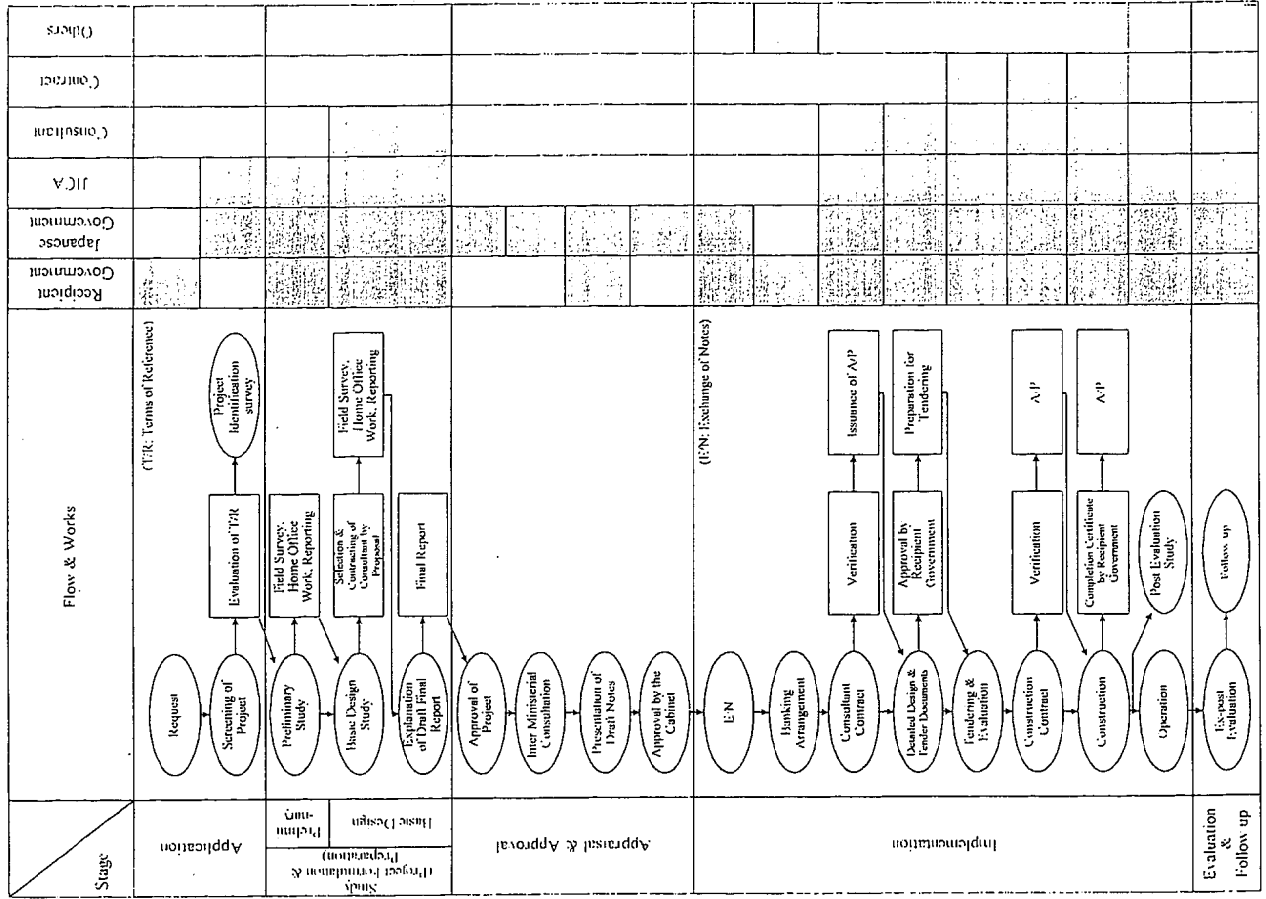
The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

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 followings:

- i) To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to commencement of the construction.
- ii) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites.
- iii) To secure buildings prior to the procurement in case the installation of the equipment.
- iv) 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.
- v) 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.
- vi) 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.
- vii) "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.

Flowchart of Japan's Grant Aid Procedure



viii) "Re-export"
 The products purchased under the Grant Aid should not be re-exported from the recipient country.

ix) Banking Arrangement (B/A)

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

2. Grant Aid Procedure

- (1) Flowchart of Japan's Grant Aid Procedures
 Refer to Attachment 1.
- (2) Major Undertaking to be taken by Each Government
 Refer to Attachment 2.

Necessary Measures to be Taken by Government of Republic of Mozambique
on
Condition that Japan's Grant Aid is Extended

1. To support prompt execution for customs clearance of the equipment imported to the country under the Grant Aid.
2. To accord Japanese nationals whose services may be required in connection with the supply of products and services under the verified contracts such facilities as may be necessary for their entry into the country and stay therein for the execution of their work.
3. To exempt Japanese nationals from custom duties, internal taxes and other fiscal levies which may be imposed in the country with respect to the supply of the products and services under the verified contracts.
4. To maintain and use the facilities constructed under the Grant Aid properly and effectively and to assign the staff necessary for operation and maintenance for the facilities.
5. To bear all the expenses other than those to be borne by the Grant Aid necessary for the execution of the Project.
6. To bear advising commissions for Authorization to Pay and payment commission to a Japanese bank for the banking services based upon the banking arrangement.

Attachment 2

Major Undertakings to be Taken by Each Governments

No.	Items	To be Covered by Grant Aid	To be Covered by Recipient Side
1	To secure land		
2	To clear, level and reclaim the site when needed		
3	To construct gates and fences in and around the site		
4	To construct a parking lot	●	
5	To construct roads		
	1) Within the site	●	
	2) Outside the site		
6	To construct the buildings		
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		
	a. The distributing line to the site		
	b. The drop wiring and internal wiring within the site	●	
	c. The main circuit breaker and transformer	●	
	2) Water Supply		
	a. The city water distribution main to the site		
	b. The supply system within the site (receiving and elevated tanks)	●	
	3) Drainage		
	a. The city drainage main (for storm, sewer and others) to the site		
	b. The drainage system (for toilet, sewer, ordinary waste, storm drainage and others) within the site	●	
	4) Gas Supply		
	a. The city gas main to the site		
	b. The gas supply system to the site	●	
	5) Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		
	b. The MDF and the extension after the frame/panel	●	
	6) Furniture and Equipment		
	a. General furniture		
	b. Project equipment	●	
8	To bear the following commissions to the Japanese foreign exchange bank for the backing services based upon the B/A		
	1) Advising commission of A/P		
	2) Payment commission		
9	To ensure unloading and customs clearance at port of disembarkation in the 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		
10	To accord Japanese nationals whose services may be required in connection with the supply of the products and the 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		
11	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts		
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant		
13	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment		

B/A : Banking Arrangement
A/P : Authorization to Pay

MINUTES OF DISCUSSIONS
ON
ON
ON
FOR
IN
THE PROJECT FOR GROUNDWATER DEVELOPMENT
RURAL WATER SUPPLY IN ZAMBEZIA PROVINCE
THE REPUBLIC OF MOZAMBIQUE
(CONSULTATION ON DRAFT REPORT)

In October 2000, the Japan International Cooperation Agency (JICA) dispatched the Basic Design Study Team on the Project for Groundwater Development for Rural Water Supply in Zambezia Province (hereinafter referred to as "the Project") to the Republic of Mozambique (hereinafter referred to as "Mozambique"), and through discussions, field survey and technical examination of the results in Japan, JICA has prepared the draft report of the Study.

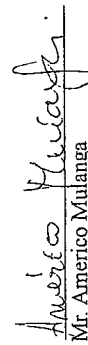
In order to explain and to consult for the Mozambique side on the components of the draft report, JICA sent to Mozambique the Draft Report Explanation Team, which is headed by Dr. Yuji MARUO, Technical Advisor for the Implementation of Grant Aid Project, JICA, (hereinafter referred to as "the Team") from 18th February to 23rd February 2001.

In the course of discussions, both sides confirmed the main items described on the attached sheet.

Maputo, February 2001

丸尾祐治

Dr. Yuji Maruo
Leader
Basic Design Study Team
JICA


Mr. Americo Mulanga
National Director
National Directorate of Water
Ministry of Public Works and Housing
Government of Republic of Mozambique

ATTACHMENT

1. Contents of the Draft Report

The Mozambique side has agreed and accepted in principle the contents of the draft report with some comments that will be incorporated in the Final Report.

2. Japan's Grant Aid Scheme.

The Mozambique side has understood the system of the Japan's Grant Aid Scheme described in Annex-1, and the necessary measures to be taken by the Government of Mozambique described in Annex-2.

3. Schedule of the Study

JICA will complete the Final Report after further study in accordance with the items described below and send it to the Government of Mozambique around April 2001.

4. Other Relevant Issues

4-1 Component of the Project

- Both sides agreed on that the Project would be composed of following components when Japanese Government finally decides to implement the Project.
- The construction of 148 tubewells in the villages listed in Annex-3
 - The implementation of replacing handpumps of the 13 existing wells listed in Annex-4.
 - The provision of the equipment and materials listed in Annex-5.
 - Capacity building of PEC.

4-2 Criteria for successful boreholes

The Mozambique side agreed that the following criteria would be applied for the successful boreholes in the Project.

- Water Quality : WHO guideline will be applied(Except for saline content)
- Minimum Yield: 0.76 m³/hr
- Dynamic Water Level: Less than 50m

As for the saline content, WHO standard must be flexibly applied according to the availability of alternative water source in the site.

In case of that a certain borehole with the safe yield of more than 1.00 m³/hr, but with dynamic water level of more than 50m, the borehole would be sealed and would

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not be equipped with handpump in the Project.

4-3 Two unsuccessful borehole at a site

In case of that the first borehole at a certain site is proved to be unsuccessful, the second borehole will be drilled at an appropriate locality in the same site. However, the third drilling would not be conducted, if the second one is also proved to be unsuccessful.

4-4 Alternative villages list

List of alternative village with due priority is attached in Annex-6. Borehole construction would be conducted in some of those alternative villages, if no successful boreholes were drilled at any of villages in the Annex-3.

4-5 Formulation of drilling crew and recruitment of 6 drivers.

The Mozambique side agreed to formulate two drilling crews for new drilling machines and to recruit six drivers for newly procured supporting vehicles by June 2002 in order to execute the Project most efficient way.

4-6 Provision of garage and workshop for the procured equipment

The Mozambique side agreed to provide a facility of garage and workshop for the equipment to be procured under the Project at an appropriate site around Mocuba by May 2002.

4-7 21 personnel for PEC activity

The Mozambique side has already recruited 21 personnel who are listed in Annex-7 for PEC activities of the Project. They are to be trained in the capacity building program of PEC and they are to be mobilized for the PEC activities during the Project at full time basis. Upon the completion of the Project, they are to be posted either at PEC/EPAR or at District Administration Office.

4-8 Capacity Building of PEC

There are two components in the Capacity Building Program, i.e. training in class room / workshop and training in the field (On-The-Job-Training) which were explained by Japanese side during the discussion and which will be described in the Final Report. Mozambique side agreed to the Capacity Building Program of PEC.

Accordingly item 2.1.4 of the Draft Final Report will be totally rewritten in the Final Report.

4-9 Borehole Logging Equipment.

Among the geophysical exploration equipment which are expected to be provided by the Project, Borehole Logging Equipment should belong to Zambezia province and to be utilized by Zambezia-EPAR drilling crew together with other drilling equipment.

4-10 Budgetary arrangement of Mozambique side

The Mozambique side agreed to make necessary budgetary arrangement for covering required amount of costs shown in the Annex-8.

4-11 Rehabilitation of two existing bridges

DNA(National Directorate of Water) will confirm with the provincial authority the possibility of rehabilitation of two bridges in the Milange and Lugela districts. If the repairing works will not be completed by April 2002, those candidate villages across the bridges will be replaced with villages from alternative village list for implementation.

4-12 Necessary arrangement for spareparts circulation

The Mozambique side agreed to make necessary institutional, budgetary and logistic arrangement for establishing spareparts circulation system of handpump through Zambezia EPAR to respective district administration office.

4-13 Hydro-fracturing Unit

The Mozambique side requested to Japanese side that proper ways of usage, application criteria and expected result e.t.c. should be described in the final report.

4-14 IVA(Imposto Sobre Valor Acrescentado)

The Mozambique side assured that the Mozambique side would cover the IVA portion at every local transaction of procurement and at every local contract.

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Annex-1 Japan's Grant Aid Programme

1. Grant Aid Procedures

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

Application Study	(Request made by a recipient country) (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 (hereafter 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:

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

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

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even 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 consultant firm(s) used for the Study is(are) recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency.

3. Japan's Grant Aid Scheme

1) Grant Aid

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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 the "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 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 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.

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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. _____

Annex-2 Necessary Measures to be taken by the Mozambique Side

The following necessary measures should be taken by Mozambique side on condition that the Grant Aid by the Government of Japan is extended to the Project:

1. To secure land and transportation route for the construction and installed equipment
2. To secure spaces for the disposition of drilling rigs and related equipment
3. To provide necessary assistance in the consultant services to retrain animadors and to establish the system for providing spare-parts at the project area.
4. To pay for banking charges to a foreign exchange bank authorized by the Japanese Government.
5. To obtain approval and permit related to landing and customs clearance of imported equipment.
6. To provide necessary assistance in entry, exit and stay of Japanese engineers and other personnel related to the project, including issuance of a certificate and other documents.
7. To bear all other works and services required to the implementation of the Project.
8. To provide free of charge the selected Japanese contractor all the equipment and materials procured under the Project with the necessary operators and drillers for construction of tubewells as well as on-the-job training on operation and maintenance of those provided equipment.
9. To provide free of charge the Consultant the available data and information required for their execution of works. _____

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Annex-3 List of Villages Selected for Tubewell Construction (1/2)

District	Post Administrative	Localidade	Aldeia	Latitude	Longitude	Number of Wells to be Constructed	
Lucena	Munhamade	Munhamade	Sede	16 135 52	36 58 22	1	
	Munhamade	Cuba	Sede	16 133 19	36 51 75	1	
	Munhamade	Mulide	Sede	16 22 50	37 0 66	1	
	Munhamade	Tensede	Sede	16 18 82	36 59 36	1	
	Tacuane	Ebide	Sede(Namirine)	16 24 14	36 34 58	1	
	Tacuane	Tacuane	Sede	16 22 11	36 30 91	1	
	Munhamade	Alto-Lugela	Sede	16 43 23	36 56 11	2	
	Munhamade	Tenete	RumuiaAlto	16 18 46	37 1 53	2	
	Munhamade	Lugela	Mobede	16 24 28	36 42 54	2	
	Sub-total		Villages 9		Number of Wells: 9	12	
		Lionna	Lionna	Sede	15 110 39	36 48 2	2
		Lionna	Missaguia	Sede	15 9 79	36 47 11	2
Gurue	Lionna	Magige	Sede	15 19 59	36 44 42	2	
	Mepuaguia	Mepuaguia	Sede	15 32 39	37 11 54	1	
	Lionna	Tete	Mahara	15 27 8	36 37 37	2	
	Mepuaguia	Nipive	Sede	15 52 92	37 5 99	2	
	Mepuaguia	Nicoropale	Sede	15 49 19	37 5 47	1	
	Mepuaguia	Incize	Sede	15 41 55	37 6 14	2	
	Gurue	Murrimo	Sede	15 22 43	36 49 19	1	
	Gurue	Govela	Sede	15 20 57	36 49 16	2	
	Gurue	Murrimo	Nanzua	15 23 27	36 50 53	1	
	Lionna	Nihonna	Nihonna	15 8 2	36 49 0	2	
	Sub-total		Villages 12		Number of Wells: 12	20	
	Alto Molocue	AltoMolocue	AltoMolocue	Nipua	15 142 50	37 43 17	1
AltoMolocue		Ecole	Vacha	15 27 37	37 39 4	2	
AltoMolocue		Nivava	Nacuiso	15 39 18	37 32 2	2	
Nauela		Mohua	Inagu	15 14 60	37 25 8	2	
Nauela		Nauela	Nepo	15 21 82	37 24 17	2	
AltoMolocue		Chapala	Nateiaea	15 48 48	37 34 13	2	
Nauela		Mohua	Carmano	15 16 79	37 20 82	2	
AltoMolocue		Chapala	Sede	15 51 81	37 38 37	2	
AltoMolocue		Nauaga	Murepuatia	15 53 34	37 55 35	1	
AltoMolocue		Mutala	Muchampua	15 56 12	37 50 37	2	
Nauela		Nauela	Narice	15 22 28	37 32 11	2	
Nauela		Nauela	Sede	15 26 26	37 26 14	2	
AltoMolocue	Mutala	Sede	15 56 3	37 49 58	2		
AltoMolocue	Mutala	Murrro	15 55 18	37 52 21	2		
AltoMolocue	Mutala	Uetela	16 0 20	37 58 23	2		
Sub-total		Villages 15		Number of Wells: 15	28		
Namarroi	Namarroi	Lipale	Sede(Ucde)	16 5 37	36 57 54	1	
	Namarroi	Mudine	Sede(Herema)	16 9 49	37 4 0	1	
	Namarroi	Muemue	Sede(Mutepea)	16 4 60	37 1 1	2	
	Namarroi	Lipale	Tomeia	15 54 19	36 50 51	1	
	Namarroi	Mudine	Inlugo	16 8 1	37 2 58	1	
	Namarroi	Mudine	Niaga	16 12 52	37 5 24	1	
	Namarroi	Namarroi	Namurane	15 56 3	36 50 57	1	
	Regone	Mutuela	Regone	15 52 57	36 37 49	2	
	Regone	Liasse/Erranna	Liasse/Erranna	15 48 20	36 48 4	1	
	Sub-total		Villages 9		Number of Wells: 9	11	

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Annex-3 List of Villages Selected for Tubewell Construction (2/2)

District	Post Administrative	Localidade	Aldeia	Latitude	Longitude	Number of Wells to be Constructed
Ile	Ile	Namanda	Errupe	16 8 58	37 8 8	2
	Ile	Namanda	Sede	16 13 39	37 9 41	2
	Ile	Nampevo	Sede	16 19 0	37 12 36	2
	Ile	Nipride	Sede(Nanoua)	16 8 52	37 22 42	2
	Ile	Vierua	Sede	15 59 43	37 21 35	2
	Ile	Vierua	Muazua	15 56 47	37 30 9	2
	Ile	Muliquela	Muliquela	15 57 20	37 8 63	2
	Mulevala	Mulevala	Mialucia	16 21 68	37 36 53	2
	Mulevala	Mulevala	Impido	16 23 83	37 35 48	2
	Ile	Muquitua	Muquitua	15 57 28	37 12 1	2
	Ile	Nampara	Nampara	16 15 31	37 17 59	2
	Mulevala	Mulevala	Sede	16 26 7	37 35 35	2
Mulevala	Mulevala	Merca	16 29 30	37 28 83	2	
Mulevala	Chiraco	Sede	16 21 53	37 45 7	2	
Mulevala	Micalane	Inurro	16 18 3	37 38 72	2	
Mulevala	Mulevala	Nadala	16 22 91	37 38 99	2	
Socone	Socone	Sede	15 47 21	37 9 84	2	
Mulevala	Chiraco	Murrua	16 17 58	37 51 0	2	
Sub-total		Villages 18		Number of Wells: 18	36	
Milange	Milange	Milange	Caombe	16 9 4	35 43 22	2
	Milange	Chilambo	Inocota	15 57 33	35 51 1	2
	Molumbo	Molumbo	Nehia	15 40 25	36 18 4	2
	Molumbo	Molumbo	Malico	15 34 7	36 17 44	2
	Molumbo	Molumbo	Mogolua	15 37 9	36 8 9	2
	Molumbo	Molumbo	Mueia	15 33 35	36 12 40	1
	Milange	LipaleSede	Lipale	15 50 31	35 55 6	2
	Milange	Liciro	Sede	16 26 80	36 2 80	1
	Milange	Tengau	Betua	16 18 0	35 55 6	2
	Molumbo	Molumbo	Chanaga	15 140 0	36 12 17	2
	Sub-total		Villages 10		Number of Wells: 10	18
	Mociba	Namanjivira	AltoBenfica	Murramba	16 43 32	36 28 61
Namanjivira		Namanjivira	Tonga	16 56 43	36 38 6	2
Namanjivira		Namanjivira	Mebudha	16 51 11	36 38 26	2
Mugeba		Muaguina	Niaguane	16 46 27	37 23 63	2
Mugeba		Muanguin	Sede	16 43 49	37 24 73	1
Namanjivira		AltoBenfica	Sede	16 39 9	36 18 59	2
Sub-total			Villages 6		Number of Wells: 6	11
Gile		Mamaia	Sede (Unlepa)	15 58 47	38 52 37	1
Gile		Moncia	Sede	15 58 7	38 26 14	2
Gile		Pury	Sede	15 59 11	38 19 59	2
Gile		Kaiane	Sede	16 17 5	37 55 27	2
AltoLigonha		Namaitale	Sede	15 49 49	38 20 25	2
AltoLigonha	AltoLigonha	Sede	15 31 7	38 15 10	1	
Gile	Nhamope	Sede	16 13 28	38 12 35	2	
Sub-total		Villages 7		Number of Wells: 7	12	
Total		Villages	86	Total of Wells:	148	

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Annex-4 List of the Existing Wells for Handpump Replacement

Location (Admin. Div.)	No.	Location (Admin. Div.)	No.
1. MOCUBA District		2. LUGELA District	
1.1 P.A. MOCUBA		2.1 P.A. MUNHAMADE	
(1) CIDADE DE MOCUBA	1(F)	(1) LOC. ALTO LUGELA	1(F)
Posto Agrícola, Escola Básica	1(F)	EPI, Namagona	1(F)
Aldeia Mátche 1	1(F)	Sede	1(F)
Bive, Cruzamento	1(F)		
Mangolamelo (A)	1(F)		
Mangolamelo (B)	1(F)		
Mugonda	1(F)		
Murraba	1(F)		
Socondinho	1(F)		
1.2 P.A. MUGEBÁ		LUGELA Sub-total	2
(1) LOC. MUGEBÁ	1(F)		
Centro de Saúde de Muquiqua	1(F)		
1.3 P.A. NAMANJAVIRA			
(1) LOC. de Alto Benfica	1(F)		
MOCUBA Sub-total	11	Total	13
(Note) F: Deep tubewell			

Annex-5 List of Equipment and Materials to be Procured under the Project

No.	Item	Quantity
1.	Truck Mounted Drilling Rig: Drilling Capacity with 4-3/4" O.D. Drill Pipes: >200m. 4x4 Drive. 200ps	2 units
2.	Standard Accessories and Tools for Rig: Drilling Tools, Casing & Tools, Fishing Tools, DTH Tools, Air-Lifting Tools Truck Mounted High Pressure Compressor.	2 lots
3.	For DTH Drilling, Air Supply 25.5 m ³ /min 21 kgf/cm ² , 4x4 Drive, 170ps Pumping Test Apparatus	2 units
4.	(1) High Capacity Submersible Pump: 50 liter/min x 100m Head, 1.5kw	2 units
	(2) Low Capacity Submersible Pump 30 liter/min x 60m Head, 0.75kw	2 units
	(3) Diesel Engine Generator: 380V, 50Hz, 3phase, 6.5KW	2 units
	(4) Testing Equipment: Notch Tank, Lifting Pipe, Water Level Meter, etc.	2 sets
	Motor Vehicles	
5.	(1) Crane Mounted Cargo Truck, Large Size: 4ton Crane, 4x4 Drive, 200ps, GVW16ton	2 units
	(2) Crane Mounted Cargo Truck, Medium Size: 3ton Crane, 4x4 Drive, 170ps, GVW10ton	2 units
	(3) Water Tank Trailer: Tank Capacity 5,000L, Trailer mounted	2 units
	(4) Small Size Truck: Single Cabin, 4x4 Drive, 110ps, Loading Capacity 1ton	6 units
	(5) Motorcycle: Semi-off-road Type, 100cc, 7.5ps	8 units
6.	(1) Fuel Tank Lorry: Tank Capacity 4,000 liter, 4x4 Drive, 170ps, GVW10ton	1 unit
	(2) Fuel Tank: Tank Capacity 1,000 liter, Manual Pump	4 sets
7.	Pump Unit (VLOM Type): Alfdev Type, Capacity 0.2 liter/sec, 60m Head	1 lot
	Casing & Screen Pipes	
8.	(1) Casing Pipe: PVC (113mm O.D., 112mm I.D. 2.9m)	1 lot
	(2) Screen Pipe: PVC (113mm O.D., 112mm I.D. 2.9m)	1 lot
	(3) Centralizer: For 4" PVC Pipe	1 lot
	(4) Bottom Cap: For 4" PVC Pipe	1 lot
9.	Water Quality Analyzes Equipment: Cl, NO3, NO2, SO4, F, Ca, Mg, Na, Mn, Fe, PH, Color, Hardness, Conductivity	9 sets
10.	Truck Mounted Mobile Workshop: 4x4 Drive, 170ps, Hand Tools, Electric Tools, Generator, Welding Equip, etc.	1 unit
11.	Truck Mounted Hydro-fracturing Unit: 4x4 Drive, 170ps, Pump Capacity 240liter/min, 190bar	1 unit
12.	Personal Computer: CPU800MHz, Windows98, Monitor, & Printer	1 set
13.	Copy Machine: A4 - A3, Pedestal, etc.	1 set
	Geophysical and Topographical Research Equipment	
14.	(1) Electrical Receptivity Survey Equipment	2 sets
	(2) Electromagnetic Survey Equipment	2 sets
	(3) Electrical Well Logging Equipment	2 sets
	(4) GPS	2 units
	(5) Topographical Survey Equipment	1 set
15.	Spare Parts: Spare parts for the above items are included on each main unit.	1 lot

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List of 20 Alternative Villages

District	No.	Administration Post	Localidade	Local	Population
Gurue	1	Mepuagua	Mepuagua	Macuaro	-
	2	Mepuagua	Mepuagua	Mococho	2,726
	3	Mepuagua	Mepuagua	Mogeia	891
	4	Mepuagua	Mepuagua	Invacua	1,359
	5	Mepuagua	Mepuagua	Impira	286
Ile	6	Ile	Sede	Mucuara	3,559
	7	Ile	Sede	Nimoela	4,190
	8	Mulevala	Chiraco	Malolo	1,572
Milange	9	Molumbo	Molumbo	Nipujho	-
	10	Molumbo	Molumbo	Curucuru	-
Mocuba	11	Mocuba	Munhiba	Mucacata	-
	12	Mocuba	Munhiba	Sassamanja	-
	13	Namanjavira	Namanjavira	Eramba	-
Gile	14	Gire/Sede	Nanhope	Namahica	684
	15	Gire/Sede	Nanhope	Nicacala	679
	16	Gire/Sede	Nanhope	Noria	835
	17	Gire/Sede	Nanhope	Inchipia	772
	18	Gire/Sede	Nanhope	Pilima	680
	19	Gire/Sede	Nanhope	Niane	778
	20	Gire/Sede	Nanhope	Vassele	756

Agua

List of Animators
for
the Project for Groundwater Development for Rural Water Supply
in
Zambezia Province
(DPOPH/EPAR - Zambezia)

No.	District	No. of Person	Name of Animator	Sex	Remarks
1	Lugela	2	Filomena Fernando	F	Not trained
			Atija Atumane Alberto Mussa	F	Not trained
			Beatriz Estorquene	F	Not trained
2	Gurue	3	Hortencia Francisco Luis Supinho	F	Not trained
			Eufrasio Antonio Abuque	M	PEC Training for 3 years
			Tereza Lopes	F	CFPAS Training for 3 years
3	Alto Molocote	2	Francisca E. Munequele	F	Not trained
			Maria Manuela Pinto	F	PEC Training for 3 years
4	Ile	3	Moises Sebastiao Ngomane	M	Not trained
			Michelina Amade Jorge	F	Not trained
			Helena Martinho Jofre	F	Not trained
5	Milange	3	Isabel Adamo Ussene	F	Not trained
			Nunes Bernardo Muaiamo	M	Not trained
			Regina Maria Chulo	F	CFPAS Training for 3 years
6	Mocuba	3	Martins Varela Martins	M	CFPAS Training for 3 years
			Atija Rajabo Carimo	F	PEC Training for 1 year
			Ines Miguel P. Naciaia	F	Not trained
7	Gile	2	Mansur A. Gafur Tayobo	M	Not trained
			Helena Bernardo Mugema	F	Not trained
8	Namarroi	3	Rosaria Alcolele suludane	F	Not trained
			Isabel Carimo	F	Not trained

Agua

Annex-8 Project Costs Borne by Mozambique Side

(Unit: 1,000 US\$)	
Description	Amount
1. Improvement of Mocuba Workshop (Earth works (excavation and fill), land preparation, garages, etc.)	63.48
2. Repairing of the Existing Bridges	90.69
- Lugela district	13.60
- Milange district	77.09
3. Salary and Allowances of Epar Staff for Drilling Works (Chief and assistant drillers, mechanics, etc.)	97.81
- 1st Term	0.00
- 2nd Term	42.17
- 3rd Term	57.64
4. Expenses for Animadors and District Water and Sanitation Officers (About four (4) years operation including monitoring)	47.88
4.1 Salary for Animadors and district Water and Sanitation Officers (Additional animadors will be employed temporarily as the case may requires.)	36.80
- 1st Term	8.00
- 2nd Term	9.60
- 3rd Term including one (1) year operation for monitoring	19.20
4.2 Operation and Maintenance Expenses for eight (8) Motorcycles (Fuel, spareparts, insurance, etc.)	12.11
- 1st Term	2.63
- 2nd Term	3.16
- 3rd Term including one (1) year operation for monitoring	6.32
5. Preparation of Access Roads by Villagers	0.00
6. Construction of Protection Fences by Villagers	0.00
Total Amount	282.89
Estimated Amount of Tax Borne by Mozambique Side	
A. Value Added Tax (VAT)	1,555.00
A.1 Equipment and Materials	1,230.00
A.2 Sub-contracts with Local Drilling Firms	325.00
- 1st Term	65.00
- 2nd Term	145.00
- 3rd Term	115.00
B. Import Tax	-
The prices of each equipment and material on which the import tax is imposed will be informed to Mozambique side immediately after the shipping documents are prepared in order to facilitate customs clearance procedures to be taken by Mozambique side.	


M. S.


TECHNICAL NOTES
ON
THE BASIC DESIGN STUDY ON THE PROJECT
FOR
GROUNDWATER DEVELOPMENT FOR RURAL WATER SUPPLY
IN
THE ZAMBEZIA PROVINCE
THE REPUBLIC OF MOZAMBIQUE

Based on the Minutes of Discussions signed on November 1, 2000 between the Basic Design Study Team (hereinafter referred to as "the Team") of Japan International Cooperation Agency (hereinafter referred to as "JICA") and National Directorate of Water Affairs of the Government of the Republic of Mozambique (hereinafter referred to as "GOM"), the consultant members of the Team had a series of discussions and conducted field surveys from November 2 to December 8, 2000.

As a result of the discussions and the surveys, both sides confirmed the technical conditions described as per the attached.

Maputo, December 6, 2000


Soicjirir Yumoto
Chief Consultant,
JICA Basic Design Study Team for
the Project for Groundwater Development
for Rural Water Supply
in the Zambezia Province


Mr. Americo Muianga
National Director,
National Directorate of Water Affairs,
Ministry of Public Works and Housing,
Government of Republic of Mozambique

ATTACHMENT

The both parties agreed upon and confirmed the following items.

1. Spaces and facilities of the workshop in the EPAR-Mocuba
The both sides agreed that the spaces and facilities of the workshop in the EPAR-Mocuba should be prepared by the Mozambican side in order to enable the implementation of the Project. The costs and preliminary design for this preparation should be presented in the draft report.
2. Assurance of employment of the resigned animadors
DAR/DNA shall instruct the EPAR-Zambezia to assure the employment of the required number of animadors in order to facilitate the community mobilization. At least one (1) animador shall be employed for one (1) district.
3. Rehabilitation and repair of the bridges
According to the field survey having been conducted, the following two (2) bridges are considered to be repaired, and the required repair works shall be conducted under the responsibility of GOM before the commencement of the construction works in order to enable the heavy equipment to access the construction sites smoothly.
 - The approach of the existing concrete bridge located on the road from Namarroi to Lugela
 - The existing timber bridge between Molombo and Milange
4. Arrangement of a flat yard for the contractor's base camp
It is agreed that GOM should arrange a float yard of about 10,000 m² in or around Mocuba town for the establishment of the contractor's base camp.
5. Modification of the numbers and specifications of the requested equipment
The Mozambican side requested the following modifications to the numbers and specifications of the requested equipment, because the access to the sites are considered but and the DTH method of drilling has to be applied to the substantial extent.
 - The type of high pressure compressor should be changed to track-mounted from trailer.
 - Number of pick up vehicles should be changed to four (4) from (3) considering the use of PEC for installation of handpump.
 - The type of mobile workshop should be changed to track-mounted from trailer.
 - Tractors of 110 HP should be deleted.
 - One (1) unit of track-mounted fuel tank (4,000 L) should be added to efficiently serve the necessary fuel to each drilling site from the limited available fuel sources in the study area.

It is agreed that the numbers and specifications of the equipment requested by GOM based on the rotary drilling method would be modified depending upon the results of hydrogeological survey in order to introduce DTH drilling method.

Table - 1 List of Villages Requested for Construction of New Tubewells

District	No.	Requested Villages	Puesto Administrativo	LOCALIDADE	ALDEIA	Remarks
Lugela (20)	1	Muabanama	MUABANAMA	MUABANAMA-Scdle	ALDEIA	Bad Access
	2	Comone	MUABANAMA	COMONE-Scdle		Bad Access
	3	Mupumua	MUABANAMA	MUPUMUA-Scdle		Bad Access
	4	Munhamade	MUNHAMADE	MUNHAMADE-Scdle		
	5	Cuba	MUNHAMADE	CUBA-Scdle		
	6	Mulide	MUNHAMADE	MULIDE-Scdle		
	7	Mussanga	MUNHAMADE	MUSSENGANE-Scdle		
	8	Putine	MUNHAMADE	PUTINE-Scdle		
	9	Nigobbo	MUNHAMADE	MUNHAMADE		
	10	Ira	MUNHAMADE	MUNHAMADE		
	11	Mucule	MUNHAMADE	MUNHAMADE		
	12	Muramua	MUNHAMADE	MUNHAMADE		
	13	Comoe	MUNHAMADE	MUNHAMADE		
	14	Tenele	MUNHAMADE	MUNHAMADE		
	15	Eblde	MUNHAMADE	MUNHAMADE		
	16	Mihhu	MUNHAMADE	MUNHAMADE		
	17	Tacuane	MUNHAMADE	MUNHAMADE		
	18	Alto Lugera	MUNHAMADE	MUNHAMADE		
	19	Mucucuela	MUNHAMADE	MUNHAMADE		
	20	Monestiro	MUNHAMADE	MUNHAMADE		
Sub-total				15		
Gurue (20)	21	Lioma	LIOMA	LIOMA-Scdle	ALDEIA	
	22	Nantivacha	MUABANAMA	NAMIVACHA-Scdle		
	23	Igemeli	TETEJE	GOMOLI-Scdle		
	24	Nintulo	LIOMA	NINTULO-Scdle		
	25	Chicopera	LIOMA	LIOMA		
	26					
	27	Mussangula	LIOMA	LIOMA		
	28	Mualijane	LIOMA	MUALIJANE-Scdle		
	29	Naprotela	CIDADE DE GURUE	Mussungula		
	30	Mugige	LIOMA	MAGIGE-Scdle		
	31	Mupuguiua	MEPUAGUIA	MEPUAGUIA-Scdle		
	32	Injabo	MEPUAGUIA	Scdle-Mepuguiua		
	33	Vohua	CIDADE DE GURUE	VEHUA-Scdle		
	34	Suarra	LIOMA	Teteje		
	35	Nipive	MEPUAGUIA	NIPIVE-Scdle		
	36	Nicropale	MEPUAGUIA	NICROPALE-Scdle		
	37	Inceis	MEPUAGUIA	INCIZE-Scdle		
	38	Murimo	CIDADE DE GURUE	MURIMO-Scdle		
	39	Govela	CIDADE DE GURUE	Morrino		
	40	Nanzai	CIDADE DE GURUE	Morrino		
41	Nahumo	LIOMA	LIOMA-Scdle			
Sub-total				12		
Alto Molecuc (23)	42	Niparia	ALTO MOLOCUC	Via Alto Molecuc	ALDEIA	
	43	Cherea	ALTO MOLOCUC	Chapala		
	44	Rucula	NAUELA	Nanela		
	45	Yacha	NAUELA	Escote		
	46	Gurva	ALTO MOLOCUC	Chapala		
	47	Tatu	NAUELA	Nauela		
	48	Munacu	NAUELA	Mohiua		
	49	Muepa	NAUELA	Nauca		
	50	Natulo	NAUELA	Nauela		
	51	Munucha	ALTO MOLOCUC	Chapala		
	52	Coronhano	NAUELA	Mohiua		
	53	Chapala	ALTO MOLOCUC	CHAPALA-Scdle		
	54	Campira	ALTO MOLOCUC	Nacuca		
	55	Nicera	ALTO MOLOCUC	Nivava		
	56	Nachapa	NAUELA	Nauela		
	57	Namueuru	ALTO MOLOCUC	Escote		

6. Villages requested for construction of new tubewells
 It is confirmed that the villages requested for construction of new tubewells are those listed in Table - 1 attached hereto. These villages will be examined from the viewpoints of access conditions, hydrogeological potential and socio-economical situations. As a result, some of them will be omitted from the prospective villages for tubewell constructions, and added to the villages which have more necessity of tubewell construction.

7. Villages requested for replacement of handpumps
 It is confirmed that the villages requested for replacement of handpumps are those listed in Table - 2 attached hereto.

District	No.	Requested Villages	Posto Administrativo	LOCALIDADE	ALDEIA	Remarks
	58	Nerece	NAUELA	Nanela	NARSEDE	
	59	Napala	ALTO MOLOCUE	Cania	NAPALA	
	60	Narech	NAUELA	NAUELA- Sede	MALUA	
	61	Malia	ALTO MOLOCUE	Vila Alto Molocue	MUIRO	
	62	Mutala	ALTO MOLOCUE	MUTALA- Sede	UELELA	
	63	Muhoro	ALTO MOLOCUE	Muhoro		
	64	Uelala	ALTO MOLOCUE	Mutala		
Sub-total			23	3	20	
Namarroi (17)	65	Lipale	NAMARROI	LIPALE- Sede	SAGURA	
	66	Marein	NAMARROI	MARRIA- Sede		
	67	Siguru	NAMARROI	Marru		
	68	Mundine	NAMARROI	MUNDINE- Sede		
	69	Mucumie	NAMARROI	MUEMUE- Sede		Bad Access
	70	Tomoto	NAMARROI	Lipale		
	71	Mucome	NAMARROI	Lipale		
	72	Namaruu	NAMARROI	Lipale		
	73	Cacaitua	NAMARROI	Namarroi		
	74	Inlapp	NAMARROI	Mudine		
	75	Munhenhere	REGONE	Regone		
	76	Munhare	REGONE	Mareia		
	77	Ningo	NAMARROI	Mudine		
	78	Marepua	NAMARROI	Marepua		same as 69. MUEMUE
	79	Namaruame	NAMARROI	Namarroi		
	80	Mutitela	REGONE	MUTITALA- Sede		
	81	Mutuelu	REGONE	Regone		
	82	Liaese	REGONE	Regone		
	83	Rumala	REGONE	Regone		
Sub-total			17	5	12	
Ile (25)	84	Erupue	ILE/SEDE	Namanda	ERUPUE	
	85	Namunda	ILE/SEDE	NAMANDA- Sede		
	86	Nampavo	ILE/SEDE	NAMPEVO- Sede		
	87	Nipode	ILE/SEDE	NIPODE- Sede		
	88	Verrua	ILE/SEDE	VIERRUA- Sede		
	89	Muazua	ILE/SEDE	Vierua		
	90	Mutiquela	ILE/SEDE	Ile/ Sede		
	91	Maria	ILE/SEDE	Ile/ Sede		
	92	Melalala	MULEVALA	Namigonha		
	93	Tijua	MULEVALA	Namigonha		
	94	Ejabo	MULEVALA	RUGE- Sede		
	95	Mutiquitua	ILE/SEDE	Ile/ Sede		
	96	Napara	MULEVALA	Nampovo		
	97	Mulevela	MULEVALA	NAMIGONHA- Sede		
	98	Namigonha	MULEVALA	Namigonha		
	99	Chiraco	MULEVALA	CHIRACO- Sede		
	100	Micalante	MULEVALA	INTURRO- Sede-1		
	101	Intura	MULEVALA	INTURRO- Sede-2		
	102	Namudora	MULEVALA	Micalante		
	103	Ejabo	MULEVALA	Micalante		
	104	Mucoso	MULEVALA	Namigonha		
	105	Secome	SOCONE	SOCONE- Sede		
	106	Coruane	SOCONE	CURRUANE- Sede		
	107	Melalala	MULEVALA	Chiraco		
	108	Maru	SOCONE	Socome- Sede		
	109	Lava	SOCONE	Socome- Sede		
	26	Walasse	SOCONE	Socome- Sede		
Sub-total			23	11	14	
Milange (21)	110	Sublitua	MOLUMBO	Corromane		
	111	Nsassa	MOLUMBO	Molumbo		
	112	Nurutu	MOLUMBO	Molumbo		
	113	Cadome	MILANGE/SEDE	Chitambo		
	114	Picuni	MOLUMBO	Molumbo		
	115	Chitambo	MOLUMBO	Corromane		

District	No.	Requested Villages	Posto Administrativo	LOCALIDADE	ALDEIA	Remarks
	116	Inuocelo	MOLUMBO	Chitambo	INTOCOTA	
	117	Caria	MOLUMBO	Molumbo	CARIA	Bad Access
	118	Nahin	MOLUMBO	Molumbo	NEHIRA	
	119	Malico	MOLUMBO	Molumbo	MALICO	
	120	Mogolia	MOLUMBO	Molumbo	MOGOLUA	
	121	Muela	MOLUMBO	Molumbo	MUELA	
	122	Micassa	MOLUMBO	Molumbo	MICASSE	
	123	Nacapa	MOLUMBO	Dualo-Nangoma	CHICAPA	Bad Access
	124	Lipale	MILANGE/SEDE	Chitambo	LIPALE	
	125	Mangue	MONGUE	Mongue	MONGUE	
	126	Corico	MILANGE/SEDE	LICHIRO- Sede		
	127	Tundo	MILANGE/SEDE	Tengui	BELUA	
	128	Jutua	MOLUMBO	Dualo-Nangoma	JULUA	Bad Access
	129	Chinangua	MOLUMBO	Molumbo	CHINANGUA	
	130	Namajip	MILANGE/SEDE	Milange	NAMAJA	
Sub-total			21	1	20	
Mucetba (9)	131	Rumba	NAMANJAVIRA	Alto Benlica	TAMBONE	Milange District ?
	132	Muramba	NAMANJAVIRA	Alto Benlica	MURRAMBA	
	133	Chimbia	NAMANJAVIRA	Namanjavira	CHIMBIA	
	134	Arucoma	NAMANJAVIRA	Namanjavira	MALAVA	Bad Access
	135	Tonga	NAMANJAVIRA	Namanjavira	TONGA	
	136	Mehudama	NAMANJAVIRA	Namanjavira	MEHUDANA	
	137	Niguanne	MUGBEA	Niguanne	NIGUANE	
	138	Mungua	MUGBEA	MUAGUIUA- Sede		
	139	Alto Benefica	NAMANJAVIRA	ALTO BENFICA- Sede		
Sub-total			9	2	7	
Gile (9)	140	Mamala	GILE/SEDE	MAMALA- Sede		
	141	Moneta	GILE/SEDE	MONELA- Sede		
	142	Puni	GILE/SEDE	PURY- Sede		
	143	Kaiane	GILE/SEDE	KAIANE- Sede		
	144	Milane	ALTO LIGONHA	Milani	MUCARARA	Bad Access
	145	Namihale	ALTO LIGONHA	NAMIHALI		
	146	Mujahobe	ALTO LIGONHA	Milani	MUHALA/INTIRA	Bad Access
	147	Mucokasia	ALTO LIGONHA			
	148	Ninhopa	GILE/SEDE	ALTO LINGONHA- Sede		
Sub-total			9	7	2	
Total		Community	144	56	88	

Table - 2 List of Villages Requested for Replacement of Handpumps

Location	No. of Rehabilitation	Location	No. of Rehabilitation
MOCUBA District		ILE District	
P.A. MOCUBA		P.A. de ILE	2
CIDA DE MOCUBA	1	LOC. M. BAUANE	1
Bairro Toma de Agua	1	EPI Namacala	1
Bairro Aeroporto	1	Intutulo	1
Bairro Mirnamelo	1	LOC. MUGULAMA	1
Aldeia Matebe 1	1	Centro Mugulama	1
Aldeia Nacala	1	LOC. VIERUA	1
Posto Agricola, ESC.	1	Aldeia de MUAZIUA	1
Escola Basia	1	LOC. de NAMPEVO	1
Bive, Cruzamento	1	Aldeia de Phevere	1
Mangolamelo (A)	1	LOC. de ILE	1
Mangolamelo (B)	1	Aldeia Nhowela	1
Mugonda	1	P.A. de SOCONE	1
Murraba	1	LOC. de SOCONE	1
Secundinho	1	Aldeia de LAVA, EPI	1
P.A. MUGEBA		ILE Sub-total	8
LOC. MUGEBA			
Posto de Saude de Mugeba	1		
Nigula	1		
Centro de Saude de Muaciqua	1		
P.A. NAMANJAVIRA		LUGELA District	
LOC. NAMANJAVIRA	2	P.A. MUNHAMADE	
Namjavira-sede	2	LOC. ALTO LUGELA	1
Aldeia Chimburu		EPI. Namagona	1
LOC. de Alto Benfica	1	Sede	1
Sede de Alto Benfica			
MOCUBA Sub-total	20	LUGELA Sub-total	2
		TOTAL	30