

**The United Republic of Tanzania**

**THE STUDY  
ON WATER SUPPLY IMPROVEMENT  
IN COAST REGION  
AND DAR ES SALAAM PERI-URBAN  
IN THE UNITED REPUBLIC OF TANZANIA**

**Final Report**

**DATA BOOK**

**December 2005**

**JAPAN INTERNATIONAL COOPERATION AGENCY  
Global Environment Department**

**The United Republic of Tanzania**

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***Data Book A***  
**Village Inventory**

### Village Inventory Survey Sheet

Section-A Sheet Information Panel	
A-1 Serial Number <b>【Be indicated by Data Clerk】</b>	A-2 Day/Month/Year of Interview
A-3 Name of Interviewer	A-4 Number of Informants Gathered  Male: _____ Female: _____
A-4 Name of Representative among Key Informants	
A-5 Designation of Key Informants <b>【Multiple Answer Allowed】 【Please Tick】</b>	
<input type="checkbox"/> 01 Village Executive Officer / Assistant Officer <input type="checkbox"/> 02 Village Master <input type="checkbox"/> 03 Member of Village Government <input type="checkbox"/> 04 Member of Village Water Committee <input type="checkbox"/> 05 Member of Other village sub-committee	<input type="checkbox"/> 06 Ward Executive Officer / Assistant Officer <input type="checkbox"/> 07 Mtaa Chairperson <input type="checkbox"/> 08 Member of Mtaa Government <input type="checkbox"/> 09 Member of Mtaa sub-committee <input type="checkbox"/> 10 Others (Specify)
A-6 Name of Village / Mtaa	A-10 Ward
A-9 District / Municipality	
<input type="checkbox"/> 01 Bagamoyo <input type="checkbox"/> 02 Kibaha <input type="checkbox"/> 03 Kisarawa <input type="checkbox"/> 04 Mkukanga <input type="checkbox"/> 05 Ilala <input type="checkbox"/> 06 Kidondoni <input type="checkbox"/> 07 Temeke	

Section-B Community Population and Location Panel (GPS Coordinates)					
Name of Village / Mtaa	Population [2002]	No. of HH	Latitude at Village Office	Longitude at Village Office	Measurement Point
Name of Sub-Village / Sub-Location	Population [2002]	No. of HH	Latitude at Center	Longitude at Center	Measurement Point

Section-C Community Type Panel	
C-1 Form of Community <b>【Please Tick One】</b>	C-2 Dwelling Type of Community <b>【Please Tick One】</b> <b>【Please Refer to Type of Dwelling Punch】</b>
<input type="checkbox"/> 01 Village <input type="checkbox"/> 02 Mtaa	<input type="checkbox"/> 01 Concentrated <input type="checkbox"/> 02 Concentrated along the Road <input type="checkbox"/> 03 Clustered <input type="checkbox"/> 04 Scattered

Section-D General Water Supply Conditions	
<b>D-1 Major Water Source [Multiple Answer] [Please Tick]</b>  <input type="checkbox"/> 01 River/Stream/Pond/Dam <input type="checkbox"/> 02 Unprotected Spring <input type="checkbox"/> 03 Protected Spring <input type="checkbox"/> 04 Unprotected Well <input type="checkbox"/> 05 Protected Well <input type="checkbox"/> 06 Borehole <input type="checkbox"/> 07 Water Vender <input type="checkbox"/> 08 City Water/DAWASA <input type="checkbox"/> 09 Chalinze Scheme  <input type="checkbox"/> 10 Others (Specify _____)	<b>D-2 Average Time taken to Go and Get Water, and Come Back</b>  <div style="text-align: right;">Min.</div>
	<b>D-3 Reliability of Water Source [Please Tick Month with Water]</b>  <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec
	<b>D-4 Average Amount of Water Affordable/Household/Day</b>  <div style="text-align: right;">Liters/Household/Day</div>
<b>D-5 Intervention Plan for WSS Development by GoT / Other External Agency</b>  <input type="checkbox"/> 01 None <input type="checkbox"/> Agency: <input type="checkbox"/> 02 Exist → <input type="checkbox"/> Period and Brief Intervention Plan:	

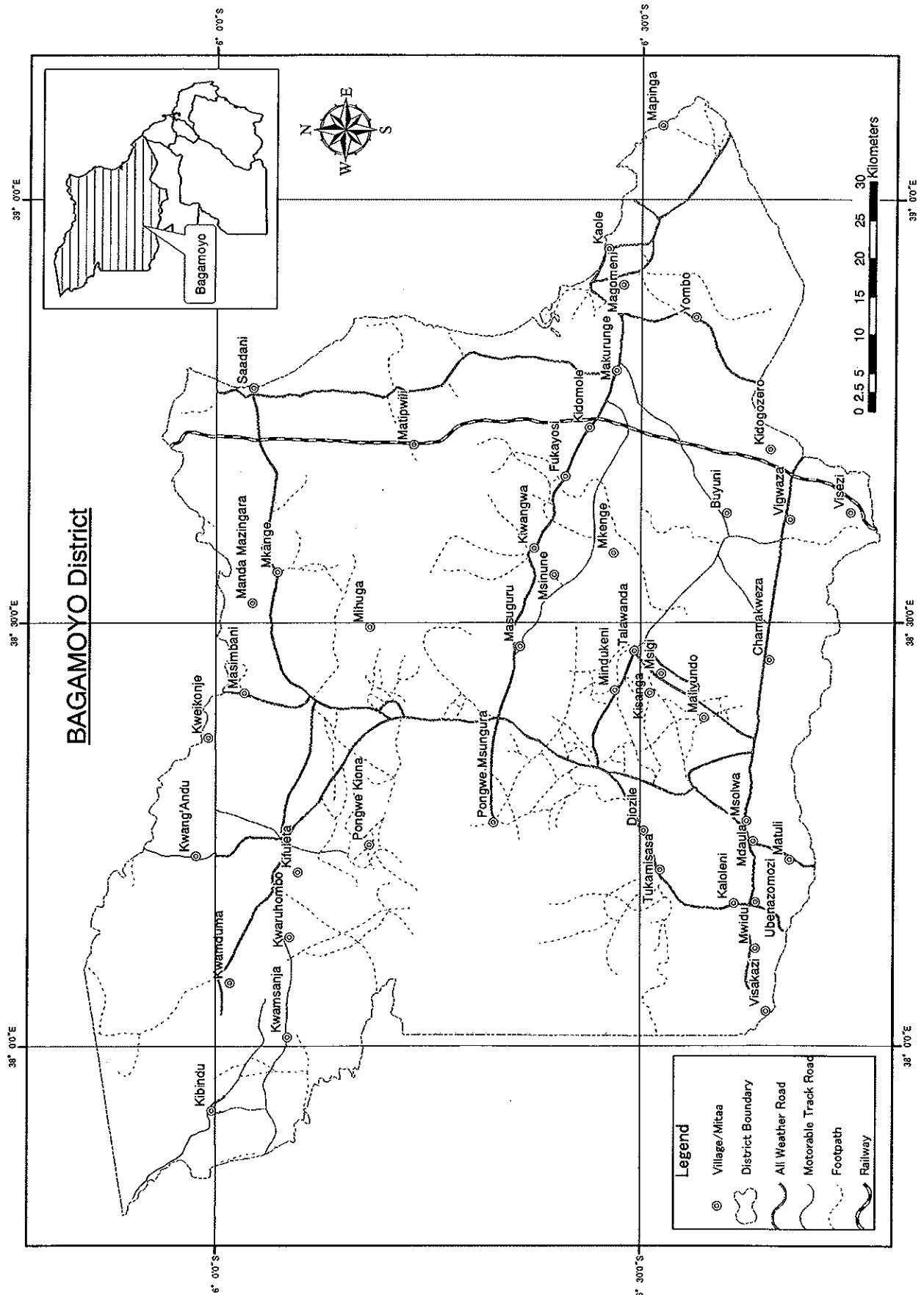
Section-E Infrastructure Panel						
E-1 Name of School	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet	No. of Teacher's House
	01: Primary 02: Secondary 03: Tertiary 04: None	01: Boarding 02: Daily		01: Traditional Pit 02: VIP 03: Pour Flush 04: Flush to Septic Tank		
E-2 Name of Health Facility	Type of Health Facility	No. of Bed	No. of Outpatient	Type of Toilet	No. of Toilet	
	01:Dispensary 02:Health Center 03:Hospital			01: Traditional Pit 02: VIP 03: Pour Flush 04: Flush to Septic Tank		
<b>E-3 Market [Multiple Answer Allowed] [Please Tick]</b>  <input type="checkbox"/> 01 Permanent Market <input type="checkbox"/> 02 Periodical Market (Frequency: _____) <input type="checkbox"/> 03 None			<b>E-4 Electricity Supply [Please Tick]</b>  <input type="checkbox"/> 01 Available <input type="checkbox"/> 02 Not Available			
<b>E-5 Telecommunication [Multiple Answer Allowed] [Please Tick]</b>  <input type="checkbox"/> 01 Land Telephone Line Available <input type="checkbox"/> 02 Mobile Phone Network Available <input type="checkbox"/> 03 None			<b>E-6 Extension Office (Government / NGO)</b>  <input type="checkbox"/> 01 Government Extension Office (Specify: _____) <input type="checkbox"/> 02 NGO Extension Office (Specify: _____) <input type="checkbox"/> 03 None			

<b>Section-F Outline of the Existing Water Supply Conditions</b>					
F-1	Name of Sub-Village				
F-2	Water Source 【See Coding F2】				
F-3	No of Water Source above				
F-4	Served Population by the Source above				
F-5	Type of Water Supply System 【See Coding F5】				
F-6	Ownership 【See Coding F6】				
F-7	Management 【See Coding F7】				
F-8	Type of Community-Based Water Organization 【See Coding F8】				
F-9	Distance to Water Point from the Center of Sub-Village (Km)				
F-10	Type of Water Supply Facility 【Multiple Answer】 【See Coding F10】				
F-11	Year of Construction of the Facilities				
F-12	Organization which Constructed the Facilities				
F-13	Number of Water Points (For Piped Water Scheme)				
F-14	Functioning Condition of Water Supply Facilities 【See Coding F14】				
F-15	Supply/Operational Condition of the Facility 【See Coding F15】				
F-16	Condition of Water Quality 【See Coding F16】				
F-17	Unit Price of User Fee (Tsh) 【Specify Unit】				
F-18	Name of Supply Scheme				
F-19	Remarks				

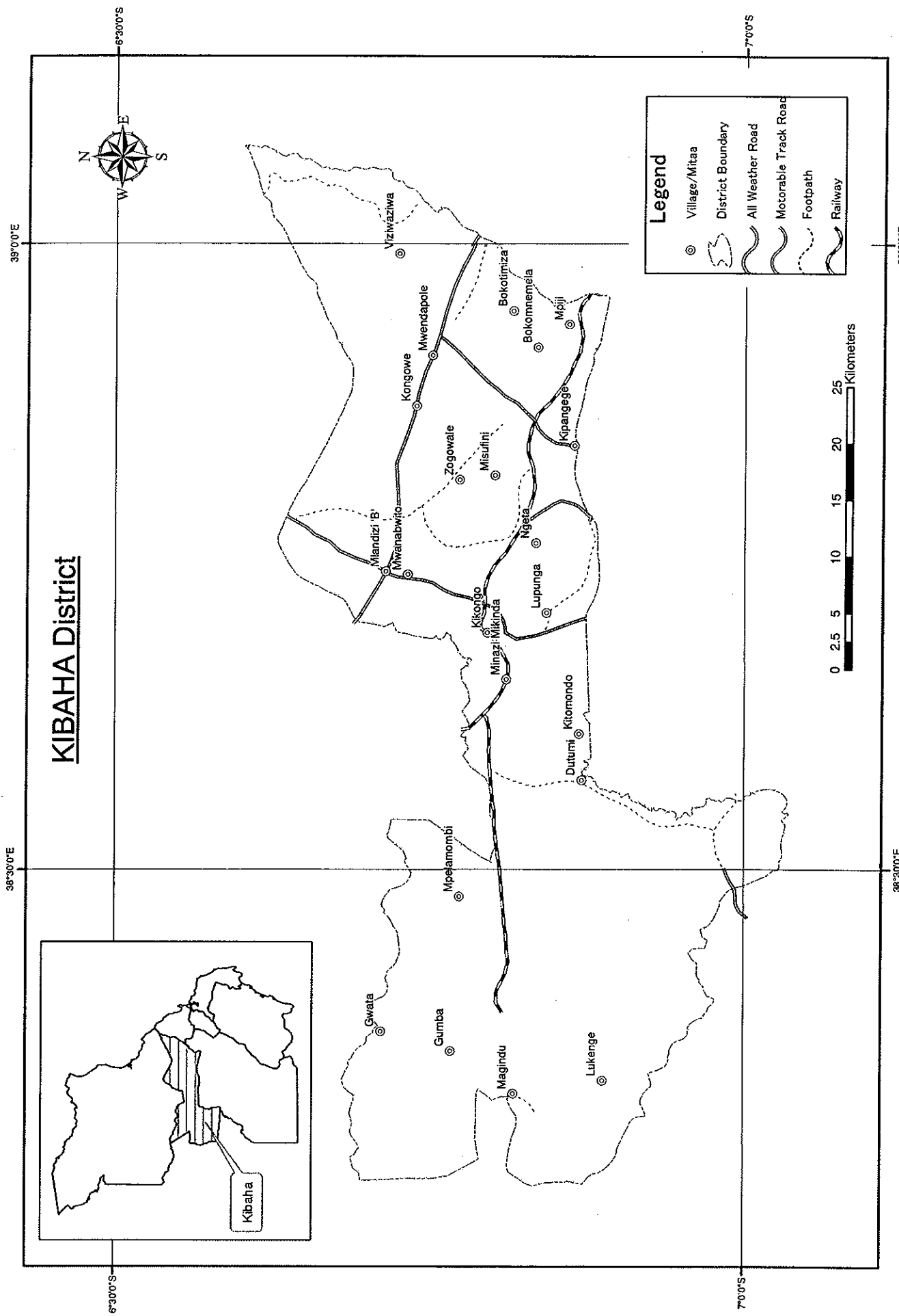
### CODING for Section F (Revised)

No.	Item	Coding
【F2】	Water Source  <u>NOTE:</u> Please indicate water source located in the sub-village	01: River/Stream/Pond/Dam 02: Unprotected Spring 03: Protected Spring 04: Unprotected Well 05: Protected Well 06: Borehole 07: Water Vender (Specify the source of water sold) 08: City Water/DAWASA 09: Chalinze Scheme 10: Others (Specify)
【F4】	Served Population by the Source Above	<b><u>Additional INSTRUCTION</u></b>  Please Indicate Served Population in the Village Concerned, and Served Population in Other Village separately in the form of <b>[x,xxx (village) / x,xxx (other)]</b>
【F5】	Type of Water Supply System	01: Point 02: Piped (Independent System) 03: Piped Network 04: Not Applicable (if answer in F2 is 01, 07)
【F6】	Ownership	01: Community/CBO 02: Private 03: Government Institution 04: City Water/DAWASA 05: Chalinze Scheme 06: Others (Specify)
【F7】	Management	01: Community/CBO 02: Private 03: Government Institution 04: City Water/DAWASA 05: Chalinze Scheme 06: NGO (Specify) 07: Others (Specify)
【F-8】	Type of Community-Based Water Organization	01: Village Water Committee 02: Water User Group (Registered) 03: Water User Group (un-registered) 04: Water User Association 05: Water Company (Guarantee) 06: Water Company (Share) 07: Trustee/Board 08: Co-operative Society 09: None 10: Others (Specify)
【F10】	Type of Water Supply Facility	01: Lined with Concrete Ring 02: Bucket 03: Hand Pump 04: Windmill Pump 05: Motor Pump 06: Water Tank (Elevated) 07: Water Tank (Reservoir) 08: Generator (Diesel) 09: Generator (Electricity) 10: Solar System 11: Others (Specify)
【F13】	Number of Water Points	<b><u>Additional INSTRUCTION</u></b>  Indicate number of water points, describing either public or individual connection.
【F14】	Functional Condition of Water Supply Facilities	01: All Functioning 02: Functioning Partially (Specify Detail Condition of Supply Facility) 03: Break Down (Specify Detail Condition of Supply Facility) 04: Under Repair
【F15】	Supply/Operation Condition by the Facility	01: Supplying Water through the Year 02: Supplying Water Seasonally (Specify the Month with Water) 03: No Supplying throughout the Year
【F16】	Condition of Water Quality 【Multiple Answer Allowed】	01: Good for Domestic Use 02: Good for Drinking 03: Muddy 04: Salty 05: Rusty





Location Map of Target Village – BAGAMOYO DISTRICT

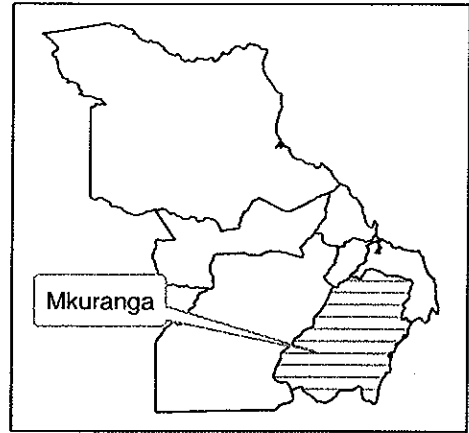


Location Map of Target Village – KIBAHA DISTRICT



39°0'0"E

# MKURANGA District

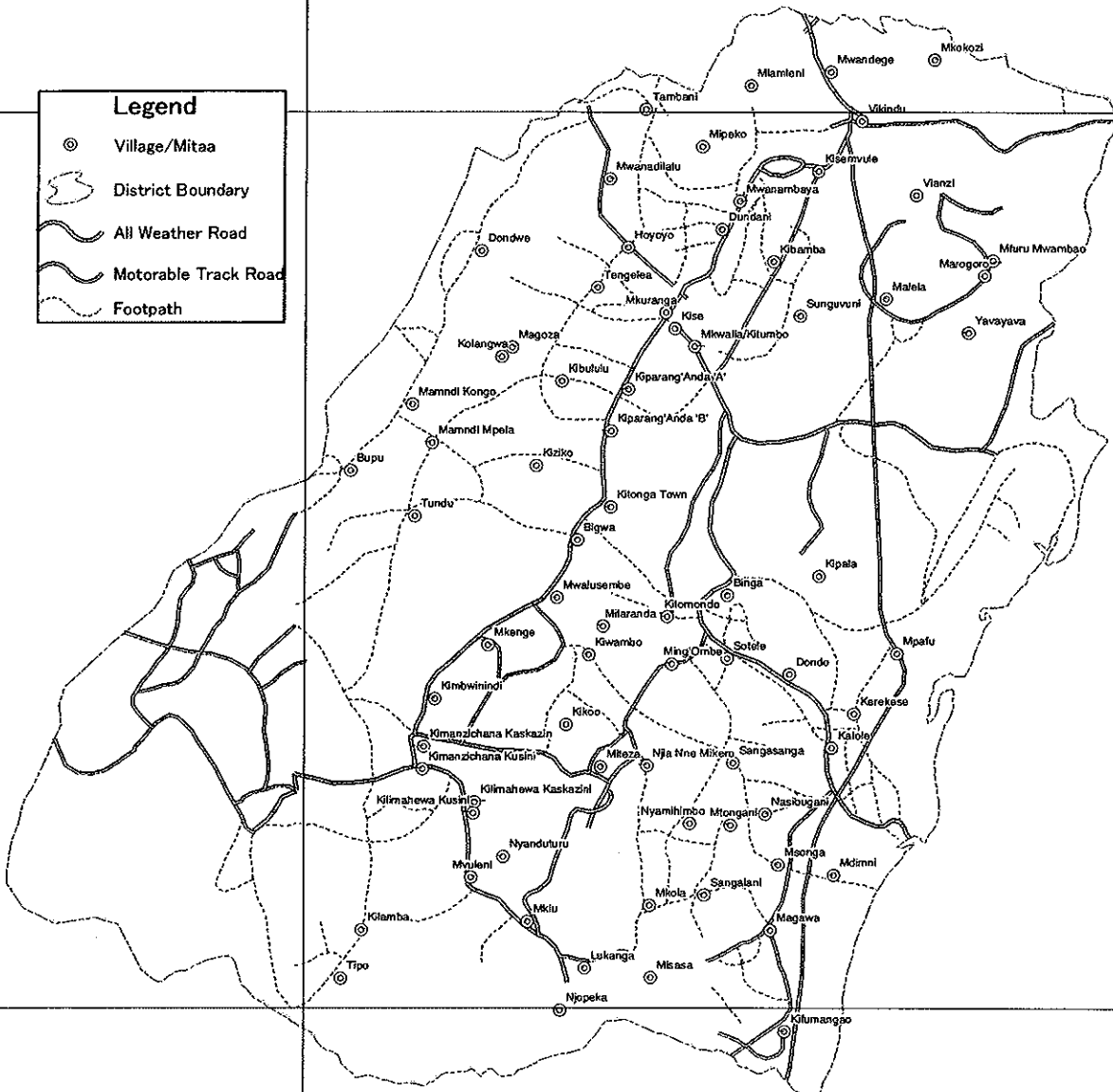


**Legend**

- ⊙ Village/Mitaa
- District Boundary
- All Weather Road
- Motorable Track Road
- Footpath

7°0'0"S

7°0'0"S



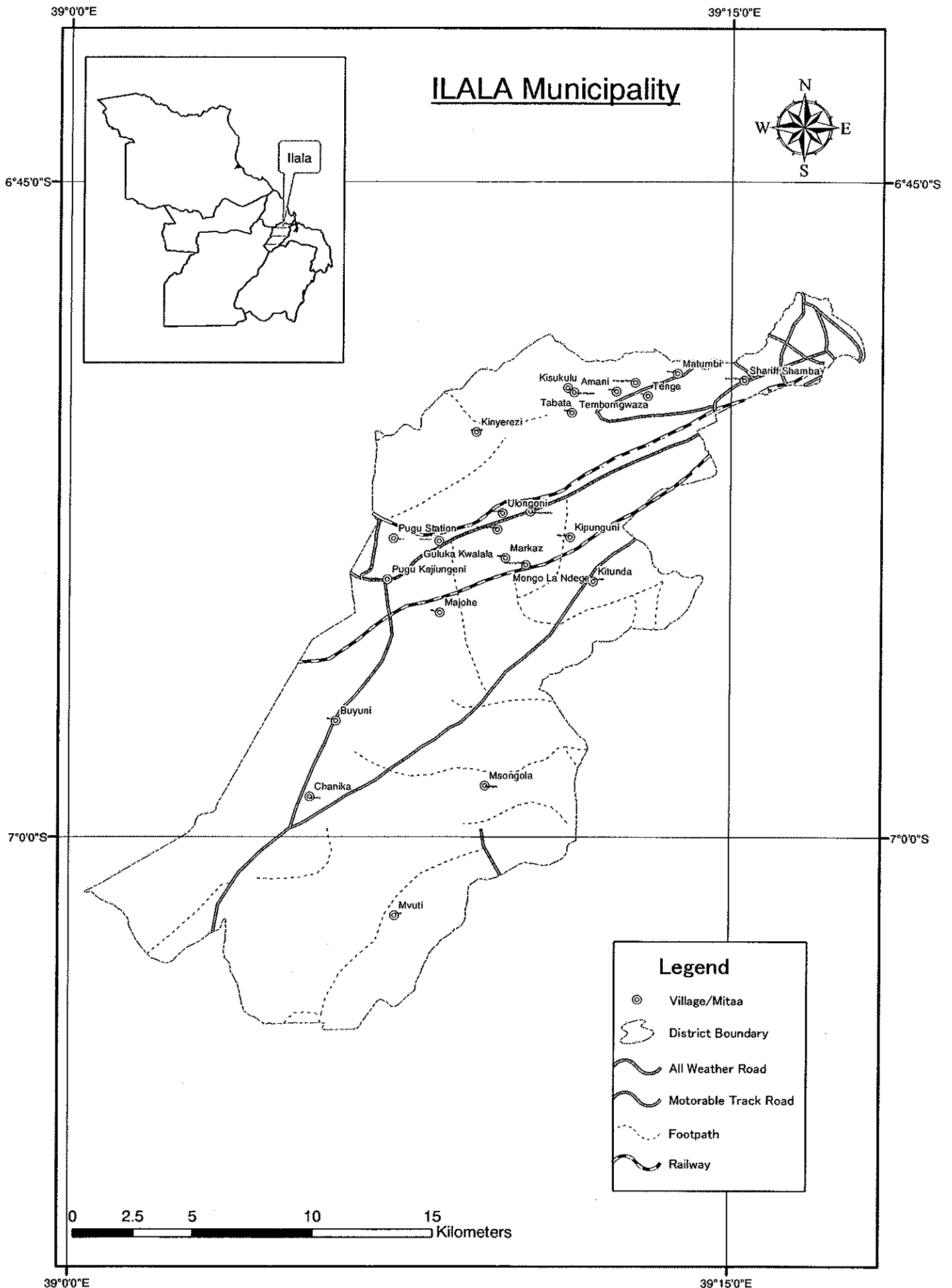
7°30'0"S

7°30'0"S

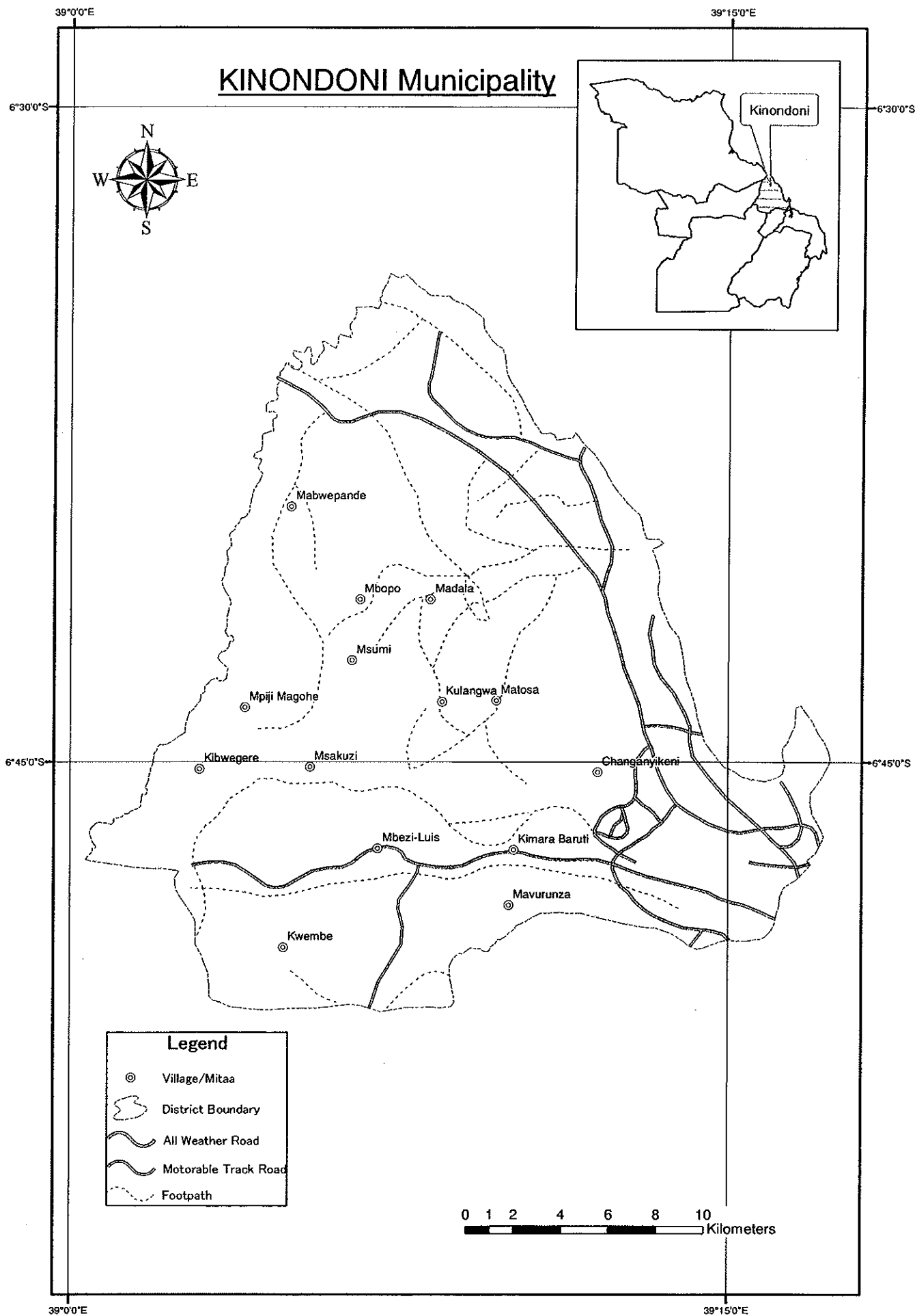


39°0'0"E

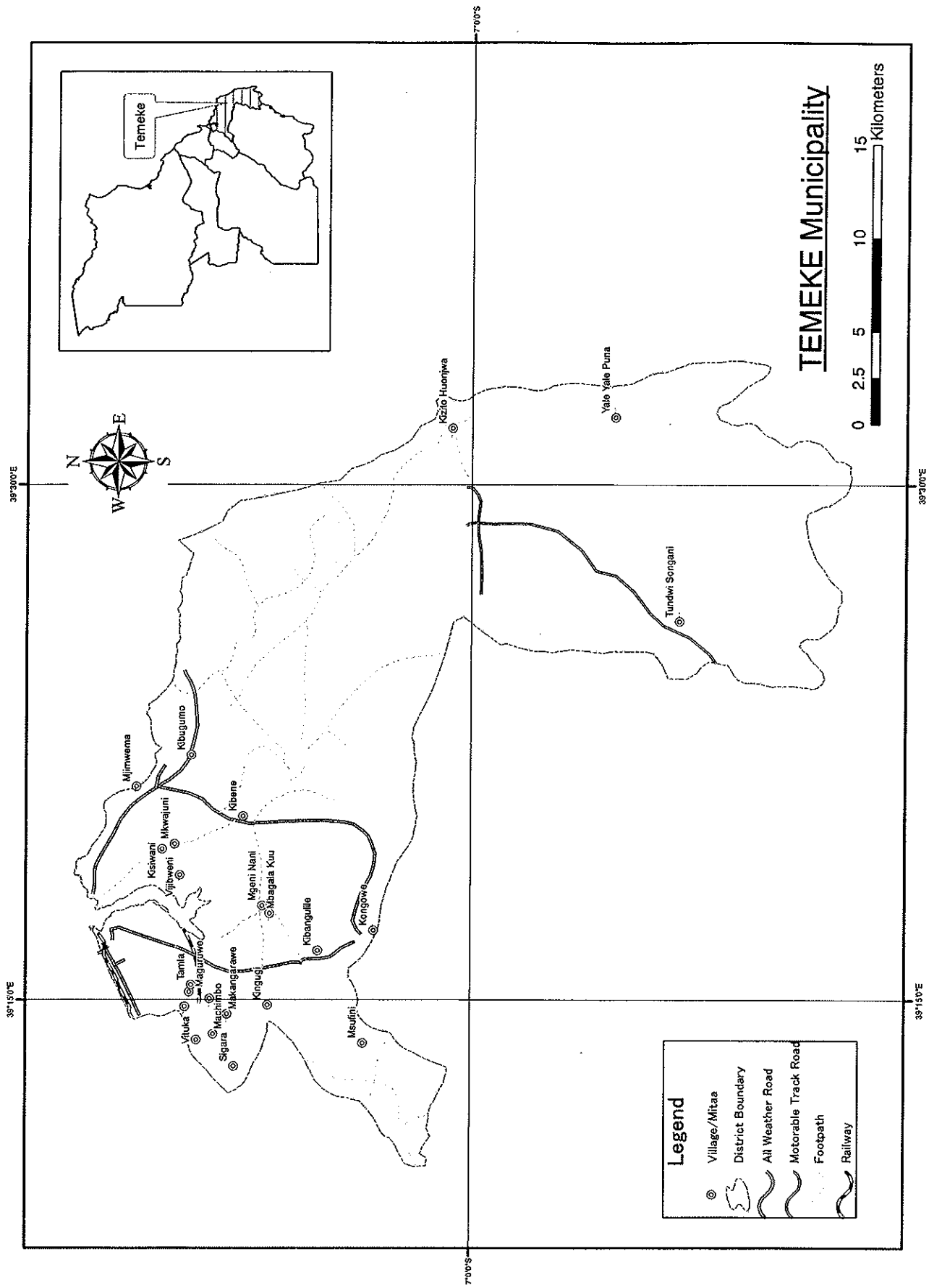
Location Map of Target Village – MKURANGA DISTRICT



**Location Map of Target Village – ILALA MUNICIPALITY**



**Location Map of Target Village – KINONDONI MUNICIPALITY**













**Village Inventory**  
**BAGAMOYO District - Basic Information of the Surveyed Villages (5/15)**

1: Target (Whole Community) 2: Partly Targeted 3: Not Targeted	A-1	A-6	A-7	B-1 (Village)				B-2 (Sub-Village)				C-1	C-2	
	Serial Number	Name of Village/Mtaa	Ward	Population (2002)	No. of HH	Latitude	Longitude	Name of Sub-Village (Sub-village names with bold italic: target areas of the study)	Population (2002)	No. of HH	Latitude	Longitude	Form of Community	Dwelling Type
								Kongo	180	40	63229.05	385047.6		
								Makonden	192	37	63220.8	385003.8		
								Mikuge	302	57	63213.9	385003.8		
								Mzizima	11	3	63213.9	385003.8		
								Shuleni	414	80	63303.5	385018.3		
								Uzaramoni	131	25	63242.8	385110.2		
3	BGM 006	Matibwa	YOMBO	1,521	271	631350	385149.5	Chamkwela			63133	385150	02: Mtaa	04: Scattered
								Kikuichola			63218	385121.7		
								Kimbehengwa			63101	385157		
								Matibwa			63134.4	385205.4		
								Ngongomoni			63225.1	385205.9		
								Zombengalawa			63145.5	385131.9		
3	BGM 012	KEREGE	ZINGA	1,469	398	65316.5	380247.1	AMANI	372	115	63342.9	380321.7	01: Village	04: Scattered
								KITONGA	613	139	65316.5	380240		
								KWAMANOFU	374	110	63447.9	380224		
								NYAKAHAMBA	110	34	63552.5	380212		
3	BGM 023	KONDO	ZINGA	1,340	371	62931.7	380032	CHAPONDA	154	41	62932	380018.2	01: Village	01: Concentrated
								GONGONI	137	40	63000.2	380054.8		
								GWAZO	285	79	62944	380055.8		
								KIBUBA	54	17	63027.4	385940.6		
								KIBUYUNI	122	40	62916.6	380026.1		
								KIGOVU	135	38	62941.3	380038.3		
								KONDO BONDENI	174	44	62939.1	380029.8		
								MBUYUNI	112	31	62921.3	380024.5		
								MWAJIMBO	158	39	62925.1	380039		
3	BGM 013	KWAMATUMBI	ZINGA	1,034	315	634413.3	380145.9	KILEMELA	171	33	63626.8	380059.4	01: Village	03: Clustered
								KWAKIWETE	451	129	63416.3	380127.2		
								MATUMBI	412	153	63452.4	380200.5		
3	BGM 022	MLINGOTINI	ZINGA	1,847	569	62852.8	385959.9	BISIBISI	198	64	62917.4	385955.9	01: Village	04: Scattered
								BONDENI	193	62	62848.7	385959.9		
								KIAMBONI	192	68	62911.7	380010.5		
								KIBUYUNI	96	32	62909.5	380018.4		
								KIJWENI	300	96	62854.3	385957.3		
								KWADOSI	196	60	62926.9	380011.4		
								KWAFAKI	261	68	62854.5	385951.3		
								MBUYUNI	193	66	62856.4	380009.2		
								MJI MPYA	218	53	62851.6	385945.8		
3	BGM 015	PANDE	ZINGA	1,728	391	62928	385839.8	KASIKI	459	66	62924.7	385847.5	01: Village	03: Clustered
								KIKONGA	205	54	63001.6	385847.5		
								MBEGANI	629	164	62843.6	385804.3		
								MKUNGUNI	169	41	62938.8	385830.6		
								PANDE	266	66	62926.1	385836.2		
3	BGM 024	ZINGA	ZINGA	2,881	735	63154	385934.4	CHAMBEO	190	47	63320	385912.5	01: Village	04: Scattered
								CHANGULUWE	139	32	63226.6	385940.6		
								DAGAZA	98	30	63147.9	385819		
								GONGONI	169	46	63139.2	385846.4		
								KIBUBA	399	81	63109.3	385844.6		
								KIBWAGOGO	148	34	63149.4	385905		
								KIDUGU	201	48	63155.8	385912.1		
								KIEGEA	158	48	63158.4	385933.2		
								KITULI	95	20	63300.4	385840.5		
								KOKOTO	216	56	63258	385948.8		
								MCHANGA KICHWA 'A'	305	88	62226.5	385940.6		
								MCHANGA KICHWA 'B'	360	98	62222.6	385918.2		
								MIKUNGALUNGO	227	47	63139.1	385919.6		
								MNAMATA	92	28	63228.8	385815.9		
								MSOKA	94	32	63215.2	38592.9		

**Village Inventory**  
**BAGAMOYO District - Basic Information of the Surveyed Villages (6/15)**

A-1 Serial Number	A-6 Name of Village/Mtaa	D-1 Major Water Source	Specify for 10	D-2 Average Time (min)	D-3 Reliability												D-4 Average Amount (Litre)	D-5 Other Water Supply and Sanitation Intervention				
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		None	Agency	Period	Plan	
BGM 025	CHAMAKWEZA	01: River/Stream/Pond/Dam		180			X	X	X	X	X	X	X			160	X					
BGM 032	MDAULA	01: River/Stream/Pond/Dam		120	X	X	X	X	X	X	X	X	X	X	X	X	140	X				
BGM 028	MSOLWA	01: River/Stream/Pond/Dam		120												120	X					
BGM 007	KAOLE	04: Unprotected Well		15-60	x	x	x	x	x	x	x	x	x	x	x	x	140				DANIDA (1991-1995) Pulled out	
BGM 034	KIBINDU	04: Unprotected Well		90	X	X	X	X	X	X	X	X	X	X	X	160	X					
BGM 050	KWAMDUMA	04: Unprotected Well		120	X	X	X	X	X	X	X	X	X			180	X					
BGM 049	KWAMSANJA	01: River/Stream/Pond/Dam		60	X	X	X	X	X	X	X	X	X	X	X	140	X					
BGM 017	FUKAYOSI	01: River/Stream/Pond/Dam		120		X	X	X	X	X	X					180	X					
BGM 014	KIDOMOLE	01: River/Stream/Pond/Dam		240			X	X	X	X	X					120	X					
BGM 018	KIWANGWA	04: Unprotected Well		90	X	X	X	X	X	X	X	X	X	X	X	160	X					
BGM 010	MASUGURU	01: River/Stream/Pond/Dam	Dam	90	X	X	X	X	X	X	X					180	X					
BGM 011	MKENGE	01: River/Stream/Pond/Dam	Dam	180	X	X	X	X	X	X	X	X	X	X	X	180						
BGM 009	MSINUNE	01: River/Stream/Pond/Dam	Dam	180			X	X	X	X	X	X				200	X					
BGM 043	DIOZILE	01: River/Stream/Pond/Dam		150	X	X	X	X	X	X	X	X	X	X	X	120	X					

**Village Inventory**  
**BAGAMOYO District - Basic Information of the Surveyed Villages (7/15)**

A-1 Serial Number	A-6 Name of Village/Mtaa	D-1		D-2 Specify for 10 Average Time (min)	D-3 Reliability												D-4 Average Amount (Litre)	D-5 Other Water Supply and Sanitation Intervention				
		Major Water Source			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		None	Agency	Period	Plan	
BGM 001	Magomeni	04: Unprotected Well		15-20	x	x	x	x	x	x	x	x	x	x	x	x	x	160				
BGM 002	Makurunge			150-300	x	x	x	x	x	x	x	x	x	x	x	x	x	120	x			
BGM 048	KIFULETA	04: Unprotected Well		90		x	x	x	x	x	x	x						200	x			
B GM 05	KWANG'ANDU	04: Unprotected Well		250	x	x	x	x	x	x	x							140	x			
BGM 033	KWARUHOMBO	04: Unprotected Well		60	x	x	x	x	x	x	x							160	x			
BGM 060	PONGWE KIONA	04: Unprotected Well		120		x	x	x	x	x	x	x						120	x			
BGM 056	KWEIKONJE	01: River/Stream/Pond/Dam		120		x	x	x	x	x	x	x						160	x			
BGM 053	MASIMBANI	01: River/Stream/Pond/Dam		120	x	x	x	x	x	x	x	x	x	x				180	x			
BGM 061	MIHUGA	01: River/Stream/Pond/Dam		120	x	x	x	x	x	x	x	x	x	x	x			120	x			
BGM 059	MANDA MAZINGA	01: River/Stream/Pond/Dam		120	x	x	x	x	x	x	x	x	x	x	x			140	x			
BGM 058	MATIPWILI	01: River/Stream/Pond/Dam		70	x	x	x	x	x	x	x	x	x	x	x			160	x			

**Village Inventory**  
**BAGAMOYO District - Basic Information of the Surveyed Villages (8/15)**

A-1 Serial Number	A-6 Name of Village/Mtaa	D-1		D-2 Average Time (min)	D-3												D-4 Average Amount (Litres)	D-5						
		Major Water Source	Specify for 10		Reliability													None	Agency	Period	Plan			
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec								
BGM 036	MKANGE	05: Protected Well		120	X	X	X	X	X	X	X	X	X	X	X	X	X	X	120	X				
BGM 052	SAADANI	04: Unprotected Well		45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	120	X				
BGM 038	PONGWE MSUN	01: River/Stream/Pond/Dam		240	X	X	X	X	X	X	X	X	X	X	X	X	X	X	160	X				
BGM 055	KISANGA	04: Unprotected Well		180	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140	X				
BGM 062	MALIVUNDO	01: River/Stream/Pond/Dam		120		X	X	X	X	X	X	X	X	X					120	X				
BGM 057	MINDUKENI	04: Unprotected Well		120	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140	X				
BGM 054	MSIGI	04: Unprotected Well		180		X	X	X	X	X	X	X	X						100	X				
BGM 035	TALAWANDA	01: River/Stream/Pond/Dam		120		X	X	X	X	X	X	X	X	X					140	X				
BGM 037	KALOLENI	01: River/Stream/Pond/Dam		60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140	X				
BGM 039	MATULI	01: River/Stream/Pond/Dam		120	X	X	X	X	X	X	X	X	X	X	X	X	X	X	160	X				
BGM 044	MWIDU	01: River/Stream/Pond/Dam		60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140	X				
BGM 047	TUKAMISASA	01: River/Stream/Pond/Dam		90	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140	X				
BGM 046	UBENAZOMOZI	01: River/Stream/Pond/Dam		120	X	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X				
BGM 045	VISAKAZI	01: River/Stream/Pond/Dam		90	X	X	X	X	X	X	X	X	X	X	X	X	X	X	240	X				
BGM 030	BUYUNI	01: River/Stream/Pond/Dam		180	X	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X				
BGM 026	KIDOGOZERO	01: River/Stream/Pond/Dam		120	X	X	X	X	X	X	X	X	X	X	X	X	X	X	180	X				

**Village Inventory**  
**BAGAMOYO District - Basic Information of the Surveyed Villages (9/15)**

A-1 Serial Number	A-6 Name of Village/Mtaa	D-1		D-2 Average Time (min)	D-3												D-4 Average Amount (Litre)	D-5									
		Major Water Source	Specify for 10		Reliability													None	Other Water Supply and Sanitation Intervention								
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			Agency	Period	Plan						
BGM 031	VIGWAZA	01: River/Stream/Pond/Dam		240				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	160	X			
BGM 029	WISEZI	01: River/Stream/Pond/Dam		240	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	180	X			
BGM 005	Yombo	04: Unprotected Well		30-60	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	120				City water
BGM 016	MAPINGA	08: City Water/DAWASA		120	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	160	X(CITY WATER)			
BGM 008	Dunda			10-25	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	180				Exist
BGM 019	BUMA	04: Unprotected Well		120	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	200	CITY WATER			
BGM 020	KIROMO	04: Unprotected Well		75	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X(CITY WATER)			CITY WATER FOR SOME AREA
BGM 021	MATAYA	04: Unprotected Well		160	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X(CITY WATER)			
BGM 042	KINZAGU	01: River/Stream/Pond/Dam		180	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140	X			
BGM 041	MAKOMBE	01: River/Stream/Pond/Dam		240	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X			
BGM 040	MINDUTULIENI	01: River/Stream/Pond/Dam		90	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	160	X			
BGM 027	RUVU DARAJANI	01: River/Stream/Pond/Dam		120	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	160	X			
BGM 003	Chasimba	04: Unprotected Well		60	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	140				City water
BGM 004	Kongo	08: City Water/DAWASA		30	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	160				City water



**Village Inventory**  
**BAGAMOYO District - Basic Information of the Surveyed Villages (10/15)**

A-1 Serial Number	A-6 Name of Village/Mtaa	D-1		D-2 Average Time (min)	D-3												D-4 Average Amount (Litre)	D-5						
		Major Water Source	Specify for 10		Reliability													Other Water Supply and Sanitation Intervention						
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		None	Agency	Period	Plan			
BGM 006	Matibwa	02: Unprotected Spring		60	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	180				City water
BGM 012	KEREGE	08: City Water/DAWASA		150	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	180	X(CITY WATER)			
BGM 023	KONDO	04: Unprotected Well		90	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	200				
BGM 013	KWAMATUMBI	04: Unprotected Well		60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	160	X(CITY WATER)			CITY WATER EXIST FOR SOME ARE	
BGM 022	MLINGOTINI	08: City Water/DAWASA		90	X	X	X	X	X	X	X	X	X	X	X	X	X	X	160	X(CITY WATER)			CITY WATER FOR SOME AREA	
BGM 015	PANDE	04: Unprotected Well		60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140	X(CITY WATER)			CITY WATER FOR SOME AREA	
BGM 024	ZINGA	04: Unprotected Well		90	X	X	X	X	X	X	X	X							240	X(CITY WATER)				

**Village Inventory**  
**BAGAMOYO District - Basic Information of the Surveyed Villages (11/15)**

A-1 Serial Number	A-6 Name of Village/Mtaa	E-1 (School)							E-2 (Health Facility 1)					
		Name of School	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet	No. of Teacher's House	Name of Health Facility (1)	Type of Health Facility	No of Bed	No of Outpatient	Type of Toilet	No. of Toilet
BGM 025	CHAMAKWEZA	CHAMAKWEZA	01: Primary	02: Daily	260	02: VIP	4	2						
		MBALA	01: Primary	02: Daily	318	02: VIP	4	0						
BGM 032	MDAULA	MDAULA	01: Primary	02: Daily	1169	02: VIP	12	1	MACCO	01: Dispensary	3	25	02: VIP	2
		MALUWI	01: Primary	02: Daily	72	02: VIP	2	0						
BGM 028	MSOLWA	MSOLWA	01: Primary	02: Daily	600	02: VIP	5	1						
		BOMANI	01: Primary	02: Daily	86	02: VIP	1	0						
BGM 007	KAOLE	Kaole	01: Primary	02: Daily	170	01: Traditional Pit	2	1						
		Bagamoyo	02: Secondary	Boarding, Daily	760	04: Flush to Septic Tank	62	21						
		Kaole	02: Secondary	Boarding, Daily	555	02: VIP	44	14						
BGM 034	KIBINDU	KIBINDU	01: Primary	02: Daily	672	02: VIP	8	3	KIBINDU	01: Dispensary	3	75	02: VIP	2
BGM 050	KWAMDUMA	KWAMDUMA 'A'	01: Primary	02: Daily	245	02: VIP	8	4	KWAMDUMA	01: Dispensary	4	45	02: VIP	2
		KWAMDUMA 'B'	01: Primary	02: Daily	48	02: VIP	2	1						
BGM 049	KWAMSANJA	KWAMSANJA	01: Primary	02: Daily	213	02: VIP	6	0						
BGM 017	FUKAYOSI	FUKAYOSI	01: Primary	02: Daily	420	02: VIP	11	3	FUKAYOSI	01: Dispensary	5	40	02: VIP	4
BGM 014	KIDOMOLE	KIDOMOLE	01: Primary	02: Daily	113	02: VIP	2	0						
BGM 018	KIWANGWA	KIWANGWA	01: Primary	02: Daily	1200	02: VIP	15	5	KIWANGWA	01: Dispensary	9	35	02: VIP	6
		MWAVI	01: Primary	02: Daily	584	02: VIP	8	4						
		BAGO	01: Primary	02: Daily	350	02: VIP	3	0						
		KIWANGWA	02: Secondary	01: Boarding	80	02: VIP	17	5						
BGM 010	MASUGURU	MASUGURU	01: Primary	01: Boarding	193	01: Traditional Pit	4	1	MASUGURU	01: Dispensary	2		02: VIP	4
		MWETEMO	01: Primary	01: Boarding	170	01: Traditional Pit	8	1						
BGM 011	MKENGE	MKENGE	01: Primary	02: Daily	225	01: Traditional Pit	4	0						
BGM 009	MSINUNE	MSINUNE	01: Primary	02: Daily	338	02: VIP	4	1						
BGM 043	DIOZILE	LUBAYA	01: Primary	02: Daily	276	02: VIP	10	2						

**Village Inventory**  
**BAGAMOYO District - Basic Information of the Surveyed Villages (12/15)**

A-1 Serial Number	A-6 Name of Village/Mtaa	E-1 (School)						E-2 (Health Facility 1)						
		Name of School	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet	No. of Teacher's House	Name of Health Facility (1)	Type of Health Facility	No of Bed	No of Outpatient	Type of Toilet	No. of Toilet
BGM 001	Magomeni	Kizwani	01: Primary	02: Daily	728	01: Traditional Pit	8	0	St. Elizabeth	02: Health Center	20	45	04: Flush to Septic Tan	13
		Nia Njema	01: Primary	02: Daily	940	02: VIP	8	0	(Under construction)					
		Majengo	01: Primary	02: Daily	1342	02: VIP	8	1						
		Kidogo Chekundu	01: Primary	02: Daily	179	02: VIP	4	0						
		Eppifan	01: Primary	Boarding, Daily	347	02: VIP	20	2						
BGM 002	Makurunge	Bigilo	01: Primary	02: Daily	172	Traditionalx2, VIPx2	4	2	Makurunge (to be open	01: Dispensary			02: VIP	2
		Razaba	01: Primary	02: Daily	44	01: Traditional Pit	2	0						
		Kitame	01: Primary	02: Daily	84	01: Traditional Pit	2	0						
BGM 048	KIFULETA	KIFULETA	01: Primary	02: Daily	237	02: VIP	4	1	KIFULETA	01: Dispensary	4	30	02: VIP	4
		KIKWAZU	01: Primary	02: Daily	67	02: VIP	2	0						
		CHANGALIKWA	01: Primary	02: Daily	319	02: VIP	4	3						
B GM 05	KWANG'ANDU	KWANG'ANDU	01: Primary	02: Daily	342	01: Traditional Pit	9	1	KWANG'ANDU	01: Dispensary	2	20	02: VIP	4
BGM 033	KWARUHOMBO	KWARUHOMBO	01: Primary	02: Daily	454	02: VIP	12	3	KWARUHOMBO	02: Health Center	10	85	02: VIP	2
BGM 060	PONGWE KIONA	PONGWEKIONA	01: Primary	02: Daily	523	02: VIP	6	2	PONGWE KIONA	01: Dispensary	5	50	02: VIP	2
BGM 056	KWEIKONJE	KWEIKONJE	01: Primary	02: Daily	252	02: VIP	6	1						
BGM 053	MASIMBANI	MASIMBANI	01: Primary	02: Daily	347	02: VIP	10	1						
BGM 061	MIHUGA	MIHUGA	01: Primary	02: Daily	424	02: VIP	4	1						
BGM 059	MANDA MAZINGA	MANDAMAZINGA	01: Primary	02: Daily	360	02: VIP	5	2						
BGM 058	MATIPWILI	MATIPWILI	01: Primary	02: Daily	457	02: VIP	8	2	MATIPWILI	01: Dispensary	4	30	02: VIP	2
		GONGO	01: Primary	02: Daily	156	02: VIP	4	0						

**Village Inventory**  
**BAGAMOYO District - Basic Information of the Surveyed Villages (13/15)**

A-1 Serial Number	A-6 Name of Village/Mtaa	E-1 (School)						E-2 (Health Facility 1)					
		Name of School	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet	No. of Teacher's House	Name of Health Facility (1)	Type of Health Facility	No of Bed	No of Outpatient	Type of Toilet
BGM 036	MKANGE	MKANGE JAVA	01: Primary 01: Primary	02: Daily 02: Daily	715 48	02: VIP 02: VIP	8 1	5 1	MKANGE	01: Dispensary	3 40	02: VIP	2
BGM 052	SAADANI	SAADANI SAADANI CHUMU	01: Primary 01: Primary	02: Daily 02: Daily	230 84	02: VIP 02: VIP	10 4	1 0	SAADANI	01: Dispensary	2 35	02: VIP	2
BGM 038	PONGWE MSUNU	PONGWE MSUNU	01: Primary	02: Daily	216	02: VIP	5	1					
BGM 055	KISANGA	KISANGA	01: Primary	02: Daily	169	02: VIP	3	0					
BGM 062	MALIVUNDO	MALIVUNDO	01: Primary	02: Daily	214	02: VIP	2	2					
BGM 057	MINDUKENI	MINDUKENI	01: Primary	02: Daily	290	02: VIP	6	0					
BGM 054	MSIGI	MSIGI	01: Primary	02: Daily	314	02: VIP	3	1					
BGM 035	TALAWANDA	TALAWANDA LUDINGA MSANGA	01: Primary 01: Primary 01: Primary	02: Daily 02: Daily 02: Daily	170 158 343	02: VIP 02: VIP 02: VIP	6 4 4	1 1 1	TALAWANDA	01: Dispensary	1 30	02: VIP	2
BGM 037	KALOLENI	KALOLENI LULENGE	01: Primary 01: Primary	02: Daily 02: Daily	346 213	02: VIP 02: VIP	4 2	3 1	HIGHLAND ESTATE	01: Dispensary	12	02: VIP	
BGM 039	MATULI	MATULI	01: Primary	02: Daily	455	02: VIP	6	2	MATULI	01: Dispensary	2 25	02: VIP	2
BGM 044	MWIDU	MGOGODO	01: Primary	02: Daily	245	02: VIP	6	1					
BGM 047	TUKAMISASA	TUKAMISASA MBUYU	01: Primary 01: Primary	02: Daily 02: Daily	507 119	02: VIP 02: VIP	5 2	2 1					
BGM 046	UBENAZOMOZI	TUKAMISASA	01: Primary	02: Daily	559	02: VIP	8	3					
BGM 045	VISAKAZI	UBENAZOMOZI BWAWANI	01: Primary 02: Secondary	02: Daily 01: Boarding	730 366	02: VIP 02: VIP	14 22	1 1	MAGEREZA	01: Dispensary	1 30	02: VIP	2
BGM 030	BUYUNI	BUYUNI	01: Primary	02: Daily	377	02: VIP	8	6					
BGM 026	KIDOGOZERO	KIDOGOSERO MILO	01: Primary 01: Primary	02: Daily 02: Daily	309 250	02: VIP 02: VIP	8 4	1 2	KIDOGOSERO	01: Dispensary	2 40	02: VIP	2

**Village Inventory**  
**BAGAMOYO District - Basic Information of the Surveyed Villages (14/15)**

A-1 Serial Number	A-6 Name of Village/Mtaa	E-1 (School)						E-2 (Health Facility 1)						
		Name of School	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet	No. of Teacher's House	Name of Health Facility (1)	Type of Health Facility	No of Bed	No of Outpatient	Type of Toilet	No. of Toilet
BGM 031	VIGWAZA	VIGWAZA	01: Primary	02: Daily	1335	02: VIP	18	7	VIGWAZA	01: Dispensary	3	60	02: VIP	4
BGM 029	WISEZI	WISEZI	01: Primary	02: Daily	354	02: VIP	12	1						
BGM 005	Yombo													
BGM 016	MAPINGA	MTAMBANI	01: Primary	02: Daily	602	02: VIP	10	1	MTAMBANI	01: Dispensary			02: VIP	4
BGM 008	Dunda	Mwambao	01: Primary	02: Daily	740	01: Traditional Pit	8	3	Bagamoyo Governmen	03: Hospital			03: Pour Flush	7
		Mwanamakuka	01: Primary	02: Daily	897	01: Traditional Pit	8	1	Huruma	01: Dispensary	2	45	02: VIP	4
		Mbaruku	01: Primary	02: Daily	194	01: Traditional Pit	2	0						
		Chuo cha sanaa	03: Tertiary	01: Boarding	75	01: Traditional Pit	12	3						
BGM 019	BUMA	BUMA	01: Primary	02: Daily	320	02: VIP	6	3						
BGM 020	KIROMO	KIROMO	01: Primary	02: Daily	534	02: VIP	10	4	NEEMA	01: Dispensary	3	35	02: VIP	4
BGM 021	MATAYA	MATAYA	01: Primary	02: Daily	230	02: VIP	10	5	MATAYA (NOT YET O	01: Dispensary			02: VIP	3
BGM 042	KINZAGU													
BGM 041	MAKOMBE	MAKOMBE	01: Primary	02: Daily	290	02: VIP	6	1						
BGM 040	MINDUTULIENI	MINDUTULIENI	01: Primary	02: Daily	202	02: VIP	6	3						
BGM 027	RUVU DARAJANI	RUVU DARAJANI	01: Primary	02: Daily	388	02: VIP	4	1						
BGM 003	Chasimba	Yombo	01: Primary	02: Daily	798	02: VIP	8	3	Yombo	01: Dispensary	1	52	02: VIP	2
BGM 004	Kongo	Kongo	01: Primary	02: Daily	485	01: Traditional Pit	1	2	Kongo	01: Dispensary	2	25	02: VIP	6

**Village Inventory**  
**BAGAMOYO District - Basic Information of the Surveyed Villages (15/15)**

A-1 Serial Number	A-6 Name of Village/Mtaa	E-1 (School)						E-2 (Health Facility 1)						
		Name of School	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet	No. of Teacher's House	Name of Health Facility (1)	Type of Health Facility	No of Bed	No of Outpatient	Type of Toilet	No. of Toilet
BGM 006	Matibwa	Miembe Saba	01: Primary	02: Daily	475	02: VIP	20	1						
BGM 012	KEREGE	MAPINGA	01: Primary	02: Daily	429	02: VIP	8	5	KEREGE	01: Dispensary	4	35	02: VIP	2
BGM 023	KONDO	KONDO	01: Primary	02: Daily	301	02: VIP	8							
BGM 013	KWAMATUMBI	KEREGE	01: Primary	02: Daily	433	02: VIP	10	1						
BGM 022	MLINGOTINI	MLINGOTINI	01: Primary	02: Daily	394	02: VIP	8	4	MLINGOTINI	01: Dispensary	8	30	02: VIP	2
BGM 015	PANDE	PANDE MBEGANI	01: Primary 01: Primary	02: Daily 02: Daily	282 173	02: VIP 02: VIP	6 4		MBEGANI	01: Dispensary	4	5	02: VIP	2
BGM 024	ZINGA	ZINGA	01: Primary	02: Daily	640	02: VIP	8	1	ZINGA	01: Dispensary	3	35	02: VIP	2







**Village Water Inventory  
BAGAMOYO District - Outline of Existing Water Supply Conditions (3/20)**

Serial Number	Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-3 No of Water Source	F-5 Type of Water Supply System	F-10 Type of Water Supply Facility								F-11 Year of Construction	F-12 Organiza-tion that constructed Facility	F-13 Number of Water Points	
			Water Source	Specify for 07 and 10			01: Lined with Concrete Ring	02: Bucket	03: Hand Pump	04: Windmill Pump	05: Motor Pump	06: Water Tank (Elevated)	07: Water Tank (Reserve)	08: Generator (Diesel)			09: Generator (Electricity)	10: Solar System
BGM 018	KIWANGWA	KIWANZI	04: Unprotected Well		2	01: Point	X								1-1974,1-2002	CENTRAL GOVT,UNDP		
BGM 018	KIWANGWA	KWAMBELA	04: Unprotected Well		1	01: Point	X											
BGM 018	KIWANGWA	KVAWEMA	04: Unprotected Well	WITH RING	1	01: Point	X								2004	WIPAHS		
BGM 018	KIWANGWA	MINAZI	04: Unprotected Well		2	01: Point	X											
BGM 018	KIWANGWA	MISANI	04: Unprotected Well		5	01: Point	X											
BGM 018	KIWANGWA	MWAVI 'A'	04: Unprotected Well		1	01: Point	X											
BGM 018	KIWANGWA	MWAVI 'B'	04: Unprotected Well		5	01: Point	X											
BGM 018	KIWANGWA	PIPANI	04: Unprotected Well		2	01: Point	X											
BGM 018	KIWANGWA	SENGASENGA	04: Unprotected Well		2	01: Point	X											
BGM 018	KIWANGWA	USHIRIKA	04: Unprotected Well	NO WATER SOURCE		04: Not Applicable	X											
BGM 018	KIWANGWA	VIGWAZA	04: Unprotected Well		5	01: Point	X											
BGM 018	KIWANGWA	ZONGOMELA	04: Unprotected Well		2	01: Point	X								1989-2000	FPTC CHURCH		
BGM 010	IMASUGURU	BONERE	01: River/Stream/Pond/Dam	RAIN WATER POND	1	04: Not Applicable	X											
BGM 010	IMASUGURU	BONERE	07: Water Vender	Misati Village (18km)	4	04: Not Applicable	X											
BGM 010	IMASUGURU	CHANGA	01: River/Stream/Pond/Dam	POND	1	04: Not Applicable	X											
BGM 010	IMASUGURU	CHANGA	07: Water Vender		5	04: Not Applicable	X											
BGM 010	IMASUGURU	MASUGURU	01: River/Stream/Pond/Dam	Dam	1	01: Point	X								1960-1961	CENTRAL GOVT, PWANI COLONIAL GOVT.		
BGM 010	IMASUGURU	MASUGURU	05: Protected Well		2	04: Not Applicable	X								1958	COLONIAL GOVT.		
BGM 010	IMASUGURU	MASUGURU	07: Water Vender	Dam	2	04: Not Applicable	X								1958	COLONIAL GOVT		
BGM 010	IMASUGURU	MWETEMO 'A'	01: River/Stream/Pond/Dam	Dam	1	04: Not Applicable	X											
BGM 010	IMASUGURU	MWETEMO 'A'	07: Water Vender	Misati Village (25km)	15	04: Not Applicable	X								1995	CENTRAL GOVT, COST		
BGM 010	IMASUGURU	MWETEMO 'B'	01: River/Stream/Pond/Dam	WATER POND	1	01: Point	X								1995	CENTRAL GOVT		
BGM 010	IMASUGURU	MWETEMO 'B'	05: Protected Well		1	04: Not Applicable	X								1955	COLONIAL GOVT		
BGM 010	IMASUGURU	MWETEMO 'B'	07: Water Vender		1	01: Point	X											
BGM 011	IKENGE	CHANGOMBE	01: River/Stream/Pond/Dam	SMALL DAM	1	04: Not Applicable	X											
BGM 011	IKENGE	CHANGOMBE	07: Water Vender		15	04: Not Applicable	X											
BGM 011	IKENGE	ENGALO	01: River/Stream/Pond/Dam	RAIN WATER POND	3	04: Not Applicable	X											
BGM 011	IKENGE	ENGALO	07: Water Vender		10	04: Not Applicable	X								1976	DISTRICT COUNCIL		
BGM 011	IKENGE	MGULANI	01: River/Stream/Pond/Dam	DAM	1	04: Not Applicable	X											
BGM 011	IKENGE	MGULANI	07: Water Vender		2	04: Not Applicable	X											
BGM 011	IKENGE	MKWAMA	01: River/Stream/Pond/Dam	RAIN WATER POND	1	04: Not Applicable	X											
BGM 011	IKENGE	MKWAMA	07: Water Vender		10	04: Not Applicable	X								1960, 1973	Colonial Govt, BAGOMOYO DISTR. COUNCIL		
BGM 009	MSINUINE	KALOLENI	05: Protected Well		2	01: Point	X											
BGM 009	MSINUINE	KALOLENI	07: Water Vender		1	04: Not Applicable	X											
BGM 009	MSINUINE	KWA MIKEZI	07: Water Vender		15	04: Not Applicable	X											
BGM 009	MSINUINE	LUDIGA	01: River/Stream/Pond/Dam		1	01: Point	X											
BGM 009	MSINUINE	LUDIGA	07: Water Vender		15	04: Not Applicable	X											
BGM 009	MSINUINE	MAGOGONI	01: River/Stream/Pond/Dam		4	04: Not Applicable	X											
BGM 009	MSINUINE	MAGOGONI	07: Water Vender	Dam	10	04: Not Applicable	X											
BGM 009	MSINUINE	MKINGU	01: River/Stream/Pond/Dam		Dam	04: Not Applicable	X								1984	CENTRAL GOVT, PWANI		
BGM 009	MSINUINE	MKINGU	05: Protected Well		2	01: Point	X								1972, 1984	LOCAL GOVT, AUTHORITY, BROHAN		
BGM 009	MSINUINE	MKINGU	07: Water Vender	DAM	15	04: Not Applicable	X											
BGM 043	DIOZILE	CHANGA	05: Protected Well		1	01: Point	X								1977	DISTRICT COUNCIL		
BGM 043	DIOZILE	CHANGA	09: Chalirize Scheme		1	03: Piped Network	X								1979	MAJI COAST		1
BGM 043	DIOZILE	KOROGOMBE	01: River/Stream/Pond/Dam	DAM	1	04: Not Applicable	X											
BGM 043	DIOZILE	KOROGOMBE	04: Unprotected Well		2	01: Point	X											
BGM 043	DIOZILE	LUBAYA	01: River/Stream/Pond/Dam	DAM	2	04: Not Applicable	X								1977	DISTRICT COUNCIL		
BGM 043	DIOZILE	LUBAYA	07: Water Vender	MBEMBA DAM	2	04: Not Applicable	X											
BGM 043	DIOZILE	MAKOLE	04: Unprotected Well	RAIN POND	1	01: Point	X											
BGM 043	DIOZILE	MAKOLE	07: Water Vender	MBEMBA DAM	5	04: Not Applicable	X											
BGM 043	DIOZILE	MAKOLE	05: Protected Well		1	01: Point	X											
BGM 043	DIOZILE	MNGEJA	04: Unprotected Well		1	01: Point	X								1977	DISTRICT COUNCIL		
BGM 043	DIOZILE	MNGEJA	07: Water Vender		5	04: Not Applicable	X											
BGM 001	Magomeni	Bogwa	04: Unprotected Well		4	01: Point	X											
BGM 001	Magomeni	Bogwa	07: Water Vender		5	04: Not Applicable	X											
BGM 001	Magomeni	Bogwa	08: City Water/DAM/WASA		1	03: Piped Network	X								1978	Commstock		3
BGM 001	Magomeni	Kimala Ngombe	04: Unprotected Well		6	01: Point	X											
BGM 001	Magomeni	Kimala Ngombe	05: Protected Well		1	01: Point	X											
BGM 001	Magomeni	Kisutu	04: Unprotected Well		4	01: Point	X								2003	Individual		





Village Water Inventory  
BAGAMOYO District - Outline of Existing Water Supply Conditions (6/20)

Serial Number	Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-3 No of Water Source	F-5 Type of Water Supply System	F-10 Type of Water Supply Facility										F-11 Year of Construction	F-12 Organized Facility that constructed	F-13 Number of Water Points	
			Water Source	Specify for 07 and 10			01: Lined with Concrete Ring	02: Bucket	03: Hand Pump	04: Windmill Pump	05: Motor Pump	06: Water Tank (Elevated)	07: Water Tank (Reserve)	08: Generator (Diesel)	09: Generator (Electricity)	10: Solar System			11: Others (Specify)	Public
BGM 056	KWEIKONJE	KWAMHANDO	05: Protected Well		1	101: Point			X							2002	DISTRICT COUNCIL			
BGM 056	KWEIKONJE	MTONI	01: River/Stream/Pond/Dam	RIVER	1	04: Not Applicable														
BGM 056	KWEIKONJE	MTONI	07: Water Vender	MIONO VILLAGE	2	04: Not Applicable														
BGM 056	KWEIKONJE	NGORONGORO	01: River/Stream/Pond/Dam	POND	1	04: Not Applicable														
BGM 053	MASIMBANI	KWEDIBAGO	01: River/Stream/Pond/Dam	NO WATER SOURCE	2	04: Not Applicable														
BGM 053	MASIMBANI	KWEDIGOTO 'A'		SMALL PONDS	04: Not Applicable															
BGM 053	MASIMBANI	KWEDIGOTO 'B'		NO WATER SOURCE	04: Not Applicable															
BGM 053	MASIMBANI	MABEGA 'A'		NO WATER SOURCE	04: Not Applicable															
BGM 053	MASIMBANI	MABEGA 'B'		NO WATER SOURCE	04: Not Applicable															
BGM 053	MASIMBANI	MICHUNGWANI		NO WATER SOURCE	04: Not Applicable															
BGM 053	MASIMBANI	MNAZIMMOJA	01: River/Stream/Pond/Dam	POND	1	04: Not Applicable														
BGM 053	MASIMBANI	MNAZIMMOJA	07: Water Vender		10	04: Not Applicable										1979	COMMUNITY WITH GOV'T SUPPORT			
BGM 061	MHUGA	DUNDA	01: River/Stream/Pond/Dam	NO WATER SOURCE	1	04: Not Applicable														
BGM 061	MHUGA	LUBUNGO	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 061	MHUGA	MACHALA 'A'	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 061	MHUGA	MACHALA 'B'		NO WATER SOURCE	04: Not Applicable															
BGM 061	MHUGA	MAEKANI		NO WATER SOURCE	04: Not Applicable															
BGM 061	MHUGA	MIFUGONI	02: Unprotected Spring		1	101: Point														
BGM 061	MHUGA	MHUGA 'B'	04: Unprotected Well		1	101: Point														
BGM 061	MHUGA	MHUGA 'A'	07: Water Vender		3	04: Not Applicable														
BGM 061	MHUGA	MKONGA	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 061	MHUGA	MKUNGUJI		NO WATER SOURCE	04: Not Applicable															
BGM 061	MHUGA	MSINUNE		NO WATER SOURCE	04: Not Applicable															
BGM 059	MANDA MAZINGARA	KIMTONGA	04: Unprotected Well		1	101: Point														
BGM 059	MANDA MAZINGARA	KIMTONGA	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 059	MANDA MAZINGARA	KITOAPINDI		NO WATER SOURCE	04: Not Applicable															
BGM 059	MANDA MAZINGARA	KITONGA	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 059	MANDA MAZINGARA	KWANAZIDI 'B'		NO WATER SOURCE	04: Not Applicable															
BGM 059	MANDA MAZINGARA	KWANAZIDI 'A'	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 059	MANDA MAZINGARA	KWEDIKANGA 'A'	04: Unprotected Well		1	101: Point														
BGM 059	MANDA MAZINGARA	KWEDIKANGA 'B'		NO WATER SOURCE	04: Not Applicable															
BGM 059	MANDA MAZINGARA	KWEDIKANGA 'C'	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 059	MANDA MAZINGARA	MANDA 'A'	04: Unprotected Well	POND	1	101: Point										1999	DISTRICT COUNCIL			
BGM 059	MANDA MAZINGARA	MANDA 'A'	05: Protected Well		1	101: Point										1978	DISTRICT COUNCIL			
BGM 059	MANDA MAZINGARA	MANDA 'B'		NO WATER SOURCE	04: Not Applicable															
BGM 059	MANDA MAZINGARA	ZIMBILLI	04: Unprotected Well		1	101: Point														
BGM 058	MATIPWILI	BIGA	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 058	MATIPWILI	BIGA	04: Unprotected Well		10	101: Point														
BGM 058	MATIPWILI	BIGA	04: Unprotected Well		3	01: Point														
BGM 058	MATIPWILI	GONGO	07: Water Vender	WAME RIVER (12KM)	6	04: Not Applicable														
BGM 058	MATIPWILI	GONGO	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 058	MATIPWILI	KISAUKE	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 058	MATIPWILI	MKUNGUJI	07: Water Vender		4	04: Not Applicable														
BGM 058	MATIPWILI	MKUNGUJI	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 058	MATIPWILI	MSIKITINI	07: Water Vender		3	04: Not Applicable														
BGM 058	MATIPWILI	MSIKITINI	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 058	MATIPWILI	MZAMBARAUNI	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 058	MATIPWILI	MZAMBARAUNI	07: Water Vender		3	04: Not Applicable														
BGM 058	MATIPWILI	TUMBLINI	04: Unprotected Well		3	01: Point														
BGM 058	MATIPWILI	TUMBLINI	07: Water Vender	WAME RIVER (12KM)	4	04: Not Applicable														
BGM 058	MATIPWILI	TUMBLINI	01: River/Stream/Pond/Dam	RIVER MUGAGI	1	04: Not Applicable														
BGM 058	MATIPWILI	JAVA		LUHANDE SUB-VILLAGE, MIONO VILLAGE (FOR DRINKING, 20KM)	6	04: Not Applicable														
BGM 036	MKANGE	KOMGAMA	07: Water Vender		1	101: Point														
BGM 036	MKANGE	KWAMALEMA	04: Unprotected Well		1	101: Point														
BGM 036	MKANGE	LUHANDE	04: Unprotected Well		1	101: Point														
BGM 036	MKANGE	LUHANDE	05: Protected Well		3	01: Point														
BGM 036	MKANGE	LUHANDE	07: Water Vender	MIONO VILLAGE	2	04: Not Applicable										1978, 1995, 2002	BAGAMOYO DIST. COUNCIL, WWF			
BGM 036	MKANGE	MAKOLE	04: Unprotected Well		1	101: Point														
BGM 036	MKANGE	MGODOLE		NO WATER SOURCE	04: Not Applicable															







**Village Water Inventory  
BAGAMOYO District - Outline of Existing Water Supply Conditions (10/20)**

Serial Number	Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-3 No of Water Source	F-5 Type of Water Supply System	F-10 Type of Water Supply Facility										F-11 Year of Construction	F-12 Organization that constructed Facility	F-13 Number of Water Points	
			Water Source	Specify for 07 and 10			01: Lined with Concrete Ring	02: Bucket	03: Hand Pump	04: Windmill Pump	05: Motor Pump	06: Water Tank (Elevated)	07: Water Tank (Reserve)	08: Generator (Diesel)	09: Generator (Electricity)	10: Solar System			11: Others (Specify)	Public
BGM 031	VIGWAZA	KIVUNGWI	04: Unprotected Well		4	01: Point														
BGM 031	VIGWAZA	KIVUNGWI	07: Water Vender		1	04: Not Applicable														
BGM 031	VIGWAZA	KIVAKISALI	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 031	VIGWAZA	KIVAKISALI	04: Unprotected Well	RAIN POND	4	01: Point														
BGM 031	VIGWAZA	KIVAKISALI	05: Protected Well		1	01: Point				X										
BGM 031	VIGWAZA	KIVAKISALI	07: Water Vender	MUSUA RIVER	1	04: Not Applicable									1997	DISTRICT COUNCIL				
BGM 031	VIGWAZA	KIVAMBOGO	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 031	VIGWAZA	KIVAMBOGO	05: Protected Well		1	01: Point	X										1976	DISTRICT COUNCIL		
BGM 031	VIGWAZA	KIVAMBOGO	07: Water Vender	MUSUA RIVER	1	04: Not Applicable														
BGM 031	VIGWAZA	KIVAMBOGO	04: Unprotected Well	RAIN POND	2	01: Point														
BGM 031	VIGWAZA	KIVAZOKA	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 031	VIGWAZA	KIVAZOKA	04: Unprotected Well	RAIN POND	2	01: Point				X										
BGM 031	VIGWAZA	KIVAZOKA	05: Protected Well		1	01: Point														
BGM 031	VIGWAZA	KIVAZOKA	07: Water Vender	MUSUA RIVER	1	04: Not Applicable														
BGM 031	VIGWAZA	LUSANZALA	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 031	VIGWAZA	LUSANZALA	04: Unprotected Well	RAIN POND	2	01: Point				X										
BGM 031	VIGWAZA	LUSANZALA	07: Water Vender	MUSUA RIVER	1	04: Not Applicable														
BGM 031	VIGWAZA	MININDI	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 031	VIGWAZA	MININDI	04: Unprotected Well		1	01: Point	X													
BGM 031	VIGWAZA	MININDI	07: Water Vender	MUSUA RIVER	1	04: Not Applicable														
BGM 031	VIGWAZA	SERENGETI	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 031	VIGWAZA	SERENGETI	05: Protected Well		1	01: Point				X					1976	DISTRICT COUNCIL				
BGM 031	VIGWAZA	SERENGETI	07: Water Vender	MUSUA RIVER	1	04: Not Applicable														
BGM 029	VISEZI	VISEZI KATI	01: River/Stream/Pond/Dam	RIVER MUSUA	1	04: Not Applicable														
BGM 029	VISEZI	VISEZI KATI	05: Protected Well		3	01: Point				X										
BGM 029	VISEZI	VISEZI KATI	07: Water Vender	MUSUA RIVER	1	04: Not Applicable											1989	DISTRICT COUNCIL		
BGM 029	VISEZI	CHANGEDERE	01: River/Stream/Pond/Dam		1	04: Not Applicable				X										
BGM 029	VISEZI	CHANGEDERE	07: Water Vender	MUSUA RIVER	1	04: Not Applicable														
BGM 029	VISEZI	KISOGO	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 029	VISEZI	KISOGO	07: Water Vender	MUSUA RIVER	6	04: Not Applicable														
BGM 029	VISEZI	LAMBONI	01: River/Stream/Pond/Dam	Dam	1	04: Not Applicable														
BGM 029	VISEZI	LAMBONI	01: River/Stream/Pond/Dam	RIVER	1	04: Not Applicable				X							1968	CABIMUTA		
BGM 029	VISEZI	LAMBONI	07: Water Vender	MUSUA RIVER	1	04: Not Applicable														
BGM 029	VISEZI	MSIGARA	01: River/Stream/Pond/Dam		1	04: Not Applicable														
BGM 029	VISEZI	MSIGARA	05: Protected Well		1	01: Point				X										
BGM 029	VISEZI	MSIGARA	07: Water Vender	MUSUA RIVER	1	04: Not Applicable														
BGM 005	Yombo	Chombe Juu	04: Unprotected Well		5	01: Point														
BGM 005	Yombo	Furwe	08: City Water/DAWASA		1	03: Piped Network				X					1978-79	Commstock		2		
BGM 005	Yombo	Goba Kisumbi	04: Unprotected Well		3	01: Point				X										
BGM 005	Yombo	Goba Kisumbi	08: City Water/DAWASA		1	03: Piped Network									1978	Commstock		2		
BGM 005	Yombo	Kiegeya	04: Unprotected Well		6	01: Point				X										
BGM 005	Yombo	Lwazi	04: Unprotected Well		1	01: Point														
BGM 005	Yombo	Magozza	04: Unprotected Well		2	01: Point														
BGM 005	Yombo	Magozza	08: City Water/DAWASA		1	03: Piped Network												3		
BGM 005	Yombo	Masogola	04: Unprotected Well		2	01: Point				X										
BGM 005	Yombo	Masogola	08: City Water/DAWASA		1	03: Piped Network												3		
BGM 005	Yombo	Ukwamani	04: Unprotected Well		4	01: Point				X										
BGM 005	Yombo	Ukwamani	08: City Water/DAWASA		1	03: Piped Network												3		
BGM 005	Yombo	Ushokalani	04: Unprotected Well		1	01: Point				X										
BGM 005	Yombo	Ushokalani	08: City Water/DAWASA		1	03: Piped Network				X								2		
BGM 005	Yombo	Yombo	04: Unprotected Well		5	01: Point				X										
BGM 005	Yombo	Yombo	08: City Water/DAWASA		1	03: Piped Network												3		
BGM 016	MAPINGA	CHAGWAHELA	04: Unprotected Well	RIVER POND	1	01: Point				X										
BGM 016	MAPINGA	KHALAKA	08: City Water/DAWASA		1	03: Piped Network				X					1978	DANIDA		4		
BGM 016	MAPINGA	KIMELE	05: Protected Well		1	01: Point				X					1986	SOMBEA FARMER		5 (ALL CLOSED)		
BGM 016	MAPINGA	KWAKIBOSHA	08: City Water/DAWASA		1	03: Piped Network				X					1978-1978	DANIDA		5		
BGM 016	MAPINGA	MTAMBANI	08: City Water/DAWASA		1	03: Piped Network				X					1978	MAJI COAST		5		
BGM 016	MAPINGA	UDINDIVU	08: City Water/DAWASA		1	03: Piped Network				X					1978	MAJI COAST		2		



**Village Water Inventory  
BAGAMOYO District - Outline of Existing Water Supply Conditions (1/1/20)**

Name of Village	Name of Sub-Village <small>(shaded in gray: excluded from the target area of the study)</small>	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use, but not Drinking	02: Salty	03: Muddy	04: Rusty	05: Rusty	Price
CHAMAKWEZA	IDARA YA MAJI	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially	NO WATER IN SEP-MAR	02: Supplying Water Seasonally	X					FREE	
CHAMAKWEZA	IDARA YA MAJI	07: Water Vender	DAM	02: Functioning Partially	GET DRY	02: Supplying Water Seasonally	X					150 20LT	
CHAMAKWEZA	MBALA	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally	X					FREE	
CHAMAKWEZA	MBALA	07: Water Vender	FROM PINGO VILLAGE (13KM)	02: Functioning Partially		01: Supplying Water through the Year	X					300-400 20LT	
CHAMAKWEZA	MJI MWEMA	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially	DAM GET DRY	02: Supplying Water Seasonally	X					FREE	
CHAMAKWEZA	MJI MWEMA	07: Water Vender	BUYING AT PINGO VILLAGE (8-9KM)	02: Functioning Partially		02: Supplying Water Seasonally	X					100-200 20LT	
CHAMAKWEZA	NIJAPANDA	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially	NO WATER IN SEP-MAR	02: Supplying Water Seasonally	X					FREE	
CHAMAKWEZA	NIJAPANDA	07: Water Vender	FROM PINGO VILLAGE	02: Functioning Partially		02: Supplying Water Seasonally	X					200-300 20LT	
MDAJULA	CCM	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially		02: Supplying Water Seasonally	X					FREE	
MDAJULA	CCM	10: Others	PIPED NETWORK	02: Functioning Partially	NOT WORKING	02: Supplying Water Seasonally	X					100 20LT	
MDAJULA	CCM	07: Water Vender	DAM	02: Functioning Partially			X					FREE	
MDAJULA	KIBEGETE	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially			X					200 20LT	
MDAJULA	KIBEGETE	07: Water Vender	DAM	02: Functioning Partially			X					FREE	
MDAJULA	KIDUMALE	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially			X					FREE	
MDAJULA	KIDUMALE	07: Water Vender	DAM	02: Functioning Partially			X					200 20LT	
MDAJULA	KIDUMALE	10: Others	PIPED NETWORK	02: Functioning Partially	NOT WORKING	NOT AVAILABLE	X					FREE	
MDAJULA	KIZOTA	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially			X					200 20LT	
MDAJULA	KUDIBONA	07: Water Vender	DAM	02: Functioning Partially			X					200 20LT	
MDAJULA	KUDIBONA	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially			X					200 20LT	
MDAJULA	KUDIBONA	07: Water Vender	DAM	02: Functioning Partially			X					200 20LT	
MDAJULA	KUDIBONA	10: Others	PIPED NETWORK	02: Functioning Partially	NOT WORKING	02: Supplying Water Seasonally	X					FREE	
MDAJULA	KUDIBULULU	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially			X					100 10LT	
MDAJULA	KUDIBULULU	07: Water Vender	PIPED NETWORK	02: Functioning Partially	NOT WORKING	03: No Supply throughout the Year	X					100 10LT	
MDAJULA	KUDIBULULU	10: Others	PIPED NETWORK	02: Functioning Partially	NOT WORKING	02: Supplying Water Seasonally	X					100 20LT	
MDAJULA	KUDIKULA	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially			X					100 20LT	
MDAJULA	KUDIKULA	07: Water Vender	DAM	02: Functioning Partially			X					FREE	
MDAJULA	KWAMATULA	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially			X					FREE	
MDAJULA	KWAMATULA	07: Water Vender	DAM	02: Functioning Partially			X					200 20LT	
MDAJULA	LUHANGA	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially			X					FREE	
MDAJULA	LUHANGA	07: Water Vender	DAM	02: Functioning Partially			X					200 20LT	
MDAJULA	MAKONDO	01: River/Stream/Pond/Dam	RAIN POND	02: Functioning Partially			X					FREE	
MDAJULA	MAKONDO	07: Water Vender	RAIN POND	02: Functioning Partially			X					FREE	
MDAJULA	MKALA	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially	NOT WORKING	02: Supplying Water Seasonally	X					FREE	
MDAJULA	MKALA	05: Protected Well	DAM	02: Functioning Partially		NEVER USED	X					FREE	
MDAJULA	MKABALANI	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially		MAR-SEP	X					200 20LT	
MDAJULA	MKABALANI	07: Water Vender	PIPED NETWORK	02: Functioning Partially	NOT WORKING	MAR-JUL	X					FREE	
MDAJULA	MKABALANI	10: Others	PIPED NETWORK	02: Functioning Partially	NOT WORKING	02: Supplying Water Seasonally	X					FREE	
MDAJULA	MTAMBANI	01: River/Stream/Pond/Dam	RAIN POND	02: Functioning Partially		02: Supplying Water Seasonally	X					FREE	
MDAJULA	MUANDU	01: River/Stream/Pond/Dam	ESTATE DAM	02: Functioning Partially			X					FREE	
MDAJULA	MUANDU	07: Water Vender	DAM	02: Functioning Partially			X					FREE	
MDAJULA	SANGASANGA	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially	NO WATER	03: No Supply throughout the Year	X					100 20LT	
MDAJULA	SANGASANGA	05: Protected Well	DAM	02: Functioning Partially			X					FREE	
MDAJULA	SANGASANGA	07: Water Vender	DAM	02: Functioning Partially			X					100 20LT	
MDAJULA	SHULENI	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially			X					FREE	
MDAJULA	SHULENI	07: Water Vender	DAM	02: Functioning Partially			X					100 20LT	
MDAJULA	SHULENI	10: Others	PIPED NETWORK	02: Functioning Partially	NOT WORKING	02: Supplying Water Seasonally	X					FREE	
MDAJULA	UWEJE	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially			X					100 20LT	
MSOLWA	CHANGOMBE	04: Unprotected Well	DAM	02: Functioning Partially		FEB-SEP	X					FREE	
MSOLWA	CHANGOMBE	07: Water Vender	DAM	02: Functioning Partially			X					100 20LT	
MSOLWA	CHAPUNDA	04: Unprotected Well	DAM	02: Functioning Partially		MAR-SEP	X					FREE	
MSOLWA	CHAPUNDA	05: Protected Well	DAM	02: Functioning Partially		03: No Supply throughout the Year	X					FREE	
MSOLWA	KWALE	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially	NOT WORKING		X					FREE	
MSOLWA	MAKONDO MIENGI	01: River/Stream/Pond/Dam	RIVER MBIKI	02: Functioning Partially		SEP-MAR	X					FREE	
MSOLWA	MAKONDO MIENGI	07: Water Vender	RAIN POND	02: Functioning Partially		SEP-MAR	X					FREE	
MSOLWA	MBENEKE	01: River/Stream/Pond/Dam	RAIN POND	02: Functioning Partially		SEP-MAR	X					FREE	
MSOLWA	MIGAMA	01: River/Stream/Pond/Dam	DAM	02: Functioning Partially		02: Supplying Water Seasonally	X					FREE	
MSOLWA	MIGAMA	07: Water Vender	DAM	02: Functioning Partially		IMAR-OCT	X					100 20LT	
MSOLWA	MLAWILA	01: River/Stream/Pond/Dam	RAIN POND	02: Functioning Partially		IMAR-SEP	X					FREE	
Kaole	Bondeni	04: Unprotected Well	DAM	01: All Functioning		01: Supplying Water through the Year	X					20 20lt	
Kaole	Bondeni	08: City Water/DAWASA	DAM	01: All Functioning		01: Supplying Water through the Year	X					20 20lt	
Kaole	Kaole Ufundi	05: Protected Well	DAM	01: All Functioning		01: Supplying Water through the Year	X					20 20lt	
Kaole	Madukani	08: City Water/DAWASA	DAM	02: Functioning Partially		01: Supplying Water through the Year	X					20 20lt	

**Village Water Inventory  
BAGAMOYO District - Outline of Existing Water Supply Conditions (12/20)**

Name of Village	Name of Sub-Village (shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use, but not Drinking	02: Salty	03: Muddy	04: Rusty	Price	Unit
Kaole	Maakani	07: Water Vender					01: Supplying Water through the Year					50-100 20lt	
Kaole	Mitimi	05: Protected Well					02: Supplying Water Seasonally						
Kaole	Mto Nyanza	01: River/Stream/Pond/Dam					02: Supplying Water Seasonally	Not Systematical				20 20lt	
Kaole	Shauri Moyo	08: City Water/DAWASA		02: Functioning Partially			01: Supplying Water through the Year					50-100 20lt	
Kaole	Ukuni	07: Water Vender					02: Supplying Water Seasonally	Mar-Oct					
Kaole	Ukuni	05: Protected Well		01: All Functioning			01: Supplying Water through the Year					20 20lt	
KIBINDU	CHAPUKU	08: City Water/DAWASA		02: Functioning Partially			01: Supplying Water through the Year					FREE	
KIBINDU	CHAPUKU	07: Water Vender					01: Supplying Water through the Year					500 20LT	
KIBINDU	KIKOMBA	04: Unprotected Well					02: Supplying Water Seasonally					FREE	
KIBINDU	KIKOMBA	05: Protected Well					01: Supplying Water through the Year					FREE	
KIBINDU	KWAIKONJE	01: River/Stream/Pond/Dam		02: Functioning Partially			01: Supplying Water through the Year					FREE	
KIBINDU	KWAIKONJE	04: Unprotected Well					02: Supplying Water Seasonally	JAN-SEP				FREE	
KIBINDU	MSE TE	04: Unprotected Well					01: Supplying Water through the Year					FREE	
KIBINDU	MSE TE	05: Protected Well		02: Functioning Partially			02: Supplying Water Seasonally	GENERATOR STOLEN				FREE	
KIBINDU	PERA	01: River/Stream/Pond/Dam					01: Supplying Water through the Year					FREE	
KIBINDU	PERA	04: Unprotected Well					02: Supplying Water Seasonally	MAR-SEP				FREE	
KWAMDUMA	GOLE	04: Unprotected Well					01: Supplying Water through the Year	MAR-AUG				500 20LT	
KWAMDUMA	GOLE	07: Water Vender					02: Supplying Water Seasonally	MAR-SEP					
KWAMDUMA	KWAKILUMBI	04: Unprotected Well					01: Supplying Water through the Year						
KWAMDUMA	KWAKILUMBI	05: Protected Well					02: Supplying Water Seasonally	MAR-SEP					
KWAMDUMA	KWAKILUMBI	07: Water Vender					03: No Supply throughout the Year					250 20LT	
KWAMDUMA	KWAVULI	04: Unprotected Well					01: Supplying Water through the Year						
KWAMDUMA	KWEDI YUWE	04: Unprotected Well					02: Supplying Water Seasonally	MAR-SEP					
KWAMDUMA	KWEDI YUWE	07: Water Vender					01: Supplying Water Seasonally	FEB-JUL				250 20LT	
KWAMDUMA	MJEMBE	04: Unprotected Well					02: Supplying Water Seasonally	MAR-AUG					
KWAMDUMA	MJEMBE	07: Water Vender					01: Supplying Water through the Year					350-500 20LT	
KWAMSANJA	KWEDITIMBE	01: River/Stream/Pond/Dam	RIVER, DAM				02: Supplying Water Seasonally	JAN-JUL/AUG					
KWAMSANJA	KWEDITIMBE	04: Unprotected Well					02: Supplying Water Seasonally	JAN-JUL					
KWAMSANJA	KWEDITIMBE	05: Protected Well					02: Supplying Water Seasonally	JAN-DEC		XDRY			
KWAMSANJA	MAGANGA	04: Unprotected Well					02: Supplying Water Seasonally	JAN-JUL					
KWAMSANJA	MAGANGA	05: Protected Well					03: No Supply throughout the Year	NO WATER					
KWAMSANJA	MAZINGARA	04: Unprotected Well					02: Supplying Water Seasonally	JAN-JUL				350-400 20LT	
KWAMSANJA	MAZINGARA	07: Water Vender					01: Supplying Water through the Year						
FUKAYOSI	FUKAYOSI	04: Unprotected Well					01: Supplying Water through the Year					FREE	
FUKAYOSI	KALIMENI	01: River/Stream/Pond/Dam	Small Pond				01: Supplying Water through the Year	Mar-Jul				FREE	
FUKAYOSI	KISELEGWA	01: River/Stream/Pond/Dam	Small Pond									FREE	
FUKAYOSI	KULWI	01: River/Stream/Pond/Dam	Small Pond									FREE	
FUKAYOSI	LUSAKO	01: River/Stream/Pond/Dam	Small Pond										
FUKAYOSI	MATAKUA 'A'	01: River/Stream/Pond/Dam	Small Pond				02: Supplying Water Seasonally	Mar-Oct				FREE	
FUKAYOSI	MATAKUA 'B'	01: River/Stream/Pond/Dam	Small Pond				02: Supplying Water Seasonally	Mar-Oct				FREE	
FUKAYOSI	MWANAMVULA	01: River/Stream/Pond/Dam	Small Pond				02: Supplying Water through the Year					FREE	
FUKAYOSI	UMASANI	01: River/Stream/Pond/Dam	Dam				03: Break Down					FREE	
FUKAYOSI	UMASANI	01: River/Stream/Pond/Dam	Dam				03: Break Down					10 20LT	
FUKAYOSI	UMASANI	05: Protected Well					03: Break Down					FREE	
FUKAYOSI	KINYEMVULU	01: River/Stream/Pond/Dam					01: Supplying Water through the Year					FREE	
KIDOMOLE	MWANASENGA	01: River/Stream/Pond/Dam					01: Supplying Water through the Year					FREE	
KIDOMOLE	RELINI	01: River/Stream/Pond/Dam					01: Supplying Water through the Year					FREE	
KIDOMOLE	RELINI	05: Protected Well					02: Supplying Water Seasonally	NO WATER IN DRYX				FREE	
KIDOMOLE	USIGWA	04: Unprotected Well					01: Supplying Water through the Year					FREE	
KIDOMOLE	VIHAGATA	01: River/Stream/Pond/Dam					01: Supplying Water through the Year					FREE	
KIWANGWA	BAGO 'A'	04: Unprotected Well					02: Supplying Water Seasonally	MAR-OCT				FREE	
KIWANGWA	BAGO 'A'	05: Protected Well					01: Supplying Water through the Year					FREE	
KIWANGWA	BAGO 'B'	04: Unprotected Well					01: Supplying Water through the Year					FREE	
KIWANGWA	KIBAONI	04: Unprotected Well					01: Supplying Water through the Year					FREE	
KIWANGWA	KIDIBAHA	04: Unprotected Well					02: Supplying Water Seasonally	MAR-OCT				FREE	
KIWANGWA	KIEMBENI	04: Unprotected Well					01: Supplying Water through the Year					FREE	
KIWANGWA	KIEMBENI	05: Protected Well										FREE	

**Village Water Inventory  
BAGAMOYO District - Outline of Existing Water Supply Conditions (13/20)**

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				F-17 Unit Price			
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use	02: Good for Domestic Use, but not Drinking	03: Muddy	04: Salty	05: Rusty	Price	Unit	
KIWANGWA	KIWANGWA	04: Unprotected Well					01: Supplying Water through the Year	X						FREE	
KIWANGWA	KWAMBELA	04: Unprotected Well					01: Supplying Water through the Year	X						FREE	
KIWANGWA	KWAVIEMA	04: Unprotected Well	WITH RING				02: Supplying Water Seasonally  MAR-JULY	X						FREE	
KIWANGWA	MINAZI	04: Unprotected Well					01: Supplying Water through the Year	X						FREE	
KIWANGWA	MISANI	04: Unprotected Well					02: Supplying Water Seasonally  MAR-OCT	X						FREE	
KIWANGWA	MWAVI 'A'	04: Unprotected Well					01: Supplying Water through the Year	X						FREE	
KIWANGWA	MWAVI 'B'	04: Unprotected Well					02: Supplying Water Seasonally  MAR-OCT	X						FREE	
KIWANGWA	PIPANI	04: Unprotected Well					01: Supplying Water through the Year	X						FREE	
KIWANGWA	SENGASENGA	04: Unprotected Well					01: Supplying Water through the Year	X						FREE	
KIWANGWA	USHIRIKA	NO WATER SOURCE						X						FREE	
KIWANGWA	VIGWAZA	04: Unprotected Well					01: Supplying Water through the Year	X						FREE	
KIWANGWA	ZONGOMELA	04: Unprotected Well					01: Supplying Water through the Year	X						FREE	
MASUGURU	BONERE	05: Protected Well	RAIN WATER POND				02: Supplying Water Seasonally  MAR-OCT	X						FREE	
MASUGURU	BONERE	01: River/Stream/Pond/Dam	Msati Village (18km)					X						300 20LT	
MASUGURU	CHANGA	07: Water Vender	POND					X						FREE	
MASUGURU	CHANGA	01: River/Stream/Pond/Dam						X						300 20LT	
MASUGURU	MASUGURU	07: Water Vender					01: Supplying Water through the Year	X						FREE	
MASUGURU	MASUGURU	05: Protected Well	Dam				01: Supplying Water Seasonally  MAR-SEP	X						FREE	
MASUGURU	MASUGURU	07: Water Vender	Dam				01: Supplying Water through the Year	X						300 20LT	
MASUGURU	MWETEMO 'A'	01: River/Stream/Pond/Dam	Dam					X						FREE	
MASUGURU	MWETEMO 'A'	07: Water Vender	Msati Village (25km)					X						300 20LT	
MASUGURU	MWETEMO 'B'	01: River/Stream/Pond/Dam	WATER POND					X						FREE	
MASUGURU	MWETEMO 'B'	05: Protected Well				NO WATER		X						FREE	
MASUGURU	MWETEMO 'B'	07: Water Vender					01: Supplying Water through the Year	X						300 20LT	
MKENGE	CHANGOMBE	01: River/Stream/Pond/Dam	SMALL DAM					X						FREE	
MKENGE	CHANGOMBE	07: Water Vender					01: Supplying Water through the Year	X						150-300 20LT	
MKENGE	ENGLO	01: River/Stream/Pond/Dam	RAIN WATER POND					X						FREE	
MKENGE	ENGLO	07: Water Vender					02: Supplying Water Seasonally  MAR-OCT	X						200-300 20LT	
MKENGE	MGULANI	07: Water Vender	DAM					X						FREE	
MKENGE	MWAVI	01: River/Stream/Pond/Dam					01: Supplying Water through the Year	X						150-300 20LT	
MKENGE	MWAVI	07: Water Vender	RAIN WATER POND				02: Supplying Water Seasonally  MAR-SEP	X						FREE	
MSINUENE	KALOLENI	05: Protected Well					01: Supplying Water through the Year	X						100-300 20LT	
MSINUENE	KALOLENI	07: Water Vender					02: Supplying Water Seasonally  Less water	X						FREE	
MSINUENE	KWA MIKEZI	07: Water Vender						X						300 20LT	
MSINUENE	LUDIGA	01: River/Stream/Pond/Dam						X						FREE	
MSINUENE	LUDIGA	07: Water Vender						X						300 20LT	
MSINUENE	MAGOGONI	01: River/Stream/Pond/Dam						X						FREE	
MSINUENE	MAGOGONI	07: Water Vender	Dam				02: Supplying Water Seasonally  Less water	X						300 20LT	
MSINUENE	MKINGU	01: River/Stream/Pond/Dam						X						FREE	
MSINUENE	MKINGU	05: Protected Well					02: Supplying Water Seasonally  Less water	X						FREE	
MSINUENE	MKINGU	07: Water Vender	DAM					X						300 20LT	
DIOZILE	CHANGA	05: Protected Well				HAND PUMP NOT WORKING	01: Supplying Water through the Year	X				X		30 20LT	
DIOZILE	CHANGA	09: Chalinze Scheme					01: Supplying Water through the Year	X				X		30 20LT	
DIOZILE	KOROGOMBE	01: River/Stream/Pond/Dam	DAM				01: Supplying Water through the Year	X				X		30 20LT	
DIOZILE	KOROGOMBE	04: Unprotected Well					02: Supplying Water Seasonally  RAIN SEASON	X						100 20LT	
DIOZILE	LUBAYA	01: River/Stream/Pond/Dam	DAM				01: Supplying Water through the Year	X						100 20LT	
DIOZILE	LUBAYA	07: Water Vender	MBEMBA DAM				02: Supplying Water Seasonally  FEB-JUN	X						200 20LT	
DIOZILE	MAKOLE	04: Unprotected Well	RAIN POND				01: Supplying Water through the Year	X						200 20LT	
DIOZILE	MAKOLE	07: Water Vender	MBEMBA DAM				02: Supplying Water Seasonally  MAR-JUL	X						100 20LT	
DIOZILE	MAKOLE	05: Protected Well					01: Supplying Water through the Year	X						200-300 20LT	
DIOZILE	MNGEJA	04: Unprotected Well					02: Supplying Water Seasonally	X						20 20LT	
DIOZILE	MNGEJA	07: Water Vender					01: Supplying Water through the Year	X						200 20LT	
Magomeni	Bogwa	04: Unprotected Well					01: Supplying Water through the Year	X						200-300 20LT	
Magomeni	Bogwa	07: Water Vender					02: Supplying Water Seasonally	X						20 20LT	
Magomeni	Bogwa	08: City Water/DAWASA					02: Supplying Water Seasonally	X						20 20LT	
Magomeni	Kimata Ng'ombe	04: Unprotected Well					02: Supplying Water Seasonally	X						20 20LT	
Magomeni	Kimata Ng'ombe	05: Protected Well					01: Supplying Water Seasonally	X						20 20LT	
Magomeni	Kisutu	04: Unprotected Well					01: Supplying Water through the Year	X						20 20LT	

**Village Water Inventory  
BAGAMOYO District - Outline of Existing Water Supply Conditions (14/20)**

Name of Village	F-1		F-2		F-14		F-15		F-16					F-17	
	Name of Sub-Village (shaded in gray: excluded from the target area of the study)	Water Source	Water Source	Functioning Condition	Condition	Specify for 02 and 03	Condition	Specify for 02	Water Quality	Price	Unit				
Magomeni	Kisutu	07: Water Vender							01: Good for Domestic Use	100-150	20lt				
Magomeni	Kisutu	08: City Water/DAWASA							02: Good for Domestic Use	?					
Magomeni	Magomeni 'A'	08: City Water/DAWASA							02: Good for Domestic Use	10	20lt				
Magomeni	Magomeni 'A'	07: Water Vender							02: Good for Domestic Use	100-150	20lt				
Magomeni	Magomeni 'B'	04: Unprotected Well							02: Good for Domestic Use						
Magomeni	Magomeni 'B'	08: City Water/DAWASA							02: Good for Domestic Use						
Magomeni	Magomeni 'B'	07: Water Vender							02: Good for Domestic Use						
Magomeni	Magomeni 'C'	04: Unprotected Well							02: Good for Domestic Use	10-20	20LT				
Magomeni	Magomeni 'C'	07: Water Vender							02: Good for Domestic Use						
Magomeni	Magomeni 'C'	08: City Water/DAWASA							02: Good for Domestic Use	150-100	20lt				
Magomeni	Maji Cost	04: Unprotected Well							02: Good for Domestic Use	Free					
Magomeni	Maji Cost	08: City Water/DAWASA							02: Good for Domestic Use	20	20lt				
Magomeni	Mianzini 'A'	04: Unprotected Well							02: Good for Domestic Use						
Magomeni	Mianzini 'A'	08: City Water/DAWASA							02: Good for Domestic Use	20	10lt				
Magomeni	Mianzini 'A'	07: Water Vender							02: Good for Domestic Use	100-200	20lt				
Magomeni	Mianzini 'B'	04: Unprotected Well							02: Good for Domestic Use						
Magomeni	Mianzini 'B'	05: Protected Well							02: Good for Domestic Use						
Magomeni	Mianzini 'B'	08: City Water/DAWASA							02: Good for Domestic Use	10	10lt				
Magomeni	Mianzini 'B'	07: Water Vender							02: Good for Domestic Use	100-150	20lt				
Magomeni	Mianzini 'B'	04: Unprotected Well							02: Good for Domestic Use						
Magomeni	Mji Mpya	04: Unprotected Well							02: Good for Domestic Use						
Magomeni	Mji Mpya	08: City Water/DAWASA							02: Good for Domestic Use	?					
Magomeni	Mji Mpya	07: Water Vender							02: Good for Domestic Use	100-150	20lt				
Magomeni	Mwembe Mkole	04: Unprotected Well							02: Good for Domestic Use						
Magomeni	Mwembe Mkole	08: City Water/DAWASA							02: Good for Domestic Use	20	20lt				
Magomeni	Mwembe Mkole	07: Water Vender							02: Good for Domestic Use	100-200	20lt				
Magomeni	Nia Njema 'A'	04: Unprotected Well							02: Good for Domestic Use						
Magomeni	Nia Njema 'A'	07: Water Vender							02: Good for Domestic Use	20	20LT				
Magomeni	Nia Njema 'A'	08: City Water/DAWASA							02: Good for Domestic Use	20	20LT				
Magomeni	Nia Njema 'A'	05: Protected Well							02: Good for Domestic Use						
Magomeni	Nia Njema 'B'	07: Water Vender							02: Good for Domestic Use	100-200	20lt				
Magomeni	Nia Njema 'C'	04: Unprotected Well							02: Good for Domestic Use						
Magomeni	Nia Njema 'C'	05: Protected Well							02: Good for Domestic Use						
Magomeni	Nia Njema 'C'	08: City Water/DAWASA							02: Good for Domestic Use						
Magomeni	Nia Njema 'C'	07: Water Vender							02: Good for Domestic Use	100-500	20lt				
Magomeni	Sanzale	01: River/Stream/Pond/Dam							02: Good for Domestic Use						
Magomeni	Sanzale	04: Unprotected Well							02: Good for Domestic Use						
Magomeni	Sanzale	05: Protected Well							02: Good for Domestic Use						
Magomeni	Sanzale	08: City Water/DAWASA							02: Good for Domestic Use	10	10lt				
Magurunge	Geza Ulole	07: Water Vender							02: Good for Domestic Use						
Magurunge	Kibaoni	07: Water Vender							02: Good for Domestic Use	200-300	20lt				
Magurunge	Kifude	07: Water Vender							02: Good for Domestic Use	200-300	20lt				
Magurunge	Kitame	01: River/Stream/Pond/Dam							02: Good for Domestic Use						
Magurunge	Kitame	07: Water Vender							02: Good for Domestic Use	300	20lt				
Magurunge	Mkwatuni	07: Water Vender							02: Good for Domestic Use	200-300	20lt				
Magurunge	Mtoni	01: River/Stream/Pond/Dam							02: Good for Domestic Use						
Magurunge	Mtoni	07: Water Vender							02: Good for Domestic Use	300	20lt				
Magurunge	Razaba	01: River/Stream/Pond/Dam							02: Good for Domestic Use						
Magurunge	Razaba	07: Water Vender							02: Good for Domestic Use	200-300	20lt				
KIFULETA	CHANGALIKWA	04: Unprotected Well							02: Good for Domestic Use						
KIFULETA	CHANGALIKWA	05: Protected Well							02: Good for Domestic Use						
KIFULETA	CHANGALIKWA	07: Water Vender							02: Good for Domestic Use						
KIFULETA	KIFULETA	04: Unprotected Well							02: Good for Domestic Use	250	20LT				
KIFULETA	KIFULETA	01: River/Stream/Pond/Dam							02: Good for Domestic Use						
KIFULETA	KIFULETA	05: Protected Well							02: Good for Domestic Use						
KIFULETA	KIFULETA	07: Water Vender							02: Good for Domestic Use						
KIFULETA	KIKWAZU	01: River/Stream/Pond/Dam							02: Good for Domestic Use						
KIFULETA	KIKWAZU	04: Unprotected Well							02: Good for Domestic Use	250	20LT				
KIFULETA	KIKWAZU	07: Water Vender							02: Good for Domestic Use						
KIFULETA	KIKWAZU	01: River/Stream/Pond/Dam							02: Good for Domestic Use						
KIFULETA	KIKWAZU	04: Unprotected Well							02: Good for Domestic Use	250	20LT				
KIFULETA	KIKWAZU	07: Water Vender							02: Good for Domestic Use						

**Village Water Inventory  
BAGAMOYO District - Outline of Existing Water Supply Conditions (15/20)**

Name of Village	F-1 Name of Sub-Village (shaded in gray: excluded from the target area of the study)		F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				F-17 Unit Price		
			Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use, but not Drinking	02: Good for Domestic Use	03: Muddy	04: Salty	05: Rusty	Price	Unit
KWANG'ANDU	KOMTONGA	04: Unprotected Well					01: Supplying Water through the Year	X						200	20LT
KWANG'ANDU	KOMTONGA	07: Water Vender					01: Supplying Water through the Year	X							
KWANG'ANDU	KWAMWIGWA	04: Unprotected Well					01: Supplying Water through the Year	X						300	20LT
KWANG'ANDU	KWAMWIGWA	07: Water Vender					01: Supplying Water through the Year	X						250	20LT
KWANG'ANDU	MSUMBIJI	07: Water Vender					02: Supplying Water Seasonally	X							
KWANG'ANDU	NTAMBALA	04: Unprotected Well					01: Supplying Water through the Year	X							
KWANG'ANDU	NUNG'ULI	04: Unprotected Well					01: Supplying Water through the Year	X							
KWANG'ANDU	NUNG'ULI	07: Water Vender					02: Supplying Water Seasonally	X						300	20LT
KWANG'ANDU	POZZO	04: Unprotected Well					01: Supplying Water through the Year	X						300	20LT
KWANG'ANDU	POZZO	07: Water Vender					02: Supplying Water Seasonally	X							
KWANG'ANDU	STOONI	04: Unprotected Well					01: Supplying Water through the Year	X							
KWANG'ANDU	STOONI	05: Protected Well					02: Supplying Water Seasonally	X							
KWANG'ANDU	STOONI	04: Unprotected Well					01: Supplying Water through the Year	X							
KWANG'ANDU	STOONI	01: River/Stream/Pond/Dam					02: Supplying Water Seasonally	X							
KWANG'ANDU	STOONI	07: Water Vender					01: Supplying Water through the Year	X						200	20LT
KWARUHOMBO	JAILA	07: Water Vender					01: Supplying Water through the Year	X						250	20LT
KWARUHOMBO	KILANGA WAGANI	05: Protected Well					01: Supplying Water through the Year	X						FREE	
KWARUHOMBO	KILANGA WAGANI	07: Water Vender					01: Supplying Water through the Year	X						200	20LT
KWARUHOMBO	KILANGA WAGANI	06: Borehole				02: Functioning Partially	NOT WORKING							FREE	
KWARUHOMBO	LUHANGA	04: Unprotected Well					01: Supplying Water through the Year	X						FREE	
KWARUHOMBO	LUHANGA	07: Water Vender					01: Supplying Water through the Year	X						350-300	20LT
KWARUHOMBO	MAMISU	07: Water Vender					01: Supplying Water through the Year	X						250	20LT
KWARUHOMBO	TURIANI	04: Unprotected Well					01: Supplying Water through the Year	X						100	20LT
KWARUHOMBO	TURIANI	07: Water Vender					01: Supplying Water through the Year	X						FREE	
KWARUHOMBO	TURIANI	06: Borehole				02: Functioning Partially	NOT WORKING: MACHINE WAS							FREE	
KWARUHOMBO	VUGA	07: Water Vender					01: Supplying Water through the Year	X						250	20LT
PONGWEKIONA	KILIMANG'INDU	04: Unprotected Well					02: Supplying Water Seasonally		X	XDRY					
PONGWEKIONA	KILIMANG'INDU	07: Water Vender					01: Supplying Water through the Year	X						300	20LT
PONGWEKIONA	KOMSALA	07: Water Vender					02: Supplying Water Seasonally		X					300	20LT
PONGWEKIONA	KOUSUNGU	07: Water Vender					01: Supplying Water through the Year	X						300	20LT
PONGWEKIONA	KWASAMNONGA	05: Protected Well					01: Supplying Water through the Year	X							
PONGWEKIONA	KWEDIGONGO	07: Water Vender					03: No Supply throughout the Year	NEVER USED						300	20LT
PONGWEKIONA	KWEDIGONGO	04: Unprotected Well					02: Supplying Water Seasonally		X						
PONGWEKIONA	KWEDIGONGO	07: River/Stream/Pond/Dam					03: No Supply throughout the Year	NOT USED							
PONGWEKIONA	KWEDIGONGO	07: Water Vender					01: Supplying Water through the Year	X						300	20LT
PONGWEKIONA	KWEDIKUIJ 'A	04: Unprotected Well					02: Supplying Water Seasonally		X						
PONGWEKIONA	KWEDIKUIJ 'A	05: Protected Well					01: Supplying Water through the Year	X							
PONGWEKIONA	KWEDIKUIJ 'A	07: Water Vender					03: No Supply throughout the Year		X					300	20LT
PONGWEKIONA	KWEDIKUIJ 'B	04: Unprotected Well					01: Supplying Water through the Year	X							
PONGWEKIONA	KWEDIKUIJ 'B	07: River/Stream/Pond/Dam					02: Supplying Water Seasonally		X						
PONGWEKIONA	KWEDIKUIJ 'B	07: Water Vender					01: Supplying Water through the Year	X						300	20LT
PONGWEKIONA	KWEDILONGA	04: Unprotected Well					02: Supplying Water Seasonally		X						
PONGWEKIONA	KWEDILONGA	07: Water Vender					01: Supplying Water through the Year	X						300	20LT
PONGWEKIONA	KWEDILONGA	07: Water Vender					01: Supplying Water through the Year	X						300	20LT
PONGWEKIONA	MAKITANO	07: Water Vender					02: Supplying Water Seasonally		X						
PONGWEKIONA	MAZIMUNYU	05: Protected Well					01: Supplying Water through the Year	X						300	20LT
PONGWEKIONA	MAZIMUNYU	07: Water Vender					02: Supplying Water Seasonally		X						
PONGWEKIONA	MPAJUMUNGU	04: Unprotected Well					01: Supplying Water through the Year	X							
PONGWEKIONA	MPAJUMUNGU	07: Water Vender					02: Supplying Water Seasonally		X					300	20LT
PONGWEKIONA	MPAKANI 'A	07: Water Vender					01: Supplying Water through the Year	X						300	20LT
PONGWEKIONA	MPAKANI 'B	04: Unprotected Well					02: Supplying Water Seasonally		X						
PONGWEKIONA	MPAKANI 'B	07: Water Vender					01: Supplying Water through the Year	X						300	20LT
PONGWEKIONA	MSETE	04: Unprotected Well					02: Supplying Water Seasonally		X						
PONGWEKIONA	MSETE	07: Water Vender					01: Supplying Water through the Year	X						300	20LT
PONGWEKIONA	MSETE	05: Protected Well					02: Supplying Water Seasonally		X						
PONGWEKIONA	TENGENI	04: Unprotected Well					01: Supplying Water through the Year	X							
PONGWEKIONA	TENGENI	07: Water Vender					02: Supplying Water Seasonally		X					300	20LT
PONGWEKIONA	WAMI RIVER						01: Supplying Water through the Year	X							
PONGWEKIONA	KWAMAGANGA	04: Unprotected Well					02: Supplying Water Seasonally		X						
KWEIKONJE	KWAMHANDO	01: River/Stream/Pond/Dam					02: Supplying Water Seasonally		X						
KWEIKONJE	KWAMHANDO	07: Water Vender					01: Supplying Water through the Year	X						250-400	20LT
KWEIKONJE									X						

**Village Water Inventory  
BAGAMOYO District - Outline of Existing Water Supply Conditions (16/20)**

Name of Village	F-1		F-2		F-14		F-15		F-16				F-17	
	Name of Sub-Village (shaded in gray: excluded from the target area of the study)	Water Source	Water Source	Functioning Condition	Condition	Specify for 02 and 03	Supply Condition	Condition	Specify for 02	Water Quality	Price	Unit Price		
KWEIKONJE	KWAMHANDO	05: Protected Well		02: Functioning Partially	LESS WATER		02: Supplying Water Seasonally	MAR-OCT		X				
KWEIKONJE	MTONI	01: River/Stream/Pond/Dam	RIVER				01: Supplying Water through the Year			XRAIN	XDRY			
KWEIKONJE	MTONI	07: Water Vender	MIONO VILLAGE				01: Supplying Water through the Year			X		400 20LT		
KWEIKONJE	NGORONGORO	01: River/Stream/Pond/Dam	POND				02: Supplying Water Seasonally	MAR-JUN		X				
MASIBANI	KWEDIBAGO		NO WATER SOURCE				02: Supplying Water Seasonally	FEB-AUG		X				
MASIBANI	KWEDIGOTO 'A'		SMALL PONDS											
MASIBANI	KWEDIGOTO 'B'		NO WATER SOURCE											
MASIBANI	WABEGA 'A'		NO WATER SOURCE											
MASIBANI	WABEGA 'B'		NO WATER SOURCE											
MASIBANI	MICHUNGWANI		NO WATER SOURCE											
MASIBANI	MNAZIMMOJA	01: River/Stream/Pond/Dam	POND				02: Supplying Water Seasonally	JAN-AUG		X				
MASIBANI	MNAZIMMOJA	07: Water Vender					01: Supplying Water through the Year			X		200-300 20LT		
MASIBANI	MTUPENI		NO WATER SOURCE											
MIHUGA	DUNDA	01: River/Stream/Pond/Dam					01: Supplying Water through the Year							
MIHUGA	LUBUNGO	01: River/Stream/Pond/Dam					02: Supplying Water Seasonally	FEB-NOV		X				
MIHUGA	MACHALA 'A'	01: River/Stream/Pond/Dam					01: Supplying Water through the Year			X				
MIHUGA	MACHALA 'B'		NO WATER SOURCE											
MIHUGA	MAEKANI		NO WATER SOURCE											
MIHUGA	MIFUGONI	02: Unprotected Spring					02: Supplying Water Seasonally	FEB-AUG		X				
MIHUGA	MIHUGA 'B'	04: Unprotected Well					02: Supplying Water Seasonally	MAR-SEP		X				
MIHUGA	MIHUNGA 'A'	07: Water Vender					01: Supplying Water through the Year			X		300 20LT		
MIHUGA	MKONGA	01: River/Stream/Pond/Dam												
MIHUGA	MKUNGLINI		NO WATER SOURCE				01: Supplying Water through the Year			X				
MIHUGA	MSINUNE		NO WATER SOURCE											
MANDA MAZINGARA	KIMTONGA	04: Unprotected Well					02: Supplying Water Seasonally	MAR-JUL						
MANDA MAZINGARA	KIMTONGA	01: River/Stream/Pond/Dam					01: Supplying Water through the Year			XRAIN	XDRY			
MANDA MAZINGARA	KITOAPINDI		NO WATER SOURCE											
MANDA MAZINGARA	KITONGA	01: River/Stream/Pond/Dam					01: Supplying Water through the Year			XRAIN	XDRY			
MANDA MAZINGARA	KWANAZIDI 'B'		NO WATER SOURCE											
MANDA MAZINGARA	KWANAZIDI 'A'	01: River/Stream/Pond/Dam					01: Supplying Water through the Year			XRAIN	XDRY			
MANDA MAZINGARA	KWEDIKANGA 'A'	04: Unprotected Well					01: Supplying Water through the Year			XRAIN	XDRY			
MANDA MAZINGARA	KWEDIKANGA 'B'		NO WATER SOURCE				01: Supplying Water through the Year			XRAIN	XDRY			
MANDA MAZINGARA	KWEDIKANGA 'C'	01: River/Stream/Pond/Dam												
MANDA MAZINGARA	MANDA 'A'	04: Unprotected Well	POND				01: Supplying Water through the Year			XRAIN	XDRY			
MANDA MAZINGARA	MANDA 'A'	05: Protected Well					02: Supplying Water Seasonally			X				
MANDA MAZINGARA	MANDA 'B'		NO WATER SOURCE				01: Supplying Water through the Year							
MANDA MAZINGARA	ZIMBILI	04: Unprotected Well					02: Supplying Water Seasonally	LESS WATER		X				
MATIPWILI	BIGA	01: River/Stream/Pond/Dam					01: Supplying Water through the Year			X				
MATIPWILI	BIGA	04: Unprotected Well					02: Supplying Water Seasonally	JAN-OCT		X				
MATIPWILI	GONGO	04: Unprotected Well					02: Supplying Water Seasonally	FEB-OCT		X				
MATIPWILI	GONGO	07: Water Vender	WAME RIVER (12KM)				01: Supplying Water through the Year			X		300 20LT		
MATIPWILI	KISAUKE	01: River/Stream/Pond/Dam					01: Supplying Water through the Year			X				
MATIPWILI	MKUNGLINI	01: River/Stream/Pond/Dam					01: Supplying Water through the Year			X				
MATIPWILI	MKUNGLINI	07: Water Vender					01: Supplying Water through the Year			X		100 20LT		
MATIPWILI	MSKITINI	01: River/Stream/Pond/Dam					01: Supplying Water through the Year			X				
MATIPWILI	MSKITINI	07: Water Vender					01: Supplying Water through the Year			X		100 20LT		
MATIPWILI	MZAMBARAUNI	01: River/Stream/Pond/Dam					01: Supplying Water through the Year			X				
MATIPWILI	MZAMBARAUNI	07: Water Vender					01: Supplying Water through the Year			X		100 20LT		
MATIPWILI	TUMBILINI	04: Unprotected Well					02: Supplying Water Seasonally	MAR-OCT		X				
MATIPWILI	TUMBILINI	07: Water Vender	WAME RIVER (12KM)				01: Supplying Water through the Year			X		200 20LT		
MKANGE	JAVA	01: River/Stream/Pond/Dam	RIVER MLIIGAGI				01: Supplying Water through the Year			X		FREE		
MKANGE	KOMGAMA	07: Water Vender	LUHANDE SUB-VILLAGE, MIONO VILLAGE (FOR DRINKING, 20KM)				01: Supplying Water through the Year			X	X 800(DRINKING) 20LT			
MKANGE	KWAMALEMA	04: Unprotected Well					01: Supplying Water through the Year			X		FREE		
MKANGE	LUHANDE	04: Unprotected Well					01: Supplying Water through the Year			X		FREE		
MKANGE	LUHANDE	05: Protected Well				Break DownX1, ALL FUNCTIONINGx2	01: Supplying Water through the Year			X		300 20LT		
MKANGE	LUHANDE	07: Water Vender	MIONO VILLAGE				01: Supplying Water through the Year			X		FREE		
MKANGE	MAKOLE	04: Unprotected Well					01: Supplying Water through the Year			X		FREE		
MKANGE	MGODOLE		NO WATER SOURCE											

**Village Water Inventory  
BAGAMOYO District - Outline of Existing Water Supply Conditions (17/20)**

Name of Village	Name of Sub-Village (shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use, but not Drinking	02: Good for Domestic Use, but not Drinking	03: Muddy	04: Salty	05: Rusty	Price
MKANGE	SHAURI MOYO 'A'	07: Water Vender	LUHANDE SUB-VILLAGE, MIONO VILLAGE (FOR DRINKING, 21KM)			01: Supplying Water through the Year	XRAIN	XDRY(DRINKING)				20LT	
MKANGE	SHAURI MOYO 'B'	07: Water Vender	LUHANDE SUB VILLAGE			01: Supplying Water through the Year	X	X 300(DRINKING)				20LT	
MKANGE	SHULENI		NO WATER SOURCE	01: All Functioning									
SAADANI	BOMANI	05: Protected Well				01: Supplying Water through the Year	X					50 20LT	
SAADANI	BOMANI	04: Unprotected Well				01: Supplying Water through the Year	X					50 20LT	
SAADANI	CCM	07: Water Vender				01: Supplying Water through the Year	X						
SAADANI	MAKUPANI		NO WATER SOURCE										
SAADANI	MBUYUNI	07: Water Vender				01: Supplying Water through the Year	X					50 20LT	
SAADANI	MBWEBWE	02: Unprotected Spring				01: Supplying Water through the Year	X						
SAADANI	MBWEBWE	05: Protected Well				03: No Supply throughout the Year	X						
SAADANI	PWANI	05: Protected Well				01: Supplying Water through the Year	X					50 20LT	
SAADANI	PWANI	07: Water Vender				01: Supplying Water through the Year	X						
SAADANI	TIMBA	01: River/Stream/Pond/Dam	RAIN POND			02: Supplying Water Seasonally	X					300 20LT	
SAADANI	TIMBA	07: Water Vender				01: Supplying Water through the Year	X						
SAADANI	UVINJE	04: Unprotected Well				02: Supplying Water Seasonally	X						
PONGWE MSUNGUR	MIEMBE SABA	01: River/Stream/Pond/Dam	DAM			01: Supplying Water through the Year	X						
PONGWE MSUNGUR	MIEMBE SABA	04: Unprotected Well				02: Supplying Water Seasonally	X						
PONGWE MSUNGUR	MUKUYU	01: River/Stream/Pond/Dam				01: Supplying Water through the Year	X						
PONGWE MSUNGUR	MUKUYU	04: Unprotected Well				02: Supplying Water through the Year	X						
PONGWE MSUNGUR	MSWELEZI	01: River/Stream/Pond/Dam				01: Supplying Water through the Year	X						
PONGWE MSUNGUR	MSWELEZI	04: Unprotected Well				02: Supplying Water Seasonally	X						
PONGWE MSUNGUR	TOBORA	01: River/Stream/Pond/Dam				01: Supplying Water through the Year	X						
PONGWE MSUNGUR	TOBORA	04: Unprotected Well				02: Supplying Water Seasonally	X						
KISANGA	KIPERA	07: Water Vender	LUGOBA VILLAGE (15KM)			01: Supplying Water through the Year	X					500 20LT	
KISANGA	KISANGA	04: Unprotected Well				01: Supplying Water through the Year	XRAIN	XDRY					
KISANGA	KISANGA	07: Water Vender				01: Supplying Water through the Year	X					500 20LT	
KISANGA	KISANGA	01: River/Stream/Pond/Dam	POND			02: Supplying Water Seasonally	X						
MALIVUNDO	BONDENI	01: River/Stream/Pond/Dam				02: Supplying Water Seasonally	X						
MALIVUNDO	KUDIMOZE		NO WATER SOURCE										
MALIVUNDO	MLIMANI		NO WATER SOURCE										
MALIVUNDO	MNYEMBELE	07: Water Vender	CHALINZE WATER SCHEME (8KM), VENDER WITH TANK			01: Supplying Water through the Year	X						
MALIVUNDO	SOFI	01: River/Stream/Pond/Dam	POND			02: Supplying Water Seasonally	X						
MINDUKENI	BANE		NO WATER SOURCE										
MINDUKENI	KIDAI	04: Unprotected Well				01: Supplying Water through the Year	XRAIN	XDRY					
MINDUKENI	KUDIGONGO	04: Unprotected Well				01: Supplying Water through the Year	XRAIN	XDRY					
MINDUKENI	KUDIKULWI	01: River/Stream/Pond/Dam				02: Supplying Water Seasonally	X						
MISIGI	MABWE	01: River/Stream/Pond/Dam	POND			02: Supplying Water Seasonally	X						
MISIGI	MABWE	04: Unprotected Well				02: Supplying Water Seasonally	X						
MISIGI	MABWE	07: Water Vender	MALI VUNDO RIVER, PINGO FOR D			01: Supplying Water through the Year	X					500 20LT	
MISIGI	MSIGI	04: Unprotected Well				02: Supplying Water Seasonally	X						
MISIGI	MSIGI	05: Protected Well				03: No Supply throughout the Year/NO WATER	X						
MISIGI	MSIGI	07: Water Vender	CHALINZE VILLAGE (16KM)	02: Functioning Partially		01: Supplying Water through the Year	X					500 20LT	
TALAWANDA	LUDIGA	01: River/Stream/Pond/Dam	RIVER MKOMBEZI			02: Supplying Water Seasonally	X					FREE	
TALAWANDA	LUDIGA	07: Water Vender	MSINUNE VILLAGE			01: Supplying Water through the Year	X					300 20LT	
TALAWANDA	MAGULUMATARI	01: River/Stream/Pond/Dam	POND			02: Supplying Water Seasonally	X					FREE	
TALAWANDA	MAGULUMATARI	01: River/Stream/Pond/Dam	RIVER MKOMBEZI			02: Supplying Water Seasonally	X					FREE	
TALAWANDA	MAGULUMATARI	07: Water Vender	PINGO VILLAGE (18KM)			01: Supplying Water through the Year	X					300 20LT	
TALAWANDA	MSANGA	01: River/Stream/Pond/Dam	POND			02: Supplying Water Seasonally	X					FREE	
TALAWANDA	MSANGA	01: River/Stream/Pond/Dam	RIVER MKOMBEZI			01: Supplying Water through the Year	X					FREE	
TALAWANDA	MSANGA	07: Water Vender	PINGO VILLAGE (18KM)			02: Supplying Water Seasonally	X					300 20LT	
TALAWANDA	TALAWANDA	04: Unprotected Well				01: Supplying Water Seasonally	X					FREE	
TALAWANDA	TALAWANDA	07: Water Vender	LUGOBA VILLAGE (16KM)			01: Supplying Water through the Year	X					300 20LT	
TALAWANDA	VUNDUMU	01: River/Stream/Pond/Dam	POND			02: Supplying Water Seasonally	X					FREE	
TALAWANDA	VUNDUMU	07: Water Vender	PINGO VILLAGE (15KM)			01: Supplying Water through the Year	X					300 20LT	
TALAWANDA	VUNDUMU	01: River/Stream/Pond/Dam	DAM			02: Supplying Water Seasonally	X					300 20LT	
KALOLENI	KALOLENI	04: Unprotected Well				01: Supplying Water Seasonally	X						
KALOLENI	KALOLENI	05: Protected Well				02: Supplying Water Seasonally	X						

**Village Water Inventory  
BAGAMOYO District - Outline of Existing Water Supply Conditions (18/20)**

Name of Village	Name of Sub-Village (shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				F-17 Unit Price		
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use, but not Drinking	02: Good for Domestic Use, but not Drinking	03: Muddy	04: Salty	05: Rusty	Price	Unit
KALOLENI	KWIFUNGO	04: Unprotected Well												
KALOLENI	KWIFUNGO	05: Protected Well												
KALOLENI	LULENGE	01: River/Stream/Pond/Dam	DAM											
KALOLENI	LULENGE	04: Unprotected Well												
KALOLENI	MINAZINI	01: River/Stream/Pond/Dam	DAM											
KALOLENI	MINAZINI	05: Protected Well												
MATULI	CHALAMBE	04: Unprotected Well												
MATULI	KIKUMLE	04: Unprotected Well												
MATULI	KIKUMLE	07: Water Vender											200	20LT
MATULI	KUDIBOYA	01: River/Stream/Pond/Dam	DAM											
MATULI	KUDIBOYA	04: Unprotected Well												
MATULI	KUDIBOYA	10: Others	PIPED NETWORK	02: Functioning Partially	FAILED TO PAY WATER BILL								20	20LT
MATULI	KUDIMGOZE	04: Unprotected Well												
MATULI	KUDIMGOZE	07: Water Vender											100-150	20LT
MATULI	MAPALAMBA	04: Unprotected Well												
MATULI	MAPALAMBA	07: Water Vender												
MATULI	MATULI	01: River/Stream/Pond/Dam	DAM											
MATULI	MIDJULU	04: Unprotected Well												
MATULI	MIDJULU	10: Others	PIPED NETWORK		NOT WORKING FOR 2003									
MWIDU	LUNGO	04: Unprotected Well												
MWIDU	MBEGA	04: Unprotected Well												
MWIDU	MGOGODO	01: River/Stream/Pond/Dam	DAM											
MWIDU	MGOGODO	04: Unprotected Well												
MWIDU	MWIDIDA	01: River/Stream/Pond/Dam	DAM											
MWIDU	MWIDU 'A'	01: River/Stream/Pond/Dam	DAM											
MWIDU	MWIDU 'A'	07: Water Vender												
MWIDU	MWIDU 'B'	01: River/Stream/Pond/Dam	RAIN POND											
MWIDU	MWIDU 'B'	01: River/Stream/Pond/Dam	POND											
TUKAMISASA	CHOZA	04: Unprotected Well												
TUKAMISASA	CHOZA	05: Protected Well												
TUKAMISASA	KICHANGANI	04: Unprotected Well												
TUKAMISASA	KICHANGANI	07: Water Vender												
TUKAMISASA	KIDUKWE	04: Unprotected Well												
TUKAMISASA	KIPERA	04: Unprotected Well												
TUKAMISASA	KONGWA	04: Unprotected Well												
TUKAMISASA	KONGWA	01: River/Stream/Pond/Dam	POND											
TUKAMISASA	MAZIMUNYU	04: Unprotected Well												
TUKAMISASA	MBUY 'B'	04: Unprotected Well												
TUKAMISASA	MBUYU 'A'	04: Unprotected Well												
TUKAMISASA	MBUYU 'A'	01: River/Stream/Pond/Dam	POND											
TUKAMISASA	TUKA MJINI	04: Unprotected Well												
TUKAMISASA	TUKA MJINI	05: Protected Well												
TUKAMISASA	TUKA MJINI	01: River/Stream/Pond/Dam	DAM											
TUKAMISASA	TUKA MJINI	05: Protected Well												
TUKAMISASA	BUYUNI	05: Protected Well												
TUKAMISASA	BUYUNI	07: Water Vender												
TUKAMISASA	BUYUNI	04: Unprotected Well												
TUKAMISASA	HADING OKA	04: Unprotected Well												
TUKAMISASA	HADING OKA	07: Water Vender	ESTATE DAM											
TUKAMISASA	KICHANGANI	01: River/Stream/Pond/Dam												
TUKAMISASA	KICHANGANI	07: Water Vender	ESTATE DAM											
TUKAMISASA	KILIMAHWEWA	01: River/Stream/Pond/Dam												
TUKAMISASA	KILIMAHWEWA	07: Water Vender	ESTATE DAM											
TUKAMISASA	KUDING'ONGO	04: Unprotected Well												
TUKAMISASA	KWALE	04: Unprotected Well												
TUKAMISASA	MAZOLA	04: Unprotected Well												
TUKAMISASA	MAZOLA	07: Water Vender	ESTATE DAM											
TUKAMISASA	MUMWEMA	01: River/Stream/Pond/Dam	POND											
TUKAMISASA	MUMWEMA	07: Water Vender	BUYUNI SUB-VILLAGE											
TUKAMISASA	MUKUYUNI	04: Unprotected Well												
TUKAMISASA	MUKUYUNI	10: Others	RAIN WATER HARVEST TANK											
TUKAMISASA	NJARANNE	04: Unprotected Well												
TUKAMISASA	NJARANNE	04: Unprotected Well												



**Village Water Inventory  
BAGAMOYO District - Outline of Existing Water Supply Conditions (19/20)**

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality					F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use	02: Good for Domestic Use, but not Drinking	03: Muddy	04: Salty	05: Rusty	Price	Unit
UBENAZOMOZI	NJIANNE	07: Water Vender											100	20LT
VISAKAZI	VISAKAZI JUJU	04: Unprotected Well												
VISAKAZI	VISAKAZI JUJU	03: Protected Spring											20	20LT
VISAKAZI	VISAKAZI KATI	01: River/Stream/Pond/Dam	DAM, RIVER POND											
VISAKAZI	VISAKAZI KATI	04: Unprotected Well	RAIN POND & WELL											
VISAKAZI	VISAKAZI LUKWEMB	01: Unprotected Well												
VISAKAZI	VISAKAZI LUKWEMB	01: River/Stream/Pond/Dam												
VISAKAZI	VISAKAZI MASHARIK	04: Unprotected Well												
VISAKAZI	VISAKAZI MASHARIK	07: Water Vender											200	20LT
VISAKAZI	VISAKAZI MPANI	04: Unprotected Well												
VISAKAZI	VISAKAZI MPANI	07: Water Vender											200	20LT
BUYUNI	CHANGOMBE	01: River/Stream/Pond/Dam											FREE	20LT
BUYUNI	CHANGOMBE	04: Unprotected Well											FREE	
BUYUNI	CHANGOMBE	07: Water Vender	KISAMBI RIVER										100	10LT
BUYUNI	JIFICHENI	01: River/Stream/Pond/Dam											FREE	
BUYUNI	JIFICHENI	07: Water Vender	KISAMBI RIVER										FREE	
BUYUNI	KILMAHEWA	01: River/Stream/Pond/Dam											FREE	
BUYUNI	KILMAHEWA	07: Water Vender	KISAMBI RIVER										300	20LT
BUYUNI	KINGUNGWI	01: River/Stream/Pond/Dam	DAM, RIVER POND										FREE	
BUYUNI	KINGUNGWI	07: Water Vender	KISAMBI RIVER										200	20LT
BUYUNI	KUDUHUNGO	01: River/Stream/Pond/Dam											FREE	
BUYUNI	KUDUHUNGO	07: Water Vender	KISAMBI RIVER										200	20LT
BUYUNI	MIZUGUNI	01: River/Stream/Pond/Dam											FREE	
BUYUNI	MIZUGUNI	07: Water Vender	KISAMBI RIVER										200	20LT
BUYUNI	MJINI	01: River/Stream/Pond/Dam											FREE	
BUYUNI	MJINI	04: Unprotected Well											FREE	
BUYUNI	MJINI	05: Protected Well											FREE	
BUYUNI	MJINI	07: Water Vender	KISAMBI RIVER										300	20LT
BUYUNI	VISANGALALILA	01: River/Stream/Pond/Dam											FREE	
BUYUNI	VISANGALALILA	05: Protected Well											FREE	
BUYUNI	VISANGALALILA	07: Water Vender	KISAMBI RIVER										200	20LT
BUYUNI	VITENGWE	01: River/Stream/Pond/Dam											FREE	
BUYUNI	VITENGWE	04: Unprotected Well											FREE	
BUYUNI	VITENGWE	07: Water Vender	RAIN POND										FREE	
BUYUNI	VITENGWE	07: Water Vender	KISAMBI RIVER										200	20LT
KIDOGOZERO	KITONGA	01: River/Stream/Pond/Dam	RIVER DAM										FREE	
KIDOGOZERO	KITONGA	10: Others	KIDOGOZERO WATER SCHEME	01: All Functioning									10	20LT
KIDOGOZERO	MIGUDENI	01: River/Stream/Pond/Dam		01: All Functioning									100	per month per HH
KIDOGOZERO	MIGUDENI	10: Others	KIDOGOZERO WATER SCHEME	01: All Functioning									20	20LT
KIDOGOZERO	MIGUDENI	10: Others	SEKO WATER PROJECT	01: All Functioning									FREE	
KIDOGOZERO	MILO	01: River/Stream/Pond/Dam	RIVER POND	01: All Functioning									FREE	
KIDOGOZERO	SEKO	01: River/Stream/Pond/Dam		02: Functioning Partially	PUMP STOLEN								FREE	
KIDOGOZERO	SEKO	05: Protected Well		01: All Functioning									10	20LT
KIDOGOZERO	SEKO	10: Others	SEKO WATER PROJECT	01: All Functioning									FREE	
VIGWAZA	BWAGI	04: Unprotected Well											FREE	
VIGWAZA	BWAGI	07: Water Vender	MUSUJA RIVER										200	20LT
VIGWAZA	KAMBINI	01: River/Stream/Pond/Dam											FREE	
VIGWAZA	KAMBINI	04: Unprotected Well											FREE	
VIGWAZA	KAMBINI	05: Protected Well											FREE	
VIGWAZA	KAMBINI	07: Water Vender	MUSUJA RIVER	02: Functioning Partially	HAND PUMP STOLEN								300	20LT
VIGWAZA	KIHUNGO 'A'	01: River/Stream/Pond/Dam											FREE	
VIGWAZA	KIHUNGO 'A'	04: Unprotected Well	RAIN POND										FREE	
VIGWAZA	KIHUNGO 'A'	07: Water Vender	MUSUJA RIVER										200	20LT
VIGWAZA	KIHUNGO 'B'	01: River/Stream/Pond/Dam	SEASONAL RIVER										FREE	
VIGWAZA	KIHUNGO 'B'	04: Unprotected Well											FREE	
VIGWAZA	KIHUNGO 'B'	07: Water Vender	MUSUJA RIVER	02: Functioning Partially	NO WATER								200	20LT
VIGWAZA	KIPERA	01: River/Stream/Pond/Dam											FREE	
VIGWAZA	KIPERA	07: Water Vender	MUSUJA RIVER										200	20LT
VIGWAZA	KIVUNGWI	01: River/Stream/Pond/Dam											FREE	

**Village Water Inventory  
BAGAMOYO District - Outline of Existing Water Supply Conditions (20/20)**

Name of Village	F-1		F-2		F-14		F-15		F-16				F-17		
	Name of Sub-Village (shaded in gray: excluded from the target area of the study)	Water Source	Water Source	Functioning Condition	Condition	Specify for 02 and 03	Supply Condition	Condition	Specify for 02	01: Good for Domestic Use, but not for Drinking	02: Muddy	03: Salty	04: Rusty	Price	Unit
VIGWAZA	KIVUNGWI	04: Unprotected Well												FREE	
VIGWAZA	KIVUNGWI	07: Water Vender												300 20LT	
VIGWAZA	KWAKSALI	01: River/Stream/Pond/Dam												FREE	
VIGWAZA	KWAKSALI	04: Unprotected Well	RAIN POND											FREE	
VIGWAZA	KWAKSALI	05: Protected Well													
VIGWAZA	KWAKSALI	07: Water Vender													
VIGWAZA	KWAMBOGO	01: River/Stream/Pond/Dam	MUSUJA RIVER											200 20LT	
VIGWAZA	KWAMBOGO	05: Protected Well												FREE	
VIGWAZA	KWAMBOGO	07: Water Vender	MUSUJA RIVER											200 20LT	
VIGWAZA	KWAMBOGO	04: Unprotected Well	RAIN POND											FREE	
VIGWAZA	KWAZOKA	01: River/Stream/Pond/Dam												FREE	
VIGWAZA	KWAZOKA	04: Unprotected Well												FREE	
VIGWAZA	KWAZOKA	05: Protected Well												200 20LT	
VIGWAZA	KWAZOKA	07: Water Vender	MUSUJA RIVER											FREE	
VIGWAZA	LUSANZALA	01: River/Stream/Pond/Dam												FREE	
VIGWAZA	LUSANZALA	04: Unprotected Well	RAIN POND											FREE	
VIGWAZA	LUSANZALA	07: Water Vender	MUSUJA RIVER											300 20LT	
VIGWAZA	MININDI	01: River/Stream/Pond/Dam												FREE	
VIGWAZA	MININDI	04: Unprotected Well												FREE	
VIGWAZA	MININDI	07: Water Vender	MUSUJA RIVER											200 20LT	
VIGWAZA	MININDI	01: River/Stream/Pond/Dam												FREE	
VIGWAZA	MININDI	04: Unprotected Well												FREE	
VIGWAZA	MININDI	07: Water Vender	MUSUJA RIVER											200 20LT	
VIGWAZA	SERENGETI	05: Protected Well												FREE	
VIGWAZA	SERENGETI	07: Water Vender	MUSUJA RIVER											FREE	
VIGWAZA	SERENGETI	01: River/Stream/Pond/Dam												200 20LT	
VISEZI	VISEZI KATI	01: River/Stream/Pond/Dam	RIVER MSUA											FREE	
VISEZI	VISEZI KATI	05: Protected Well												FREE	
VISEZI	VISEZI KATI	07: Water Vender	MUSUJA RIVER											150-200 20LT	
VISEZI	CHANGEDERE	01: River/Stream/Pond/Dam												FREE	
VISEZI	CHANGEDERE	07: Water Vender	MUSUJA RIVER											100-150 10LT	
VISEZI	KISOGO	01: River/Stream/Pond/Dam												FREE	
VISEZI	KISOGO	07: Water Vender	MUSUJA RIVER											150-200 20LT	
VISEZI	LAMBONI	01: River/Stream/Pond/Dam	Dam											FREE	
VISEZI	LAMBONI	01: River/Stream/Pond/Dam	RIVER											FREE	
VISEZI	LAMBONI	07: Water Vender	MUSUJA RIVER											150-200 20LT	
VISEZI	MSIGARA	01: River/Stream/Pond/Dam												FREE	
VISEZI	MSIGARA	05: Protected Well												FREE	
VISEZI	MSIGARA	07: Water Vender	MUSUJA RIVER											150-200 20LT	
Yombo	Chombe Juu	04: Unprotected Well													
Yombo	Furwe	08: City Water/DAWASA													
Yombo	Goba Kisumbi	04: Unprotected Well												20 20lt	
Yombo	Goba Kisumbi	08: City Water/DAWASA												20 20lt	
Yombo	Kiegeya	04: Unprotected Well													
Yombo	Lwazi	04: Unprotected Well													
Yombo	Mapoza	04: Unprotected Well													
Yombo	Mapoza	08: City Water/DAWASA												20 20lt	
Yombo	Masogola	04: Unprotected Well													
Yombo	Masogola	08: City Water/DAWASA												10 10lt	
Yombo	Ukwamani	04: Unprotected Well													
Yombo	Ukwamani	08: City Water/DAWASA												20 20lt	
Yombo	Ushokolani	04: Unprotected Well													
Yombo	Ushokolani	08: City Water/DAWASA												20 20lt	
Yombo	Yombo	04: Unprotected Well													
Yombo	Yombo	08: City Water/DAWASA												20 20lt	
MAPINGA	CHAGWAHELA	04: Unprotected Well	RIVER POND											20 20lt	
MAPINGA	KIHALAKA	08: City Water/DAWASA												FREE	
MAPINGA	KIMELE	05: Protected Well												20 20LT	
MAPINGA	KWAKIBOSHA	08: City Water/DAWASA												500 H/H PER MONTH	
MAPINGA	MTAMBANI	08: City Water/DAWASA												500 H/H PER MONTH	
MAPINGA	UDINDIVU	08: City Water/DAWASA												500 H/H PER MONTH	

**Village Inventory**  
**KIBAHA District - Basic Information of the Surveyed Villages(1/6)**

1: Target (Whole Community) 2: Partly Target 3: Not Target	A-1	A-6	A-7	B-1 (Village)				B-2 (Sub-Village)				C-1	C-2	
	Serial Number	Name of Village/Mtaa	Ward	Population (2002)	No. of HH	Latitude	Longitude	Name of Sub-Village (Sub-village names with bold italic: target areas of the study)	Population (2002)	No. of HH	Latitude	Longitude	Form of Community	Dwelling Type
2	KBH 003	KONGOWE	KIBAHA	16,680	2,115	64420.9	385214.2	KONGOWE <b>KUMBA</b> MIEMBE SABA	10,060 362 1,622	1,500 84 450	64420.9 64447.6 64439	385214.2 385407.5 385324.5	01: Village	03: Clustered
1	KBH 040	MSANGANI	KIBAHA	3,025	378	64134.6	385654.2	KIDENGE MSANGANI	1,432 1,593	101 277	64225.5 64134.6	385617.6 385654.2	01: Village	04: Scattered
2	KBH 037	MWENDAPOLE	KIBAHA	8,003	1,674	64505.5	385440.4	<b>GALAGAZA</b> KWAMFIPA MWENDAPOLE <b>SIMBANI</b>	382 1,561 5,588 472	104 674 746 140	64235.1 64447.2 64505.5 64335.3	385432.2 385606.8 385440.4 385431.2	01: Village	04: Scattered
1	KBH 042	PANGANI	TUMBI	798	189	64456.1	385933.3	MTAKUJA PANGANI	220 578	56 133	64329.8 64456.1	385932.1 385933.3	01: Village	04: Scattered
1	KBH 036	VIZIWAZIWA	KIBAHA	2,124	535	64329.8	385932.1	MIKONGENI SAGALE VIZIWAZIWA	675 612 837	150 205 180	64757.6 64715.6 64706.4	385455.5 384314.7 385355.4	01: Village	04: Scattered
1	KBH 019	DUTUMI	KWALA	1,300	317	64502	391408.7	DUTUMI MADEGE	850 450	200 117	65216.7 65216.7	383417.5 383417.5	01: Village	03: Clustered
1	KBH 021	MPELAMOMBI	KWALA	346	139	64627.1	382842.5	MPELAMOMBI MSUWA	131 215	70 69	64627.1 64905.2	382842.5 382553.2	01: Village	03: Clustered
1	KBH 026	GUMBA	MAGINDU	5,000	519	64602.6	382119.5	BUGURUNI GUMBA KIGODA MILALAZI	1,620 1,748 658 398	142 151 133 77	64537.3 64602.6 64629.1 64422.2	382134.2 382119.5 382311.3 382201.6	01: Village	03: Clustered
1	KBH 028	GWATA	MAGINDU	2,136	346	64244	382215.5	NDWATI GWATA NGURUKA NGWALE	576 1,350 278 378	146 132 76 94	64608.7 64244 64220 64439.3	381236.2 382215.5 382045.8 382347.2	01: Village	
1	KBH 024	LUKENZE	MAGINDU	1,050	253	65216.7	383417.5	VINYENZE MKONGA MUYOIMBO(UFUGA) MZIZIMA	130 444 282 324	44 105 65 83	64358.7 65216.7 65310.5 65216.2	382524.2 383417.5 381545.6 385417.5	01: Village	03: Clustered
1	KBH 027	MAGINDU	MAGINDU	1,493	572	64902.4	381917.1	KUYU LUKURASI MAGINDU MIZUGUNI 'A' MIZUGUNI 'B' MNYONGE MUYOIMBO	240 189 272 260 252 120 160	138 156 272 150 98 46 52	64856.4 64925.5 64902.4 64908.1 64955.5 64417.9 65055.5	381906.6 382053.1 381917.1 381857.5 381819.8 381931.2 381831.9	01: Village	01: Concentrated
2	KHB 043	MLANDIZI 'B'	MLANDIZI	18,048	3,893	64254.5	384418.9	JANGA KILANGALANGA <b>KISABI</b> MLANDIZI KATI <b>MSONGOLA</b> MSUFINI	4,300 5,397 480 3,961 3,560 350	450 438 175 483 380 150	64333.6 64357.9 64417.9 64254.5 64510.9 64331.5	384431.6 384409.1 384154.4 384418.9 384445.1 384526.7	01: Village	04: Scattered
1	KBH 012	KIKONGO	RUVU	710	245	64745.8	384122.3	KIKONGO VINZIKO	621 89	144 46	64745.8 64758.9	384122.3 384244.9	01: Village	03: Clustered
1	KBH 016	KITOMONDO	RUVU	627	151	65209.9	383630.1	GUMBA KITOMONDO	230 397	51 100	65208.1 65209.9	383631 383630.1	01: Village	03: Clustered
1	KBH 015	LUPUNGA	RUVU	1,128	206	65034.3	384219	LUPUNGA MKINO VIDETE	560 293 275	84 66 56	65034.3 65005.7 65107.3	384219 384129.5 384147.7	01: Village	04: Scattered
1	KBH 023	MINAZI MIKINDA	RUVU	2,624	450	64839.6	383907.8	MINAZI MIKINDA MNAZI	1,594 1,030	270 180	64839.6 65047.6	383907.8 383801.5	01: Village	02: Concentrated along the Road
1	KBH 011	MWANABWITO	RUVU	1,540	380	64357.8	384409.2	KIDAI MWANABWITO	502 1,038	122 258	64542.9 64357.8	384122.6 384409.2	01: Village	04: Scattered
1	KBH 007	NGETA	RUVU	1,616	416	64448.7	384143.2	MAKOTOPOLA NGETA STATION	623 993	330 586	65015.6 64448.7	384705.8 384143.2	01: Village	03: Clustered
1	KBH 029	BOKOMNEMELA	SOGA	2,831	535	65006.9	385503.6	BOKO KATI KIBAOINI MKAMBATI NJIA PANDA	1,415 472 472 472	268 106 54 86	65010 64856.1 64856.2 64834.8	385456.4 385514.3 385517.3 385608	01: Village	04: Scattered
1	KBH 006	KIPANGEGE	SOGA	347	82	65152.2	385020.2	CHAMGOI KIPANGEGE	39 308	23 59	65738.6 65152.2	384902.1 385020.2	01: Village	01: Concentrated
1	KBH 005	MISUFINI	SOGA	337	95	64805	384855.5	KIBWE MISUFINI	75 262	20 75	64808.5 64805	384755.3 384855.4	01: Village	01: Concentrated
1	KBH 033	MPIJI	SOGA	1,003	226	64614.1	385157.9	MPIJI ZUMBA	430 573	100 126	64614.1 65205.5	385157.9 385605.5	01: Village	04: Scattered
1	KBH 030	BOKOTIMIZA	TUMBI	623	138	64856.4	385648.2	BOKOTIMIZA	623	138	64856.4	385648.2	02: Mtaa	04: Scattered
1	KBH 010	ZOGOWALE	VISIGA	1,099	256	64624.3	384843.6	JONUNGHA SAENI ZOGOWALE	350 300 449	84 70 102	64624.5 64654 64624.3	384843.6 384915.8 384843.6	01: Village	04: Scattered
3	KBH 018	KWALA	KWALA	1,803	476	64808	383445	KWALA WAYA	1,426 377	353 123	65216.7 65216.9	383417.5 383418.5	01: Village	04: Scattered
3	KBH 022	MWEMBENGOZI	KWALA	212	98	65216.7	383417.5	MAHUNDI MWEMBENGOZI	26 176	18 80	65216.7 65217.5	383217.5 383219	01: Village	02: Concentrated along the Road
3	KBH 020	DISUNYALA	MLANDIZI	1,550	228	64529.5	384333.5	DISUNYALA MJINI RUVU MADIMLA	1,222 328	103 125	64529.5 64448.7	384333.5 384143.2	01: Village	03: Clustered
3	KBH 004	MLANDIZI 'A'	MLANDIZI	4,429	1,088	64232	384428.1	MIHANDE MLANDIZI MJINI RUVU JKT	1,412 1,715 1,302	322 506 260	64232 64232 64238.8	384448.8 384448.4 384421.3	01: Village	04: Scattered

**Village Inventory**  
**KIBAHA District - Basic Information of the Surveyed Villages(2/6)**

1: Target (Whole Community) 2: Partly Target 3: Not Target	A-1	A-6	A-7	B-1 (Village)				B-2 (Sub-Village)				C-1	C-2	
	Serial Number	Name of Village/Mtaa	Ward	Population (2002)	No. of HH	Latitude	Longitude	Name of Sub-Village (Sub-village names with bold italic: target areas of the study)	Population (2002)	No. of HH	Latitude	Longitude	Form of Community	Dwelling Type
3	KBH 025	VIKULUTI	MLANDIZI	1,644	444	64039.7	384528.2	KIBWENDE	256	64	64124.7	384520.1	01: Village	03: Clustered
								KITENVU	352	76	64039.8	384613.8		
								RUVU KWADOSA	570	134	64051.7	384417.3		
								VIKURUTI MJINI	466	170	64039.7	384528.2		
3	KBH 017	RUVU	RUVU	1,580	295	64826.4	383934.1	MIDIZINI	1,040	153	64829.7	383926.1	01: Village	01: Concentrated
								RUVU MJINI	540	142	64829.7	383926.8		
3	KBH 014	SOGA	SOGA	1,804	521	64147.6	385407.5	ALAVI	184	127	65038.7	385246.2	01: Village	03: Clustered
								DENGWA	96	35	64912.1	385155.1		
								KONGO	125	35	64405.1	385243.5		
								SOMU	1,399	324	64147.6	385407.5		
3	KBH 002	VIKUGE	SOGA	1,239	381	64718.6	385157.9	KIGELO	550	166	64614.1	385157.9	01: Village	04: Scattered
								NGOHINGO	401	131	64714.3	385045.3		
								VIKUGE	288	84	64718.6	385126.9		
3	KBH 041	BUNGO	TUMBI	414	262	64448.2	385517.6	BUNGO	414	262	64448.2	385517.6	02: Mtaa	04: Scattered
3	KBH 032	KIDIMU	TUMBI	1,143	333	64214.7	390224.7	KIDIMU	1,143	333	64214.7	390229.7	01: Village	04: Scattered
3	KBH 038	MKUZA	TUMBI	9,121	2,190			KIBONDENI	4,197	956	64532.3	385555.4	01: Village	04: Scattered
								MKUZA	4,924	1,234	64447.1	385606.7		
3	KBH 034	MWANALUGALI	TUMBI	3,800	465	64749.4	385841.4	MWANALUGALI	3,800	965	64749.4	385841.4	02: Mtaa	04: Scattered
3	KBH 031	TEMBONI	TUMBI	580	123	64844.4	385715.2	TEMBONI	580	123	64844.4	385715.2	02: Mtaa	04: Scattered
3	KBH 039	TWENDA PAMOJA	TUMBI	5,529	1,193	64552.3	385703.4	PICHA YA NDEGE (SOFU)	4,741	949	64536.1	385730.2	01: Village	04: Scattered
									788	244	64720.5	385614.0		
3	KBH 035	VIKAWWE	TUMBI	942	240	64033.6	390246.2	VIKIWE BONDENI	572	130	63832.9	390316.2	01: Village	04: Scattered
								VIKIWE SHULENI	370	110	64033.6	390246.2		
3	KBH 009	MBWAWA	VISIGA	1,570	426	63847.4	384647.7	MBWAWA MKOLEN	453	117	63749.2	384720.1	02: Mtaa	04: Scattered
								MBWAWA SHULE	1,117	309	63847.4	384647.7		
3	KBH 013	MISUGUSUGU	VISIGA	1,820	463	64404.4	385053.7	MISUGUSUGU	975	298	64404.9	385053.7	02: Mtaa	02: Concentrated along the Road
								MIYOMBONI	845	165	64352.2	385000.7		
3	KBH 008	MISWE	VISIGA	1,819	364	63607.5	384816.8	MISWE CHINI	619	133	63607.5	384816.8	02: Mtaa	04: Scattered
								MISWE JUU	1,200	231	63635.9	384757.5		
3	KBH 001	VISIGA	VISIGA	3,853	838	64327.1	384753.1	MADAFU	1,322	234	64325.8	384708.5	01: Village	04: Scattered
								MAIL 35	319	81	64431.9	384733		
								VISIGA KATI	1,595	390	64327.1	384753.1		
								ZEGELENI	617	133	63636	384757.6		

**Village Inventory**  
**KIBAHA District - Basic Information of the Surveyed Villages(3/6)**

A-1 Serial Number	A-6 Name of Village/Mtaa	D-1 Major Water Source 1 Major Water Source 2		D-2 Average Time (min)	D-3 Reliability												D-4 Average Amount (Litre)	D-5 Other WSS Intervention					
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		None	Agency	Period	Plan		
KBH 003	KONGOWE	04: Unprotected Well		15	X	X	X	X	X	X	X							100	X				
KBH 040	MSANGANI	01: River/Stream/Pond/Dam		120			X	X	X	X	X							200	X				
KBH 037	MWENDAPOLE	01: River/Stream/Pond/Dam		60		X	X	X										200		CITY WATER/DAWASA			
KBH 042	PANGANI	01: River/Stream/Pond/Dam		120	X	X	X	X	X	X	X							140	X				
KBH 036	VIZIWAZIWA	01: River/Stream/Pond/Dam		60				X	X	X	X	X						120	X				
KBH 019	DUTUMI	01: River/Stream/Pond/Dam		20	X	X	X	X	X	X	X	X	X	X	X	X	X	460	X				
KBH 021	MPELAMOMBI	01: River/Stream/Pond/Dam		30	X	X	X	X	X	X	X	X	X	X	X	X	X	220	X				
KBH 026	GUMBA	01: River/Stream/Pond/Dam		120	X	X	X	X	X	X								240	X				
KBH 028	GWATA	01: River/Stream/Pond/Dam		180	X	X	X	X	X	X	X	X	X					450	X				
KBH 024	LUKENGE	01: River/Stream/Pond/Dam		60		X	X	X	X	X	X	X	X	X	X	X		320	X				
KBH 027	MAGINDU	01: River/Stream/Pond/Dam 04: Unprotected Well		120	X	X	X	X	X	X	X	X	X	X	X	X	X	300	X				
KHB 043	MLANDIZI 'B'	01: River/Stream/Pond/Dam		60	X	X	X	X	X	X								400	X				
KBH 012	KIKONGO	01: River/Stream/Pond/Dam		60	X	X	X	X	X	X	X	X	X	X	X	X	X	100	X				
KBH 016	KITOMONDO	01: River/Stream/Pond/Dam		15	X	X	X	X	X	X	X	X	X	X	X	X	X	242	X				
KBH 015	LUPUNGA	01: River/Stream/Pond/Dam		120	X	X	X	X	X									100	X				
KBH 023	MINAZI MIKINDA	01: River/Stream/Pond/Dam		30	X	X	X	X	X	X	X	X	X	X	X	X	X	242	X				
KBH 011	MWANABWITO	01: River/Stream/Pond/Dam		30	X	X	X	X	X	X	X	X	X	X	X	X	X	300	X				
KBH 007	NGETA	01: River/Stream/Pond/Dam 05: Protected Well		120	X	X	X	X	X									222	X				
KBH 029	BOKOMNEMELA	01: River/Stream/Pond/Dam		320			X	X	X	X	X	X	X					120	X				
KBH 006	KIPANGEGE	01: River/Stream/Pond/Dam		60	X	X	X	X	X	X	X	X	X	X				120	X				
KBH 005	MISUFINI	01: River/Stream/Pond/Dam		120	X	X	X	X	X	X	X	X	X					300	X				
KBH 033	MPIJI	01: River/Stream/Pond/Dam		280														200		TASAF			
KBH 030	BOKOTIMIZA	01: River/Stream/Pond/Dam		60			X	X	X	X	X							200		X			
KBH 010	ZOGOWALE	01: River/Stream/Pond/Dam		30	X	X	X	X	X	X								240	X				
KBH 018	KWALA	01: River/Stream/Pond/Dam		120	X	X	X	X	X	X	X	X	X	X	X	X	X	320	X				
KBH 022	MWEMBENGOZI	01: River/Stream/Pond/Dam		30	X	X	X	X	X	X	X	X	X	X	X	X	X	240	X				
KBH 020	DISUNYALA	01: River/Stream/Pond/Dam		30	X	X	X	X	X	X	X	X	X	X	X	X	X	400	X				
KBH 004	MLANDIZI 'A'	08: City Water/DAWASA		30	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X				

**Village Inventory**  
**KIBAHA District - Basic Information of the Surveyed Villages(4/6)**

A-1 Serial Number	A-6 Name of Village/Mtaa	D-1 Major Water Source 1 Major Water Source 2		D-2 Average Time (min)	D-3 Reliability												D-4 Average Amount (Litre)	D-5 Other WSS Intervention						
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		None	Agency	Period	Plan			
KBH 025	VIKULUTI	01: River/Stream/Pond/Dam	05: Protected Well	60	X	X	X	X	X							X	X	X	440	X				
KBH 017	RUVU	01: River/Stream/Pond/Dam		30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	242	X				
KBH 014	SOGA	01: River/Stream/Pond/Dam		30	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X					
KBH 002	VIKUGE	01: River/Stream/Pond/Dam	04: Unprotected Well	30	X	X	X	X	X	X								200	X					
KBH 041	BUNGO	01: River/Stream/Pond/Dam		30	X	X	X	X	X	X								100	X					
KBH 032	KIDIMU	01: River/Stream/Pond/Dam		120	X	X	X	X	X	X	X	X	X					240	X					
KBH 038	MKUZA	01: River/Stream/Pond/Dam		120		X	X	X	X	X								200					CITY WATER/DAWASA	
KBH 034	MWANALUGALI	01: River/Stream/Pond/Dam	05: Protected Well	60		X	X	X	X	X	X	X	X	X				200					SUGARCANE RESEARCH	
KBH 031	TEMBONI	01: River/Stream/Pond/Dam	04: Unprotected Well	120	X	X	X	X	X	X								240					TASAF	
KBH 039	TWENDA PAMOJA	01: River/Stream/Pond/Dam		180				X	X	X	X							200					CITY WATER/DAWASA	
KBH 035	VIKAWAWE	01: River/Stream/Pond/Dam		120			X	X	X	X								240	X					
KBH 009	MBWAWA	01: River/Stream/Pond/Dam	05: Protected Well	30	X	X	X	X	X	X	X	X	X	X				200	X					
KBH 013	MISUGUSUGU	01: River/Stream/Pond/Dam		60	X	X	X	X	X	X	X	X	X	X	X	X	X	200					CITY WATER/DAWASA	
KBH 008	MISWE	01: River/Stream/Pond/Dam		60	X	X	X	X	X	X	X	X	X	X				400	X					
KBH 001	VISIGA	04: Unprotected Well	05: Protected Well	30	X	X	X	X	X	X	X	X						150					CITY WATER/DAWASA	

**Village Inventory**  
**KIBAHA District - Basic Information of the Surveyed Villages(5/6)**

A-1 Serial Number	A-6 Name of Village/Mtaa	E-1 (School)						E-2 (Health Facility)						
		Name of School	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet	No. of Teacher's House	Name of Health Facility	Type of Health Facility	No of Bed	No of Outpatient	Type of Toilet	No. of Toilet
KBH 003	KONGOWE	KONGOWE ACADEM	01: Primary	01: Boarding		01: Traditional Pit	12	2	KONGOWE	01: Dispensary	5		01: Traditional Pit	5
		KONGOWE	01: Primary	02: Daily	588	01: Traditional Pit	26	2	FANSI	01: Dispensary			01: Traditional Pit	2
		MWAMBISI	01: Primary	02: Daily	586	01: Traditional Pit	10							
		TANDA WU	01: Primary	02: Daily	586	01: Traditional Pit	6	1						
KBH 040	MSANGANI	MIENBE SABA	01: Primary	02: Daily	372	01: Traditional Pit								
		KUMBA	01: Primary	02: Daily	255	01: Traditional Pit								
KBH 037	MWENDAPOLE	MSANGANI	01: Primary	02: Daily		01: Traditional Pit	12	3						
		MSANGANI	02: Secondary	01: Boarding		01: Traditional Pit	14	2						
		MWENDAPOLE	01: Primary	02: Daily	831	01: Traditional Pit	31	1	MWENDAPOLE	01: Dispensary	3		01: Traditional Pit	3
KBH 042	PANGANI	JITEGEMEE	01: Primary	02: Daily	711	01: Traditional Pit								
		GALAGAZA	01: Primary	02: Daily	45	01: Traditional Pit								
KBH 042	PANGANI	PANGANI	01: Primary	02: Daily	260	01: Traditional Pit	14							
KBH 036	VIZIWAZIWA	VIZIWAZIWA	01: Primary	02: Daily	377	01: Traditional Pit	8	2	VIZIWAZIWA	01: Dispensary	2		01: Traditional Pit	2
KBH 019	DUTUMI	DUTUMI	01: Primary	02: Daily	300	01: Traditional Pit	5	4						
KBH 021	MPELAMOMBI	MPELAMOMBI	01: Primary	02: Daily	121	01: Traditional Pit	10	1						
KBH 026	GUMBA	GUMBA	01: Primary	02: Daily	521	01: Traditional Pit		5	GUMBA	01: Dispensary			01: Traditional Pit	2
		UMOJA	01: Primary	02: Daily	521	01: Traditional Pit			MICO	01: Dispensary			01: Traditional Pit	2
KBH 028	GWATA	GWATA	01: Primary	02: Daily	428	01: Traditional Pit	16	3						
		NGWALE	01: Primary	02: Daily		01: Traditional Pit	4							
KBH 024	LUKENGE	LUKENGE	01: Primary	02: Daily	332	01: Traditional Pit	7	4						
KBH 027	MAGINDU	MAGINDU	01: Primary	02: Daily	597	01: Traditional Pit	16	4	MAGINDU	01: Dispensary	12		01: Traditional Pit	3
KHB 043	MLANDIZI 'B'	ROSEMARIE	02: Secondary	01: Boarding		01: Traditional Pit			MLANDIZI	01: Dispensary	3		01: Traditional Pit	6
		KILANGALANGA	01: Primary	02: Daily		01: Traditional Pit			TEGEMEO	01: Dispensary			04: Flush to Septic T	2
		KILANGALANGA	02: Secondary	02: Daily		01: Traditional Pit			MTENDENI	01: Dispensary			04: Flush to Septic T	2
		RUVU	02: Secondary	01: Boarding		01: Traditional Pit			JABHAL	01: Dispensary			04: Flush to Septic T	2
KBH 012	KIKONGO	AZIMIO	01: Primary	02: Daily		01: Traditional Pit								
		TUMAINI	01: Primary	02: Daily	137	01: Traditional Pit	10	1	KIKONGO	01: Dispensary			01: Traditional Pit	2
KBH 016	KITOMONDO	KITOMONDO	01: Primary	02: Daily	277	01: Traditional Pit	15	3						
KBH 015	LUPUNGA	LUPUNGA	01: Primary	02: Daily	203	01: Traditional Pit	10	3	LUPUNGA	01: Dispensary			01: Traditional Pit	2
KBH 023	MINAZI MIKINDA	MINAZI MIKINDA	01: Primary	02: Daily	431	01: Traditional Pit	10	2						
KBH 011	MWANABWITO	MWANABWITO	01: Primary	02: Daily	340	01: Traditional Pit	12	3	MWANABWITO	01: Dispensary	1		01: Traditional Pit	2
KBH 007	NGETA	NGETA	01: Primary	02: Daily	370	01: Traditional Pit	10	2	NGETA	01: Dispensary	6		01: Traditional Pit	3
KBH 029	BOKOMNEMELA	BOKO MNEMELA	01: Primary	02: Daily	390	01: Traditional Pit	12		BOKO MNEMELA	01: Dispensary			01: Traditional Pit	2
KBH 006	KIPANGEGE	KIPANGEGE	01: Primary	02: Daily	34	01: Traditional Pit	8	2						
KBH 005	MISUFINI	MISUFINI	01: Primary	02: Daily	84	01: Traditional Pit	2	2						
KBH 033	MPIJI	MPIJI	01: Primary	02: Daily	232	01: Traditional Pit	12	2						
KBH 030	BOKOTIMIZA	BOKOTIMIZA	01: Primary	02: Daily	382	01: Traditional Pit	8	1						
KBH 010	ZOGOWALE	ZOGOWALE	01: Primary	02: Daily	309	01: Traditional Pit	12	2						
KBH 018	KWALA	KWALA	01: Primary	02: Daily		01: Traditional Pit	13	2	KWALA	01: Dispensary	3		01: Traditional Pit	2
		KWALA	02: Secondary	02: Daily		01: Traditional Pit								
KBH 022	MWEMBENGOZI													
KBH 020	DISUNYALA	DISUNYALA	01: Primary	02: Daily		01: Traditional Pit	10	2						
		MUUNGANO	01: Primary	02: Daily		01: Traditional Pit	1	1						
KBH 004	MLANDIZI 'A'	JAMHURI	01: Primary	02: Daily	810	01: Traditional Pit	11		MLANDIZI	01: Dispensary	6		01: Traditional Pit	2
		MLANDIZI	01: Primary	02: Daily	810	01: Traditional Pit	11	1						
		RUVU JKT	01: Primary	02: Daily	810	01: Traditional Pit	22	1						
		MAPINDUZI	01: Primary	02: Daily	40	01: Traditional Pit	1							

**Village Inventory**  
**KIBAHA District - Basic Information of the Surveyed Villages(6/6)**

A-1	A-6	E-1 (School)						E-2 (Health Facility)						
		Name of School	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet	No. of Teacher's House	Name of Health Facility	Type of Health Facility	No of Bed	No of Outpatient	Type of Toilet	No. of Toilet
KBH 025	VIKULUTI	VIKURUTI	01: Primary	02: Daily	327	01: Traditional Pit	11	2						
KBH 017	RUVU	RUVU	02: Secondary	02: Daily					RUVU STATION	01: Dispensar	1		01: Traditional Pit	3
KBH 014	SOGA	SOGA	01: Primary	02: Daily	453	01: Traditional Pit	12	7	SOGA	01: Dispensar	3		01: Traditional Pit	4
		RAFSANGANI	02: Secondary	02: Daily	250	01: Traditional Pit	4	5	ALAVI	01: Dispensary			01: Traditional Pit	2
KBH 002	VIKUGE	VIKUGE	01: Primary	02: Daily	331	01: Traditional Pit								
KBH 041	BUNGO													
KBH 032	KIDIMU	KIDIMU	01: Primary	02: Daily	195	01: Traditional Pit	6	1						
KBH 038	MKUZA													
KBH 034	MWANALUGALI	MWANALUGALI	01: Primary	02: Daily	222	01: Traditional Pit	10	1						
		TUMBI	01: Primary	02: Daily	###	01: Traditional Pit	22							
KBH 031	TEMBONI	BOKOTIMIZA	01: Primary	02: Daily	292	01: Traditional Pit	12	1						
KBH 039	TWENDA PAMOJA	TWENDE PAMOJA	01: Primary	02: Daily	###	01: Traditional Pit	11	1	BHOKE	01: Dispensary			01: Traditional Pit	2
		ONE MILE	02: Secondary	01: Boarding		01: Traditional Pit	22		SAKA	01: Dispensary			01: Traditional Pit	2
		EAST COAST	02: Secondary	01: Boarding		01: Traditional Pit	14							
KBH 035	VIKAWWE	VIKAWWE	01: Primary	02: Daily	180	01: Traditional Pit	12	3	VIKAWWE	01: Dispensary			01: Traditional Pit	4
KBH 009	MBWAWA	MBWAWA	01: Primary	02: Daily	630	01: Traditional Pit	17	5	MBWAWA	01: Dispensar	1		01: Traditional Pit	2
KBH 013	MISUGUSUGU	MISUGUSUGU	01: Primary	02: Daily	460	01: Traditional Pit	20	2						
KBH 008	MISWE	MISWE	01: Primary	02: Daily	433	01: Traditional Pit	14	3	MISWE	01: Dispensar	2		01: Traditional Pit	2
KBH 001	VISIGA	VISIGA	01: Primary	02: Daily	600	01: Traditional Pit	22	4	VISIGA	01: Dispensar	3		01: Traditional Pit	3
		VISIGA SEMINARY	02: Secondary	01: Boarding	300	01: Traditional Pit	6	6	VISIGA SEMINARY	01: Dispensar	4		01: Traditional Pit	2
		VISIGA	03: Tertiary	02: Daily	140	01: Traditional Pit	6							







**Village Water Inventory  
KIBAHA District - Outline of the Existing Water Supply Conditions (3/6)**

Serial Number	Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-3 No of Water Source	F-5 Type of Water Supply System	F-10 Type of Water Supply Facility										F-11 Year of Construction	F-12 Organization that constructed Facility	F-13 Number of Water Points				
			Water Source	Specify for 07 and 10			01: Lined with Concrete Ring	02: Bucket	03: Hand Pump	04: Windmill Pump	05: Motor Pump	06: Water Tank (Elevated)	07: Water Tank (Reserve)	08: Generator (Diesel)	09: Generator (Electricity)	10: Solar System			11: Others (Specify)	Public	Private		
KBH 030	BOKOTIMIZA	BOKOTIMIZA	01: River/Stream/Pond/Dam		23	04: Not Applicable																	
KBH 030	BOKOTIMIZA	BOKOTIMIZA	04: Unprotected Well		5	01: Point																	
KBH 030	BOKOTIMIZA	BOKOTIMIZA	05: Protected Well		1	01: Point																	
KBH 030	BOKOTIMIZA	BOKOTIMIZA	07: Water Vender	From another village (river)	8	04: Not Applicable																	
KBH 010	ZOGOWALE	JONJUNGHA	01: River/Stream/Pond/Dam		2	04: Not Applicable																	
KBH 010	ZOGOWALE	SAENI	01: River/Stream/Pond/Dam		6	04: Not Applicable																	
KBH 010	ZOGOWALE	SAENI	05: Protected Well		1	01: Point																	
KBH 010	ZOGOWALE	SAENI	07: Water Vender		6	04: Not Applicable																	
KBH 010	ZOGOWALE	ZOGOWALE	01: River/Stream/Pond/Dam		1	04: Not Applicable																	
KBH 010	ZOGOWALE	ZOGOWALE	04: Unprotected Well		1	01: Point																	
KBH 010	ZOGOWALE	ZOGOWALE	05: Protected Well		1	02: Piped (Independent System)																	

**Village Water Inventory  
KIBAHA District - Outline of the Existing Water Supply Conditions (4/6)**

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality					F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use	02: Good for Domestic Use, but not Drinking	03: Muddy	04: Salty	05: Rusty	Price	Unit
KONGOWE	KONGOWE	08: City Water/DAWASA		01: All Functioning		01: Supplying Water through the Year								
KONGOWE	KONGOWE	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally								
KONGOWE	KONGOWE	07: Water Vender	From City Water/DAWASA									50	20L-T	
KONGOWE	KUMBA	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally								
KONGOWE	KUMBA	07: Water Vender										300	20L-T	
KONGOWE	MIEMBE SABA	08: City Water/DAWASA		01: All Functioning		01: Supplying Water through the Year								
KONGOWE	MIEMBE SABA	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally								
KONGOWE	MIEMBE SABA	05: Protected Well		03: Break Down	Pump stolen	03: No Supply throughout the Year								
KONGOWE	MIEMBE SABA	07: Water Vender	From City Water/DAWASA									100	20L-T	
MSANGANI	KIDENGE	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally								
MSANGANI	KIDENGE	04: Unprotected Well		03: Break Down	DRY	03: No Supply throughout the Year								
MSANGANI	KIDENGE	07: Water Vender	From other village									200	20L-T	
MSANGANI	MSANGANI	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally								
MSANGANI	MSANGANI	05: Protected Well		03: Break Down	DRY	03: No Supply throughout the Year								
MSANGANI	MSANGANI	07: Water Vender	From other village									250	20L-T	
PANGANI	MTAKUJA	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally								
PANGANI	MTAKUJA	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally								
PANGANI	MTAKUJA	05: Protected Well		03: Break Down	Pump stolen	03: No Supply throughout the Year								
PANGANI	MTAKUJA	07: Water Vender	From river									250	20L-T	
PANGANI	PANGANI	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally								
PANGANI	PANGANI	04: Unprotected Well		03: Break Down	DRY	03: No Supply throughout the Year								
PANGANI	PANGANI	05: Protected Well										200	20L-T	
PANGANI	PANGANI	07: Water Vender	From other village											
MWENDAPOLE	GALAGAZA	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally								
MWENDAPOLE	GALAGAZA	07: Water Vender	From private sector									200	20L-T	
MWENDAPOLE	KWAMFIPA	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally								
MWENDAPOLE	KWAMFIPA	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally								
MWENDAPOLE	KWAMFIPA	08: City Water/DAWASA		01: All Functioning		01: Supplying Water through the Year								
MWENDAPOLE	MWENDAPOLE	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally								
MWENDAPOLE	MWENDAPOLE	05: Protected Well		03: Break Down	Dry	03: No Supply throughout the Year								
MWENDAPOLE	MWENDAPOLE	08: City Water/DAWASA		01: All Functioning		01: Supplying Water through the Year								
MWENDAPOLE	MWENDAPOLE	07: Water Vender	From City Water/DAWASA									200	20L-T	
VIZIWAZIWA	MIKONGENI	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally								
VIZIWAZIWA	MIKONGENI	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally								
VIZIWAZIWA	MIKONGENI	05: Protected Well		02: Functioning Partially		02: Supplying Water Seasonally								
VIZIWAZIWA	MIKONGENI	07: Water Vender	From unprotected well in other village									60	20L-T	
VIZIWAZIWA	SAGALE	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally								
VIZIWAZIWA	SAGALE	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally								
VIZIWAZIWA	SAGALE	07: Water Vender	From River/Stream/Pond/Dam									300	20L-T	
VIZIWAZIWA	VIZIWAZIWA	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally								
VIZIWAZIWA	VIZIWAZIWA	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally								
VIZIWAZIWA	VIZIWAZIWA	05: Protected Well		03: Break Down		03: No Supply throughout the Year								
VIZIWAZIWA	VIZIWAZIWA	07: Water Vender	From unprotected well									200	20L-T	
DUTUMI	DUTUMI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								
DUTUMI	MADEGE	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								
MPELAMUMBI	MPELAMUMBI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								
MPELAMUMBI	MSUWA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								
GUMBA	BUGURUNI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								
GUMBA	GUMBA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								
GUMBA	KIGODA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								
GUMBA	MILALAZI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								
GUMBA	NDWATI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								
GWATA	GWATA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								
GWATA	GWATA	05: Protected Well		02: Functioning Partially		02: Supplying Water Seasonally								
GWATA	NGULUKA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								
GWATA	NGWALE	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								
GWATA	VINYENZE	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								
LUKENGE	MUKONGA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								
LUKENGE	MUYOMBO(UFUGA)	01: River/Stream/Pond/Dam		01: All Functioning		02: Supplying Water Seasonally								
LUKENGE	MIZIWA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year								

**Village Water Inventory  
KIBAHA District - Outline of the Existing Water Supply Conditions (5/6)**

Name of Village		F-1 Name of Sub-Village (Shaded in gray: excluded from the target area of the study)		F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality		F-17 Unit Price	
				Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	Use 01: Good for Domestic 02: Good for Domestic Use, but not Drinking 03: Muddy 04: Salty 05: Rusty	Price	Unit	
MAGINDU	KUYU	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
MAGINDU	LUKARASI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
MAGINDU	MAGINDU	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
MAGINDU	MAGINDU	07: Water Vender		01: All Functioning		01: Supplying Water through the Year						20	20LT
MAGINDU	MIZUGUNI 'A'	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
MAGINDU	MIZUGUNI 'B'	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
MAGINDU	MUYOMBO	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
MALANDIZI 'B'	JANGA	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		JAN-JUN					
MALANDIZI 'B'	JANGA	07: Water Vender	From other village	01: All Functioning		01: Supplying Water through the Year						150	20LT
MALANDIZI 'B'	KILANGALANGA	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		JAN-JUN					
MALANDIZI 'B'	KISABI	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		JAN-JUN					
MALANDIZI 'B'	MALANDIZI KATI	05: Protected Well		02: Functioning Partially		02: Supplying Water Seasonally		JAN-JUN					
MALANDIZI 'B'	MALANDIZI KATI	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		JAN-JUN					
MALANDIZI 'B'	MSONGOLA	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		JAN-JUL					
MALANDIZI 'B'	MSONGOLA	05: Protected Well		02: Functioning Partially		02: Supplying Water Seasonally		JAN-JUN					
MALANDIZI 'B'	MSUFINI	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		JAN-JUN					
MALANDIZI 'B'	MSUFINI	05: Protected Well		02: Functioning Partially		02: Supplying Water Seasonally		JAN-JUN					
VIKULUTI	KIBWENDE	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
VIKULUTI	KIBWENDE	05: Protected Well		01: All Functioning		01: Supplying Water Seasonally		JAN-SEP					
VIKULUTI	KITEMWU	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water Seasonally							
VIKULUTI	RUVU KWADOSA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
VIKULUTI	VIKULUTI MJINI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
VIKULUTI	VIKULUTI MJINI	05: Protected Well		01: All Functioning		02: Supplying Water Seasonally							
KIKONGO	KIKONGO	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
KIKONGO	KIKONGO	05: Protected Well		01: All Functioning	1well x Functioning partially, 2wells x Break Down	01: Supplying Water through the Year							
KIKONGO	VINZIKO	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
KITOMONDO	GUMBA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
KITOMONDO	KITOMONDO	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
KITOMONDO	KITOMONDO	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year							
LUPUNGA	LUPUNGA	01: River/Stream/Pond/Dam		01: All Functioning		02: Supplying Water Seasonally		JAN-JUN				150	20LT
LUPUNGA	LUPUNGA	07: Water Vender		01: All Functioning		02: Supplying Water Seasonally		JAN-JUN				150	20LT
LUPUNGA	MKINO	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
LUPUNGA	MKINO	04: Unprotected Well		01: All Functioning		01: Supplying Water Seasonally							
LUPUNGA	VIDETE	07: Water Vender		01: All Functioning		01: Supplying Water through the Year							
LUPUNGA	VIDETE	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
LUPUNGA	VIDETE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
LUPUNGA	MINAZI MIKINDA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
LUPUNGA	MINAZI MIKINDA	07: Water Vender	From River/Stream/Pond/Dam	01: All Functioning		01: Supplying Water through the Year						50	20LT
MWANABWITO	MNAZI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
MWANABWITO	MWANABWITO	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
MWANABWITO	MWANABWITO	07: Water Vender	From River/Stream/Pond/Dam	01: All Functioning		01: Supplying Water through the Year							
MWANABWITO	MWANABWITO	01: River/Stream/Pond/Dam		01: All Functioning		02: Supplying Water Seasonally						50	20LT
MWANABWITO	MWANABWITO	07: Water Vender	From River/Stream/Pond/Dam	01: All Functioning		02: Supplying Water Seasonally							
NGETA	MAKOTOPOLA	05: Protected Well		02: Functioning Partially		02: Supplying Water Seasonally							
NGETA	MAKOTOPOLA	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		JAN-MAY					
NGETA	NGETA STATION	05: Protected Well		01: All Functioning		02: Supplying Water Seasonally		JAN-MAY					
NGETA	NGETA STATION	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		JAN-MAY					
BOKOMNEMELA	BOKO KATI	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		APR-OCT				300	20LT
BOKOMNEMELA	BOKO KATI	07: Water Vender	From River/Stream/Pond/Dam	02: Functioning Partially		02: Supplying Water Seasonally		APR-OCT				300	20LT
BOKOMNEMELA	KIBAONI	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		APR-OCT				300	20LT
BOKOMNEMELA	KIBAONI	07: Water Vender	From other village	02: Functioning Partially		02: Supplying Water Seasonally		APR-OCT				300	20LT
BOKOMNEMELA	IKAMIBATI	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		APR-OCT				300	20LT
BOKOMNEMELA	IKAMIBATI	07: Water Vender	From other village	02: Functioning Partially		02: Supplying Water Seasonally		APR-OCT				300	20LT
BOKOMNEMELA	NJIA PANDA	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		APR-OCT				300	20LT
BOKOMNEMELA	NJIA PANDA	07: Water Vender	From River/Stream/Pond/Dam	02: Functioning Partially		02: Supplying Water Seasonally		APR-OCT				300	20LT
KIPANGERE	CHANGGE	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
KIPANGERE	KIPANGERE	05: Protected Well		03: Break Down	Pump stolen	03: No Supply throughout the Year							
MISUFINI	KIBEWE	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		JAN-OCT					
MISUFINI	MISUFINI	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		JAN-OCT					
MISUFINI	MISUFINI	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally		JAN-OCT					
MISUFINI	MISUFINI	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		JAN-OCT					
MPLJI	MPLJI	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		MAR-JUN					
MPLJI	ZUMBA	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally		MAR-JUN					

**Village Water Inventory  
KIBAHA District - Outline of the Existing Water Supply Conditions (6/6)**

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality					F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use	02: Good for Domestic Use, but not Drinking	03: Muddy	04: Salty	05: Rusty	Price	Unit
BOKOTIMIZA	BOKOTIMIZA	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally	X							
BOKOTIMIZA	BOKOTIMIZA	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally	X							
BOKOTIMIZA	BOKOTIMIZA	05: Protected Well		03: Break Down		03: No Supply throughout the Year		X				300	20LT	
BOKOTIMIZA	BOKOTIMIZA	07: Water Vender	From another village (river)											
ZOGOWALE	BOKOTIMIZA	01: River/Stream/Pond/Dam		01: All Functioning		02: Supplying Water Seasonally	X							
ZOGOWALE	JONUNGHHA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X							
ZOGOWALE	SAENI	05: Protected Well		01: All Functioning		01: Supplying Water through the Year	X							
ZOGOWALE	SAENI	07: Water Vender												
ZOGOWALE	ZOGOWALE	01: River/Stream/Pond/Dam		01: All Functioning		02: Supplying Water Seasonally	X							
ZOGOWALE	ZOGOWALE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	X							
ZOGOWALE	ZOGOWALE	05: Protected Well		01: All Functioning		02: Supplying Water Seasonally	X							









**Village Inventory**  
**KISARAWA District - Basic Information of the Surveyed Villages (4/9)**

A-1 Serial Number	A-6 Name of Village/Mtaa	D-1 Major Water Source  Specify for 10		D-2 Average Time (min)	D-3 Reliability												D-4 Average Amount (Litres)	D-5 Other WSS Intervention				
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		None	Agency	Period	Plan	
KSR 062	CHOLE	04: Unprotected Well		30	X	X	X	X	X	X	X	X	X	X	X	X	X	200		PLAN INT'L		
KSR 063	KURUI-CHOLE	05: Protected Well		720	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X			
KSR 059	KWALA-CHOLE	04: Unprotected Well		180			X	X	X	X								250	X			
KSR 060	MAFUMBI	04: Unprotected Well		120			X	X	X	X								150	X			
KSR 061	SOFU	04: Unprotected Well		20			X	X	X	X								100	X			
KSR 058	YOMBO LUKINGA	04: Unprotected Well		720	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X			
KSR 022	BWAMA	04: Unprotected Well		60			X	X	X	X								180		PLAN INT'L		
KSR 019	CHANG'OMBE 'B'	04: Unprotected Well		190			X	X	X	X	X							300	X			
KSR 050	KAUZENI	04: Unprotected Well					X	X	X	X								400	X			
KSR 023	KIBUTA	04: Unprotected Well		390														200	X			
KSR 020	MASANGANYA	04: Unprotected Well		180			X	X	X	X	X							300	X			
KSR 021	MTAMBA			120														240	X			
KSR 027	MUHAGA	01: River/Stream/Pond/Dam		60														240		WIPAS		Constructed a well
KSR 002	KILUVYA 'A'	01: River/Stream/Pond/Dam		180			X	X	X									100	X			
KSR 072	MLOGANZILA	04: Unprotected Well		180			X	X	X									300	X			
KSR 070	TONDORONI	04: Unprotected Well		60			X	X	X	X	X							300	X			
KSR 010	KAZIMZUMBWE	07: Water Vender		30			X	X	X									60	X			
KSR 012	KIFURU	07: Water Vender		180	X	X	X	X	X	X	X	X	X	X	X	X	X	50	X			
KSR 006	KISARAWA	01: River/Stream/Pond/Dam		60	X	X	X	X	X	X	X	X	X	X	X	X	X	70	X			
KSR 011	VISEGESE	04: Unprotected Well		45			X	X	X									150	X			
KSR 069	KIDUGALO	04: Unprotected Well		160			X	X	X	X								60	X			
KSR 067	KURUI	04: Unprotected Well		30			X	X	X	X								100		DDCA		
KSR 068	MTAKAYO	05: Protected Well		60	X	X	X	X	X	X	X	X	X	X	X	X	X	100		COUNCIL		
KSR 066	ZEGERO	04: Unprotected Well		480			X	X	X	X								80	X			
KSR 017	GWATA	01: River/Stream/Pond/Dam	River	60	X	X	X	X	X	X	X	X	X	X	X	X	X	70				
KSR 018	KIMALA MISALE	04: Unprotected Well		80			X	X	X	X	X							300	X			
KSR 030	MAFIZI	01: River/Stream/Pond/Dam	River	150	X	X	X	X	X	X	X	X	X	X	X	X	X	85	X			
KSR 016	NYANI	01: River/Stream/Pond/Dam		60	X	X	X	X	X	X	X	X	X	X	X	X	X	60	X			
KSR 029	VING'ANDI	01: River/Stream/Pond/Dam	River	60	X	X	X	X	X	X	X	X	X	X	X	X	X	100	X			
KSR 043	BOGA	04: Unprotected Well		30	X	X	X	X	X	X	X	X	X	X	X	X	X	140	X			
KSR 042	CHALE	01: River/Stream/Pond/Dam	River	30	X	X	X	X	X	X	X	X	X	X	X	X	X	150	X			

**Village Inventory**  
**KISARAWA District - Basic Information of the Surveyed Villages (5/9)**

A-1 Serial Number	A-6 Name of Village/Mtaa	D-1 Major Water Source  Specify for 10		D-2 Average Time (min)	D-3 Reliability												D-4 Average Amount (Litres)	D-5 Other WSS Intervention				
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		None	Agency	Period	Plan	
KSR 039	KIDUGALO-KANGA	01: River/Stream/Pond/Dam	Dam	100	X	X	X	X	X	X	X	X	X	X	X	X	X	100	X			
KSR 036	MENGWA	01: River/Stream/Pond/Dam	Dam	70	X	X	X	X	X	X	X	X	X	X	X	X	X	100	X			
KSR 040	MSEGAMO	01: River/Stream/Pond/Dam	Dam	45	X	X	X	X	X	X	X	X	X	X	X	X	X	150	X			
KSR 051	NGONGELE	01: River/Stream/Pond/Dam	River/stream	60	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X			
KSR 053	KIHARE	01: River/Stream/Pond/Dam	Dam	40	X	X	X	X	X	X	X	X	X	X	X	X	X	160	X			
KSR 074	KISANGIRE	04: Unprotected Well		120			X	X	X	X								200		PLAN INT'L		
KSR 049	MARUI-MIPERA	05: Protected Well		600			X	X	X	X								120	X			
KSR 073	MARUI-NGWATA	01: River/Stream/Pond/Dam		30	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X			
KSR 075	TITU	04: Unprotected Well		60			X	X	X	X								200		DDCA		
KSR 026	CHANG'OMBE 'A'	04: Unprotected Well		75			X	X	X	X								200	X			
KSR 025	KITONGA	01: River/Stream/Pond/Dam		120	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X			
KSR 024	KIVUKONI	04: Unprotected Well		180														150	X			
KSR 064	MARUMBO	02: Unprotected Spring		180			X	X	X	X								210	X			
KSR 065	MFURU KIKWETE	04: Unprotected Well		60			X	X	X	X								200	X			
KSR 028	PALAKA	04: Unprotected Well		210			X	X	X	X								200	X			
KSR 003	KISANGA	04: Unprotected Well		60			X	X	X									100	X			
KSR 004	MASAKI	02: Unprotected Spring		45			X	X	X									60	X			
KSR 009	SUNGWI	04: Unprotected Well		180			X	X	X	X								50	X			
KSR 057	BEMBEZA	04: Unprotected Well		45			X	X	X									200	X			
KSR 076	MIANZI	04: Unprotected Well		120			X	X	X	X								240	X			
KSR 077	MSANGA	05: Protected Well		180	X	X	X	X	X	X	X	X	X	X	X	X	X	250	X			
KSR 056	VISIGA	02: Unprotected Spring		90	X	X	X	X	X	X	X	X	X	X	X	X	X	300	X			
KSR 037	GUMBA	05: Protected Well		60	X	X	X	X	X	X	X	X	X	X	X	X	X	100	X			
KSR 032	HOMBOZA	01: River/Stream/Pond/Dam	Dam	60	X	X	X	X	X	X	X	X	X	X	X	X	X	100		PLAN INT'L		
KSR 055	KITANGA	04: Unprotected Well		30			X	X	X	X								100	X			
KSR 054	LUHANGAI	01: River/Stream/Pond/Dam	Dam	45	X	X	X	X	X	X						X	X	50	X			
KSR 041	MAGURUWE	04: Unprotected Well		180			X	X	X	X								100	X			

**Village Inventory**  
**KISARAWA District - Basic Information of the Surveyed Villages (6/9)**

A-1 Serial Number	A-6 Name of Village/Mtaa	D-1 Major Water Source  Specify for 10		D-2 Average Time (min)	D-3 Reliability												D-4 Average Amount (Litre)	D-5 Other WSS Intervention				
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		None	Agency	Period	Plan	
KSR 031	MSIMBU	05: Protected Well		90	X	X	X	X	X	X	X	X	X	X	X	X	100		PLAN INT'L			
KSR 005	CHAKENGE	04: Unprotected Well		330			X	X	X								200	X				
KSR 001	MITENGWE	04: Unprotected Well		330			X	X	X								130	X				
KSR 007	MZENGA 'A'	04: Unprotected Well		60			X	X	X								100	X				
KSR 008	VILABWA	04: Unprotected Well		45			X	X	X								100	X				
KSR 034	CHAMALALE	04: Unprotected Well		60			X	X	X	X	X						200	X				
KSR 013	KIBWEMWENDA	04: Unprotected Well		30			X	X	X	X	X						100		COUNCIL			
KSR 033	MIHUGWE	04: Unprotected Well		120			X	X	X	X	X						80	X				
KSR 035	MZENGA 'B'	04: Unprotected Well		90			X	X	X	X	X						60	X				
KSR 014	SANGWE	04: Unprotected Well		60			X	X	X	X	X						120	X				
KSR 015	VIHINGO	04: Unprotected Well		45			X	X	X	X	X						300	X				
KSR 046	KITONGA	04: Unprotected Well		50			X	X	X	X							200	X				
KSR 047	KORESA	04: Unprotected Well		90			X	X	X	X	X						200	X				
KSR 044	MTUNANI	04: Unprotected Well		360			X	X	X	X							300	X				
KSR 048	PANGALA MWINGEREZA	04: Unprotected Well		300			X	X	X	X	X						300	X				
KSR 045	VIKUMBULU	04: Unprotected Well		45			X	X	X	X							200		PLAN INT'L			
KSR 071	KILUVYA 'B'	08: City Water/DAWASA		20	X	X	X	X	X	X	X	X	X	X	X	X	100	X				
KSR 038	MANEROMANGO KASKAZI	04: Unprotected Well		60			X	X	X	X	X						200	X				
KSR 052	MANEROMANGO SOKONI	01: River/Stream/Pond/Dam	Dam	30													120		PLAN INT'L			

**Village Inventory**  
**KISARAWÉ District - Basic Information of the Surveyed Villages (7/9)**

A-1 Serial Number	A-6 Name of Village/Mtaa	E-1 (School 1)							E-2 (Health Facility)					
		Name of School (1)	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet	No. of Teacher's House	Name of Health Facility	Type of Health Facility	No of Bed	No of Outpatient	Type of Toilet	No. of Toilet
KSR 062	CHOLE	CHOLE	01: Primary	02: Daily	706	01: Traditional Pit	19	7	CHOLE	01: Dispensar	3	100	01: Traditional Pit	3
		CHOLE	02: Secondary	03: Both	260	01: Traditional Pit	8	3						
KSR 063	KURUI-CHOLE	KURUI CHOLE	01: Primary	02: Daily	346	01: Traditional Pit	22	1						
KSR 059	KWALA-CHOLE	KWALA	01: Primary	02: Daily	457	01: Traditional Pit	12	6						
KSR 060	MAFUMBI	MAFUMBI	01: Primary	02: Daily	120	01: Traditional Pit	14	4						
KSR 061	SOFU	SOFU	01: Primary	02: Daily	40	01: Traditional Pit	6	2						
KSR 058	YOMBO LUKINGA	YOMBO LUKINGA	01: Primary	02: Daily	126	01: Traditional Pit	14	4						
KSR 022	BWAMA	BWAMA	01: Primary	02: Daily	211	01: Traditional Pit	10	3						
KSR 019	CHANG'OMBE 'B'													
KSR 050	KAUZENI	KAUZENI	01: Primary	02: Daily	296	01: Traditional Pit	10	6						
KSR 023	KIBUTA	KIBUTA	01: Primary	02: Daily	310	01: Traditional Pit	10	5						
KSR 020	MASANGANYA	MASANGANYA	01: Primary	02: Daily	550	01: Traditional Pit	18	6	MASANGANYA	01: Dispensar	2	200	01: Traditional Pit	3
KSR 021	MTAMBA	MTAMBA	01: Primary	02: Daily	221	01: Traditional Pit	10	4						
KSR 027	MUHAGA	MUHAGA	01: Primary	02: Daily	223	01: Traditional Pit	10	4						
KSR 002	KILUVUYA 'A'	KILUVUYA 'A'	01: Primary	02: Daily	278	01: Traditional Pit	14	0	KILUVUYA	01: Dispensar	6	30	04: Flush to Septic Tank	1
KSR 072	MLOGANZILA	MLONGANZILA	01: Primary	02: Daily	358	01: Traditional Pit	16	0						
KSR 070	TONDORONI	OSLO HIGH SCHOOL TONDORONI	02: Secondary	02: Daily	75	03: Pour Flush	8	0						
		TONDORONI	01: Primary	02: Daily	270	01: Traditional Pit	3	2						
KSR 010	KAZIMZUMBWE	KAZIMZUMBWI	01: Primary	02: Daily	335	01: Traditional Pit	13	3						
KSR 012	KIFURU	KIFURU	01: Primary	02: Daily	173	01: Traditional Pit	10	2						
KSR 006	KISARAWÉ	CHANZIGE 'A'	05: Primary & S	02: Daily	777	01: Traditional Pit	34	7	KISARAWÉ	03: Hospital	112	50	04: Flush to Septic Tank	16
		Chanziqe 'B'	01: Primary	02: Daily	200	01: Traditional Pit	16	0	BAMITA	01: Dispensar	1	10	01: Traditional Pit	2
		KIBASILA	01: Primary	02: Daily	361	01: Traditional Pit	20	0	AFYA CARE	01: Dispensary			01: Traditional Pit	3
		SANZE	01: Primary	02: Daily	463	01: Traditional Pit	19	0						
		KISARAWÉ	02: Secondary	02: Daily										
KSR 011	VISEGESE	VISEGESE	01: Primary	02: Daily	151	01: Traditional Pit	2	1						
KSR 069	KIDUGALO	KIDUGALO	01: Primary	02: Daily	174	01: Traditional Pit	10	4						
KSR 067	KURUI	KURUI	01: Primary	02: Daily	163	01: Traditional Pit	10	3	KURUI	01: Dispensar	1	30	01: Traditional Pit	2
KSR 068	MTAKAYO	MTAKAYO	01: Primary	02: Daily	208	01: Traditional Pit	10	6						
KSR 066	ZEGERO	ZEGERO	01: Primary	02: Daily	211	01: Traditional Pit	14	4						
KSR 017	GWATA	GWATA	01: Primary	02: Daily	397	01: Traditional Pit	9	4	GWATA	01: Dispensar	2	60	01: Traditional Pit	4
KSR 018	KIMALA MISALE	KIMALA MISALE	01: Primary	02: Daily	150	01: Traditional Pit	0	1						
KSR 030	MAFIZI	MAFIZI	01: Primary	02: Daily	204	01: Traditional Pit	4	1	MAFIZI	01: Dispensar	2	100	01: Traditional Pit	2
KSR 016	NYANI	NYANI	01: Primary	02: Daily	165	01: Traditional Pit	3	4						
KSR 029	VING'ANDI	DOLOLO	01: Primary	02: Daily	199	01: Traditional Pit	2	2						
KSR 043	BOGA	BOGA	01: Primary	02: Daily	534	01: Traditional Pit	12	8						
KSR 042	CHALE	CHALE	01: Primary	02: Daily	180	01: Traditional Pit	7	2						

**Village Inventory**  
**KISARAWÉ District - Basic Information of the Surveyed Villages (8/9)**

A-1 Serial Number	A-6 Name of Village/Mtaa	E-1 (School 1)						E-2 (Health Facility)						
		Name of School (1)	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet	No. of Teacher's House	Name of Health Facility	Type of Health Facility	No of Bed	No of Outpatient	Type of Toilet	No. of Toilet
KSR 039	KIDUGALO-KANGA													
KSR 036	MENGWA	MENGWA	01: Primary	02: Daily	76	01: Traditional Pit	1	1						
KSR 040	MSEGAMO	MSEGAMO	01: Primary	02: Daily	426	01: Traditional Pit	14	4						
KSR 051	NGONGELE	NGONGERE	01: Primary	02: Daily	224	01: Traditional Pit	8	4						
KSR 053	KIHARE	KIHARE	01: Primary	02: Daily	296	01: Traditional Pit	6	4	KIHARE	01: Dispensar	3	50	01: Traditional Pit	3
KSR 074	KISANGIRE													
KSR 049	MARUI-MIPERA	MIPERA	01: Primary	02: Daily	236	01: Traditional Pit	12	4	MARUI	01: Dispensar	2	150	01: Traditional Pit	3
KSR 073	MARUI-NGWATA	MARUI NGWATA	01: Primary	02: Daily	331	01: Traditional Pit	12	6						
KSR 075	TITU	TITU	01: Primary	02: Daily	78	01: Traditional Pit	12	2						
KSR 026	CHANG'OMBE 'A'	CHANG'OMBE 'A'	01: Primary	02: Daily	487	01: Traditional Pit	10	4						
KSR 025	KITONGA	KITONGA	01: Primary	02: Daily	280	01: Traditional Pit	10	4						
KSR 024	KIVUKONI	MFURU	01: Primary	02: Daily	310	01: Traditional Pit	6	4						
KSR 064	MARUMBO	MARUMBO	01: Primary	02: Daily	312	01: Traditional Pit	10	5	MARUMBO	01: Dispensar	1	80	01: Traditional Pit	2
KSR 065	MFURU KIKWETE	KIKWETE	01: Primary	02: Daily	23	01: Traditional Pit	10	5						
KSR 028	PALAKA	PALAKA	01: Primary	02: Daily	282	01: Traditional Pit	8	3						
KSR 003	KISANGA	KISANGA	01: Primary	02: Daily	291	01: Traditional Pit	6	2						
KSR 004	MASAKI	MASAKI	01: Primary	02: Daily	689	01: Traditional Pit	10	7						
KSR 009	SUNGWI	SUNGWI	02: Secondary	02: Daily	401	01: Traditional Pit	10	2	SUNGWI	02: Health Ce	6	100	01: Traditional Pit	2
KSR 057	BEMBEZA	BEMBEZA	01: Primary	02: Daily	410	01: Traditional Pit	4	4						
KSR 076	MIANZI	MIANZI	01: Primary	02: Daily	134	01: Traditional Pit	6	1						
KSR 077	MSANGA	MSANGA TANGUO/JANGUO	01: Primary 02: Secondary	02: Daily 02: Daily	761 160	01: Traditional Pit 01: Traditional Pit	6 6	4 1	MSANGA	01: Dispensar	10	150	01: Traditional Pit	2
KSR 056	VISIGA	VISIGA	01: Primary	02: Daily	343	01: Traditional Pit	10	5						
KSR 037	GUMBA	GUMBA	01: Primary	02: Daily	377	01: Traditional Pit	19	2						
KSR 032	HOMBOZA	HOMBOZA	01: Primary	02: Daily	540	01: Traditional Pit	15	5	HOMBOZA	01: Dispensar	2	100	01: Traditional Pit	3
KSR 055	KITANGA	KITANGA	01: Primary	02: Daily	449	01: Traditional Pit	11	2						
KSR 054	LUHANGAI	LUHANGAI	01: Primary	02: Daily	115	01: Traditional Pit	3	0						
KSR 041	MAGURUWE	MAGURUWE	01: Primary	02: Daily	210	01: Traditional Pit	5	1						

**Village Inventory**  
**KISARAWA District - Basic Information of the Surveyed Villages (9/9)**

A-1 Serial Number	A-6 Name of Village/Mtaa	E-1 (School 1)							E-2 (Health Facility)					
		Name of School (1)	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet	No. of Teacher's House	Name of Health Facility	Type of Health Facility	No of Bed	No of Outpatient	Type of Toilet	No. of Toilet
KSR 031	MSIMBU	MSIMBU MWANZO MGUMU	01: Primary 01: Primary	02: Daily 02: Daily	700 300	01: Traditional Pit 01: Traditional Pit	15 2	3 1						
KSR 005	CHAKENGE	TURINI	01: Primary	02: Daily	232	01: Traditional Pit	20	3						
KSR 001	MITENGWE	MITENGWE	01: Primary	02: Daily	543	01: Traditional Pit	10	2						
KSR 007	MZENGA 'A'	MZENGA MZENGA	01: Primary 02: Secondary	02: Daily 02: Daily	376 350	01: Traditional Pit 01: Traditional Pit	30 0	5 0	MZENGA	02: Health Ce	22	150	01: Traditional Pit	4
KSR 008	VILABWA	VILABWA	01: Primary	02: Daily	184	01: Traditional Pit	12	3	VILABWA	01: Dispensary		6	01: Traditional Pit	0
KSR 034	CHAMALALE	VIHUNGO	01: Primary	02: Daily	205	01: Traditional Pit	10	5						
KSR 013	KIBWEMWENDA	KIBWEMWENDA	01: Primary	02: Daily	205	01: Traditional Pit	6	2						
KSR 033	MIHUGWE	MIHUGWE	01: Primary	02: Daily	86	01: Traditional Pit	10	2						
KSR 035	MZENGA 'B'													
KSR 014	SANGWE	SANGWE	01: Primary	02: Daily	310	01: Traditional Pit	6	3	SANGWE	01: Dispensar	1	10	01: Traditional Pit	2
KSR 015	VIHINGO													
KSR 046	KITONGA	KITONGA	01: Primary	02: Daily	84	01: Traditional Pit	2	0						
KSR 047	KORESA	KORESA	01: Primary	02: Daily	164	01: Traditional Pit	14	5						
KSR 044	MTUNANI	MTUNANI	01: Primary	02: Daily	211	01: Traditional Pit	14	3						
KSR 048	PANGALA MWINGEREZA					01: Traditional Pit								
KSR 045	VIKUMBULU	VIKUMBULU	01: Primary	02: Daily	320	01: Traditional Pit	14	1						
KSR 071	KILUVYA 'B'	KILUVYA 'B'	01: Primary	02: Daily	621	01: Traditional Pit	12	0						
KSR 038	MANEROMANGO KASKAZI	MENEROMANGO	01: Primary	02: Daily	358	01: Traditional Pit	10	3	KKKT (MANERO) MANEROMANGO	01: Dispensar 02: Health Ce	4 9	30 100	01: Traditional Pit 01: Traditional Pit	2 2
KSR 052	MANEROMANGO SOKONI	MANGO MADUGIKE	02: Secondary 01: Primary	02: Daily 02: Daily	307 380	01: Traditional Pit 01: Traditional Pit	8 8	4 5						















**Village Water Inventory  
KISARAWÉ District - Outline of the Existing Water Supply Conditions (7/14)**

Serial Number	Name of Village	F-1		F-2		F-3	F-5	F-10								F-11	F-12		F-13	
		Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	Water Source	Water Source	Specify for 07 and 10			No of Water Source	Type of Water Supply System	Type of Water Supply Facility								Organized Facility	Number of Water Points	Public
KSR 014	SANGWE	MFURU	04: Unprotected Well	04: Unprotected Well		101: Point		X									COMMUNITY			
KSR 014	SANGWE	PANGANI	04: Unprotected Well	04: Unprotected Well		101: Point		X									COMMUNITY			
KSR 014	SANGWE	SANGWE 'A'	04: Unprotected Well	04: Unprotected Well		101: Point		X									COMMUNITY			
KSR 014	SANGWE	SANGWE 'A'	05: Protected Well	05: Protected Well		101: Point		X									DISTRICT COUNCIL	2001		
KSR 015	VIHINGO	VIHINGO	04: Unprotected Well	04: Unprotected Well		901: Point		X									COMMUNITY			
KSR 015	VIHINGO	VIHINGO	05: Protected Well	05: Protected Well		101: Point		X									DISTRICT COUNCIL	2004		
KSR 015	VIHINGO	VIHINGO	07: Water Vender	07: Water Vender	From unprotected well in nearby village	104: Not Applicable		X									COMMUNITY			
KSR 046	KITONGA	KITONGA CHINI	04: Unprotected Well	04: Unprotected Well		201: Point		X									COMMUNITY			
KSR 046	KITONGA	KITONGA CHINI	05: Protected Well	05: Protected Well		101: Point		X									DISTRICT COUNCIL	1996		
KSR 046	KITONGA	KITONGA CHINI	07: Water Vender	07: Water Vender	From unprotected & protected wells	1004: Not Applicable		X									COMMUNITY			
KSR 046	KITONGA	KITONGA CHINI	04: Unprotected Well	04: Unprotected Well		601: Point		X									COMMUNITY			
KSR 046	KITONGA	KITONGA JUU	07: Water Vender	07: Water Vender		1004: Not Applicable		X									COMMUNITY			
KSR 047	KORESA	KWAKIBANDA	04: Unprotected Well	04: Unprotected Well		101: Point		X									COMMUNITY			
KSR 047	KORESA	KWAKIBANDA	07: Water Vender	07: Water Vender	From unprotected well	204: Not Applicable		X									COMMUNITY			
KSR 047	KORESA	KWAKIEWWA	04: Unprotected Well	04: Unprotected Well		101: Point		X									COMMUNITY			
KSR 047	KORESA	KWAKIEWWA	07: Water Vender	07: Water Vender	From unprotected well	204: Not Applicable		X									COMMUNITY			
KSR 047	KORESA	KWATAMBUKA	04: Unprotected Well	04: Unprotected Well		101: Point		X									COMMUNITY			
KSR 047	KORESA	KWATAMBUKA	07: Water Vender	07: Water Vender	From unprotected well	204: Not Applicable		X									COMMUNITY			
KSR 044	MTUNANI	MTUNANI	04: Unprotected Well	04: Unprotected Well		201: Point		X									COMMUNITY			
KSR 044	MTUNANI	MTUNANI	07: Water Vender	07: Water Vender	From unprotected well	304: Not Applicable		X									COMMUNITY			
KSR 044	MTUNANI	MTUNANI	07: Water Vender	07: Water Vender	From unprotected well	1004: Not Applicable		X									COMMUNITY			
KSR 048	PANGALA MWINGEREZA	KWAGOMA	04: Unprotected Well	04: Unprotected Well		101: Point		X									COMMUNITY			
KSR 048	PANGALA MWINGEREZA	KWAGOMA	07: Water Vender	07: Water Vender	From unprotected well	304: Not Applicable		X									COMMUNITY			
KSR 048	PANGALA MWINGEREZA	KWAMADOGO	04: Unprotected Well	04: Unprotected Well		101: Point		X									COMMUNITY			
KSR 048	PANGALA MWINGEREZA	KWAMADOGO	07: Water Vender	07: Water Vender	From unprotected well	304: Not Applicable		X									COMMUNITY			
KSR 048	PANGALA MWINGEREZA	KWAZAVU	04: Unprotected Well	04: Unprotected Well		101: Point		X									COMMUNITY			
KSR 048	PANGALA MWINGEREZA	KWAZAVU	07: Water Vender	07: Water Vender	From unprotected well	304: Not Applicable		X									COMMUNITY			
KSR 045	VIKUMBULU	KWAMBE TELA	04: Unprotected Well	04: Unprotected Well		201: Point		X									COMMUNITY			
KSR 045	VIKUMBULU	KWAMBE TELA	07: Water Vender	07: Water Vender	From unprotected well	1004: Not Applicable		X									COMMUNITY			
KSR 045	VIKUMBULU	KWAMIGOKO	04: Unprotected Well	04: Unprotected Well		101: Point		X									COMMUNITY			
KSR 045	VIKUMBULU	KWAMIGOKO	07: Water Vender	07: Water Vender	From unprotected well	1504: Not Applicable		X									COMMUNITY			
KSR 045	VIKUMBULU	KWAMITITU	04: Unprotected Well	04: Unprotected Well		201: Point		X									COMMUNITY			
KSR 045	VIKUMBULU	KWAMITITU	07: Water Vender	07: Water Vender	From unprotected well	1004: Not Applicable		X									COMMUNITY			
KSR 045	VIKUMBULU	VIKUMBULU SOKO	04: Unprotected Well	04: Unprotected Well		401: Point		X									COMMUNITY			
KSR 045	VIKUMBULU	VIKUMBULU SOKO	05: Protected Well	05: Protected Well		101: Point		X									DISTRICT COUNCIL	1999		
KSR 045	VIKUMBULU	VIKUMBULU SOKO	07: Water Vender	07: Water Vender	From unprotected & protected wells	2004: Not Applicable		X									COMMUNITY			

**Village Water Inventory  
KISARAWÉ District - Outline of the Existing Water Supply Conditions (8/14)**

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality		F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use, but not Drinking 02: Good for Domestic Use 03: Muddy 04: Salty 05: Rusty	Price	Unit	
CHOLE	EGEA										
CHOLE	NDOGOYO	10: Others	Getting water from nearby Sub-Village								
CHOLE	PONZA	05: Protected Well		01: All Functioning				X			100/20LT
CHOLE	PONZA	07: Water Vender	From protected well								
CHOLE	SHULENI	05: Protected Well		01: All Functioning				X			100/20LT
CHOLE	SHULENI	07: Water Vender	From protected well								
KURUI-CHOLE	KURUI 'A'	04: Unprotected Well		01: All Functioning				X			200/20LT
KURUI-CHOLE	KURUI 'A'	07: Water Vender	From unprotected well								
KURUI-CHOLE	KURUI 'B'	05: Protected Well		01: All Functioning				X			200/20LT
KURUI-CHOLE	KURUI 'B'	06: Borehole	From protected well								
KWALA-CHOLE	KWALA	04: Unprotected Well		01: All Functioning				X			200/20LT
KWALA-CHOLE	SANVULA	10: Others	Getting water from nearby Sub-Village								
KWALA-CHOLE	VIYOMBO	05: Protected Well		01: All Functioning				X			
MAFUMBI	SONGAMBELE	04: Unprotected Well		01: All Functioning				X			200/20LT
MAFUMBI	SONGAMBELE	07: Water Vender	From unprotected well								
MAFUMBI	UMOJA	04: Unprotected Well		01: All Functioning				X			200/20LT
MAFUMBI	UMOJA	07: Water Vender	From unprotected well								
SOFU	MKOGA	04: Unprotected Well		01: All Functioning				X			300/20LT
SOFU	MKOGA	07: Water Vender	From unprotected well								
SOFU	SOFU 'A'	04: Unprotected Well		01: All Functioning				X			300/20LT
SOFU	SOFU 'A'	07: Water Vender	From unprotected well								
YOMBO LUKINGA	LUKINGA	04: Unprotected Well		01: All Functioning				X			500/20LT
YOMBO LUKINGA	LUKINGA	07: Water Vender	From unprotected well								
YOMBO LUKINGA	LUKINGA	04: Unprotected Well		01: All Functioning				X			500/20LT
YOMBO LUKINGA	YOMBO	07: Water Vender	From unprotected well								
BWAMA	BWAMA CCM	04: Unprotected Well		01: All Functioning				X			500/20LT
BWAMA	BWAMA CCM	05: Protected Well		01: All Functioning				X			
BWAMA	BWAMA CCM	01: River/Stream/Pond/Dam		01: All Functioning				X			
BWAMA	BWAMA CCM	04: Unprotected Well		01: All Functioning				X			
BWAMA	KIBONGO	04: Unprotected Well	Dam	01: All Functioning				X			
BWAMA	KIBONGO	01: River/Stream/Pond/Dam		01: All Functioning				X			
BWAMA	NYEGELEHU	04: Unprotected Well		01: All Functioning				X			
BWAMA	NYEGELEHU	01: River/Stream/Pond/Dam	Dam	01: All Functioning				X			
BWAMA	VIKUNGWA	05: Protected Well		01: All Functioning				X			
BWAMA	VIKUNGWA	01: River/Stream/Pond/Dam	Dam	01: All Functioning				X			
BWAMA	VIKUNGWA	04: Unprotected Well		01: All Functioning				X			
CHANGOMBE 'B'	KWAMITOLLO	04: Unprotected Well		01: All Functioning				X			
CHANGOMBE 'B'	NGULANGWA	04: Unprotected Well	Located in Kwamitolo Sub-village	01: All Functioning				X			
KAUZENI	KAUZENI CHINI	01: River/Stream/Pond/Dam	Dam	01: All Functioning				X			
KAUZENI	KAUZENI CHINI	04: Unprotected Well		01: All Functioning				X			
KAUZENI	KAUZENI CHINI	07: Water Vender	From unprotected & protected wells								200/20LT
KAUZENI	KAUZENI CHINI	05: Protected Well		01: All Functioning				X			
KAUZENI	KAUZENI JUU	04: Unprotected Well		01: All Functioning				X			
KAUZENI	KAUZENI JUU	07: Water Vender	From unprotected well								
KIBUTA	BEMBEZA	04: Unprotected Well		01: All Functioning				X			200/20LT
KIBUTA	KIBUTA SOKONI	05: Protected Well		01: All Functioning				X			
KIBUTA	KIBUTA SOKONI	04: Unprotected Well		01: All Functioning				X			
KIBUTA	MLOO	04: Unprotected Well		01: All Functioning				X			
KIBUTA	MLOO	02: Unprotected Spring		01: All Functioning				X			
KIBUTA	ULOGOMANI	04: Unprotected Well		01: All Functioning				X			
MASANGANYA	BOMANI	04: Unprotected Well		01: All Functioning				X			
MASANGANYA	BOMANI	02: Unprotected Spring		01: All Functioning				X			
MASANGANYA	BOMANI	05: Protected Well		01: All Functioning				X			
MASANGANYA	BOMANI	01: River/Stream/Pond/Dam	Dam	01: All Functioning				X			
MASANGANYA	CHAMGOI	04: Unprotected Well		01: All Functioning				X			
MASANGANYA	CHAMGOI	01: River/Stream/Pond/Dam	Dam	01: All Functioning				X			
MASANGANYA	MAFULUWILI	04: Unprotected Well		01: All Functioning				X			
MASANGANYA	MAFULUWILI	01: River/Stream/Pond/Dam	Dam	01: All Functioning				X			
MASANGANYA	MLEGELE	04: Unprotected Well		01: All Functioning				X			
MASANGANYA	MLEGELE	01: River/Stream/Pond/Dam	River	01: All Functioning				X			
MTAMBA	KISISO	04: Unprotected Well		01: All Functioning				X			

**Village Water Inventory  
KISARAWÉ District - Outline of the Existing Water Supply Conditions (9/14)**

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use, but not Drinking	02: Muddy	03: Salty	04: Rusty	Price	Unit
MTAMBA	KISO	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally					250/20LT		
MTAMBA	MPIJI	04: Unprotected Well	From unprotected well	01: All Functioning							250/20LT		
MTAMBA	MPIJI	07: Water Vender	From unprotected well	01: All Functioning							200/20LT		
MTAMBA	MTAMBA	04: Unprotected Well	From unprotected well	01: All Functioning									
MUHANGA	KITONDWE 'A'	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
MUHANGA	KITONDWE 'A'	05: Protected Well		01: All Functioning		01: Supplying Water through the Year							
MUHANGA	KITONDWE 'B'	05: Protected Well		01: All Functioning		01: Supplying Water through the Year							
MUHANGA	KITONDWE 'B'	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
MUHANGA	MUHANGA SHULE	05: Protected Well		01: All Functioning		01: Supplying Water through the Year							
MUHANGA	MUHANGA SHULE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
KILUVYA 'A'	KILUVYA MADUKANI	08: City Water/DAWASA		01: All Functioning		01: Supplying Water through the Year					Billing system by DAWASA		
KILUVYA 'A'	KILUVYA MADUKANI	01: River/Stream/Pond/Dam	Dam	01: All Functioning		01: Supplying Water through the Year							
KILUVYA 'A'	KILUVYA MADUKANI	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
KILUVYA 'A'	MAKULUNGE	01: River/Stream/Pond/Dam	Dam	01: All Functioning		01: Supplying Water through the Year							
KILUVYA 'A'	MAKULUNGE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
KILUVYA 'A'	MAKULUNGE	07: Water Vender	From dam	01: All Functioning		01: Supplying Water Seasonally					200/20LT		
KILUVYA 'A'	RELINI	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
KILUVYA 'A'	RELINI	07: Water Vender	From unprotected well	01: All Functioning		01: Supplying Water through the Year					250/20LT		
KILUVYA 'A'	TAZAMA P. LINE	01: River/Stream/Pond/Dam	Dam	02: Functioning Partially		01: Supplying Water Seasonally							
KILUVYA 'A'	TAZAMA P. LINE	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year							
KILUVYA 'A'	TAZAMA P. LINE	06: Borehole		01: All Functioning		01: Supplying Water through the Year							
KILUVYA 'A'	TAZAMA P. LINE	07: Water Vender	From dam	01: All Functioning		01: Supplying Water through the Year					200/20LT		
MLOGANZILA	MLOGANZILA	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year							
MLOGANZILA	MLOGANZILA	08: City Water/DAWASA		01: All Functioning		01: Supplying Water through the Year							
MLOGANZILA	RUNGWE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
TONDORONI	CHEMICHEM	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
TONDORONI	CHEMICHEM	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally					300/20LT		
TONDORONI	MPAKANI	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
TONDORONI	MPAKANI	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally					300/20LT		
TONDORONI	SHULENI	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
TONDORONI	SHULENI	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally					300/20LT		
TONDORONI	TONDORONI MASHU	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
TONDORONI	TONDORONI MASHU	07: Water Vender	From unprotected well	01: All Functioning		01: Supplying Water through the Year							
KAZIMZUMBWE	DARAJANI	07: Water Vender	From near village										
KAZIMZUMBWE	KILIMANI	07: Water Vender	From near village										
KAZIMZUMBWE	KILIMANI	07: Water Vender	From near village										
KAZIMZUMBWE	MKUNDI	07: Water Vender	From near village										
KIFURU	KIFURU STATION	07: Water Vender	From near village (with vehicle)										
KIFURU	KIGEMBE	07: Water Vender	From near village (with vehicle)										
KISARAWÉ	BOMANI	01: River/Stream/Pond/Dam	Dam	01: All Functioning		01: Supplying Water through the Year					400/20LT		
KISARAWÉ	BOMANI	05: Protected Well		01: All Functioning		01: Supplying Water through the Year							
KISARAWÉ	KIBAO NI	01: River/Stream/Pond/Dam	Dam	01: All Functioning		01: Supplying Water through the Year							
KISARAWÉ	KIBAO NI	05: Protected Well		01: All Functioning		01: Supplying Water through the Year							
KISARAWÉ	KIBAO NI	07: Water Vender	From dam and protected well								200/20LT		
KISARAWÉ	MAMBISI	07: Water Vender	From unprotected well								200/20LT		
KISARAWÉ	MATUMBWI	05: Protected Well		01: All Functioning		01: Supplying Water through the Year							
KISARAWÉ	MATUMBWI	07: Water Vender	From unprotected well								200/20LT		
KISARAWÉ	MINAKI	07: Water Vender	From unprotected & protected wells								200/20LT		
KISARAWÉ	SANZE	05: Protected Well		01: All Functioning		01: Supplying Water through the Year							
KISARAWÉ	SANZE	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year							
KISARAWÉ	VIGAMA	07: Water Vender	From protected well								200/20LT		
VISEGESE	BWAWANI	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
VISEGESE	KAMBI YA BOMBA	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
VISEGESE	KGODI	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
VISEGESE	MAKONDEKO	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
KIDUGALO	KIDUGALO SHULENI	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
KIDUGALO	MAJUMBA SITA	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
KURUI	KURUI	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							



Village Water Inventory  
KISARAWÉ District - Outline of the Existing Water Supply Conditions (10/14)

Name of Village	F-1		F-2		F-14		F-15		F-16				F-17	
	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	Water Source	Water Source	Condition	Condition	Condition	Supply Condition	Specify for 02	01: Good for Domestic Use, but not Drinking	02: Salty	03: Muddy	04: Rusty	05: Price	Unit
KURUJI	KURUJI	07: Water Vender	From unprotected well	01: All Functioning	Condition	Specify for 02 and 03	01: Supplying Water through the Year						300/20LT	
MITAKAYO	MITAKAYO SHULE	05: Protected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-JUN						
MITAKAYO	MITAKAYO SHULE	04: Unprotected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-JUN						
MITAKAYO	MITAKAYO SHULE	04: Unprotected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-JUN						
ZEGERO	ZEGERO 'A'	04: Unprotected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-JUN						
ZEGERO	ZEGERO 'A'	04: Unprotected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-JUN						
GWATA	CHECK LINE	01: River/Stream/Pond/Dam		01: All Functioning			01: Supplying Water through the Year							
GWATA	DOLOLO	01: River/Stream/Pond/Dam		01: All Functioning			01: Supplying Water through the Year							
GWATA	KIPOLA	01: River/Stream/Pond/Dam	Ruvu River	01: All Functioning			01: Supplying Water through the Year							
GWATA	MASIMBA	01: River/Stream/Pond/Dam		01: All Functioning			01: Supplying Water through the Year							
GWATA	SOKONI	01: River/Stream/Pond/Dam	Ruvu River	01: All Functioning			01: Supplying Water through the Year							
GWATA	VIZEMBE	01: River/Stream/Pond/Dam		01: All Functioning			01: Supplying Water through the Year							
KIMALA MISALE	KIGOGO	01: River/Stream/Pond/Dam		01: All Functioning			02: Supplying Water Seasonally	MAR-AUG			X			
KIMALA MISALE	KIMALA MISALE 'A'	04: Unprotected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-JUN						
MAFIZI	BWEMBEWELA	04: Unprotected Well		02: Functioning Partially			01: Supplying Water through the Year							
MAFIZI	MAFIZI	01: River/Stream/Pond/Dam		01: All Functioning			01: Supplying Water through the Year							
MAFIZI	MAFIZI	04: Unprotected Well		02: Functioning Partially			01: Supplying Water Seasonally	MAR-JUL						
MAFIZI	MWANAMSEKWA	01: River/Stream/Pond/Dam		01: All Functioning			02: Supplying Water Seasonally	MAR-JUN						
MAFIZI	MWANAMSEKWA	04: Unprotected Well		02: Functioning Partially			01: Supplying Water through the Year							
MAFIZI	KIMLEMETA	01: River/Stream/Pond/Dam		01: All Functioning			01: Supplying Water through the Year							
NYANI	KIMLEMETA	07: Water Vender	From river/stream/pond/dam	01: All Functioning			01: Supplying Water through the Year							100/20LT
NYANI	NYANI SHULENI	01: River/Stream/Pond/Dam		01: All Functioning			01: Supplying Water through the Year							
NYANI	NYANI SHULENI	04: Unprotected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-JUN						
NYANI	NYANI SHULENI	07: Water Vender	From river/stream/pond/dam	01: All Functioning			01: Supplying Water through the Year							100/20LT
NYANI	TEMU NYANI	01: River/Stream/Pond/Dam		01: All Functioning			01: Supplying Water through the Year							
NYANI	TEMU NYANI	07: Water Vender	From river/stream/pond/dam	01: All Functioning			01: Supplying Water through the Year							
VINGANDI	DOLOLO	01: River/Stream/Pond/Dam		01: All Functioning			01: Supplying Water through the Year							
VINGANDI	KIDUNDA TAZARA	07: Water Vender		02: Functioning Partially			01: Supplying Water through the Year							
VINGANDI	KIDUNDA TAZARA	01: River/Stream/Pond/Dam	From river	02: Functioning Partially			01: Supplying Water through the Year							200/20LT
VINGANDI	KIUNDI	01: River/Stream/Pond/Dam	River	01: All Functioning			01: Supplying Water through the Year							
BOGA	BOGA 'A'	05: Protected Well		01: All Functioning			01: Supplying Water through the Year							
BOGA	BOGA 'A'	07: Water Vender	From unprotected and protected wells	01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						100/20LT
BOGA	BOGA 'B'	04: Unprotected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						100/20LT
BOGA	BOGA 'B'	07: Water Vender	From unprotected well	01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						100/20LT
BOGA	BOGA 'C'	04: Unprotected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						150/20LT
BOGA	BOGA 'C'	07: Water Vender	From unprotected well	01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						150/20LT
BOGA	BOGA 'D'	04: Unprotected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						150/20LT
BOGA	BOGA 'D'	07: Water Vender	From unprotected well	01: All Functioning			01: Supplying Water through the Year							150/20LT
CHALE	CHALE MSIKITINI	01: River/Stream/Pond/Dam	From River/Stream/Pond/Dam	01: All Functioning			01: Supplying Water through the Year				X			200/20LT
CHALE	CHALE MSIKITINI	07: Water Vender		01: All Functioning			01: Supplying Water through the Year							200/20LT
CHALE	CHALE SHULENI	01: River/Stream/Pond/Dam	From River/Stream/Pond/Dam	01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						200/20LT
CHALE	CHALE SHULENI	07: Water Vender	From River/Stream/Pond/Dam	01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						200/20LT
CHALE	MKUNGUGU	04: Unprotected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						200/20LT
CHALE	MKUNGUGU	07: Water Vender	From unprotected well	01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						200/20LT
KIDUGALO-KANGA	GELELO	04: Unprotected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-SEP						
KIDUGALO-KANGA	KIDUGALO	01: River/Stream/Pond/Dam		01: All Functioning			01: Supplying Water through the Year							
KIDUGALO-KANGA	KIDUGALO	04: Unprotected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-SEP						
MENGBWA	MAGOZA	05: Protected Well		01: All Functioning			01: Supplying Water through the Year							
MENGBWA	MAGOZA	01: River/Stream/Pond/Dam	Mombeke River	03: Break Down			01: Supplying Water through the Year				X			
MENGBWA	MENGBWA 'A'	05: Protected Well		01: All Functioning			01: Supplying Water through the Year							
MENGBWA	MENGBWA 'A'	04: Unprotected Well		01: All Functioning			01: Supplying Water through the Year							
MENGBWA	MENGBWA 'A'	01: River/Stream/Pond/Dam		01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						
MSEGAMO	MKUYUNI	01: River/Stream/Pond/Dam		01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						
MSEGAMO	MKUYUNI	04: Unprotected Well		02: Functioning Partially			02: Supplying Water Seasonally	MAR-JUL						
MSEGAMO	MSEGAMO 'A'	04: Unprotected Well		03: Break Down			01: Supplying Water through the Year							
MSEGAMO	MSEGAMO 'A'	05: Protected Well		01: All Functioning			01: Supplying Water through the Year							
MSEGAMO	MSEGAMO SHULE	05: Protected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						
MSEGAMO	MSEGAMO SHULE	04: Unprotected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						
NGONGERE	NGONGERE 'A'	01: River/Stream/Pond/Dam		01: All Functioning			02: Supplying Water through the Year							
NGONGERE	NGONGERE 'A'	04: Unprotected Well		01: All Functioning			02: Supplying Water Seasonally	MAR-JUL						

**Village Water Inventory  
KISARAWÉ District - Outline of the Existing Water Supply Conditions (11/14)**

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use, but not Drinking	02: Muddy	03: Salty	04: Rusty	Price	Unit
NGONGERE	NGONGERE 'A'	07: Water Vender	From River/Stream/Pond/Dam & unprotected	01: All Functioning		02: Supplying Water Seasonally	X				100/20LT		
NGONGERE	NGONGERE 'B'	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally					100/20LT		
NGONGERE	NGONGERE 'B'	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
KIHARE	KWABIKI	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
KIHARE	KWABOZI	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
KIHARE	KWANGUITA	01: River/Stream/Pond/Dam	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
KIHARE	KWANGUITA	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
KISANGIRE	BUDUGE	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
KISANGIRE	KISANGIRE	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-MIPERA	MGAMA	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-MIPERA	MGAMA	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-MIPERA	MIPERA	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-MIPERA	MIPERA	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-MIPERA	MWELANZI	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-MIPERA	MWELANZI	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-MIPERA	NTUNA	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-MIPERA	NTUNA	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-NGWATA	KISOTI	01: River/Stream/Pond/Dam	From unprotected well & river/stream/pond/dam	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-NGWATA	KISOTI	07: Water Vender	From unprotected well & river/stream/pond/dam	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-NGWATA	KISOTI	04: Unprotected Well	From unprotected well & river/stream/pond/dam	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-NGWATA	MKELE	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-NGWATA	MKELE	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-NGWATA	UVIHANGANI	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUJ-NGWATA	UVIHANGANI	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
TITU	GEZA	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
TITU	MAJUMBA SITA	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
TITU	TITU SHULENI	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
CHANGOMBE	KITAMBA	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
CHANGOMBE	CHANGOMBE	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
CHANGOMBE	MANOLO	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
CHANGOMBE	MANOLO	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
CHANGOMBE	MANOLO	05: Protected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
KITONGA	KITONGA	01: River/Stream/Pond/Dam	Dam	03: Break Down	Pump broken	03: No Supply throughout the Year							
KITONGA	KITONGA	04: Unprotected Well	From unprotected well	03: Break Down	Pipe burst and pump broken	03: No Supply throughout the Year							
KITONGA	KITONGA	05: Protected Well	From Dam	02: Functioning Partially	Pump broken	03: No Supply throughout the Year							
KITONGA	KITONGA	07: Water Vender	From Dam	01: All Functioning		02: Supplying Water Seasonally							
KITONGA	KITONGA	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
KITONGA	KITONGA	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
KIVUKONI	KIBELUBELU	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
KIVUKONI	KIBELUBELU	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
KIVUKONI	KIVUKONI	05: Protected Well	From unprotected well	03: Break Down	Pump broken	03: No Supply throughout the Year							
KIVUKONI	KIVUKONI	07: Water Vender	From unprotected & protected wells	01: All Functioning		02: Supplying Water Seasonally							
KIVUKONI	RUBANE	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
KIVUKONI	RUBANE	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUMBO	BANGU	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUMBO	BANGU	07: Water Vender	From unprotected well &	01: All Functioning		02: Supplying Water Seasonally							
MARUMBO	MARUMBO	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUMBO	MARUMBO	07: Water Vender	From unprotected & protected wells	01: All Functioning		02: Supplying Water Seasonally							
MARUMBO	MARUMBO	05: Protected Well	From unprotected & protected wells	03: Break Down	No water and pump broken	03: No Supply throughout the Year							
MARUMBO	MARUMBO	04: Unprotected Well	From unprotected well &	01: All Functioning		02: Supplying Water Seasonally							
MARUMBO	TONDO	07: Water Vender	From unprotected well &	01: All Functioning		02: Supplying Water Seasonally							
MARUMBO	TONDO	01: River/Stream/Pond/Dam	From unprotected well &	01: All Functioning		02: Supplying Water Seasonally							
MARUMBO	ZUNGUNI	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MARUMBO	ZUNGUNI	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MFURU KIKWETE	JONGO	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MFURU KIKWETE	JONGO	05: Protected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MFURU KIKWETE	KWAMALETA	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MFURU KIKWETE	KWAMISIGA	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally							
MFURU KIKWETE	MAZUNGA	05: Protected Well	From unprotected well	03: Break Down	Problem is not well known	03: No Supply throughout the Year							

Village Water Inventory  
KISARAWÉ District - Outline of the Existing Water Supply Conditions (12/14)

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use, but not Drinking	02: Muddy	03: Salty	04: Rusty	Price	Unit
MFURU KIKWETE	MINJUMAA	05: Protected Well		01: All Functioning		01: Supplying Water through the Year		X					
PALAKA	KIFURU	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
PALAKA	LUKURU	07: Water Vender	From River/Stream/Pond/Dam			02: Supplying Water Seasonally						200	20LIT
PALAKA	LUKOSE	04: Unprotected Well		01: All Functioning									
PALAKA	LUKOSE	07: Water Vender	From unprotected well										
PALAKA	PALAKA 'A'	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
PALAKA	PALAKA 'A'	07: Water Vender	From unprotected well										
PALAKA	PALAKA 'B'	07: Water Vender	From unprotected well										
PALAKA	PALAKA 'B'	04: Unprotected Well		01: All Functioning									
KISANGA	FLUKWI	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
KISANGA	KIWENI	04: Unprotected Well		01: All Functioning									
KISANGA	KISANGA MJINI	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally							
KISANGA	KITUNDA	04: Unprotected Well		01: All Functioning									
KISANGA	KOLA	04: Unprotected Well		01: All Functioning									
KISANGA	NZASA	04: Unprotected Well		01: All Functioning									
MASAKI	KIBESA	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
MASAKI	KIBEWEGELE	04: Unprotected Well		01: All Functioning									
MASAKI	KIDUGALO	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
MASAKI	MASAKI MJINI	04: Unprotected Well		01: All Functioning									
MASAKI	MITWNI	04: Unprotected Well		01: All Functioning									
MASAKI	MJALE	04: Unprotected Well		01: All Functioning									
SUNGWI	KIMBALANGAJI	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally							
SUNGWI	MBUNGO	04: Unprotected Well		02: Functioning Partially									
SUNGWI	MTIBETINI	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
SUNGWI	SUNGGWI KUSINI		NO WATER										
SUNGWI	SUNGGWI MJINI	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
BEMBEZA	BEMBEZA	04: Unprotected Well		01: All Functioning									
BEMBEZA	BEMBEZA	05: Protected Well		03: Break Down	Pump broken								
BEMBEZA	KIBULULU	04: Unprotected Well		01: All Functioning									
BEMBEZA	MUOMBONI	04: Unprotected Well		01: All Functioning									
MIANZI	MIANZI	07: Water Vender	From unprotected well									120	20LIT
MIANZI	UKAMBANGWANI	04: Unprotected Well		01: All Functioning									
MIANZI	UKAMBANGWANI	07: Water Vender	From unprotected well										
MSANGA	MSANGA SOKONI	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
MSANGA	MSANGA SOKONI	07: Water Vender	From unprotected well									150	20LIT
MSANGA	NGURUNGURU	05: Protected Well		01: All Functioning		01: Supplying Water through the Year							
VISIGA	NJANNE	04: Unprotected Well		01: All Functioning									
VISIGA	NJANNE	02: Unprotected Spring		01: All Functioning		01: Supplying Water through the Year							
VISIGA	NJANNE	07: Water Vender										100	20LIT
VISIGA	VISIGA 'A'	04: Unprotected Well		01: All Functioning									
VISIGA	VISIGA 'B'	07: Water Vender											
GUMBA	BOKELEA	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
GUMBA	GUMBA MJINI	05: Protected Well		03: Break Down									
GUMBA	GUMBA MJINI	04: Unprotected Well		01: All Functioning		03: No Supply throughout the Year							
GUMBA	MWENGELE	05: Protected Well		03: Break Down		02: Supplying Water Seasonally							
GUMBA	MWENGELE	04: Unprotected Well		01: All Functioning		03: No Supply throughout the Year							
GUMBA	MWENGELE	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year							
GUMBA	NGUGU	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
HOMBOZA	HOMBOZA MJINI	01: River/Stream/Pond/Dam	Dam	01: All Functioning		01: Supplying Water through the Year							
HOMBOZA	HOMBOZA MJINI	05: Protected Well		03: Break Down									
HOMBOZA	HOMBOZA MJINI	04: Unprotected Well		01: All Functioning		03: No Supply throughout the Year							
HOMBOZA	MLIMA MAMBA	05: Protected Well		03: Break Down		03: No Supply throughout the Year							
HOMBOZA	MLIMA MAMBA	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
HOMBOZA	MUWAWA	05: Protected Well		03: Break Down		03: No Supply throughout the Year							
HOMBOZA	MUWAWA	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
HOMBOZA	NGOBEDI	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
HOMBOZA	NGOBEDI	05: Protected Well		03: Break Down		03: No Supply throughout the Year							
HOMBOZA	ZOGOALI	01: River/Stream/Pond/Dam	Dam	01: All Functioning		01: Supplying Water through the Year							
HOMBOZA	ZOGOALI	05: Protected Well		03: Break Down									
HOMBOZA	ZOGOALI	04: Unprotected Well		01: All Functioning		03: No Supply throughout the Year							
HOMBOZA	ZOGOALI	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally							
KITANGA	KITANGA JUU			01: All Functioning		02: Supplying Water Seasonally							

Village Water Inventory  
KISARAWÉ District - Outline of the Existing Water Supply Conditions (13/14)

Name of Village	F-1 Name of Sub-Village (Shaded in gray: excluded from the target area of the study)		F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				F-17 Unit Price	
	Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Supply Condition	Specify for 02	01: Good for Domestic Use, but not Drinking	02: Good for Domestic Use, but not Drinking	03: Muddy	04: Salty	05: Rusty	Price	Unit	
KITANGA	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally		X							
KITANGA	05: Protected Well		03: Break Down		03: No Supply throughout the Year		X							
KITANGA	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
KITANGA	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
KITANGA	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
LUHANGAI	01: River/Stream/Pond/Dam	Dam	01: All Functioning		01: Supplying Water through the Year		X							
LUHANGAI	04: Unprotected Well		01: All Functioning		01: Supplying Water Seasonally	MAR-DEC	X							
LUHANGAI	01: River/Stream/Pond/Dam	Dam	01: All Functioning		01: Supplying Water through the Year		X							
LUHANGAI	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-DEC	X							
LUHANGAI	10: Others	Getting water from nearby Sub-Village												
LUHANGAI	10: Others	Getting water from nearby Sub-Village												
MAGURUWE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
MAGURUWE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
MAGURUWE	10: Others	Getting water from nearby Sub-Village												
MAGURUWE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
MAGURUWE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
MAGURUWE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
MSIMBU	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
MSIMBU	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
MSIMBU	05: Protected Well		01: All Functioning		01: Supplying Water through the Year		X							
MSIMBU	05: Protected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
MSIMBU	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year		X							
MSIMBU	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year		X							
MSIMBU	05: Protected Well		01: All Functioning		01: Supplying Water through the Year		X							
MSIMBU	05: Protected Well		01: All Functioning		01: Supplying Water through the Year		X							
MWANZO MGUMU	05: Protected Well		01: All Functioning		01: Supplying Water through the Year		X							
MWANZO MGUMU	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
MWANZO MGUMU	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
MSIMBU	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
MSIMBU	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
MSIMBU	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
CHAKENGE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUL	X							
CHAKENGE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUL	X							
MITENGWE	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally	MAR-MAY	X				250	20LT		
MITENGWE	07: Water Vender	From unprotected well	02: Functioning Partially		02: Supplying Water Seasonally	MAR-MAY	X				250	20LT		
MITENGWE	07: Water Vender	From unprotected well	02: Functioning Partially		02: Supplying Water Seasonally	MAR-MAY	X				250	20LT		
MITENGWE	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally	MAR-MAY	X				250	20LT		
MITENGWE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-MAY	X							
MITENGWE	02: Unprotected Spring		01: All Functioning		01: Supplying Water through the Year		X							
MZENGA 'A'	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUL	X							
MZENGA 'A'	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-MAY	X							
VILABWA	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-MAY	X				200	20LT		
VILABWA	07: Water Vender		02: Functioning Partially		02: Supplying Water Seasonally	MAR-JUN	X				200	20LT		
VILABWA	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally	MAR-MAY	X				250	20LT		
VILABWA	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally	MAR-MAY	X				200	20LT		
VILABWA	05: Protected Well		03: Break Down	Pump does not function well.	03: No Supply throughout the Year		X							
CHAMALALE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
CHAMALALE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUN	X							
KIBWEMWENDA	05: Protected Well		03: Break Down	Problem is unknown.	03: No Supply throughout the Year		X							
KIBWEMWENDA	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-AUG	X							
KIBWEMWENDA	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-AUG	X							
KIBWEMWENDA	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-JUL	X				200	20LT		
MIHUGWE	04: Unprotected Well	From unprotected well	01: All Functioning		02: Supplying Water Seasonally	MAR-JUL	X				200	20LT		
MIHUGWE	07: Water Vender	From near village (Kibang)	01: All Functioning		01: Supplying Water through the Year		X				200	20LT		
MIHUGWE	05: Protected Well		01: All Functioning		02: Supplying Water Seasonally	MAR	X							
MZENGA 'B'	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year		X				100	20LT		
MZENGA 'B'	07: Water Vender	From unprotected well	01: All Functioning		02: Supplying Water Seasonally	MAR-AUG	X				100	20LT		
MZENGA 'B'	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	MAR-AUG	X				100	20LT		
MZENGA 'B'	07: Water Vender	From unprotected & protected wells	01: All Functioning		02: Supplying Water Seasonally		X							
MZENGA 'B'	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally		X							
SANGWE	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally		X							

**Village Water Inventory  
KISARAWÉ District - Outline of the Existing Water Supply Conditions (14/14)**

Name of Village	F-1		F-2		F-14		F-15		F-16				F-17	
	Name of Sub-Village (Shaded in grey; excluded from the target area of the study)	Water Source	Water Source	Functioning Condition	Condition	Supply Condition	Specify for 02	Water Quality	Price	Unit				
SANGWE	MFURU	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUL	01: Good for Domestic Use							
SANGWE	PANGANI	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUL	02: Good for Domestic Use, but not Drinking							
SANGWE	SANGWE 'A'	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUL	03: Muddy							
SANGWE	SANGWE 'A'	05: Protected Well	03: Break Down	03: Break Down	03: No Supply throughout the Year	MAR-JUL	04: Salty							
VHINGO	VHINGO	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUN	05: Rusty							
VHINGO	VHINGO	05: Protected Well	01: All Functioning	01: All Functioning	01: Supplying Water through the Year	MAR-JUN								
VHINGO	VHINGO	07: Water Vender	From unprotected well in nearby village			MAR-JUN								
VHINGO	VHINGO	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUN								
KITONGA	KITONGA CHINI	05: Protected Well	03: Break Down	03: Break Down	03: No Supply throughout the Year	MAR-JUN								
KITONGA	KITONGA CHINI	07: Water Vender	From unprotected & protected wells			MAR-JUN								
KITONGA	KITONGA CHINI	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUN								
KITONGA	KITONGA JUU	07: Water Vender	From unprotected well			MAR-JUN								
KITONGA	KITONGA JUU	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUN								
KORESA	KWAKIBANDA	07: Water Vender	From unprotected well			MAR-JUN								
KORESA	KWAKIBANDA	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUN								
KORESA	KWAMIKWEWA	07: Water Vender	From unprotected well			MAR-JUN								
KORESA	KWAMIKWEWA	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUN								
KORESA	KWATAMBUKA	07: Water Vender	From unprotected well			MAR-JUN								
KORESA	KWATAMBUKA	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUN								
MTUNANI	KWARUHONGO	07: Water Vender	From unprotected well			MAR-JUN								
MTUNANI	KWARUHONGO	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUN								
MTUNANI	MWEMBEHASARA	07: Water Vender	From unprotected well			MAR-JUN								
MTUNANI	MWEMBEHASARA	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUN								
PANGALA MWINGEREZA	KWAGOMA	07: Water Vender	From unprotected well			MAR-JUN								
PANGALA MWINGEREZA	KWAGOMA	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUN								
PANGALA MWINGEREZA	KWAMADOGO	07: Water Vender	From unprotected well			MAR-JUN								
PANGALA MWINGEREZA	KWAMADOGO	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUN								
PANGALA MWINGEREZA	KWAZAYU	07: Water Vender	From unprotected well			MAR-JUN								
PANGALA MWINGEREZA	KWAZAYU	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUN								
VIKUMBULU	KWAMBETELA	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUL								
VIKUMBULU	KWAMBETELA	07: Water Vender	From unprotected well			MAR-JUL								
VIKUMBULU	KWAMIGOKO	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUL								
VIKUMBULU	KWAMIGOKO	07: Water Vender	From unprotected well			MAR-JUL								
VIKUMBULU	KWAMITITU	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUL								
VIKUMBULU	KWAMITITU	07: Water Vender	From unprotected well			MAR-JUL								
VIKUMBULU	KWAMITITU	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUL								
VIKUMBULU	KWAMITITU	07: Water Vender	From unprotected well			MAR-JUL								
VIKUMBULU	VIKUMBULU SOKO	04: Unprotected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUL								
VIKUMBULU	VIKUMBULU SOKO	05: Protected Well	01: All Functioning	01: All Functioning	02: Supplying Water Seasonally	MAR-JUN								
VIKUMBULU	VIKUMBULU SOKO	07: Water Vender	From unprotected & protected wells			MAR-JUN								





**Village Inventory**  
**MKURANGA District - Basic Information of the Surveyed Villages (3/9)**

1: Target (Whole Community) 2: Party target 3: Not Target	A-1	A-6	A-7				B-2 (Sub-Village)				C-1	C-2		
	Serial Number	Name of Village/Mtaa	Ward	Population (2002)	No. of HH	Latitude	Longitude	Name of Sub-Villages (Sub-village names with bold italic; target areas of the study)	Population (2002)	No. of HH	Latitude	Longitude	Form of Community	Dwelling Type
1	MKU 015	TIPO	NYAMATO	1,997	441			BINAWANI MKANOGE NYAKINYO	584 863 550	113 200 128	72822 72937 72900	390038 390032 390114	01: Village	01: Concentrated
1	MKU 061	DONDWE	TAMBANI	1,951	518	70439	390550	DONDWE MJINI KIDEDDE KIWAWE LUBAMBAWE	801 208 524 599	190 56 128 135	70439 70444 70609 70538	390550 390516 390505 390705	01: Village	
1	MKU 062	KIBAMBA	TAMBANI	1,095	350	70501	391531	BOGORWA KIBAMBA MJINI MISUSURA MWANAKANIKA MWAYANI RABIKA	240 220 460 280 150 320	66 32 80 70 27 40	70636 70501 70531 70447 70554 70438	391634 391531 391531 391531 391608 391454	01: Village	04: Scattered
1	MKU 058	MIPEKO	TAMBANI	1,418	164	70110	391309.7	KIMBANGULILE MIPEKO 'A' MIPEKO 'B'	530 250 638	56 66 72	70032 70059 70014	391344.4 391313.8 391315.1	01: Village	04: Scattered
1	MKU 063	MLAMLENI	TAMBANI	2,318	656	65907	391444	BINGUNI 'A' BINGUNI 'B' CHURWI KIBANGULILE 'B' KISASA LUZANDO NYATANGA 'A' NYATANGA 'B' UTUNGE VIDETE	65822 65848 65721 70025 65652 365 65907 65943 70005 65852	190 190	70020 70020 70020 70020 70020 70020 70020 70020 70020 70020	391536 391456 391503 391450 391631 391456 391444 391437 391518 391408	01: Village	04: Scattered
1	MKU 056	MWANADILATU	TAMBANI	1,560	682	70216	391005.1	LANGWENI MWANADILATU MZEMLE NASSAKO NZASA YOMBO	265 441 184 213 268 289	130 150 62 110 120 115	70045 70215 70034 70106 70144 70227	391134.2 391021.6 391212.1 391040.6 390929.9 390917.5	01: Village	04: Scattered
1	MKU 060	MWANAMBAYA	TAMBANI	2,466	715	70300	391423	KIBENEKE KILOWEKO MABATINI MADODO MAMANGWA MIVULE MIZUGU	144 650 210 146 376 275 660	250 250 54 73 70 120 117	70259 70307 70152 70324 70139 70221 70229	391301 391430 391449 391321 391410 391518 391241	01: Village	04: Scattered
1	MKU 029	TAMBANI	TAMBANI	1,538	528	65954	391117	MIKENGENI MKOGA MKOMBOZI TAMBANI 'A' TAMBANI 'B'	210 226 278 344 200		70024 65928 65958 65931 70013	391103 391116 391042 391212 391112	01: Village	04: Scattered
1	MKU 075	KIPALA	VIKINDU	2029	850	67535	391704.2	KIBELEWELE KICHANGAM KIPALA	272 1,200 557	107 460 283	65727 65714 65725	391655.4 391700.2 391704.2	01: Village	04: Scattered
1	MKU 054	KISEMVULE	VIKINDU	2,260	452	70159	391859	KISEMVULE KITANGWI MPELA UTUNGE VIBURA	850 162 660 186 402	180 50 102 40 80	70159 70210 70247 70052 70211	391659 391736 391653 391637 391535	01: Village	04: Scattered
1	MKU 051	MALELA	VIKINDU	1,250	620	70616	391916	CHANGOMBE KIZINO MAGOGO MALELA	823 95 162 170	405 69 61 105	70550 70631 70606 70616	391914 391813 391836 391916	01: Village	03: Clustered
1	MKU 048	MAROGORO	VIKINDU	1,500	260	70529	392232.8	MAROGORO SANGATINI ZINGEZINGE	640 600 260	120 100 40	70514 70622 70659	392235.7 392410.7 392305.9	01: Village	03: Clustered
1	MKU 049	MFURU MWAMBAAO	VIKINDU	1,435	391	70458	392249	KIBANE KIGOBEDI KIKONGA MFURU MWAMBAAO SONGOLA	336 228 181 445 245	85 50 46 131 79	70431 70353 70542 70458 70520	392438 392513 392426 392249 392227	01: Village	03: Clustered
1	MKU 057	MKOKOZI	VIKINDU	1,769	786	65815	392049.9	LUGULUNI MKOKOZI RUGWADU KUSINI RUGWADU MASHARIKI	750 639 200 180	350 339 55 42	65820 65725 65900 65842	392114.6 391955.3 392044.4 392238.7	01: Village	04: Scattered
1	MKU 059	MWANDEGE	VIKINDU	1,600	530	65839	391723	CHATEMBO KIRUNGULE MWANDEGE VICHEJI	300 400 600 300		65908 65742 65839 65816	391832 391737 391723 391829	01: Village	04: Scattered
1	MKU 050	VIANZI	VIKINDU	2,625	692	70248	392015.4	CHANGOMBE HONDA KWAJOKOO MWAJASI NYAMISIKI VIANZI TOWN	452 302 591 257 268 755	123 92 132 73 71 201	70416 70131 70250 70218 70326 70242	391935.4 392039.2 391956.7 391952.2 391939.8 391942.8	01: Village	04: Scattered
1	MKU 064	VIKINDU	VIKINDU	5,125	1,215	70018	391825.3	CHANUNGU FUNGONI KAMEGELE KAZOLE KILONGONI MAGODANI MWAJASI NGLUNGUTI RICHANDEGE VIKINDU MJINI	230 460 150 430 500 530 375 150 800 1,500		70005 70111 70058 70036 65916 70136 70136 70042 70112 70026	391921 392338.5 391721.8 392038.3 391923.8 392302.1 391853.9 391948.7 391804.1 391829	01: Village	04: Scattered
1	MKU 052	YAVAYAVA	VIKINDU	1,830	242	70724	392200	SWENI LUKONDE VIWEGE YAVAYAVA	507 357 407 559	63 53 54 72	70734 70753 70748 70724	392252 392124 392231 392200	01: Village	04: Scattered
3	MKU 041	KISIJU PWANI	KISIJU	2,416	614			MAPUTO PWANI	1,112 1,304	203 411	72356 72357	391946 392011	01: Village	04: Scattered



**Village Inventory**  
**MKURANGA District - Basic Information of the Surveyed Villages (4/9)**

A-1 Serial Number	A-6 Name of Village/Mtaa	D-1		D-2 Average Time (min)	D-3 Reliability												D-4 Average Amount (Litres)	D-5 Other WSS Intervention					
		Major Water Source	Specify for 10		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		None	Agency	Period	Plan		
MKU 021	BUPU	01: River/Stream/Pond/Dam		180	X	X	X	X	X	X	X	X	X	X	X	X	X	90	X				
MKU 013	MAMNDI KONGO	04: Unprotected Well		60				X	X	X	X	X					80	X					
MKU 016	MAMNDI MPELA	04: Unprotected Well		30				X	X	X	X	X	X				110	X					
MKU 018	TUNDU	04: Unprotected Well		60				X	X	X	X	X					110	X					
MKU 007	KILIMAEWA KASKAZINI	04: Unprotected Well		150	x	x	x	x	x	x	x						120	x					
MKU 009	KIMANZICHANA KASKAZINI	04: Unprotected Well		30	x	x	x	x	x	x							100	x					
MKU 004	KIMANZICHANA KUSINI	04: Unprotected Well		180	x	x	x	x	x	x							120	x					
MKU 011	KIMBWININDI	05: Protected Well		20	x	x	x	x						x	x	x		X					
MKU 001	MKENGE	01: River/Stream/Pond/Dam		30	x	x	x	x	x	x							100	x					
MKU 035	BINGA	04: Unprotected Well		60				X	X	X	X						100	X					
MKU 034	DONDO	01: River/Stream/Pond/Dam		45				X	X	X	X			X	X	X	120	X					
MKU 028	KALOLE	04: Unprotected Well		30				X	X	X				X	X	X	80	X					
MKU 038	KEREKESE	06: Borehole		30				X	X	X				X	X		120	X					
MKU 037	MPAFU	04: Unprotected Well		60				X	X	X	X			X	X	X	100	X					
MKU 036	SOTELE	04: Unprotected Well		30				X	X					X	X		80	X					
MKU 026	KIKOO	01: River/Stream/Pond/Dam		120	X	X	X							X	X		110	X					
MKU 031	KITOMONDO	04: Unprotected Well		150				X	X	X	X			X	X	X	110	X					
MKU 067	KIWAMBO	04: Unprotected Well		60				X	X	X				X	X		140	X					
MKU 027	MINGOMBE	04: Unprotected Well		240				X	X	X							160	X					
MKU 066	MITARANDA	01: River/Stream/Pond/Dam		30				X	X	X	X	X					140	X					
MKU 032	MITEZA	04: Unprotected Well		90				X	X	X				X	X	X	90	X					
MKU 030	NJIA NNE MIKERE	04: Unprotected Well		180				X	X	X	X			X	X		110	X					
MKU 043	LUKANGA	04: Unprotected Well		180				X	X	X	X			X	X	X	120	X					
MKU 022	MISASA	01: River/Stream/Pond/Dam		210				X	X	X							120	X					
MKU 074	MKOLA	04: Unprotected Well		150				X	X	X							120	X					
MKU 025	NJOPEKA	01: River/Stream/Pond/Dam		60	X	X	X	X	X	X	X	X	X	X	X	X	110	X					
MKU 053	SANGALANI	01: River/Stream/Pond/Dam		180				X	X	X	X						100	X					
MKU 042	KIFUMANGAO	04: Unprotected Well		90				X	X	X	X	X					100	X					
MKU 071	MAGAWA	01: River/Stream/Pond/Dam		60				X	X	X							150	X					

**Village Inventory**  
**MKURANGA District - Basic Information of the Surveyed Villages (5/9)**

A-1 Serial Number	A-6 Name of Village/Mtaa	D-1		D-2 Average Time (min)	D-3 Reliability												D-4 Average Amount (Litre)	D-5 Other WSS Intervention			
		Major Water Source	Specify for 10		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		None	Agency	Period	Plan
MKU 044	MDIMNI	04: Unprotected Well		120				X	X	X				X	X	X	140			X	
MKU 045	MSONGA	01: River/Stream/Pond/Dam		30				X	X	X							100	X			
MKU 040	MTONGANI	04: Unprotected Well		30				X	X	X	X						120	X			
MKU 039	NASIBUGANI	04: Unprotected Well		60				X	X	X	X						110	X			
MKU 070	NYAMIHIMBO	04: Unprotected Well		150				X	X								120	X			
MKU 072	SANGASANGA	04: Unprotected Well		120				X	X	X							130	X			
MKU 065	DUNDANI	04: Unprotected Well		60				X	X	X							80	X			
MKU 068	HOYOYO	04: Unprotected Well		60				X	X	X	X	X		X	X	X	160	X			
MKU 012	KIBULULU	04: Unprotected Well		90				X	X	X	X	X		X	X	X	80	X			
MKU 019	KIPARANG'ANDA 'A'	04: Unprotected Well		120				X	X	X	X	X		X	X	X	130	X			
MKU 020	KIPARANG'ANDA 'B'	04: Unprotected Well		60					X	X							240	X			
MKU 023	KISE	04: Unprotected Well		30				X	X	X	X						100	X			
MKU 046	KOLANGWA	04: Unprotected Well		90				X	X	X				X	X		110	X			
MKU 033	MAGOZA	04: Unprotected Well		30	X	X	X	X	X	X							100	X			
MKU 069	MKURANGA	04: Unprotected Well		60				X	X	X				X	X	X	210	X			
MKU 055	MKWALIA/KITUMBO	04: Unprotected Well		90				X	X	X	X	X	X				100	X			
MKU 047	SUNGUUVUNI			180				X	X	X	X			X	X		110	X			
MKU 024	TENGELEA	01: River/Stream/Pond/Dam		60				X	X	X	X						80	X			
MKU 003	BIGWA	04: Unprotected Well		30	x	x	x	x	x	x	x						100	x			
MKU 005	KITONGA TOWN	02: Unprotected Spring		30	x	x	x	x	x	x	x						120	x			
MKU 006	KIZIKO	04: Unprotected Well		30	x	x	x	x	x								140	x			
MKU 002	MWALUSEMBE	01: River/Stream/Pond/Dam		60	x	x	x	x	x	x	x	x					120	x			
MKU 014	KILAMBA	04: Unprotected Well		120				X	X	X							90	X			
MKU 008	KILIMAEWA KUSINI	01: River/Stream/Pond/Dam		120					x	x							100	x			
MKU 017	MKIU	01: River/Stream/Pond/Dam		240	X	X	X	X						X	X		90	X			
MKU 010	MVULENI	04: Unprotected Well		120	x	x	x	x	x								120	x			
MKU 073	NYANDUTURU	04: Unprotected Well		120				X	X	X							130	X			

**Village Inventory**  
**MKURANGA District - Basic Information of the Surveyed Villages (6/9)**

A-1 Serial Number	A-6 Name of Village/Mtaa	D-1		D-2 Average Time (min)	D-3 Reliability												D-4 Average Amount (Litres)	D-5 Other WSS Intervention				
		Major Water Source	Specify for 10		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		None	Agency	Period	Plan	
MKU 015	TIPO	04: Unprotected Well		30	X	X	X	X	X						X	X	90	X				
MKU 061	DONDWE	04: Unprotected Well		240	X	X	X	X	X	X	X				X		200	X				
MKU 062	KIBAMBA	04: Unprotected Well		90	X	X	X	X	X					X	X	160	X					
MKU 058	MIPEKO	01: River/Stream/Pond/Dam		60	X	X	X	X	X					X	X	200	X					
MKU 063	MLAMLENI	04: Unprotected Well		45	X	X	X	X	X	X	X			X	X	240	X					
MKU 056	MWANADILATU	01: River/Stream/Pond/Dam		60	X	X	X	X								180	X					
MKU 060	MWANAMBAYA	04: Unprotected Well		40	X	X	X	X	X	X	X			X		120	X					
MKU 029	TAMBANI	04: Unprotected Well		60	X	X	X	X	X					X	X	120	X					
MKU 075	KIPALA	04: Unprotected Well		20	X	X	X									200	X					
MKU 054	KISEMVULE	04: Unprotected Well		30			X	X	X	X						160	X					
MKU 051	MALELA	04: Unprotected Well		30			X	X	X	X						140	X					
MKU 048	MAROGORO	04: Unprotected Well		30			X	X	X	X	X					100	X					
MKU 049	MFURU MWAMBAO	04: Unprotected Well		20			X	X	X	X						80	X					
MKU 057	MKOKOZI	01: River/Stream/Pond/Dam		120			X	X	X							200	X					
MKU 059	MWANDEGE	04: Unprotected Well		60	X	X	X	X	X	X				X		180	X					
MKU 050	VIANZI	04: Unprotected Well		40			X	X	X	X						120	X					
MKU 064	VIKINDU	04: Unprotected Well		90	X	X	X	X	X	X				X		160	X					
MKU 052	YAVAYAVA	04: Unprotected Well		30			X	X	X	X	X					120	X					
MKU 041	KISJU PWANI	01: River/Stream/Pond/Dam		150			X	X	X							180	X					

**Village Inventory**  
**MKURANGA District - Basic Information of the Surveyed Villages (7/9)**

A-1 Serial Number	A-6 Name of Village/Mtaa	E-1 (School)						E-2 (Health Facility)					
		Name of School	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet No. of Teacher's House	Name of Health Facility	Type of Health Facility	No of Bed No of Outpatient	Type of Toilet	No. of Toilet	
MKU 021	BUPU	BUPU	01: Primary	02: Daily	371	01: Traditional Pit	6 1	BUPU	01: Dispensary	2 24	01: Traditional Pit	2	
MKU 013	MAMNDI KONGO	KONDOMWILANZI	01: Primary	02: Daily	195	01: Traditional Pit	4 0						
MKU 016	MAMNDI MPELA	KISELE	01: Primary	02: Daily	388	01: Traditional Pit	6 0						
MKU 018	TUNDU	TUNDU	01: Primary	02: Daily	281	01: Traditional Pit	6 0						
MKU 007	KILIMHEWA KASKAZINI	Kilimahewa Kask	01: Primary	02: Daily	700	01: Traditional Pit	16 3						
MKU 009	KIMANZICHANA KASKAZINI	Kimanzichana	01: Primary	02: Daily	###	01: Traditional Pit	20 4						
MKU 004	KIMANZICHANA KUSINI	Mkamba	02: Secondary	02: Daily	80	01: Traditional Pit	4 1	Taima Kanisa la Mungu	01: Dispensary 01: Dispensary	5 5 2	01: Traditional Pit 01: Traditional Pit	2 2	
MKU 011	KIMBWININDI	Kimbinindi	01: Primary	02: Daily	560	01: Traditional Pit	6 1						
MKU 001	MKENGE	Mkenge	01: Primary	02: Daily	619	01: Traditional Pit	12 2						
MKU 035	BINGA	BINGA	01: Primary	02: Daily	301	01: Traditional Pit	4 0	BINGA	01: Dispensary	2 19	01: Traditional Pit	2	
MKU 034	DONDO	DONDO	01: Primary	02: Daily	372	01: Traditional Pit	6 0						
MKU 028	KALOLE	KALOLE	01: Primary	02: Daily	477	01: Traditional Pit	9 6	KISIJU	02: Health Cent	18 28	04: Flush to Septic Tank		
MKU 038	KEREKESE	KEREKESE	01: Primary	02: Daily	300	01: Traditional Pit	4 1						
MKU 037	MPAFU	MPAFU	01: Primary	02: Daily	220	01: Traditional Pit	4 1						
MKU 036	SOTELE	SOTELE 'C' SOTELE 'B'	01: Primary 02: Secondary	02: Daily 01: Boarding	668 226	01: Traditional Pit	6 4 6 2	SOTELE 'C'	01: Dispensary	4 25	01: Traditional Pit	2	
MKU 026	KIKOO												
MKU 031	KITOMONDO	KITOMONDO	01: Primary	02: Daily	598	01: Traditional Pit	2 1						
MKU 067	KIWAMBO	KIWAMBO	01: Primary	02: Daily	420	01: Traditional Pit	6						
MKU 027	MING'OMBE												
MKU 066	MITARANDA	MITARANDA	01: Primary	02: Daily	320	01: Traditional Pit	10 2						
MKU 032	MITEZA	MITEZA	01: Primary	02: Daily	443	01: Traditional Pit	10 3						
MKU 030	NJIA NNE MIKERE	MIKERE	01: Primary	02: Daily	414	01: Traditional Pit	4 3	NJIA NNE	01: Dispensary	4 20	01: Traditional Pit	2	
MKU 043	LUKANGA	LUKANGA	01: Primary	02: Daily	321	01: Traditional Pit	8 2	LUKANGA	01: Dispensary	4 31	01: Traditional Pit	2	
MKU 022	MISASA	MISASA	01: Primary	02: Daily	470	01: Traditional Pit	4 2						
MKU 074	MKOLA	MKOLA	01: Primary	02: Daily	260	01: Traditional Pit	4 1						
MKU 025	NJOPEKA	NJOPEKA	01: Primary	02: Daily	628	01: Traditional Pit	10 0	BAMITA ARAFU	01: Dispensary 01: Dispensary	1 7 2 5	01: Traditional Pit 01: Traditional Pit	2 1	
MKU 053	SANGALANI	SANGALANI	01: Primary	02: Daily	196	01: Traditional Pit	5 3						
MKU 042	KIFUMANGAO	KIFUMANGAO	01: Primary	02: Daily	105	01: Traditional Pit	2 1						
MKU 071	MAGAWA	MAGAWA	01: Primary	02: Daily	550	01: Traditional Pit	4 3	MAGAWA	01: Dispensary	4 31	01: Traditional Pit	2	

**Village Inventory**  
**MKURANGA District - Basic Information of the Surveyed Villages (8/9)**

A-1 Serial Number	A-6 Name of Village/Mtaa	E-1 (School)						E-2 (Health Facility)						
		Name of School	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet No. of Teacher's House	Name of Health Facility	Type of Health Facility	No of Bed No of Outpatient	Type of Toilet	No. of Toilet		
MKU 044	MDIMNI	MDIMNI	01: Primary	02: Daily	245	01: Traditional Pit	4 4							
MKU 045	MSONGA	MSONGA	01: Primary	02: Daily	239	01: Traditional Pit	4 3							
MKU 040	MTONGANI	MTONGANI	01: Primary	02: Daily	147	01: Traditional Pit	6 1							
MKU 039	NASIBUGANI	NASIBUGANI	01: Primary	02: Daily	224	01: Traditional Pit	6 3	NASIBUGANI	01: Dispensary	3 23	01: Traditional Pit	2		
		NASIBUGANI	02: Secondary	02: Daily	249	01: Traditional Pit	6 1							
MKU 070	NYAMIHIMBO	MKUKWI	01: Primary	02: Daily	175	01: Traditional Pit	6 4							
MKU 072	SANGASANGA	SANGASANGA	01: Primary	02: Daily	338	01: Traditional Pit	2 1							
MKU 065	DUNDANI	DUNDANI	01: Primary	02: Daily	525	01: Traditional Pit	5 2							
MKU 068	HOYOYO	HOYOYO	01: Primary	02: Daily	717	01: Traditional Pit	4 4							
MKU 012	KIBULULU													
MKU 019	KIPARANG'ANDA 'A'	KIPARANG'ANDA 'A'	01: Primary	02: Daily	###	01: Traditional Pit	10 1	ARAFI (PRIVATE)	01: Dispensary	6 17	01: Traditional Pit	2		
								MSOMENI (PRIVATE)	01: Dispensary	12 6	01: Traditional Pit	4		
MKU 020	KIPARANG'ANDA 'B'													
MKU 023	KISE	KISE	01: Primary	02: Daily	215	01: Traditional Pit	4 0							
MKU 046	KOLANGWA													
MKU 033	MAGOZA	MAGOZA	01: Primary	02: Daily	434	01: Traditional Pit	6 0							
MKU 069	MKURANGA	MKURANGA	01: Primary	02: Daily	###	01: Traditional Pit	8 2	R.C	01: Dispensary	6 13	01: Traditional Pit	4		
		KIGUZA	01: Primary	02: Daily	259	01: Traditional Pit	2 1							
		MWINYI SEC.SCHOOL	02: Secondary	02: Daily	210	01: Traditional Pit	4 5							
		SITI SEC SCHOOL	02: Secondary	02: Daily	274	01: Traditional Pit	10 3							
MKU 055	MKWALIA/KITUMBO							MKURANGA/MKWALIA	03: Hospital	22 16	Traditional/Flush	2/4		
MKU 047	SUNGUUVUNI	SUNGUUVUNI	01: Primary	02: Daily	333	01: Traditional Pit	6 3							
MKU 024	TENGELEA	TENGELEA	01: Primary	02: Daily		01: Traditional Pit	10 4							
MKU 003	BIGWA	Bigwa	01: Primary	02: Daily	650	01: Traditional Pit	4 5							
MKU 005	KITONGA TOWN	Kitonga Town	01: Primary	02: Daily	246	01: Traditional Pit	6 8							
MKU 006	KIZIKO	Kiziko Kati	01: Primary	02: Daily	520	01: Traditional Pit	1 6							
MKU 002	MWALUSEMBE	Mwarusembe	01: Primary	02: Daily	817	01: Traditional Pit	14 1	K.K.T Taima	01: Dispensary 01: Dispensary	2 2 10	01: Traditional Pit 01: Traditional Pit	2 1		
MKU 014	KILAMBA	KILAMBA	01: Primary	02: Daily	156	01: Traditional Pit	2 2	NYAMATO	01: Dispensary	2 18	01: Traditional Pit	2		
MKU 008	KILIMAHWEWA KUSINI	Kilimahewa Kusini	01: Primary	02: Daily	140	01: Traditional Pit	2 0							
MKU 017	MKIU	MKIU	01: Primary	02: Daily	612	01: Traditional Pit	8 2	MKIU	01: Dispensary	1 29	01: Traditional Pit	2		
MKU 010	MVULENI	Mvuleni	01: Primary	02: Daily	220		0							
MKU 073	NYANDUTURU	NYANDUTURU	01: Primary	02: Daily	345	01: Traditional Pit	10 1							

**Village Inventory**  
**MKURANGA District - Basic Information of the Surveyed Villages (9/9)**

A-1 Serial Number	A-6 Name of Village/Mtaa	E-1 (School)						E-2 (Health Facility)					
		Name of School	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet No. of Teacher's House	Name of Health Facility	Type of Health Facility	No of Bed No of Outpatient	Type of Toilet	No. of Toilet	
MKU 015	TIPO	NYAMATO	01: Primary	02: Daily	474	01: Traditional Pit	9 0						
MKU 061	DONDWE	DONDWE	01: Primary	02: Daily	408	01: Traditional Pit	8 1						
MKU 062	KIBAMBA	KIBAMBA	01: Primary	02: Daily	345	01: Traditional Pit	14 3						
MKU 058	MIPEKO	MIPEKO	01: Primary	02: Daily	254	01: Traditional Pit	4 1						
MKU 063	MLAMLENI	MLAMLENI	01: Primary	02: Daily	438	01: Traditional Pit	4 2						
MKU 056	MWANADILATU	MWANADILATU	01: Primary	02: Daily	455	01: Traditional Pit	4 1						
MKU 060	MWANAMBAYA	MWANAMBAYA	01: Primary	02: Daily	759	01: Traditional Pit	11 1	MWANAMBAYA	01: Dispensary	8 17	01: Traditional Pit	2	
MKU 029	TAMBANI	TAMBANI	01: Primary	02: Daily	348	01: Traditional Pit	4 4						
MKU 075	KIPALA	PHILADEPHIA ACAD	01: Primary	02: Daily	120	01: Traditional Pit	8 2						
		MSERU	02: Secondary	Boarding, Daily	250	01: Traditional Pit	4						
		ST. MATHEW	02: Secondary	01: Boarding	###	01: Traditional Pit	11						
MKU 054	KISEMVULE	KISEMVULE	01: Primary	02: Daily	409	01: Traditional Pit	4 0						
MKU 051	MALELA	MALELA	01: Primary	02: Daily	360	01: Traditional Pit	2 0						
MKU 048	MAROGORO	MAROGORO	01: Primary	02: Daily	380	01: Traditional Pit	6 0						
MKU 049	MFURU MWAMBAAO												
MKU 057	MKOKOZI	MKOKOZI	01: Primary	02: Daily	812	01: Traditional Pit	6 1						
		MSERU	02: Secondary	01: Boarding	450								
MKU 059	MWANDEGE	MWANDEGE	01: Primary	02: Daily	###	01: Traditional Pit	14 0						
MKU 050	VIANZI	VIANZI	01: Primary	02: Daily	801	01: Traditional Pit	10 0						
MKU 064	VIKINDU	VIKINDU	01: Primary	02: Daily	853	01: Traditional Pit	9 1	VIKINDU	01: Dispensary	26	01: Traditional Pit	2	
								VINCENT	01: Dispensary	-	04: Flush to Septic Tank	6	
MKU 052	YAVAYAVA												
MKU 041	KISIJU PWANI	KISIJU PWANI	01: Primary	02: Daily	480	01: Traditional Pit	4 3	KISIJU PWANI	01: Dispensary	4 8	01: Traditional Pit	1	





















**Village Water Inventory**  
**MKURANGA District - Outline of the Existing Water Supply Conditions (10/20)**

Serial Number	Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-3 No of Water Source	F-5 Type of Water Supply System	F-10 Type of Water Supply Facility										F-11 Year of Construction	F-12 Organized Facility that constructed	F-13 Number of Water Points	
			Water Source	Specify for 07 and 10			01: Lined with Concrete Ring	02: Bucket	03: Hand Pump	04: Windmill Pump	05: Motor Pump	06: Water Tank (Elevated)	07: Water Tank (Reserve)	08: Generator (Diesel)	09: Generator (Electricity)	10: Solar System			11: Others (Specify)	Public
MKU 050	VIANZI	CHANGOMBE	04: Unprotected Well		14	01: Point	X										COMMUNITY			
MKU 050	VIANZI	CHANGOMBE	05: Protected Well		8	01: Point	X										MUSLIM AGENCY			
MKU 050	VIANZI	HONDA	01: River/Stream/Pond/Dam		3	04: Not Applicable	X										COMMUNITY			
MKU 050	VIANZI	HONDA	04: Unprotected Well		12	01: Point	X										COMMUNITY			
MKU 050	VIANZI	HONDA	05: Protected Well		4	01: Point	X										MUSLIM AGENCY			
MKU 050	VIANZI	KWAJOKOO	01: River/Stream/Pond/Dam		3	04: Not Applicable	X										COMMUNITY			
MKU 050	VIANZI	KWAJOKOO	04: Unprotected Well		8	01: Point	X										MUSLIM AGENCY			
MKU 050	VIANZI	MWAJASI	05: Protected Well		2	04: Not Applicable	X										COMMUNITY			
MKU 050	VIANZI	MWAJASI	01: River/Stream/Pond/Dam		6	01: Point	X										COMMUNITY			
MKU 050	VIANZI	MWAJASI	05: Protected Well		2	01: Point	X										MUSLIM AGENCY			
MKU 050	VIANZI	NYAMISIKI	01: River/Stream/Pond/Dam		3	04: Not Applicable	X										COMMUNITY			
MKU 050	VIANZI	NYAMISIKI	04: Unprotected Well		7	01: Point	X										MUSLIM AGENCY			
MKU 050	VIANZI	NYAMISIKI	05: Protected Well		3	01: Point	X										COMMUNITY			
MKU 050	VIANZI	VIANZI TOWN	01: River/Stream/Pond/Dam		4	04: Not Applicable	X										COMMUNITY			
MKU 050	VIANZI	VIANZI TOWN	04: Unprotected Well		20	01: Point	X										MUSLIM AGENCY			
MKU 050	VIANZI	VIANZI TOWN	05: Protected Well		2	01: Point	X										MUSLIM AGENCY			
MKU 064	VIKINDU	CHANUNGU	04: Unprotected Well		23	01: Point	X										MUSLIM ASSOCIATIONX3, COMMUNITYX20			
MKU 064	VIKINDU	FUNGONI	04: Unprotected Well		8	01: Point	X										COMMUNITY			
MKU 064	VIKINDU	KAZOLE	04: Unprotected Well		13	01: Point	X										KUWAIT MUSLIM ASSOCIATIONX3, COMMUNITYX10			
MKU 064	VIKINDU	KEMEGELE	04: Unprotected Well		4	01: Point	X										COMMUNITY			
MKU 064	VIKINDU	KILONGONI	04: Unprotected Well		18	01: Point	X										COMMUNITY			
MKU 064	VIKINDU	MAGODANI	04: Unprotected Well		12	01: Point	X										MUSLIM ASSOC.			
MKU 064	VIKINDU	MWAJASI	04: Unprotected Well		10	01: Point	X										COMMUNITY			
MKU 064	VIKINDU	NGUNGUTI	04: Unprotected Well		3	01: Point	X										KUWAIT COMMUNITY ASSOC.			
MKU 064	VIKINDU	PICHANDEGE	04: Unprotected Well		7	01: Point	X										KUWAIT MUSLIM ASSOC.x3, Communityx4			
MKU 064	VIKINDU	PICHANDEGE	06: Borehole		2	01: Point	X										PRIVATE			
MKU 064	VIKINDU	PICHANDEGE	07: Water Vender	Borehole	20	04: Not Applicable														
MKU 064	VIKINDU	PICHANDEGE	04: Unprotected Well		3	01: Point	X										MUSLIM ASSOC.			
MKU 064	VIKINDU	VIKINDU MUJINI	06: Borehole	Borehole	3	01: Point											PRIVATE			
MKU 064	VIKINDU	VIKINDU MUJINI	07: Water Vender		10	04: Not Applicable														
MKU 052	YAVAYAVA	BWENI	01: River/Stream/Pond/Dam		1	04: Not Applicable	X										COMMUNITY			
MKU 052	YAVAYAVA	BWENI	04: Unprotected Well		3	01: Point	X										COMMUNITY			
MKU 052	YAVAYAVA	LUKONDE	01: River/Stream/Pond/Dam		2	04: Not Applicable	X										COMMUNITY			
MKU 052	YAVAYAVA	LUKONDE	04: Unprotected Well		4	01: Point	X										COMMUNITY			
MKU 052	YAVAYAVA	VIVEGE	01: River/Stream/Pond/Dam		1	04: Not Applicable	X										COMMUNITY			
MKU 052	YAVAYAVA	VIVEGE	04: Unprotected Well		4	01: Point	X										COMMUNITY			
MKU 052	YAVAYAVA	YAVAYAVA	01: River/Stream/Pond/Dam		2	04: Not Applicable	X										COMMUNITY			
MKU 052	YAVAYAVA	YAVAYAVA	04: Unprotected Well		3	01: Point	X										COMMUNITY			





**Village Water Inventory  
MKURANGA District - Outline of the Existing Water Supply Conditions (12/20)**

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use	02: Good for Domestic Use, but not Drinking	03: Muddy	04: Salty		05: Rusty
BINGA	BINGA	05: Protected Well		02: Functioning Partially	Apr-Jul	02: Supplying Water Seasonally		X					
BINGA	BINGACHANA	04: Unprotected Well		02: Functioning Partially	Apr-Jul	02: Supplying Water Seasonally		X					
BINGA	BINGACHANA	05: Protected Well		02: Functioning Partially	Apr-Jul	02: Supplying Water Seasonally		X					
BINGA	DOMBAWANA	04: Unprotected Well		02: Functioning Partially	Apr-Jul	02: Supplying Water Seasonally		X					
BINGA	DOMBAWANA	05: Protected Well		02: Functioning Partially	Apr-Jul	02: Supplying Water Seasonally		X					
BINGA	PALANA	04: Unprotected Well		02: Functioning Partially	Apr-Jul	02: Supplying Water Seasonally		X					
DONDO	DOKAMBWA	01: River/Stream/Pond/Dam		01: All Functioning	Apr-Jul	01: Supplying Water through the Year		X					
DONDO	DONDO TUTANI	01: River/Stream/Pond/Dam		02: Functioning Partially	Apr-Jul, Oct-Dec	02: Supplying Water Seasonally		X					
DONDO	DONDO TUTANI	04: Unprotected Well		02: Functioning Partially	Apr-Jul, Oct-Dec	02: Supplying Water Seasonally		X					
DONDO	DONDO TUTANI	06: Borehole		01: All Functioning	Apr-Jul, Oct-Dec	01: Supplying Water through the Year		X					
DONDO	GURUSI	01: River/Stream/Pond/Dam		02: Functioning Partially	Apr-Jul, Oct-Dec	02: Supplying Water Seasonally		X					
DONDO	GURUSI	04: Unprotected Well		01: All Functioning	Apr-Jul, Oct-Dec	01: Supplying Water through the Year		X					
DONDO	MBUNGO	01: River/Stream/Pond/Dam		01: All Functioning	Apr-Jul, Oct-Dec	01: Supplying Water through the Year		X					
DONDO	NYASANGARA	04: Unprotected Well		02: Functioning Partially	Apr-Jul, Oct-Dec	02: Supplying Water Seasonally		X					
DONDO	KIWALANI	04: Unprotected Well		02: Functioning Partially	Apr-Jun, Oct-Dec	02: Supplying Water Seasonally		X					
KALOLE	MAVUNJA	04: Unprotected Well		02: Functioning Partially	Apr-Jun, Oct-Dec	02: Supplying Water Seasonally		X					
KALOLE	KALOLE	05: Protected Well		02: Functioning Partially	Apr-Jun, Oct-Dec	02: Supplying Water Seasonally		X					
KALOLE	MZAMBARAUNI	04: Unprotected Well		02: Functioning Partially	Apr-Jun, Oct-Dec	02: Supplying Water Seasonally		X					
KALOLE	MZAMBARAUNI	05: Protected Well		01: All Functioning	Apr-Jun, Oct-Dec	01: Supplying Water through the Year		X					
KALOLE	MZAMBARAUNI	06: Borehole		01: All Functioning	Apr-Jun, Oct-Dec	01: Supplying Water through the Year		X					
KEREKESI	KEREKESI	04: Unprotected Well		02: Functioning Partially	Apr-Jun, Nov-Dec	02: Supplying Water Seasonally		X					
KEREKESI	KEREKESI	06: Borehole		01: All Functioning	Apr-Jun, Nov-Dec	01: Supplying Water through the Year		X					
KEREKESI	KIBEWA	04: Unprotected Well		02: Functioning Partially	Apr-Jun, Nov-Dec	02: Supplying Water Seasonally		X					
KEREKESI	KIBEWA	06: Borehole		01: All Functioning	Apr-Jun, Nov-Dec	01: Supplying Water through the Year		X					
KEREKESI	KEREKESI	04: Unprotected Well		02: Functioning Partially	Apr-Jun, Nov-Dec	02: Supplying Water Seasonally		X					
KEREKESI	KEREKESI	05: Protected Well		02: Functioning Partially	Apr-Jun, Nov-Dec	02: Supplying Water Seasonally		X					
KEREKESI	KEREKESI	06: Borehole		01: All Functioning	Apr-Jun, Nov-Dec	01: Supplying Water through the Year		X					
KIPAFU	KIPAFU	01: River/Stream/Pond/Dam		02: Functioning Partially	Mar-Jun, Oct-Dec	02: Supplying Water Seasonally		X					
KIPAFU	KIPAFU	04: Unprotected Well		02: Functioning Partially	Apr/May-Sep/Oct	02: Supplying Water Seasonally		X					
KIPAFU	KIPAFU	05: Protected Well		04: Under Repair	Apr/May-Sep/Oct	03: No Supply throughout the Year		X					
OTELE	OTELE 'A'	04: Unprotected Well		02: Functioning Partially	Apr/May-Sep/Oct	02: Supplying Water Seasonally		X					
OTELE	OTELE 'A'	05: Protected Well		02: Functioning Partially	Apr/May-Sep/Oct	02: Supplying Water Seasonally		X					
OTELE	OTELE 'B'	04: Unprotected Well		01: All Functioning	Apr/May-Sep/Oct	01: Supplying Water through the Year		X					
OTELE	OTELE 'B'	05: Protected Well		02: Functioning Partially	Apr/May-Sep/Oct	02: Supplying Water Seasonally		X					
OTELE	OTELE 'C'	04: Unprotected Well		02: Functioning Partially	Apr/May-Sep/Oct	02: Supplying Water Seasonally		X					
OTELE	OTELE 'C'	05: Protected Well		02: Functioning Partially	Apr/May-Sep/Oct	02: Supplying Water Seasonally		X					
OTELE	OTELE 'C'	06: Borehole		01: All Functioning	Apr/May-Sep/Oct	01: Supplying Water through the Year		X					
KIKOO	KIKOO MITAZINI	01: River/Stream/Pond/Dam		02: Functioning Partially	Jan-Mar, Nov-Dec	02: Supplying Water Seasonally		X					
KIKOO	KIKOO MITAZINI	04: Unprotected Well		02: Functioning Partially	Jan-Mar, Nov-Dec	02: Supplying Water Seasonally		X					
KIKOO	MAGUNGI	01: River/Stream/Pond/Dam		02: Functioning Partially	Jan-Mar, Nov-Dec	02: Supplying Water Seasonally		X					
KIKOO	MAGUNGI	04: Unprotected Well		02: Functioning Partially	Jan-Mar, Nov-Dec	02: Supplying Water Seasonally		X					
KIKOO	KIKOO	01: River/Stream/Pond/Dam		02: Functioning Partially	Jan-Mar, Nov-Dec	02: Supplying Water Seasonally		X					
KIKOO	KIKOO	04: Unprotected Well		02: Functioning Partially	Jan-Mar, Nov-Dec	02: Supplying Water Seasonally		X					
KITOMONDO	KITOMONDO	04: Unprotected Well		02: Functioning Partially	Apr-Jul, Oct-Dec	02: Supplying Water through the Year		X					
KITOMONDO	KITOMONDO	05: Protected Well		02: Functioning Partially	Apr-Jul, Oct-Dec	02: Supplying Water Seasonally		X					
KITOMONDO	KITOMONDO	01: River/Stream/Pond/Dam		02: Functioning Partially	Apr-Jul, Oct-Dec	02: Supplying Water Seasonally		X					
KITOMONDO	KITOMONDO	04: Unprotected Well		02: Functioning Partially	Apr-Jul, Oct-Dec	02: Supplying Water Seasonally		X					
KIWAMBO	KIWAMBO	01: River/Stream/Pond/Dam		02: Functioning Partially	Apr-Jun, Nov-Dec	02: Supplying Water Seasonally		X					
KIWAMBO	KIWAMBO	04: Unprotected Well		02: Functioning Partially	Apr-Jun, Nov-Dec	02: Supplying Water Seasonally		X					
KIWAMBO	KIWAMBO	01: River/Stream/Pond/Dam		02: Functioning Partially	Apr-Jun, Nov-Dec	02: Supplying Water Seasonally		X					
KIWAMBO	KIWAMBO	04: Unprotected Well		02: Functioning Partially	Apr-Jun, Nov-Dec	02: Supplying Water Seasonally		X					
KIWAMBO	KIWAMBO	01: River/Stream/Pond/Dam		02: Functioning Partially	Apr-Jun, Nov-Dec	02: Supplying Water Seasonally		X					
KIWAMBO	KIWAMBO	04: Unprotected Well		02: Functioning Partially	Apr-Jun, Nov-Dec	02: Supplying Water Seasonally		X					
KIWAMBO	KIWAMBO	01: River/Stream/Pond/Dam		02: Functioning Partially	Apr-Jun, Nov-Dec	02: Supplying Water Seasonally		X					
KIWAMBO	KIWAMBO	04: Unprotected Well		02: Functioning Partially	Apr-Jun, Nov-Dec	02: Supplying Water Seasonally		X					
KIWAMBO	KIWAMBO	01: River/Stream/Pond/Dam		02: Functioning Partially	Apr-Jun, Nov-Dec	02: Supplying Water Seasonally		X					
KIWAMBO	KIWAMBO	04: Unprotected Well		02: Functioning Partially	Apr-Jun, Nov-Dec	02: Supplying Water Seasonally		X					
MINGOMBE	MINGOMBE TOWN	04: Unprotected Well		02: Functioning Partially	Apr-Jun	02: Supplying Water Seasonally		X					
MINGOMBE	MINGOMBE TOWN	05: Protected Well		01: All Functioning	Apr-Jun	01: Supplying Water through the Year		X					
MINGOMBE	MINGOMBE TOWN	04: Unprotected Well		02: Functioning Partially	Apr-Jun	02: Supplying Water Seasonally		X					
MITAFANDA	MITAFANDA	01: River/Stream/Pond/Dam		02: Functioning Partially	Apr-Aug	02: Supplying Water Seasonally		X					
MITAFANDA	MITAFANDA	04: Unprotected Well		02: Functioning Partially	Apr-Aug	02: Supplying Water Seasonally		X					
MITAFANDA	MITAFANDA	01: River/Stream/Pond/Dam		02: Functioning Partially	Apr-Aug	02: Supplying Water Seasonally		X					

**Village Water Inventory  
MKURANGA District - Outline of the Existing Water Supply Conditions (13/20)**

Name of Village	Name of Sub-Village (Shaded in gray; excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use	02: Good for Domestic Use, but not Drinking	03: Muddy	04: Salty	05: Rusty	Price
MITARANDA	MITARANDA	04: Unprotected Well		02: Functioning Partially	APR-AUG	02: Supplying Water Seasonally							
MITARANDA	MITARANDA	05: Protected Well		02: Functioning Partially	APR-AUG	02: Supplying Water Seasonally							
MITEZA	LUGONGWE	04: Unprotected Well		02: Functioning Partially	APR-Jun, Oct-Dec	02: Supplying Water Seasonally							
MITEZA	MADIMKA	01: River/Stream/Pond/Dam		02: Functioning Partially	APR-Jun, Oct-Dec	02: Supplying Water Seasonally							
MITEZA	MADIMKA	04: Unprotected Well		02: Functioning Partially	APR-Jun, Oct-Dec	02: Supplying Water Seasonally							
MITEZA	MITEZA	01: River/Stream/Pond/Dam		02: Functioning Partially	APR-Jun, Oct-Dec	02: Supplying Water Seasonally							
MITEZA	MITEZA	04: Unprotected Well		02: Functioning Partially	APR-Jun, Oct-Dec	02: Supplying Water Seasonally							
NJIA NNE	KIDUGALO	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
NJIA NNE	KIDUGALO	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year							
NJIA NNE	MANDELA	01: River/Stream/Pond/Dam		02: Functioning Partially	APR-Jul, Nov-Dec	02: Supplying Water Seasonally							
NJIA NNE	MANDELA	04: Unprotected Well		02: Functioning Partially	APR-Jul, Nov-Dec	02: Supplying Water Seasonally							
NJIA NNE	MATUNDU	01: River/Stream/Pond/Dam		02: Functioning Partially	APR-Jul, Nov-Dec	02: Supplying Water Seasonally							
NJIA NNE	MATUNDU	04: Unprotected Well		02: Functioning Partially	APR-Jul, Nov-Dec	02: Supplying Water Seasonally							
NJIA NNE	MIKERE	01: River/Stream/Pond/Dam		02: Functioning Partially	APR-Jul, Nov-Dec	02: Supplying Water Seasonally							
NJIA NNE	MIKERE	04: Unprotected Well		02: Functioning Partially	APR-Jul, Nov-Dec	02: Supplying Water Seasonally							
NJIA NNE	MITANGA	01: All Functioning		01: All Functioning		01: Supplying Water through the Year							
NJIA NNE	MITANGA	04: Unprotected Well		02: Functioning Partially	APR-Jul, Nov-Dec	02: Supplying Water Seasonally							
NJIA NNE	MITAWA	01: River/Stream/Pond/Dam		02: Functioning Partially	APR-Jul, Nov-Dec	02: Supplying Water Seasonally							
NJIA NNE	MITAWA	04: Unprotected Well		02: Functioning Partially	APR-Jul, Nov-Dec	02: Supplying Water Seasonally							
NJIA NNE	NJIA (NNE) TOWN	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
NJIA NNE	NJIA (NNE) TOWN	04: Unprotected Well		02: Functioning Partially	APR-Jul, Nov-Dec	02: Supplying Water Seasonally							
NJIA NNE	NJIA (NNE) TOWN	05: Protected Well		02: Functioning Partially	APR-Jul, Nov-Dec	02: Supplying Water Seasonally							
NJIA NNE	UTANDILANI	04: Unprotected Well		02: Functioning Partially	APR-Jul, Nov-Dec	02: Supplying Water Seasonally							
LUKANGA	KILEMBEA	01: River/Stream/Pond/Dam		02: Functioning Partially	May/Jul-Oct/Dec	01: Supplying Water through the Year							
LUKANGA	KILEMBEA	04: Unprotected Well		02: Functioning Partially	May/Jul-Oct/Dec	02: Supplying Water Seasonally							
LUKANGA	KIPUTI	01: River/Stream/Pond/Dam		02: Functioning Partially	May/Jul-Oct/Dec	02: Supplying Water Seasonally							
LUKANGA	KIPUTI	04: Unprotected Well		02: Functioning Partially	May/Jul-Oct/Dec	02: Supplying Water Seasonally							
LUKANGA	LUKANGA 'A'	01: River/Stream/Pond/Dam		02: Functioning Partially	May/Jul-Oct/Dec	02: Supplying Water Seasonally							
LUKANGA	LUKANGA 'A'	04: Unprotected Well		02: Functioning Partially	May/Jul-Oct/Dec	02: Supplying Water Seasonally							
LUKANGA	LUKANGA 'B'	01: River/Stream/Pond/Dam		02: Functioning Partially	May/Jul-Oct/Dec	02: Supplying Water Seasonally							
LUKANGA	LUKANGA 'B'	04: Unprotected Well		02: Functioning Partially	May/Jul-Oct/Dec	02: Supplying Water Seasonally							
LUKANGA	LUKANGA 'B'	05: Protected Well		02: Functioning Partially	May/Jul-Oct/Dec	02: Supplying Water Seasonally							
LUKANGA	MILENDE	01: River/Stream/Pond/Dam		02: Functioning Partially	May/Jul-Oct/Dec	01: Supplying Water through the Year							
LUKANGA	MILENDE	04: Unprotected Well		02: Functioning Partially	May/Jul-Oct/Dec	02: Supplying Water Seasonally							
LUKANGA	MILENDE	06: Borehole		01: All Functioning		01: Supplying Water through the Year							
LUKANGA	MPIMIO	01: River/Stream/Pond/Dam		02: Functioning Partially	May/Jul-Oct/Dec	02: Supplying Water Seasonally							
LUKANGA	MPIMIO	04: Unprotected Well		02: Functioning Partially	May/Jul-Oct/Dec	02: Supplying Water Seasonally							
MISASA	KIBUPUNI	01: River/Stream/Pond/Dam		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	KIBUPUNI	04: Unprotected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	MALIBAMBA	01: River/Stream/Pond/Dam		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	MALIBAMBA	04: Unprotected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	MALIBAMBA	04: Unprotected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	MISASA	01: River/Stream/Pond/Dam		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	MISASA	04: Unprotected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	MISASA	05: Protected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	MKONGENI	01: River/Stream/Pond/Dam		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	MKONGENI	04: Unprotected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	MNELEI	01: River/Stream/Pond/Dam		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	MNELEI	04: Unprotected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	NYAKIOGO	01: River/Stream/Pond/Dam		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	NYAKIOGO	04: Unprotected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	ZAKWATI	01: River/Stream/Pond/Dam		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MISASA	ZAKWATI	04: Unprotected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally							
MKOLA	KIZINGA	04: Unprotected Well		02: Functioning Partially	APR-JUN	02: Supplying Water Seasonally							
MKOLA	MALONGONI	01: River/Stream/Pond/Dam		02: Functioning Partially	APR-JUN	02: Supplying Water Seasonally							
MKOLA	MALONGONI	04: Unprotected Well		02: Functioning Partially	APR-JUN	02: Supplying Water Seasonally							
MKOLA	MKOLA	04: Unprotected Well		02: Functioning Partially	APR-JUN	02: Supplying Water Seasonally							
MKOLA	MKOLA	05: Protected Well		02: Functioning Partially	APR-JUN	02: Supplying Water Seasonally							
MKOLA	MNDONDO	04: Unprotected Well		02: Functioning Partially	APR-JUN	02: Supplying Water Seasonally							
MKOLA	NYAHORO	04: Unprotected Well		02: Functioning Partially	APR-JUN	02: Supplying Water Seasonally							
NJOPEKA	KINGOMA WAGHARIBI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
NJOPEKA	KINGOMA WAGHARIBI	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year							
NJOPEKA	KINGOMA WASHARIKI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year							
NJOPEKA	KINGOMA WASHARIKI	04: Unprotected Well		02: Functioning Partially	Jan-Aug	02: Supplying Water Seasonally							
NJOPEKA	MALENDA	01: River/Stream/Pond/Dam		02: Functioning Partially	Jan-Aug	02: Supplying Water Seasonally							
NJOPEKA	MALENDA	04: Unprotected Well		02: Functioning Partially	Jan-Aug	02: Supplying Water Seasonally							





**Village Water Inventory  
MKURANGA District - Outline of the Existing Water Supply Conditions (16/20)**

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality			F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	Use 01: Good for Domestic 02: Good for Domestic Use, but not Drinking 03: Muddy 04: Salty 05: Rusty	Price	Unit		
KOLANGWA		River/Stream/Pond/Dam										
KOLANGWA		Unprotected Well		02: Functioning Partially	Apr/Jun-Oct/Dec	01: Supplying Water through the Year			X	X		
KOLANGWA		River/Stream/Pond/Dam		04: Unprotected Well	Apr/Jun-Oct/Dec	02: Supplying Water Seasonally			X	X		
KOLANGWA	TETA	Unprotected Well		01: Unprotected Well		01: Supplying Water through the Year			X	X		
KOLANGWA	ZEMLE	River/Stream/Pond/Dam		02: Functioning Partially	Apr/Jun-Oct/Dec	01: Supplying Water through the Year			X	X		
KOLANGWA	ZEMLE	Unprotected Well		02: Functioning Partially	Jan-May	02: Supplying Water Seasonally			X	X		
MAGOZA	BOMBWE	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Jan-May	02: Supplying Water Seasonally			X	X		
MAGOZA	BOMBWE	Unprotected Well		02: Functioning Partially	Jan-May	02: Supplying Water Seasonally			X	X		
MAGOZA	CHOGA	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Jan-May	02: Supplying Water Seasonally			X	X		
MAGOZA	CHOGA	Unprotected Well		02: Functioning Partially	Jan-May	02: Supplying Water Seasonally			X	X		
MAGOZA	KIDAI	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Jan-May	02: Supplying Water Seasonally			X	X		
MAGOZA	KIDAI	Unprotected Well		02: Break Down		02: Supplying Water Seasonally			X	X		
MAGOZA	MAGZA	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Jan-May	02: Supplying Water Seasonally			X	X		
MAGOZA	MAGZA	Unprotected Well		02: Functioning Partially	Jan-May	02: Supplying Water Seasonally			X	X		
MAGOZA	MAGZA	Protected Well		03: Break Down	Pump not available	02: Supplying Water Seasonally			X	X		
MAGOZA	MAGZA	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Jan-May	02: Supplying Water Seasonally			X	X		
MAGOZA	MAGZA	Unprotected Well		02: Functioning Partially	Jan-May	02: Supplying Water Seasonally			X	X		
MAGOZA	NGALAMBEMBA	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Jan-May	02: Supplying Water Seasonally			X	X		
MAGOZA	NGALAMBEMBA	Unprotected Well		02: Functioning Partially	Jan-May	02: Supplying Water Seasonally			X	X		
MAGOZA	UBAMBAWE	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Jan-May	02: Supplying Water Seasonally			X	X		
MAGOZA	UBAMBAWE	Unprotected Well		02: Functioning Partially	Jan-May	02: Supplying Water Seasonally			X	X		
MKURANGA	BIGWA	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Mar-May, Oct-Dec	02: Supplying Water Seasonally			X	X		
MKURANGA	BIGWA	Unprotected Well		02: Functioning Partially	Mar-May, Oct-Dec	02: Supplying Water Seasonally			X	X		
MKURANGA	KIGUZA	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Mar-May, Oct-Dec	02: Supplying Water Seasonally			X	X		
MKURANGA	KIGUZA	Unprotected Well		02: Functioning Partially	Mar-May, Oct-Dec	02: Supplying Water Seasonally			X	X		
MKURANGA	KIGUZA	Protected Well		02: Functioning Partially	Mar-May, Oct-Dec	02: Supplying Water Seasonally			X	X		
MKURANGA	KIGUZA	Borehole		02: Functioning Partially	Mar-May, Oct-Dec	02: Supplying Water Seasonally			X	X		
MKURANGA	MGAWA	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Mar-May, Oct-Dec	02: Supplying Water Seasonally			X	X		
MKURANGA	MGAWA	Unprotected Well		04: Unprotected Well		02: Supplying Water Seasonally			X	X		
MKURANGA	MIALE	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Mar-May, Oct-Dec	02: Supplying Water Seasonally			X	X		
MKURANGA	MIALE	Unprotected Well		All Functioningx5, Partiallyx5		02: Supplying Water Seasonally			X	X		
MKURANGA	MIALE	Protected Well		All Functioningx4, Partiallyx3		02: Supplying Water through the Yearx5, Seasonallyx5			X	X		
MKURANGA	MKURANGA A	River/Stream/Pond/Dam		01: All Functioning	Mar-May, Oct-Dec	01: Supplying Water through the Year			X	X		
MKURANGA	MKURANGA A	Unprotected Well		02: Functioning Partially	Mar-May, Oct-Dec	02: Supplying Water Seasonally			X	X		
MKURANGA	MKURANGA A	Protected Well		01: All Functioning	Mar-May, Oct-Dec	01: Supplying Water through the Year			X	X		
MKURANGA	MKURANGA A	Borehole		01: All Functioning	Mar-May, Oct-Dec	01: Supplying Water through the Year			X	X		
MKURANGA	MKURANGA B	Unprotected Well		02: Functioning Partially	Mar-May, Oct-Dec	02: Supplying Water Seasonally			X	X		
MKURANGA	MKURANGA B	Protected Well		02: Functioning Partially	Mar-May, Oct-Dec	02: Supplying Water Seasonally			X	X		
MKURANGA	MKURANGA B	Borehole		02: Functioning Partially	Mar-May	02: Supplying Water Seasonally			X	X		
MKWALIA	KIDIDIMO	River/Stream/Pond/Dam		02: Functioning Partially	MAR-JUN	02: Supplying Water Seasonally			X	X		
MKWALIA	KIDIDIMO	Unprotected Well		04: Unprotected Well		02: Supplying Water Seasonally			X	X		
MKWALIA	KITUMBO	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	MAR-JUN	02: Supplying Water Seasonally			X	X		
MKWALIA	KITUMBO	Unprotected Well		04: Unprotected Well	MAR-JUN	02: Supplying Water Seasonally			X	X		
MKWALIA	MKWALIA	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	MAR-SEP	02: Supplying Water through the Year			X	X		
MKWALIA	MKWALIA	Unprotected Well		02: Functioning Partially	MAR-SEP	02: Supplying Water Seasonally			X	X		
MKWALIA	MKWALIA	Borehole		01: All Functioning	MAR-SEP	01: Supplying Water through the Year			X	X		
MKWALIA	MKWALIA	Borehole		01: All Functioning	MAR-SEP	01: Supplying Water through the Year			X	X		
SUNGUVUNI	KICHANGANI	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Apr/Jun-Nov/Dec	02: Supplying Water Seasonally			X	X		
SUNGUVUNI	KICHANGANI	Unprotected Well		04: Unprotected Well	Apr/Jun-Nov/Dec	01: Supplying Water through the Year			X	X		
SUNGUVUNI	MWAPOFU	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Apr/Jun-Nov/Dec	02: Supplying Water Seasonally			X	X		
SUNGUVUNI	MWAPOFU	Unprotected Well		04: Unprotected Well	Apr/Jun-Nov/Dec	02: Supplying Water Seasonally			X	X		
SUNGUVUNI	MWEMBEMAJI	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Apr/Jun-Nov/Dec	02: Supplying Water Seasonally			X	X		
SUNGUVUNI	MWEMBEMAJI	Unprotected Well		04: Unprotected Well	Apr/Jun-Nov/Dec	02: Supplying Water Seasonally			X	X		
TENGELEA	GOGO	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Mar-Jun	02: Supplying Water Seasonally			X	X		
TENGELEA	GOGO	Unprotected Well		04: Unprotected Well	Mar-Jun	02: Supplying Water Seasonally			X	X		
TENGELEA	GOGO	Protected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally			X	X		
TENGELEA	KINGONGO	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Mar-Jun	02: Supplying Water Seasonally			X	X		
TENGELEA	KINGONGO	Unprotected Well		04: Unprotected Well	Mar-Jun	02: Supplying Water Seasonally			X	X		
TENGELEA	KINGONGO	Protected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally			X	X		
TENGELEA	KITONDOMBE	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Mar-Jun	02: Supplying Water Seasonally			X	X		
TENGELEA	KITONDOMBE	Unprotected Well		04: Unprotected Well	Mar-Jun	02: Supplying Water Seasonally			X	X		
TENGELEA	KITONDOMBE	Protected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally			X	X		
TENGELEA	MPELEANI	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Mar-Jun	02: Supplying Water Seasonally			X	X		
TENGELEA	MPELEANI	Unprotected Well		04: Unprotected Well	Mar-Jun	02: Supplying Water Seasonally			X	X		
TENGELEA	MPELEANI	Protected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally			X	X		
TENGELEA	TENGELEA	River/Stream/Pond/Dam		01: River/Stream/Pond/Dam	Mar-Jun	02: Supplying Water Seasonally			X	X		
TENGELEA	TENGELEA	Unprotected Well		04: Unprotected Well	Mar-Jun	02: Supplying Water Seasonally			X	X		



**Village Water Inventory  
MKURANGA District - Outline of the Existing Water Supply Conditions (18/20)**

F-1			F-2		F-14		F-15		F-16			F-17
Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	Water Source		Functioning Condition		Supply Condition	Water Quality		Unit Price			
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03		01: Good for Domestic Use	02: Good for Domestic Use, but not Drinking		03: Muddy	04: Salty	05: Rusty
DONDWE	LUBAMBWE	04: Unprotected Well		All Functioningx6, Partiallyx7 (Dry in May-Jun)		Supplying Water through the Yearx6, Seasonallyx7(Jul-Apr)	X		X8			
KIBAMBA	BOGORWA	04: Unprotected Well		All Functioningx2, Partiallyx3 (Dry in Jul-Sep)		Supplying Water through the Yearx2, Seasonallyx3(Oct-Jun)	X		X4			
KIBAMBA	KIBAMBA MJINI	04: Unprotected Well		02: Functioning Partially	Dry in Jul-Oct	Water available Nov-Jun			X			
KIBAMBA	MISUSURA	04: Unprotected Well		02: Functioning Partially	Dry in Jul-Oct, Jan-Mar	Nov-Dec, Apr-Jun			X4			
KIBAMBA	MWANAKANIKKA	01: River/Stream/Pond/Dam		01: All Functioning		Supplying Water Seasonally	X		X			
KIBAMBA	MWANAKANIKKA	01: Unprotected Well		02: Functioning Partially	Dry in Jun-Sep	01: Supplying Water through the Year	X		X6			
KIBAMBA	MWAYANI	01: Unprotected Well		02: Functioning Partially	Dry in Jun-Oct	02: Supplying Water Seasonally	X		X2			
KIBAMBA	RABIKA	01: River/Stream/Pond/Dam		02: Functioning Partially	Dry in Jun-Oct	02: Supplying Water Seasonally	X		X			
KIBAMBA	RABIKA	01: Unprotected Well		02: Functioning Partially	Dry in Jun-Oct	02: Supplying Water Seasonally	X		X			
MPEKO	KIMBANGULILE	01: River/Stream/Pond/Dam		01: River/Stream/Pond/Dam		JAN-JUN, NOV-DEC	X					
MPEKO	MPEKO A	07: Water Vender	River/Stream/Pond/Dam			JAN-JUN, NOV-DEC	X					75 ZOLT
MPEKO	MPEKO A	01: River/Stream/Pond/Dam	River/Stream/Pond/Dam			JAN-JUN, NOV-DEC	X					75 ZOLT
MPEKO	MPEKO A	07: Water Vender				JAN-JUN, NOV-DEC	X					75 ZOLT
MPEKO	MPEKO B	01: River/Stream/Pond/Dam		01: River/Stream/Pond/Dam		Supplying Water Seasonally	X					75 ZOLT
MPEKO	MPEKO B	07: Water Vender	River/Stream/Pond/Dam			Supplying Water Seasonally	X					75 ZOLT
MALANI	BINGUNI 'A'	04: Unprotected Well		02: Functioning Partially	Dry in Sep-Dec	02: Supplying Water Seasonally	X		X3			
MALANI	BINGUNI 'B'	04: Unprotected Well		02: Functioning Partially	Dry in Aug-Nov	02: Supplying Water Seasonally	X		X			
MALANI	CHURWI	04: Unprotected Well		All Functioningx2, Partiallyx2(Dry in Aug-Nov)	Dry in Jul-Nov	Supplying Water through the Yearx2, Seasonallyx2(Dec-Jul)	X		X			
MALANI	KIMBANGULILE 'B'	04: Unprotected Well		02: Functioning Partially	Dry in Sep-Nov	02: Supplying Water Seasonally	X		X3			
MALANI	KISASA	01: River/Stream/Pond/Dam		02: Functioning Partially	Dry in Sep-Nov	Dec-Aug	X		X1			
MALANI	KISASA	04: Unprotected Well		02: Functioning Partially	Dry in Sep-Nov	Dec-Aug	X		X			
MALANI	LUZANDO	01: River/Stream/Pond/Dam		All Functioningx8, Partiallyx20(Dry in Aug-Oct)		Supplying Water through the Yearx8, Seasonallyx20(Nov-Jul)	X		X			
MALANI	LUZANDO	07: Water Vender	Unprotected Well			Supplying Water Seasonally	X					100 ZOLT
MALANI	NYATANGA 'A'	04: Unprotected Well		02: Functioning Partially	Dry in Sep-Oct	02: Supplying Water Seasonally	X		X			
MALANI	NYATANGA 'B'	04: Unprotected Well		02: Functioning Partially	Dry in Sep-Oct	02: Supplying Water Seasonally	X		X			
MALANI	UTUNGE	04: Unprotected Well		02: Functioning Partially	Dry in Aug-Nov	02: Supplying Water Seasonally	X		X			
MALANI	VIDETE	04: Unprotected Well		02: Functioning Partially	Dry in Jul-Nov	02: Supplying Water Seasonally	X		X			
MWANADILATU	LANGWENI	01: River/Stream/Pond/Dam					X					
MWANADILATU	LANGWENI	07: Water Vender				JAN-APR	X					200 ZOLT
MWANADILATU	MWANADILATU	01: River/Stream/Pond/Dam				JAN-APR	X					200 ZOLT
MWANADILATU	MWANADILATU	07: Water Vender	River/Stream/Pond/Dam			JAN-APR	X					200 ZOLT
MWANADILATU	MWANADILATU	07: Water Vender				JAN-APR	X					200 ZOLT
MWANADILATU	MZEMILE	01: River/Stream/Pond/Dam				JAN-APR	X					200 ZOLT
MWANADILATU	MWANADILATU	01: River/Stream/Pond/Dam				JAN-APR	X					200 ZOLT
MWANADILATU	NASSAKO	01: River/Stream/Pond/Dam				JAN-APR	X					200 ZOLT
MWANADILATU	NZASA	01: River/Stream/Pond/Dam				JAN-APR	X					200 ZOLT
MWANADILATU	NZASA	07: Water Vender	River/Stream/Pond/Dam			JAN-APR	X					200 ZOLT
MWANADILATU	YOMBO	01: River/Stream/Pond/Dam				JAN-APR	X					200 ZOLT
MWANADILATU	YOMBO	07: Water Vender				JAN-APR	X					200 ZOLT
MWANAMBAYA	KIBENEKE	01: River/Stream/Pond/Dam				Water available Nov-Jun	X		X			
MWANAMBAYA	KIBENEKE	04: Unprotected Well		All Functioningx2, Partiallyx4 (Dry in Jul-Sep)		Supplying Water through the Yearx4, Seasonallyx2 (Water available in Nov-Jun)	X		X			
MWANAMBAYA	KILOWEKO	04: Unprotected Well		02: Functioning Partially	Dry in Sep-NOV	Dec-Aug	X		X			
MWANAMBAYA	KILOWEKO	05: Protected Well		02: Functioning Partially	PUMP STOLEN	Water available hourly	X		X			
MWANAMBAYA	KILOWEKO	07: Water Vender	Unprotected Well			Water available hourly	X		X			150 ZOLT
MWANAMBAYA	MADODI	04: Unprotected Well		02: Functioning Partially	Dry in Sep-Nov	02: Supplying Water Seasonally	X		X			
MWANAMBAYA	MADODO	01: River/Stream/Pond/Dam		02: Functioning Partially	Low water level in dry sea	Water available Dec-Aug	X		X			
MWANAMBAYA	MADODO	04: Unprotected Well		02: Functioning Partially	Low water level in dry sea	Apr-May	X		X			
MWANAMBAYA	MAMANGWA	04: Unprotected Well		All Functioningx6, Partiallyx4 (Dry in Aug-Nov)		Supplying Water through the Yearx6, Seasonallyx4 (Mar-Jun)	X		X9			
MWANAMBAYA	MAMANGWA	07: Water Vender	Unprotected Well			Supplying Water through the Yearx6, Seasonallyx4 (Mar-Jun)	X		X7			
MWANAMBAYA	MAMANGWA	04: Unprotected Well		All Functioningx3, Partiallyx4 (Dry in Aug-Jan)		Supplying Water through the Yearx3, Seasonallyx4 (Feb-Jun)	X		X			100 ZOLT
MWANAMBAYA	MIVULE	04: Water Vender	Unprotected Well			Supplying Water through the Yearx3, Seasonallyx4 (Feb-Jun)	X		X			150 ZOLT
MWANAMBAYA	MIVULE	07: Water Vender	Unprotected Well			Supplying Water through the Yearx3, Seasonallyx4 (Feb-Jun)	X		X			150 ZOLT
MWANAMBAYA	MIZUGU	04: Unprotected Well		02: Functioning Partially		01: Supplying Water Seasonally	X		X			
MWANAMBAYA	MIZUGU	01: River/Stream/Pond/Dam				01: Supplying Water through the Year	X		X			
TAMBANI	MIKENGANI	04: Unprotected Well				02: Supplying Water Seasonally	X		X			
TAMBANI	MKOGA	04: Unprotected Well		All Functioningx2, Partiallyx3	Jul-Oct	Supplying Water through the Yearx2, Seasonallyx3	X		X			
TAMBANI	MKOGA	07: Water Vender	Unprotected Well			Supplying Water through the Yearx2, Seasonallyx3	X		X			50 ZOLT
TAMBANI	MKOMBZI	04: Unprotected Well		02: Functioning Partially	Jun-Sep	02: Supplying Water Seasonally	X		X			
TAMBANI	TAMBANI 'A'	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X		X			
TAMBANI	TAMBANI 'A'	04: Unprotected Well		02: Functioning Partially	Jul-Oct	01: Supplying Water through the Year	X		X			
TAMBANI	TAMBANI 'B'	04: Unprotected Well		All Functioningx3, Partiallyx3		02: Supplying Water Seasonally	X		X			
KIPALA	KIBELEWELE	04: Unprotected Well		01: All Functioning		Supplying Water through the Yearx3, Seasonallyx3	X		X			



**Village Water Inventory  
MKURANGA District - Outline of the Existing Water Supply Conditions (19/20)**

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality			F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use	02: Good for Domestic Use, but not Drinking	03: Muddy		04: Salty
KIPALA	KIBELEWELLE	07: Water Vender	FROM PRIVATE PROTECTED WELL									100 20LT
KIPALA	KICHANGANI	04: Unprotected Well		02: Functioning Partially	JAN-MAY	02: Supplying Water Seasonally	JAN-MAY	X				20 20LT
KIPALA	KIPALA	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year		X				20 20LT
KIPALA	KIPALA	07: Water Vender	FROM PRIVATE PROTECTED WELL					X				100 20LT
KISEMVULE	KISEMVULE	01: River/Stream/Pond/Dam		02: Functioning Partially	Apr-Jul	01: Supplying Water through the Year	Apr-Jul	X				
KISEMVULE	KISEMVULE	04: Unprotected Well		02: Functioning Partially	Apr-Jul	02: Supplying Water Seasonally	Apr-Jul	X				
KISEMVULE	KISEMVULE	05: Protected Well						X				
KISEMVULE	KITANGWI	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
KISEMVULE	KITANGWI	04: Unprotected Well		02: Functioning Partially	Apr-Jul	02: Supplying Water Seasonally	Apr-Jul	X				
KISEMVULE	MEPELA	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
KISEMVULE	MEPELA	04: Unprotected Well		02: Functioning Partially	Apr-Jul	02: Supplying Water Seasonally	Apr-Jul	X				
KISEMVULE	UTUNGE	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
KISEMVULE	UTUNGE	04: Unprotected Well		02: Functioning Partially	Apr-Jul	02: Supplying Water Seasonally	Apr-Jul	X				
KISEMVULE	VIBURA	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
KISEMVULE	VIBURA	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year		X				
KISEMVULE	VIBURA	05: Protected Well		01: All Functioning		01: Supplying Water through the Year		X				
MALELA	CHANG'OMBE	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MALELA	CHANG'OMBE	04: Unprotected Well		02: Functioning Partially	Apr-Jul	02: Supplying Water Seasonally	Apr-Jul	X				
MALELA	KIZINO	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MALELA	KIZINO	04: Unprotected Well		02: Functioning Partially	Apr-Jul	02: Supplying Water Seasonally	Apr-Jul	X				
MALELA	MAGOGO	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MALELA	MAGOGO	04: Unprotected Well		02: Functioning Partially	Apr-Jul	02: Supplying Water Seasonally	Apr-Jul	X				
MALELA	MALELA	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MALELA	MALELA	04: Unprotected Well		02: Functioning Partially	Apr-Jul	02: Supplying Water Seasonally	Apr-Jul	X				
MAROGORO	MAROGORO	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MAROGORO	MAROGORO	04: Unprotected Well		02: Functioning Partially	Apr-Aug	02: Supplying Water Seasonally	Apr-Aug	X				
MAROGORO	MAROGORO	06: Borehole		01: All Functioning		01: Supplying Water through the Year		X				
MAROGORO	MAROGORO	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MAROGORO	MAROGORO	04: Unprotected Well		02: Functioning Partially	Apr-Aug	02: Supplying Water Seasonally	Apr-Aug	X				
MAROGORO	SANGATINI	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MAROGORO	SANGATINI	04: Unprotected Well		02: Functioning Partially	Apr-Aug	02: Supplying Water Seasonally	Apr-Aug	X				
MAROGORO	ZINGEZINGE	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MAROGORO	ZINGEZINGE	04: Unprotected Well		02: Functioning Partially	Apr-Aug	02: Supplying Water Seasonally	Apr-Aug	X				
MAROGORO	ZINGEZINGE	06: Borehole		01: All Functioning		01: Supplying Water through the Year		X				
MFURU MWAMBABO	KIBANE	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MFURU MWAMBABO	KIBANE	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year		X				
MFURU MWAMBABO	KIGOBEDI	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MFURU MWAMBABO	KIGOBEDI	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year		X				
MFURU MWAMBABO	KIKONGA	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MFURU MWAMBABO	KIKONGA	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year		X				
MFURU MWAMBABO	MFURU MWAMBABO	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MFURU MWAMBABO	MFURU MWAMBABO	04: Unprotected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally	Mar-Jun	X				
MFURU MWAMBABO	MFURU MWAMBABO	06: Borehole		01: All Functioning		01: Supplying Water through the Year		X				
MFURU MWAMBABO	SONGOLA	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MFURU MWAMBABO	SONGOLA	04: Unprotected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally	Mar-Jun	X				
MKOKOZI	LUGULUNI	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MKOKOZI	LUGULUNI	04: Unprotected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally	Mar-Jun	X				
MKOKOZI	MKOKOZI	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MKOKOZI	MKOKOZI	04: Unprotected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally	Mar-Jun	X				
MKOKOZI	MKOKOZI	05: Protected Well		01: All Functioning		01: Supplying Water through the Year		X				
MKOKOZI	RUGWADU KUSINI	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MKOKOZI	RUGWADU KUSINI	04: Unprotected Well		02: Functioning Partially	Mar-Jun	02: Supplying Water Seasonally	Mar-Jun	X				
MKOKOZI	RUGWADU MASHARIKI	01: River/Stream/Pond/Dam				01: Supplying Water through the Year		X				
MKOKOZI	RUGWADU MASHARIKI	05: Protected Well		01: All Functioning		01: Supplying Water through the Year		X				
MWANDEGE	CHATEMBO	04: Unprotected Well		02: Functioning Partially	Apr-Jun	02: Supplying Water Seasonally	Apr-Jun	X				
MWANDEGE	KIRUNGULE	04: Unprotected Well		All Functioningx6, Partiallyx6 (Jul-Nov)		01: Supplying Water through the Year		X				
MWANDEGE	MWANDEGE	04: Unprotected Well		All Functioningx3, Partiallyx6 (Jul-Nov)		02: Supplying Water through the Year		X				
MWANDEGE	MWANDEGE	07: Water Vender	From borehole			Supplying Water through the Yearx3, Seasonallyx6 (Dec-Jun)		X				
MWANDEGE	MWANDEGE	06: Borehole		01: All Functioning		01: Supplying Water through the Year		X				100 20LT
MWANDEGE	MWANDEGE	04: Unprotected Well		01: All Functioning		Supplying Water through the Yearx2, Seasonallyx2 (Dec-Jun)		X				20 20LT
MWANDEGE	VICHEJI	01: River/Stream/Pond/Dam		01: All Functioning		Supplying Water through the Yearx2, Seasonallyx3 (Mar-Jun)		X				
VIANZI	CHANG'OMBE							X				

**Village Water Inventory  
MKURANGA District - Outline of the Existing Water Supply Conditions (20/20)**

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use	02: Good for Domestic Use, but not Drinking	03: Muddy	04: Salty	05: Rusty	Price
VIANZI	CHANGOMBE	04: Unprotected Well		All Functioningx4, Partiallyx10		Supplying Water through the Yearx4, Seasonallyx10	X	X					
VIANZI	CHANGOMBE	05: Protected Well		All Functioningx3, Partiallyx5		Supplying Water through the Yearx3, Seasonallyx5	X	X					
VIANZI	HONDA	01: River/Stream/Pond/Dam		02: Functioning Partially		Supplying Water through the Yearx1, Seasonallyx2	X	X					
VIANZI	HONDA	05: Protected Well		02: Functioning Partially		02: Supplying Water Seasonally	X	X	X				
VIANZI	KWAJOKOO	01: River/Stream/Pond/Dam		All Functioningx3, Partiallyx5		Supplying Water through the Yearx1, Seasonallyx2	X	X					
VIANZI	KWAJOKOO	04: Unprotected Well		All Functioningx3, Partiallyx1		Supplying Water through the Yearx3, Seasonallyx1	X	X					
VIANZI	KWAJOKOO	05: Protected Well		01: River/Stream/Pond/Dam		Supplying Water through the Yearx1, Seasonallyx2	X	X					
VIANZI	MWAJASI	04: Unprotected Well		All Functioningx2, Partiallyx4		01: Supplying Water Seasonally	X	X					
VIANZI	MWAJASI	05: Protected Well		02: Functioning Partially		Supplying Water through the Yearx1, Seasonallyx2	X	X					
VIANZI	NYAMISIKI	01: River/Stream/Pond/Dam		All Functioningx4, Partiallyx3		Supplying Water through the Yearx4, Seasonallyx1	X	X					
VIANZI	NYAMISIKI	05: Protected Well		All Functioningx2, Partiallyx1		Supplying Water through the Yearx1, Seasonallyx3	X	X					
VIANZI	NYAMISIKI	04: Unprotected Well		All Functioningx10, Partiallyx10		Supplying Water through the Yearx10, Seasonallyx10	X	X					
VIANZI	NYAMISIKI	05: Protected Well		02: Functioning Partially		02: Supplying Water Seasonally	X	X					
VIANZI	TOWIN	04: Unprotected Well		All Functioningx5, Partiallyx18 (Dry in Jul-Nov)		Supplying Water through the Yearx5, Seasonallyx18 (Dec-Jun)	X	X					
VIANZI	TOWIN	05: Protected Well		01: All Functioning		01: Supplying Water through the Year	X	X					
VIANZI	TOWIN	04: Unprotected Well		02: Functioning Partially	SEP-NOV	02: Supplying Water Seasonally	X	X	X				
VIANZI	TOWIN	05: Protected Well		02: Functioning Partially	Dry in Jul-Sep JUL-NOV	02: Supplying Water Seasonally	X	X					
VIANZI	TOWIN	04: Unprotected Well		All Functioningx6, Partiallyx6(Sep-Mar)		Supplying Water through the Yearx6, Seasonallyx6 (Apr-Aug)	X	X					
VIANZI	TOWIN	05: Protected Well		02: Functioning Partially	AUG-NOV	02: Supplying Water Seasonally	X	X	X				
VIANZI	TOWIN	04: Unprotected Well		02: Functioning Partially	DRY IN JUL-OCT	02: Supplying Water Seasonally	X	X					
VIANZI	TOWIN	05: Protected Well		02: Functioning Partially	JUL-OCT	02: Supplying Water Seasonally	X	X					
VIANZI	TOWIN	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X	X					
VIANZI	TOWIN	06: Borehole	Borehole	01: All Functioning		01: Supplying Water through the Year	X	X	x1			20 20LT	
VIANZI	TOWIN	07: Water Vender	Borehole	01: All Functioning		01: Supplying Water through the Year	X	X				100 20LT	
VIANZI	TOWIN	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X	X					
VIANZI	TOWIN	06: Borehole	Borehole	01: All Functioning		01: Supplying Water through the Year	X	X	x2			20 20LT	
VIANZI	TOWIN	07: Water Vender	Borehole	01: All Functioning		01: Supplying Water through the Year	X	X				100 20LT	
VIANZI	TOWIN	01: River/Stream/Pond/Dam		02: Functioning Partially	Mar-Jul	01: Supplying Water through the Year	X	X	X				
VIANZI	TOWIN	04: Unprotected Well		02: Functioning Partially	Mar-Jul	01: Supplying Water Seasonally	X	X	X				
VIANZI	TOWIN	01: River/Stream/Pond/Dam		02: Functioning Partially	Mar-Jul	01: Supplying Water through the Year	X	X	X				
VIANZI	TOWIN	04: Unprotected Well		02: Functioning Partially	Mar-Jul	01: Supplying Water through the Year	X	X	X				
VIANZI	TOWIN	01: River/Stream/Pond/Dam		02: Functioning Partially	Mar-Jul	02: Supplying Water Seasonally	X	X	X				
VIANZI	TOWIN	04: Unprotected Well		02: Functioning Partially	Mar-Jul	02: Supplying Water Seasonally	X	X	X				
VIANZI	TOWIN	01: River/Stream/Pond/Dam		02: Functioning Partially	Mar-Jul	02: Supplying Water Seasonally	X	X	X				
VIANZI	TOWIN	04: Unprotected Well		02: Functioning Partially	Mar-Jul	02: Supplying Water Seasonally	X	X	X				

**Village Inventory**  
**ILALA Municipality - Basic Information of the Surveyed Villages (1/6)**

1: Target (Whole Community) 2: Party Target 3: Not Target	A-1	A-6	A-7					B-2 (Sub-Village)				C-1	C-2	
	Serial Number	Name of Village/Mtaa	Ward	Population (2002)	No. of HH	Latitude	Longitude	Name of Sub-Villages (Sub-village names with bold italic; target areas of the study)	Population (2002)	No. of HH	Latitude	Longitude	Form of Community	Dwelling Type
1	ILA 039	BUYUNI	CHANIKA	6,544	1,476	65720	390604	KIGEZI MGEULE NYEBURU ZAVARA	980 956 3151 1457	273 263 643 297	65837 65649 65800 65720	390707 390628 390552 390604	01: Village	04: Scattered
1	ILA 040	CHANIKA	CHANIKA	13,906	3,360	65904	390529	KIMWANI LUBAKAYA LLUKOONI NZASA TUNGINI VIKONGOLO YONGWE ZINGIZIWA	2,311 2470 1,842 1478 1939 823 677 2366	468 554 444 411 483 276 253 471	70016 700345 70019 70155 65905 70016 65941 70231	390448 390420 390457 390247 390526 390448 390708 390520	01: Village	04: Scattered
1	ILA 012	MAJOHE	CHANIKA	3,122				KICHANGANI KIVULE MJIMPYA	1,457 789 876		65451 65442 65403	390824 390927 390931	01: Village	04: Scattered
1	ILA 006	SHARIFF SHAMBA	ILALA	6,708	1,680	64935	391519						02: Mtaa	01: Concentrated
1	ILA 029	KINYEREZI	KINYEREZI	5,811	1,184	65043	390913	BONYOKWA KIFURU KINYEREZI	676 3,000 2135	137 612 435	64925 65009 65045	391002 390712 390921	01: Village	04: Scattered
1	ILA 021	KIPUNGUNI	KIPAWA	19,275		65307	391122						02: Mtaa	01: Concentrated
1	ILA 041	KITUNDA	KITUNDA	23,424	5,329	65408	391154	KIPUNGUNI MACHIMBO KITUNDA KATI KIVULE MZINGA	6039 8,913 4,358 4114	4000	65411 65232 65608 65426	391104 391027 391047 391151	01: Village	04: Scattered
1	ILA 011	MSONGOLA	MSONGOLA	3,668	845	64459	391406	KITONGA MBONDOLE MVULENI YANGE YANGE	593 1,090 675 1,310	150 276 142 277	65849 65849 65849 64459	390927 390902 390927 391406	01: Village	04: Scattered
1	ILA 035	MVUTI	MSONGOLA	4,108	1,000	70147	390724	KIBOGA KIDOLE MKERA SANGARA UWANJA WA NYANI	523 754 966 1,064 801	139 184 224 262 191	70327 70100 70140 70155 70400	390608 390804 390726 390721 390740	01: Village	04: Scattered
2	ILA 010	PUGU KAJIUNGUNI	PUGU	7,821	1,727	65405	390713	<b>BOMBANI</b> KIGOGO FRESH KINYAMWEZI	3850 2,323 1,648	620 600 507	65405 65454 65556	390713 390720 390714	01: Village	04: Scattered
2	ILA 037	PUGU STATION	PUGU	7,139	1,680	65309	390721	<b>BANGULO</b> <b>KICHANGANI</b> PUGU STATION	658 1340 5,141	500 650 530	65224 101523 65309	390732 395519 390721	01: Village	04: Scattered
1	ILA 003	AMANI	SEGEREA	4,238		65005	391228						02: Mtaa	01: Concentrated
1	ILA 032	KIMANGA DARAJANI	SEGEREA	19,270	540	64935	391250						02: Mtaa	01: Concentrated
1	ILA 042	KISUKULU	SEGEREA	4,151		64942	391118						02: Mtaa	01: Concentrated
1	ILA 043	TEMBOMGWAZA	SEGEREA	6,239	1,273	64948	391127						02: Mtaa	01: Concentrated
1	ILA 046	IMATUMBI	TABATA	4,304	1,010	64922	391347						02: Mtaa	01: Concentrated
1	ILA 030	TABATA	TABATA	9,239	2,000	65016	391124						02: Mtaa	01: Concentrated
1	ILA 048	TENGE	TABATA	4,750	1,020	64953	391307						02: Mtaa	01: Concentrated
1	ILA 015	GONGO LA MBOTO	UKONGA	20,470		65257	390943						02: Mtaa	01: Concentrated
1	ILA 017	GULUKA KWALALA	UKONGA	12,978		65312	390823						02: Mtaa	01: Concentrated
1	ILA 014	MARKAZ	UKONGA	4,279		65336	390954						02: Mtaa	01: Concentrated
1	ILA 016	MONGO LA NDEGE	UKONGA	3,698		65345	391022						02: Mtaa	04: Scattered
1	ILA 013	MWEMBEMADAFU	UKONGA	27,648		65232	391028						02: Mtaa	01: Concentrated
1	ILA 019	ULONGONI	UKONGA	3,680		65234	390950						02: Mtaa	01: Concentrated
3	ILA 001	KISIWANI	BUGURUNI	29,203	5,959	64945	39143						02: Mtaa	01: Concentrated
3	ILA 009	MADENGE	BUGURUNI	16,192	3,304	65021	391441						02: Mtaa	01: Concentrated
3	ILA 004	IMALAPA	BUGURUNI	15,834	4,320	65021	391441						02: Mtaa	01: Concentrated
3	ILA 005	IMNYAMANI	BUGURUNI	19,990	4,079	65020	391427						02: Mtaa	01: Concentrated
3	ILA 008	KARUME	ILALA	4,025	1,104	64942	391600						02: Mtaa	01: Concentrated
3	ILA 002	KASULU	ILALA	6,917	1,824	64049	391538						02: Mtaa	01: Concentrated
3	ILA 007	MAFURIKO	ILALA	6,970	1,728	64948	391521						02: Mtaa	01: Concentrated
3	ILA 022	KARAKATA	KIPAWA	17,400		65125	391233						02: Mtaa	01: Concentrated
3	ILA 024	KIPAWA	KIPAWA	11,509		65136	391249						02: Mtaa	01: Concentrated

**Village Inventory**  
**ILALA Municipality - Basic Information of the Surveyed Villages (2/6)**

1: Target (Whole Community) 2: Party Target 3: Not Target	A-1	A-6	A-7					B-2 (Sub-Village)				C-1	C-2	
	Serial Number	Name of Village/Mtaa	Ward	Population (2002)	No. of HH	Latitude	Longitude	Name of Sub-Villages (Sub-village names with bold italic: target areas of the study)	Population (2002)	No. of HH	Latitude	Longitude	Form of Community	Dwelling Type
3	ILA 025	MOGO	KIPAWA	23,916		65157	391151						02: Mtaa	01: Concentrated
3	ILA 036	KIGILAGILA	KIWALANI	12,338	3,153	65153	391328						02: Mtaa	01: Concentrated
3	ILA 026	KIWALANI	KIWALANI	9,253	2,365	65134	391342						02: Mtaa	01: Concentrated
3	ILA 034	MINAZI MIREFU	KIWALANI	21,592	5,517	65126	391414						02: Mtaa	01: Concentrated
3	ILA 023	YOMBO	KIWALANI	18,507	4,728	65158	391406						02: Mtaa	01: Concentrated
3	ILA 028	KIMANGA	SEGEREA	18,358		64928	391228						02: Mtaa	01: Concentrated
3	ILA 027	LIWITI	SEGEREA	8,508		65010	391248						02: Mtaa	01: Concentrated
3	ILA 038	MIGOMBANI	SEGEREA	4,260		65108	391134						02: Mtaa	01: Concentrated
3	ILA 033	SEGEREA	SEGEREA	1,689	1,263	65043	391145						02: Mtaa	01: Concentrated
3	ILA 031	UGOMBOLWA	SEGEREA	4,408		64942	391118						02: Mtaa	01: Concentrated
3	ILA 044	KISAWANI	TABATA	8,790	1,859	64913	391325						02: Mtaa	01: Concentrated
3	ILA 047	MANDELA	TABATA	4,985	1,039	64929	391405						02: Mtaa	01: Concentrated
3	ILA 045	MSIMBAZI	TABATA	14,160	3,800	65004	391319						02: Mtaa	01: Concentrated
3	ILA 018	MAZIZINI	UKONGA	13,486		65313	391010						02: Mtaa	01: Concentrated
3	ILA 049	KOMBO	VINGUNGUTI	23,161	2,222	65028	391352						02: Mtaa	01: Concentrated
3	ILA 051	MIEMBENI	VINGUNGUTI	15,000		65051	391331						02: Mtaa	01: Concentrated
3	ILA 050	MTAKUJA	VINGUNGUTI	19,446		65039	391346						02: Mtaa	01: Concentrated
3	ILA 020	MTAMBANI	VINGUNGUTI	24,860		65028	391419						02: Mtaa	01: Concentrated

**Village Inventory**  
**ILALA Municipality - Basic Information of the Surveyed Villages (3/6)**

1: Target (Whole Community) 2: Partly Target 3: Not Target	A-1	A-6	D-1	D-2 Specify for 10	D-3												D-4	D-5				
	Serial Number	Name of Village/Mtaa	Major Water Source		Reliability												Average Amount (Litre)	Other WSS Intervention				
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		None	Agency	Period	Plan	
1	ILA 039	BUYUNI	04: Unprotected Well	60	X	X	X	X	X						X	X	X	X				
1	ILA 040	CHANIKA	04: Unprotected Well	30-60		X	X	X							X	X	X	X				
1	ILA 012	MAJOHE	01: River/Stream/Pond/Dam	90			X	X	X	X			X	X	X	X		120	X			
1	ILA 006	SHARIFF SHAMBA	06: Borehole	30	X	X	X	X	X	X	X	X	X	X	X	X	X	250	X			
1	ILA 029	KINYEREZI	04: Unprotected Well	30	X	X	X	X	X	X	X	X	X	X	X	X	200	X				
1	ILA 021	KIPUNGUNI	04: Unprotected Well	30	X	X	X	X	X	X					X	X			Municipal		Expansion of the network from World Bank wells with installation of 1 DP. Not started yet.	
1	ILA 041	KITUNDA	04: Unprotected Well	30			X	X	X	X					X	X	120		Plan International		Construction of borehole with piped network, on the community contribution of 5%	
1	ILA 011	MSONGOLA	04: Unprotected Well	30	X	X	X	X	X	X	X	X	X	X	X	X	100	X				
1	ILA 035	MVUTI	01: River/Stream/Pond/Dam	30	X	X	X	X	X						X	X	X	120	X			
2	ILA 010	PUGU KAJJUNGENI	04: Unprotected Well				X	X	X				X	X	X		140		Ilala Municipal		Expansion of piped scheme & installation of 2 DPs	
2	ILA 037	PUGU STATION	04: Unprotected Well	45	X	X	X	X	X						X	X	200	X				
1	ILA 003	AMANI	06: Borehole	30	X	X	X	X	X	X	X	X	X	X	X	X		X				
1	ILA 032	KIMANGA DARAJANI	06: Borehole	60	X	X	X	X	X	X	X	X	X	X	X	X	240	X				
1	ILA 042	KISUKULU	04: Unprotected Well	480	X	X	X	X	X								120		Municipal		Constructing a borehole for Kisukulu Mtaa. At Ugombolwa Mtaas the project is at the final stages.	
1	ILA 043	TEMBOMGWAZA	04: Unprotected Well	120		X	X	X	X								200	X				
1	ILA 046	MATUMBI	06: Borehole	90	X	X	X	X	X	X	X	X	X	X	X	X	200	X				
1	ILA 030	TABATA	06: Borehole	20	X	X	X	X	X	X	X	X	X	X	X	X	200	X				
1	ILA 048	TENGE	06: Borehole	60	X	X	X	X	X	X	X	X	X	X	X	X	200		World Bank		WB project at Msibazi Mtaa (TDF) is expected to expand the project to Tange Mtaa with construction of domestic points. The implementation has not started.	
1	ILA 015	GONGO LA MBOTO	04: Unprotected Well	60-90	X	X	X	X	X	X	X	X	X	X	X	X	200		Plan Int'l			
1	ILA 017	GULUKA KWALALA	01: River/Stream/Pond/Dam	360	X	X	X	X	X	X	X	X	X	X	X	X	300		Plan Int'l		Construction of borehole	
1	ILA 014	MARKAZ	04: Unprotected Well	30	X	X	X	X								X	300	X				
1	ILA 016	MONGO LA NDEGE	06: Borehole	45	X	X	X	X	X	X	X	X	X	X	X	X	>200		Plan Int'l		Construction of a borehole with 4 DPs. Construction has started. Water Committee has been selected.	
1	ILA 013	MWEMBEMADAFU	04: Unprotected Well	30-60	X	X	X	X	X						X	X	300	X				
1	ILA 019	ULONGONI	04: Unprotected Well	60	X	X	X	X	X	X	X	X	X	X	X	X	100		Plan Int'l		Construction of borehole under condition of raising TS2,500,000	
3	ILA 001	KISIWANI	06: Borehole	120	X	X	X	X	X	X	X	X	X	X	X	X	100		DAWASA		Borehole under construction	
3	ILA 009	MADENGE	06: Borehole	20	X	X	X	X	X	X	X	X	X	X	X	X	300	X				
3	ILA 004	MALAPA	06: Borehole	25	X	X	X	X	X	X	X	X	X	X	X	X	200	X				
3	ILA 005	MNYAMANI	06: Borehole	20													300	X				
3	ILA 008	KARUME	06: Borehole	60	X	X	X	X	X	X	X	X	X	X	X	X	200	X				
3	ILA 002	KASULU	06: Borehole	25	X	X	X	X	X	X	X	X	X	X	X	X	200	X				
3	ILA 007	MAFURIKO	06: Borehole	30	X	X	X	X	X	X	X	X	X	X	X	X	240	X				
3	ILA 022	KARAKATA	06: Borehole	30		X	X	X							X	X	300	X				
3	ILA 024	KIPAWA	06: Borehole	30	X	X	X	X	X							X	240	X				

**Village Inventory**  
**ILALA Municipality - Basic Information of the Surveyed Villages (4/6)**

1: Target (Whole Community) 2: Partly Target 3: Not Target	A-1	A-6	D-1	D-2 Specify for 10	D-3												D-4	D-5				
	Serial Number	Name of Village/Mtaa	Major Water Source		Average Time (min)	Reliability												Average Amount (Litre)	Other WSS Intervention			
						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		None	Agency	Period	Plan
	3 ILA 025	MOGO	06: Borehole	30	X	X	X	X	X	X	X	X	X	X	X	X	X	300	X			
	3 ILA 036	KIGILAGILA	06: Borehole	20	X	X	X	X	X	X	X	X	X	X	X	X	X	140				
	3 ILA 026	KIWALANI	06: Borehole	60	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X			
	3 ILA 034	MINAZI MIREFU	06: Borehole	5	X	X	X	X	X	X	X	X	X	X	X	X	X		X			
	3 ILA 023	YOMBO	06: Borehole	30	X	X	X	X	X	X	X	X	X	X	X	X	X	300	X			
	3 ILA 028	KIMANGA	05: Protected Well	60-120	X	X	X	X	X	X	X	X						280	X			
	3 ILA 027	LIWITI	06: Borehole				X	X	X	X								300	X			
	3 ILA 038	MIGOMBANI	06: Borehole	15	X	X	X	X	X	X	X	X	X	X	X	X	X	80	X			
	3 ILA 033	SEGEREA	06: Borehole	60	X	X	X	X	X	X	X	X	X	X	X	X	X	240	X			
	3 ILA 031	UGOMBOLWA	06: Borehole	20	X	X	X	X	X	X	X	X	X	X	X	X	X	240	X			
	3 ILA 044	KISAWANI	06: Borehole	30	X	X	X	X	X	X	X	X	X	X	X	X	X	300	X			
	3 ILA 047	MANDELA	06: Borehole	60	X	X	X	X	X	X	X	X	X	X	X	X	X	260	X			
	3 ILA 045	MSIMBAZI	06: Borehole	30	X	X	X	X	X	X	X	X	X	X	X	X	X	300	X			
	3 ILA 018	MAZIZINI	02: Unprotected Spring	15	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X			
	3 ILA 049	KOMBO	06: Borehole	10	X	X	X	X	X	X	X	X	X	X	X	X	X			Municipal		Municipal is constructing a 45,000LTRs tank, and 100 domestic points (Completion by Dec 2004)
	3 ILA 051	MIEMBENI	06: Borehole	15	X	X	X	X	X	X	X	X	X	X	X	X	X	300	X			
	3 ILA 050	MTAKUJA	06: Borehole	10	X	X	X	X	X	X	X	X	X	X	X	X	X	260	X			
	3 ILA 020	MTAMBANI																				



**Village Inventory**  
**ILALA Municipality - Basic Information of the Surveyed Villages (6/6)**

1: Target (Whole Community) 2: Partly Target 3: Not Target	A-1	A-6	E-1 (School)						E-2 (Health Facility)						
	Serial Number	Name of Village/Mtaa	Name of School	Type of School	Type of Class	No. of Pupil	Type of Toilet	No. of Toilet	No. of Teacher's House	Name of Health Facility	Type of Health Facility	No of Bed	No of Outpatient	Type of Toilet	No. of Toilet
3	ILA 025	MOGO	MORO	01: Primary	02: Daily	1,227	01: Traditional Pit	10		ARAFU	01: Dispensary	2			
			POND SPRING	01: Primary	02: Daily	235	04: Flush to Septic Tank	10		MICO AIRPORT	01: Dispensary	2			
			HERITAGE	02: Secondary	Boarding, Daily	182	04: Flush to Septic Tank	15	3	THERESIA	01: Dispensary	2			
										PRIME CARE	01: Dispensary	2			
3	ILA 036	KIGILAGILA	KIGILAGILA	01: Primary	01: Boarding		01: Traditional Pit			MANGESHO	02: Health Center			04: Flush to Septic Tank	2
										KV	01: Dispensary			01: Traditional Pit	2
										AKUDO	01: Dispensary			04: Flush to Septic Tank	2
3	ILA 026	KIWALANI	KIWALANI	01: Primary	02: Daily	1,373	01: Traditional Pit	23		KIWALANI	01: Dispensary	2		01: Traditional Pit	2
3	ILA 034	MINAZI MIREFU								ARAFU	01: Dispensary	2		01: Traditional Pit	2
3										PEMA	01: Dispensary	2	2	01: Traditional Pit	2
										MARIE STOPES	01: Dispensary	2		04: Flush to Septic Tank	2
3	ILA 023	YOMBO	YOMBO	01: Primary	02: Daily	1,490	01: Traditional Pit	8	1	YOMBO	01: Dispensary			04: Flush to Septic Tank	2
			MWALE	01: Primary	02: Daily	1,496				ST.CAMILLIUS	01: Dispensary			04: Flush to Septic Tank	2
			UMOJA	01: Primary	02: Daily	1,355	01: Traditional Pit	9		ARAFU	01: Dispensary			04: Flush to Septic Tank	2
			BWAWANI	01: Primary	02: Daily	1,564	01: Traditional Pit	12							
			YOMBO	02: Secondary	01: Boarding	30									
3	ILA 028	KIMANGA	KIMANGA	01: Primary	02: Daily	2,138	01: Traditional Pit	25							
			TUMAINI	01: Primary	02: Daily	2,007	01: Traditional Pit	10	1						
			KAITARO SATO	01: Primary	02: Daily	40	01: Traditional Pit	4							
			KAMEME	02: Secondary	Boarding, Daily	670	01: Traditional Pit	60	4						
			TABATA	02: Secondary	02: Daily	240	01: Traditional Pit	12							
3	ILA 027	LIWITI	LIWITI	01: Primary	02: Daily	1,508	01: Traditional Pit	20		NBC MALECELA	01: Dispensary	6	50	04: Flush to Septic Tank	4
			MISEWE	01: Primary	02: Daily	1,343	01: Traditional Pit	10							
3	ILA 038	MIGOMBANI	SEGEREA SENIOR SEMINARY	03: Tertiary	01: Boarding	150	04: Flush to Septic Tank	30	10	AL MUNTAZAR	01: Dispensary		15	01: Traditional Pit	2
			HAPPY SKILLFULLY	Primary, Second	Boarding, Daily	580	04: Flush to Septic Tank	45	5						
			MADIBA	02: Secondary	Boarding, Daily	70	01: Traditional Pit	20	1						
3	ILA 033	SEGEREA	TUSIIME	01: Primary	02: Daily	150	01: Traditional Pit	12		MIKO	01: Dispensary	3	18	01: Traditional Pit	2
3	ILA 031	UGOMBOLWA	SEGEREA	01: Primary	02: Daily	1,035	01: Traditional Pit	10							
			MAENDELEO	01: Primary	02: Daily	1,024	01: Traditional Pit	10	1						
3	ILA 044	KISAWANI													
3	ILA 047	MANDELA								TABATA DAMPO	03: Hospital			04: Flush to Septic Tank	
3	ILA 045	MSIMBAZI	TABATA	01: Primary	02: Daily	1,691	01: Traditional Pit	15	4	TABATA	01: Dispensary			04: Flush to Septic Tank	4
			MTAMBANI	01: Primary	02: Daily	1,669	01: Traditional Pit	15	3	SHILA	01: Dispensary			04: Flush to Septic Tank	2
			TABATA JICA	01: Primary	02: Daily	832	01: Traditional Pit	16							
			TOPFIELD	03: Tertiary	02: Daily	82	01: Traditional Pit	4							
			DANIEL	02: Secondary	02: Daily	116	01: Traditional Pit	6							
3	ILA 018	MAZIZINI								MAZIZINI	01: Dispensary	6		03: Pour Flush	
3	ILA 049	KOMBO	KOMBO	01: Primary	02: Daily	3,010	01: Traditional Pit			2 ALVKARIM	01: Dispensary	2	40	01: Traditional Pit	3
			MTAKUJA	01: Primary	02: Daily	3,030	01: Traditional Pit	20	1	IMARA	01: Dispensary	2	20	01: Traditional Pit	2
3	ILA 051	MIEMBENI	MIEMBENI	01: Primary	02: Daily		01: Traditional Pit	25	2	VINGUNGUTI	01: Dispensary	2	30	01: Traditional Pit	2
			VINGUNGUTI	01: Primary	02: Daily		01: Traditional Pit	25		ARAFU	01: Dispensary	2	15	01: Traditional Pit	2
3	ILA 050	MTAKUJA								MARIE STOPES	01: Dispensary	4		04: Flush to Septic Tank	2
3	ILA 020	MTAMBANI								AFYA BORA	01: Dispensary	2		01: Traditional Pit	2



**Village Water Inventory**  
**ILALA Municipality - Outline of the Existing Water Supply Conditions (1/8)**

Serial Number	Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-3 No. of Water Source	F-5 Type of Water Supply System	F-10 Type of Water Supply Facility										F-11 Year of Construction	F-12 Organization that constructed Facility	F-13 Number of Water Points	
			Water Source	Specify for 07 and 10			01: Lined with Concrete Ring	02: Bucket	03: Hand Pump	04: Windmill Pump	05: Motor Pump	06: Water Tank (Elevate)	07: Water Tank (Reserve)	08: Generator (Diesel)	09: Generator (Electricity)	10: Solar System			11: Others (Specify)	Public
ILA 039	BUYUNI	KIGEZI	04: Unprotected Well		9:01: Point		X									1995x2(GOT), 2003x8(Muslim)	MUSLIM,GOT			
ILA 039	BUYUNI	KIGEZI	05: Protected Well		2:01: Point		X									1995(GOT), 2003(Muslim)	MUSLIM,GOT			
ILA 039	BUYUNI	MGEULE	04: Unprotected Well		11:01: Point		X									2004	PRIVATE,MUSLIM			
ILA 039	BUYUNI	MGEULE	05: Protected Well		9:01: Point		X									2003x1(GOT), 2004x8(Muslim)	GOT,MUSLIM			
ILA 039	BUYUNI	NYEBURU	04: Unprotected Well		22:01: Point		X									2003	MUSLIM AGENCY			
ILA 039	BUYUNI	NYEBURU	05: Protected Well		9:01: Point		X									2003	MUSLIM AGENCY			
ILA 039	BUYUNI	NYEBURU	06: Borehole		1:01: Point		X									2002	GOT			
ILA 039	BUYUNI	ZAVARA	07: Water Vender	From Borehole	10:04: Not Applicable		X										PRIVATE MUSLIM			
ILA 039	BUYUNI	ZAVARA	04: Unprotected Well		9:01: Point		X									2004	MUSLIM AGENCY			
ILA 039	BUYUNI	ZAVARA	05: Protected Well		5:01: Point		X									2004	MUSLIM AGENCY			
ILA 039	BUYUNI	ZAVARA	06: Borehole		1:01: Point		X									2004	CANADIAN ASSOC.			
ILA 040	CHANIKA	KIMWANI	04: Unprotected Well		10:01: Point		X									2003				
ILA 040	CHANIKA	KIMWANI	05: Protected Well		9:01: Point		X									2002-04x5(Private), 2002x2(GOT), 2002x2(Muslim)	PRIVATE,GOT,MUSLIM			
ILA 040	CHANIKA	KIMWANI	07: Water Vender	From Private Hand Pump Well (Protected Well)	16:04: Not Applicable		X									2004	GOT		1	
ILA 040	CHANIKA	KIMWANI	06: Borehole		1:02: Pipeed (Independent System)		X													
ILA 040	CHANIKA	LUBAKAYA	01: River/Stream/Pond/Dam		1:04: Not Applicable		X													
ILA 040	CHANIKA	LUBAKAYA	04: Unprotected Well		5:01: Point		X									2001x1(Muslim), 2002x2(GOT)	COMMUNITY			
ILA 040	CHANIKA	LUBAKAYA	05: Protected Well		3:01: Point		X										MUSLIM AGENCY, GOT			
ILA 040	CHANIKA	LUBAKAYA	07: Water Vender	From Private Hand Pump Well (Protected Well)	10:04: Not Applicable		X													
ILA 040	CHANIKA	LUKOONI	01: River/Stream/Pond/Dam		2:04: Not Applicable		X													
ILA 040	CHANIKA	LUKOONI	04: Unprotected Well		21:01: Point		X									2004	MUSLIM AGENCY			
ILA 040	CHANIKA	LUKOONI	05: Protected Well		1:01: Point		X									2003/4	GOT			
ILA 040	CHANIKA	LUKOONI	07: Water Vender	From Private Hand Pump Well (Protected Well)	5:04: Not Applicable		X													
ILA 040	CHANIKA	NZASA	04: Unprotected Well		10:01: Point		X									2003	PRIVATE			
ILA 040	CHANIKA	NZASA	01: River/Stream/Pond/Dam		2:04: Not Applicable		X													
ILA 040	CHANIKA	NZASA	05: Protected Well		1:01: Point		X									2001	PRIVATE			
ILA 040	CHANIKA	TUNGINI	04: Unprotected Well		21:01: Point		X									2003	COMMUNITY			
ILA 040	CHANIKA	TUNGINI	05: Protected Well		8:01: Point		X									1999x2, 2000-04x6	GOTx3, Privatex2, Muslim Associationx3		1	
ILA 040	CHANIKA	TUNGINI	06: Borehole		1:02: Pipeed (Independent System)		X									2003	GOT			
ILA 040	CHANIKA	TUNGINI	07: Water Vender	From Borehole	5:04: Not Applicable		X													
ILA 040	CHANIKA	VIKONGOLO	01: River/Stream/Pond/Dam		6:04: Not Applicable		X													
ILA 040	CHANIKA	VIKONGOLO	04: Unprotected Well		12:01: Point		X									2004	MUSLIM AGENCY			
ILA 040	CHANIKA	VIKONGOLO	05: Protected Well		12:01: Point		X									2004	MUSLIM AGENCY GOT			
ILA 040	CHANIKA	YONGWE	04: Unprotected Well		4:01: Point		X									2004	MUSLIM AGENCY			
ILA 040	CHANIKA	YONGWE	05: Protected Well		8:01: Point		X									2003	GOT			
ILA 040	CHANIKA	YONGWE	05: Protected Well		1:01: Point		X													
ILA 040	CHANIKA	ZINGIZIWA	01: River/Stream/Pond/Dam		1:04: Not Applicable		X													
ILA 040	CHANIKA	ZINGIZIWA	04: Unprotected Well		5:01: Point		X									2002	MUSLIM AGENCY			
ILA 040	CHANIKA	ZINGIZIWA	05: Protected Well		1:01: Point		X									2002	MUSLIM AGENCY			
ILA 040	CHANIKA	ZINGIZIWA	06: Borehole		1:01: Point		X									2003	GOT			
ILA 012	MAJOHE	KICHANGANI	01: River/Stream/Pond/Dam		18:04: Not Applicable		X													
ILA 012	MAJOHE	KICHANGANI	04: Unprotected Well		11:01: Point		X									2x2000, 4x2003, 5x1989	MUSLIM ASSOC., GOT			
ILA 012	MAJOHE	KICHANGANI	06: Borehole		1:02: Pipeed (Independent System)		X									2000	GOT		6	
ILA 012	MAJOHE	KIVULE	01: River/Stream/Pond/Dam		13:04: Not Applicable		X									1999	COMMUNITY			
ILA 012	MAJOHE	KIVULE	04: Unprotected Well		3:01: Point		X									2003	KUWAIT MUSLIM			
ILA 012	MAJOHE	KIVULE	05: Protected Well		9:01: Point		X									2001	KUWAIT MUSLIM			
ILA 012	MAJOHE	KIVULE	06: Borehole		1:01: Point		X									30 x 200-2004, 4 x 2003	30 x PRIVATE, 4 x KUWAIT MUSLIM ASS.			
ILA 012	MAJOHE	MJI MPYA	04: Unprotected Well		34:01: Point		X									2002	KUWAIT MUSLIM			
ILA 012	MAJOHE	MJI MPYA	05: Protected Well		9:01: Point		X									2003	MUSLIM ASS.			
ILA 012	MAJOHE	MJI MPYA	06: Borehole		1:01: Point		X									2002	KUWAIT MUSLIM			
ILA 006	SHARIF SHAMBA	SHARIF SHAMBA	06: Borehole		5:01: Point, Pipeed (Independent System)		X									City Water/DAWASA (2001), GOT (2002)	CITY WATER/DAWASA, GOT, PRIVATE	4 x City Water/DAWASA, 5 x GOT		





**Village Water Inventory  
ILALA Municipality - Outline of the Existing Water Supply Conditions (4/8)**

Serial Number	Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-3 No. of Water Source	F-5 Type of Water Supply System	F-10 Type of Water Supply Facility										F-11 Year of Construction	F-12 Organization that constructed Facility	F-13 Number of Water Points	
			Water Source	Specify for 07 and 10			01: Lined with Concrete Ring	02: Bucket	03: Hand Pump	04: Windmill Pump	05: Motor Pump	06: Water Tank (Elevate)	07: Water Tank (Reserve)	08: Generator (Diesel)	09: Generator (Electricity)	10: Solar System			11: Others (Specify)	Public
ILA 017	GULLUKA KWALALA	GULLUKA KWALALA	02: Unprotected Spring		101: Point		X													
ILA 017	GULLUKA KWALALA	GULLUKA KWALALA	04: Unprotected Well		801: Point		X													
ILA 017	GULLUKA KWALALA	GULLUKA KWALALA	06: Borehole		102: Piped (Independent System)			X												
ILA 017	GULLUKA KWALALA	GULLUKA KWALALA	07: Water Vender	From Ukongga Prison	04: Not Applicable														4	
ILA 014	MARKAZ	MARKAZ	01: River/Stream/Pond/Dam		604: Not Applicable			X												
ILA 014	MARKAZ	MARKAZ	04: Unprotected Well		1501: Point		X													
ILA 014	MARKAZ	MARKAZ	05: Protected Well		901: Point			X												
ILA 014	MARKAZ	MARKAZ	06: Borehole		601: Point			X												
ILA 014	MARKAZ	MARKAZ	07: Water Vender	From borehole	1504: Not Applicable															
ILA 016	MONGO LA NDEGE	MONGO LA NDEGE	01: River/Stream/Pond/Dam		204: Not Applicable			X												
ILA 016	MONGO LA NDEGE	MONGO LA NDEGE	04: Unprotected Well		501: Point		X													
ILA 016	MONGO LA NDEGE	MONGO LA NDEGE	05: Protected Well		601: Point				X											
ILA 016	MONGO LA NDEGE	MONGO LA NDEGE	06: Borehole		21 x Point, 1 x Piped (Independent System)					X										
ILA 016	MONGO LA NDEGE	MONGO LA NDEGE	07: Water Vender	From borehole	1004: Not Applicable															
ILA 013	MVEMBEWADAFU	MVEMBEWADAFU	04: Unprotected Well		701: Point		X													
ILA 013	MVEMBEWADAFU	MVEMBEWADAFU	06: Borehole		52 x Point, 2 x Piped (Independent Scheme)					X	X									
ILA 013	MVEMBEWADAFU	MVEMBEWADAFU	07: Water Vender	From borehole	6004: Not Applicable															
ILA 019	ULONGONI	ULONGONI	01: River/Stream/Pond/Dam		1004: Not Applicable															
ILA 019	ULONGONI	ULONGONI	04: Unprotected Well		1101: Point			X	X											

**Village Water Inventory  
ILALA Municipality - Outline of the Existing Water Supply Conditions (5/8)**

Name of Village	F-1		F-2		F-14		F-15		F-16				F-17	
	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	Water Source	Functioning Condition	Condition	Specify for 02 and 03	Specify for 07 and 10	Specify for 02	Supply Condition	01: Good for Domestic Use	02: Good for Domestic Use, but not Drinking	03: Muddy	04: Salty	05: Rusty	Price
BUYUNI	KIGEZI	04: Unprotected Well	02: Functioning Partially	Oct-Jun			02: Supplying Water Seasonally	X2	X7	X7	X7	X7		
BUYUNI	KIGEZI	05: Protected Well	All Functioningx1, Broken Down (Pump)x1				02: Supplying Water Seasonally	X1	X1					
BUYUNI	MGEULE	04: Unprotected Well	01: All Functioning				02: Supplying Water Seasonally	X						
BUYUNI	MGEULE	05: Protected Well	02: Functioning Partially	Oct-Jun			02: Supplying Water Seasonally	X8	X1	X1				
BUYUNI	NYEBURU	04: Unprotected Well	02: Functioning Partially				02: Supplying Water Seasonally	X	X					
BUYUNI	NYEBURU	05: Protected Well	02: Functioning Partially	Water shortage			02: Supplying Water Seasonally	X	X					
BUYUNI	NYEBURU	06: Borehole	01: All Functioning				01: Supplying Water through the Year	X	X					
BUYUNI	ZAVARA	07: Water Vender												
BUYUNI	ZAVARA	04: Unprotected Well	01: All Functioning				01: Supplying Water through the Year	X1	X4					150/20LT
BUYUNI	ZAVARA	05: Protected Well	01: All Functioning				01: Supplying Water through the Year	X1	X4					10/20LT
BUYUNI	ZAVARA	06: Borehole	01: All Functioning				01: Supplying Water through the Year	X	X					20/20LT
CHANIKA	KIMWANI	04: Unprotected Well	02: Functioning Partially				02: Supplying Water Seasonally	X	X					20/20LT
CHANIKA	KIMWANI	05: Protected Well	All Functioningx2, Break Down (Pump Stollen)x7				Supplying Water Through the Yearx2, Seasonallyx7	X						20/20LT
CHANIKA	KIMWANI	07: Water Vender												70-100/20LT
CHANIKA	KIMWANI	06: Borehole	01: All Functioning				03: No Supply throughout the Year	X	X					20/20LT
CHANIKA	LUBAKAYA	01: River/Stream/Pond/Dam	02: Functioning Partially				01: Supplying Water through the Year	X	X					20/20LT
CHANIKA	LUBAKAYA	04: Unprotected Well	02: Functioning Partially				02: Supplying Water Seasonally	X	X					20/20LT
CHANIKA	LUBAKAYA	05: Protected Well	02: Functioning Partially	No Waterx1, Not Pumpingx2			03: No Supply throughout the Year	X						20/20LT
CHANIKA	LUBAKAYA	07: Water Vender												50/20LT
CHANIKA	LUKOONI	01: River/Stream/Pond/Dam	02: Functioning Partially	Low water table			02: Supplying Water Seasonally	X	X					20/20LT
CHANIKA	LUKOONI	04: Unprotected Well	03: Break Down	PV Pipe breakdown			03: No Supply throughout the Year	X	X					20/20LT
CHANIKA	LUKOONI	07: Water Vender												120/20LT
CHANIKA	NZASA	04: Unprotected Well	01: All Functioning				02: Supplying Water Seasonally	X	X					20/20LT
CHANIKA	NZASA	01: River/Stream/Pond/Dam	01: All Functioning				02: Supplying Water Seasonally	X	X					20/20LT
CHANIKA	NZASA	05: Protected Well	01: All Functioning				01: Supplying Water through the Year	X	X					20/20LT
CHANIKA	TUNGINI	04: Unprotected Well	Functioning Partiallyx2, Not Workingx4				01: Supplying Water through the Year	X	X					20/20LT
CHANIKA	TUNGINI	05: Protected Well					02: Supplying Water Seasonally	X	X					20/20LT
CHANIKA	TUNGINI	06: Borehole	01: All Functioning				01: Supplying Water through the Year	X	X					20/20LT
CHANIKA	TUNGINI	07: Water Vender												100/20LT
CHANIKA	VIKONGOLO	01: River/Stream/Pond/Dam					Supplying Water Through the Yearx2, Seasonallyx4(Oct-Jun)	X4	X5					20/20LT
CHANIKA	VIKONGOLO	04: Unprotected Well	02: Functioning Partially				01: Supplying Water through the Year	X10	X2					20/20LT
CHANIKA	VIKONGOLO	05: Protected Well	01: All Functioning	PV Pipe breakdown			01: Supplying Water through the Year	X8	X4					20/20LT
CHANIKA	YONGWE	04: Unprotected Well	02: Functioning Partially	PV Pipe breakdown			01: Supplying Water through the Year	X3	X1					20/20LT
CHANIKA	YONGWE	05: Protected Well	01: All Functioning	PV Pipe breakdown			01: Supplying Water through the Year	X7	X1					20/20LT
CHANIKA	ZINGIZIWA	01: River/Stream/Pond/Dam	02: Functioning Partially				01: Supplying Water through the Year	X	X					20/20LT
CHANIKA	ZINGIZIWA	04: Unprotected Well	02: Functioning Partially	Oct-Jun			02: Supplying Water Seasonally	X	X					20/20LT
CHANIKA	ZINGIZIWA	05: Protected Well	03: Break Down				01: Supplying Water through the Year	X	X					20/20LT
CHANIKA	ZINGIZIWA	06: Borehole	02: Functioning Partially				03: No Supply throughout the Year	X	X					20/20LT
CHANIKA	ZINGIZIWA	01: River/Stream/Pond/Dam	02: Functioning Partially				02: Supplying Water Seasonally	X	X					20/20LT
MAJOHE	KICHANGANI	04: Unprotected Well	8 x All Functioning, 3 x Pump break down				8 x Supplying Water Seasonally, 3 x No Supply throughout the year	X	X					20/20LT
MAJOHE	KICHANGANI	06: Borehole	01: All Functioning				01: Supplying Water through the Year	X	X					20/20LT
MAJOHE	KIVULE	01: River/Stream/Pond/Dam	01: All Functioning				01: Supplying Water through the Year	X	X					20/20LT
MAJOHE	KIVULE	04: Unprotected Well	02: Functioning Partially	Handpumps at 3 wells broke down			01: Supplying Water through the Year	X	X					20/20LT
MAJOHE	KIVULE	05: Protected Well	03: Break Down	Pump break down			03: No Supply throughout the Year	X	X					20/20LT
MAJOHE	KIVULE	06: Borehole	01: All Functioning				02: Supplying Water Seasonally	X	X					20/20LT
MAJOHE	MJI MPYA	04: Unprotected Well	01: All Functioning				02: Supplying Water Seasonally	X	X					20/20LT
MAJOHE	MJI MPYA	05: Protected Well	01: All Functioning				02: Supplying Water Seasonally	X	X					20/20LT
MAJOHE	MJI MPYA	06: Borehole	01: All Functioning				01: Supplying Water through the Year	X	X					20/20LT
SHARIF SHAMBA	SHARIF SHAMBA	06: Borehole	01: All Functioning				01: Supplying Water through the Year	X	X					20/20LT



**Village Water Inventory  
ILALA Municipality - Outline of the Existing Water Supply Conditions (7/8)**

Name of Village	F-1 Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality			F-17 Unit Price Price Unit	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use	02: Good for Domestic Use, but not for Drinking	03: Muddy		04: Salty
MVUTI		Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X					
MVUTI		Protected Well		Not Functioning		03: No Supply throughout the Year		X				
UWANJA WA NYANI		River/Stream/Pond/Dam		01: All Functioning		02: Supplying Water Seasonally			X			20 ZOLT
BOMBANI		Unprotected Well		01: All Functioning, 1 x Pump break down		02: Supplying Water Seasonally			X			20 ZOLT
PUGU KAJIUNGENI		Borehole		02: Functioning Partially		1 x All Functioning, 1 x No supply			X			20 ZOLT
PUGU KAJIUNGENI		River/Stream/Pond/Dam		01: All Functioning		02: Supplying Water Seasonally			X			
PUGU KAJIUNGENI		Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally			X			
PUGU KAJIUNGENI		Protected Well		01: All Functioning		02: Supplying Water Seasonally			X			
PUGU KAJIUNGENI		Borehole		01: All Functioning		02: Supplying Water Seasonally			X			150 ZOLT
PUGU KAJIUNGENI		Water Vender	From Pugu	01: All Functioning		02: Supplying Water Seasonally			X			
PUGU KAJIUNGENI		River/Stream/Pond/Dam		01: All Functioning		02: Supplying Water Seasonally			X			
PUGU KAJIUNGENI		Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally			X			20 ZOLT
PUGU KAJIUNGENI		Protected Well		02: Functioning Partially		02: Supplying Water Seasonally			X			100-150 ZOLT
PUGU KAJIUNGENI		Water Vender	From river and borehole	01: All Functioning		02: Supplying Water Seasonally			X			
PUGU STATION		River/Stream/Pond/Dam		01: All Functioning		02: Supplying Water Seasonally			X			
PUGU STATION		Unprotected Well		03: Break Down		02: Supplying Water Seasonally			X			20 ZOLT
PUGU STATION		Protected Well		02: Functioning Partially		02: Supplying Water Seasonally			X			150 ZOLT
PUGU STATION		Water Vender	From Borehole (Livestock Auction Area)	02: Functioning Partially		02: Supplying Water Seasonally			X			
PUGU STATION		River/Stream/Pond/Dam		02: Functioning Partially		03: No Supply throughout the Year			X			
PUGU STATION		Protected Well		01: All Functioning		02: Supplying Water Seasonally			X			80/120/10/20/LT
PUGU STATION		Water Vender	From City Center	01: All Functioning		02: Supplying Water Seasonally			X			20 ZOLT
PUGU STATION		Unprotected Well		01: All Functioning		02: Supplying Water Seasonally			X			200 ZOLT
PUGU STATION		Protected Well		01: All Functioning		02: Supplying Water Seasonally			X			50 ZOLT
PUGU STATION		Water Vender	From Borehole	01: All Functioning		01: Supplying Water through the Year			X			
AMANI		Borehole		02: Functioning Partially		01: Supplying Water Seasonally			X			30 ZOLT
AMANI		Unprotected Well		03: Break Down		02: Supplying Water Seasonally			X			30-50 ZOLT
AMANI		Protected Well		01: All Functioning		01: Supplying Water through the Year			X			100 ZOLT
AMANI		Borehole		01: All Functioning		01: Supplying Water through the Year			X			30 ZOLT
KIMANGA DARAJA		River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year			X			20 ZOLT
KIMANGA DARAJA		Protected Well		01: All Functioning		01: Supplying Water through the Year			X			30 ZOLT
KIMANGA DARAJA		Borehole		01: All Functioning		01: Supplying Water through the Year			X			20 ZOLT
KIMANGA DARAJA		City Water/DAWASA		02: Functioning Partially		02: Supplying Water Seasonally			X			BILLING
KIMANGA DARAJA		Water Vender	From Kijioniyama	02: Functioning Partially		02: Supplying Water Seasonally			X			150 ZOLT
KISUKULU		Unprotected Well		All Functioning		Supplying Water through the Year			X			
SEGEEA		Water Vender	Through cars with tanks from Segerea boreholes	02: Functioning Partially		02: Supplying Water Seasonally			X			150 ZOLT
SEGEEA		Protected Well		02: Functioning Partially		02: Supplying Water Seasonally			X			20 ZOLT
SEGEEA		Borehole		01: All Functioning		01: Supplying Water through the Year			X			BILLING
TEMBONGWAZA		Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally			X			20 ZOLT
TEMBONGWAZA		City Water/DAWASA		02: Functioning Partially		02: Supplying Water Seasonally			X			BILLING
TEMBONGWAZA		Borehole		01: All Functioning		01: Supplying Water through the Year			X			30 ZOLT
TEMBONGWAZA		Water Vender		01: All Functioning		01: Supplying Water through the Year			X			150 ZOLT
MA TUMBI		Borehole		01: All Functioning		01: Supplying Water through the Year			X			20 ZOLT
MA TUMBI		Water Vender	From City Water	02: Functioning Partially		02: Supplying Water Seasonally			X			150 ZOLT
MA TUMBI		City Water/DAWASA		All Functioning		Water available once in a month			X			BILLING
TABATA		Unprotected Well		01: All Functioning		01: Supplying Water Seasonally			X			20 ZOLT
TABATA		Protected Well		01: All Functioning		01: Supplying Water through the Year			X			20 ZOLT
TABATA		Borehole		02: Functioning Partially		01: Supplying Water through the Year			X			BILLING
TABATA		City Water/DAWASA		02: Functioning Partially		01: Supplying Water through the Year			X			250 ZOLT
TABATA		Water Vender	From Mabibo	02: Functioning Partially		02: Supplying Water Seasonally			X			
TENGE		Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally			X			20 ZOLT
TENGE		Protected Well		01: All Functioning		01: Supplying Water through the Year			X			20 ZOLT
TENGE		Borehole		02: Functioning Partially		02: Supplying Water Seasonally			X			BILLING
TENGE		City Water/DAWASA		02: Functioning Partially		02: Supplying Water Seasonally			X			150 ZOLT
TENGE		Water Vender		07: Water Vender		01: Supplying Water through the Year			X			
GONGO LA MBOTI		River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year			X			
GONGO LA MBOTI		Unprotected Spring		01: All Functioning		01: Supplying Water through the Year			X			20-30 ZOLT
GONGO LA MBOTI		Unprotected Well		01: All Functioning		01: Supplying Water through the Year			X			150 ZOLT
GONGO LA MBOTI		Water Vender	From Madatu & Markaz	07: Water Vender		01: Supplying Water through the Year			X			150 ZOLT

**Village Water Inventory  
ILALA Municipality - Outline of the Existing Water Supply Conditions (8/8)**

Name of Village	F-1 Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality					F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use	02: Good for Domestic Use, but not for Drinking	03: Muddy	04: Salty	05: Rusty	Price	Unit
GULUKA KWALALA	GULUKA KWALALA	02: Unprotected Spring		01: All Functioning		01: Supplying Water through the Year	X					20	20LT	
GULUKA KWALALA	GULUKA KWALALA	04: Unprotected Well		02: Functioning Partially	Little water during dry season	02: Supplying Water Seasonally	X		X			30	20LT	
GULUKA KWALALA	GULUKA KWALALA	06: Borehole		01: All Functioning		01: Supplying Water through the Year	X					250	20LT	
GULUKA KWALALA	GULUKA KWALALA	07: Water Vendor	From Ukongwa Prison											
MARKAZ	MARKAZ	01: River/Stream/Pond/Dam		01: All Functioning		1x Supplying seasonally (Nov-Jul), 5 x Supplying through the year	X					20	20LT	
MARKAZ	MARKAZ	04: Unprotected Well		01: All Functioning		02: Supplying Water Seasonally	X					20	20LT	
MARKAZ	MARKAZ	05: Protected Well		01: All Functioning		02: Supplying Water Seasonally	X					20	20LT	
MARKAZ	MARKAZ	06: Borehole		01: All Functioning		01: Supplying Water through the Year	X		X			20-40	20LT	
MARKAZ	MARKAZ	07: Water Vendor	From borehole									200	20LT	
MONGO LA NDEGE	MONGO LA NDEGE	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X							
MONGO LA NDEGE	MONGO LA NDEGE	04: Unprotected Well		02: Functioning Partially		1 x Supplying through the year, 4 x Seasonal (Feb-Jul)	X							
MONGO LA NDEGE	MONGO LA NDEGE	05: Protected Well		1 x All Functioning, 5 x Pump break down		1 x Seasonal (Feb-Jul), 5 x No supply through the year			X					
MONGO LA NDEGE	MONGO LA NDEGE	06: Borehole		01: All Functioning		01: Supplying Water through the Year						20	20LT	
MONGO LA NDEGE	MONGO LA NDEGE	07: Water Vendor	From borehole									150	20LT	
MVEMBEADAFU	MVEMBEADAFU	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally	X							
MVEMBEADAFU	MVEMBEADAFU	06: Borehole		3 x All Functioning, 1 x Functioning Partially		1x Supplying seasonally, 4 x Supplying through the year	X		X			25	20LT	
MVEMBEADAFU	MVEMBEADAFU	07: Water Vendor	From borehole											
ULONGONI	ULONGONI	01: River/Stream/Pond/Dam		01: All Functioning		1 x All Functioning, 9 x Seasonal (Nov-Jun)	X					150	20LT	
ULONGONI	ULONGONI	04: Unprotected Well		02: Functioning Partially	Pumps removed for modification	02: Supplying Water Seasonally	X							



**Village Inventory**  
**KIDONDONI Municipality - Basic Information of the Surveyed Villages (1/3)**

	A-1			A-6				A-7				B-2 (Sub-Village 1)				C-1	C-2
	Serial Number	Name of Village/Mtaa	Ward	Population (2002)	No. of HH	Latitude	Longitude	Name of Sub-Villages (Sub-village names with bold italic: target areas of the study)	Population (2002)	No. of HH	Latitude	Longitude	Form of Community	Dwelling Type			
	1 KND 003	IMABWEPANDE	BUNJU	3,100	632	63908	390502						02: Mtaa	04: Scattered			
	1 KND 020	IMBOPO	BUNJU	1,868	381	64116	390637						02: Mtaa	03: Clustered			
	1 KND 021	KULANGWA	GOBA	1,220	600	64337	390828						02: Mtaa	04: Scattered			
	1 KND 004	MATOSA	GOBA	25,144	2,102	64420	390826						02: Mtaa	04: Scattered			
	1 KND 001	CHANGANYIKENI	KAWWE	17,000	3,469	64610	391136						02: Mtaa	01: Concentrated			
	1 KND 014	KIBWEGERE	KIBAMBA	3,000	200	64510	390257						02: Mtaa	04: Scattered			
	1 KND 013	KWEMBE	KIBAMBA	7,600	800	64915	390453						02: Mtaa	04: Scattered			
	1 KND 006	KIMARA BARUTI	KIMARA	14,584	2,976	64707	391132						02: Mtaa	01: Concentrated			
	1 KND 002	MAVURUNZA	KIMARA	3,974	300	64817	391000						02: Mtaa	01: Concentrated			
	1 KND 017	MADALA	KUNDUCHI	8,932	997	64116	390812						02: Mtaa	04: Scattered			
	1 KND 012	MBEZI-LUIS	MBEZI	20,079	4,097	64659	390702						02: Mtaa	01: Concentrated			
	1 KND 008	IMPIJI MAGOHE	MBEZI	2,723	555	64345	390359						02: Mtaa	04: Scattered			
	1 KND 009	IMSAKUZI	MBEZI	2,797	570	64507	390529						02: Mtaa	04: Scattered			
	1 KND 007	IMSUMI	MBEZI	1,330	271	64240	390626						02: Mtaa	04: Scattered			
	3 KND 022	GOBA	GOBA	2,421	650	64420	390938						01: Village	04: Scattered			
	3 KND 011	KIBAMBA	KIBAMBA	9,482	1,935	64719	390318						02: Mtaa	01: Concentrated			
	3 KND 015	KIMARA 'B'	KIMARA	16,200	2,500	64718	390826						02: Mtaa	01: Concentrated			
	3 KND 005	KIMARA MATANGINI	KIMARA	12,000	2,448	64709	391000						02: Mtaa	01: Concentrated			
	3 KND 010	TEMBONI	MBEZI	5,712	1,165	64802	390743						02: Mtaa	01: Concentrated			
	3 KND 016	IMBWENI	IMBWENI	4,002	912	63445	390801						02: Mtaa	01: Concentrated			
	3 KND 019	UBUNGO KIBO	UBUNGO	11,621	592	64731	391152						02: Mtaa	01: Concentrated			
	3 KND 018	UBUNGO MSEWE	UBUNGO	10,841	616	64712	391152						02: Mtaa	01: Concentrated			

**Village Inventory**  
**KIDONDONI Municipality - Basic Information of the Surveyed Villages (2/3)**

1: Target (Whole Community) 2: Partly Target 3: Not Target	A-1	A-6	D-1	D-2	D-3												D-4	D-5				
	Serial Number	Name of Village/Mtaa	Major Water Source	Specify for 10	Average Time (min)	Reliability												Average Amount (Litre)	None	Other WSS Intervention		
						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			Agency	Period	Plan
1	KND 003	MABWEPANDE	08: City Water/DAWASA		30	X	X	X	X	X	X	X	X	X	X	X	X	X				
1	KND 020	MBOPO	04: Unprotected Well		60	X	X	X	X	X	X	X										
1	KND 021	KULANGWA	01: River/Stream/Pond/Dam		240	X	X	X	X	X	X											
1	KND 004	MATOSA	01: River/Stream/Pond/Dam		360		X	X	X	X					X	X	X					
1	KND 001	CHANGANYIKENI	07: Water Vender		60	X	X	X	X	X	X	X	X	X	X	X	X					
1	KND 014	KIBWEGERE	04: Unprotected Well		90	X	X	X	X	X	X						X					
1	KND 013	KWEMBE	04: Unprotected Well		180		X	X	X	X								GOT&Japan		Construction of pipeline from Kibanba to Kwembe (DAWASA), Pipes have been lined half way.		
1	KND 006	KIMARA BARUTI	06: Borehole		60	X	X	X	X	X	X	X	X	X	X	X						
1	KND 002	MAVURUNZA	07: Water Vender		45	X	X	X	X	X	X	X	X	X	X	X						
1	KND 017	MADALA	04: Unprotected Well		180	X	X	X	X	X							X					
1	KND 012	MBEZI-LUIS	05: Protected Well			X	X	X	X	X	X	X	X	X	X	X						
1	KND 008	MPIJI MAGOHE	04: Unprotected Well		360	X	X	X	X	X	X						X					
1	KND 009	MSAKUZI	04: Unprotected Well		240-360	X	X	X	X	X					X	X						
1	KND 007	MSUMI	04: Unprotected Well		60	X	X	X	X	X	X	X	X	X	X	X		Municipal/JICA		Drilling a borehole. Not yet finished.		
3	KND 022	GOBA	01: River/Stream/Pond/Dam		120			X	X	X	X							Municipal		Constructing pipeline from Tankibovu to Goba (water tank) to be commissioned in 2 months		
3	KND 011	KIBAMBA	08: City Water/DAWASA		30	X	X	X	X	X	X	X	X	X	X	X						
3	KND 015	KIMARA 'B'	04: Unprotected Well		60	X	X	X	X	X												
3	KND 005	KIMARA MATANGINI	04: Unprotected Well		90													Municipal		Drilling a borehole at King'ongo Sub-division (not completed)		
3	KND 010	TEMBONI	08: City Water/DAWASA		30	X	X	X	X	X	X	X	X	X	X	X						
3	KND 016	MBWENI	04: Unprotected Well		30	X	X				X	X										
3	KND 019	UBUNGO KIBO	07: Water Vender								X	X						Municipal		Drilling a borehole. Project is on-going.		
3	KND 018	UBUNGO MSEWE	08: City Water/DAWASA		120	X	X	X	X	X	X	X	X	X	X	X			GOD INITIATIVE DEVT.			



**Village Water Inventory  
KIDONDONI Municipality - Outline of the Existing Water Supply Conditions (1/2)**

Serial Number	Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2		F-3	F-5	F-10								F-11	F-12	F-13		
			Water Source	Water Source Specify for 07 and 10			No. of Water Source	Type of Water Supply System	01: Lined with Concrete Ring	02: Bucket	03: Hand Pump	04: Windmill Pump	05: Motor Pump	06: Water Tank (Elevated)			07: Water Tank (Reservoir)	08: Generator (Diesel)	09: Generator (Electricity)
KND 003	MABWEPANDE	MABWEPANDE	01: River/Stream/Pond/Dam	Mpili River	1	04: Not Applicable													
KND 003	MABWEPANDE	MABWEPANDE	05: Protected Well		5	01: Point	X												
KND 003	MABWEPANDE	MABWEPANDE	08: City Water/DAWASA	Bulk water supply	1	03: Piped (Independent)													
KND 020	MBOPO	MBOPO	01: River/Stream/Pond/Dam	River	2	04: Not Applicable	X												
KND 020	MBOPO	MBOPO	04: Unprotected Well		7	01: Point	X												
KND 020	MBOPO	MBOPO	05: Protected Well		4	01: Point	X												
KND 021	KULANGWA	MBOPO	08: City Water/DAWASA		1	03: Piped Network	X												
KND 021	KULANGWA	MBOPO	01: River/Stream/Pond/Dam		8	04: Not Applicable	X												
KND 004	KILANGWA	MATOSA	07: Water Vender	From Tegeta (DAWASA)	3	04: Not Applicable	X												
KND 004	KILANGWA	MATOSA	01: River/Stream/Pond/Dam		10	04: Not Applicable	X												
KND 004	MATOSA	MATOSA	07: Water Vender	From DAWASA, Mbezi	1	04: Not Applicable	X												
KND 004	MATOSA	MATOSA	05: Protected Well		1	01: Point	X												
KND 001	CHANGANYIKENI	CHANGANYIKENI	08: City Water/DAWASA		1	03: Piped Network													
KND 001	CHANGANYIKENI	CHANGANYIKENI	07: Water Vender	From DAWASA	25	04: Not Applicable	X												
KND 001	CHANGANYIKENI	CHANGANYIKENI	01: River/Stream/Pond/Dam	Sinza River	1	04: Not Applicable	X												
KND 014	KIBWEGERE	KIBWEGERE	04: Unprotected Well		40	01: Point	X												
KND 014	KIBWEGERE	KIBWEGERE	01: River/Stream/Pond/Dam	Dam	1	01: Point	X												
KND 013	KWEMBE	KWEMBE	01: River/Stream/Pond/Dam	Dam	1	04: Not Applicable	X												
KND 013	KWEMBE	KWEMBE	04: Unprotected Well		50	01: Point	X												
KND 013	KWEMBE	KWEMBE	07: Water Vender	From Kibanba (DAWASA)	23	04: Not Applicable													
KND 006	KIMARA BARUTI	KIMARA BARUTI	01: River/Stream/Pond/Dam	Ubungo & Luaga Rivers	2	04: Not Applicable													
KND 006	KIMARA BARUTI	KIMARA BARUTI	06: Borehole		7	01: Point, 02: Piped (Independent System)	X	X	X	X	X	X							
KND 002	MAVURUNZA	MAVURUNZA	04: Unprotected Well		4	01: Point	X												
KND 002	MAVURUNZA	MAVURUNZA	07: Water Vender	From DAWASA, Mbezi	3	04: Not Applicable	X												
KND 017	MADALA	MADALA	01: River/Stream/Pond/Dam	2 Dams, 1 River	3	04: Not Applicable	X												
KND 017	MADALA	MADALA	04: Unprotected Well		20	01: Point	X												
KND 017	MADALA	MADALA	06: Borehole		3	02: Piped (Independent)	X												
KND 017	MADALA	MADALA	07: Water Vender	From Tegeta & Wazo (DAWASA)	4	04: Not Applicable	X	X	X	X	X								
KND 012	MBEZI-LUIS	MBEZI-LUIS	08: City Water/DAWASA		200	03: Piped Network													
KND 012	MBEZI-LUIS	MBEZI-LUIS	05: Protected Well		3	01: Point	X												
KND 012	MBEZI-LUIS	MBEZI-LUIS	07: Water Vender	From CityWater/DAWASA	105	04: Not Applicable													
KND 008	MPIJI MAGOHE	MPIJI MAGOHE	04: Unprotected Well		10	01: Point	X												
KND 008	MPIJI MAGOHE	MPIJI MAGOHE	01: River/Stream/Pond/Dam	Mpili River	1	04: Not Applicable	X												
KND 008	MPIJI MAGOHE	MPIJI MAGOHE	07: Water Vender	From DAWASA, Mbezi	6	04: Not Applicable	X												
KND 009	MSAKUZI	MSAKUZI	04: Unprotected Well		13	01: Point	X												
KND 009	MSAKUZI	MSAKUZI	07: Water Vender	From DAWASA, Mbezi	5	04: Not Applicable	X												
KND 007	MSUMI	MSUMI	04: Unprotected Well		5	01: Point	X												
KND 007	MSUMI	MSUMI	01: River/Stream/Pond/Dam		1	04: Not Applicable	X												

**Village Water Inventory  
KIDONDONI Municipality - Outline of the Existing Water Supply Conditions (2/2)**

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2		F-14		F-15		F-16				F-17	
		Water Source	Water Source	Condition	Functioning Condition	Condition	Supply Condition	Water Quality	Price	Unit	Price	Unit	
MABWEPANDE	MABWEPANDE	01: River/Stream/Pond/Dam	Mpifi River	02: Functioning Partially		01: Supplying Water through the Year							
MABWEPANDE	MABWEPANDE	05: Protected Well		01: All Functioning		02: Supplying Water Seasonally	JAN-JUL						
MABWEPANDE	MABWEPANDE	06: Protected Well		02: Functioning Partially	Water provided	01: Supplying Water through the Year							
MABWEPANDE	MABWEPANDE	08: City Water/DAWASA	Bulk water supply	02: Functioning Partially		02: Supplying Water Seasonally	Water available 3 times/week						20/20LT
MBOPO	MBOPO	01: River/Stream/Pond/Dam	River	02: Functioning Partially		02: Supplying Water Seasonally	APR-JUN						
MBOPO	MBOPO	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally	FEB-AUG						
MBOPO	MBOPO	05: Protected Well		04: Under Repair		02: Supplying Water Seasonally	FEB-AUG						20/20LT
MBOPO	MBOPO	08: City Water/DAWASA		02: Functioning Partially		03: No Supply throughout the Year	Problem with the network/pump						
KULANGWA	KULANGWA	01: River/Stream/Pond/Dam	From Tegeta (DAWASA)	02: Functioning Partially		02: Supplying Water Seasonally	SEP-JUN						150/20LT
KILANGWA	KILANGWA	07: Water Vender		02: Functioning Partially		02: Supplying Water Seasonally	MAR-JUN, OCT-DEC						200/20LT
MATOSA	MATOSA	01: River/Stream/Pond/Dam	From DAWASA, Mbezi	03: Break Down	Pump stolen in 1999	03: No Supply throughout the Year							
MATOSA	MATOSA	05: Protected Well		03: Break Down		03: No Supply throughout the Year							
MATOSA	MATOSA	07: Water Vender		02: Functioning Partially		02: Supplying Water Seasonally							100-150/20LT
CHANGANYIKENI	CHANGANYIKENI	08: City Water/DAWASA	From DAWASA	02: Functioning Partially		02: Supplying Water Seasonally	MAR-JUN						
CHANGANYIKENI	CHANGANYIKENI	07: Water Vender		02: Functioning Partially		01: Supplying Water through the Year							
CHANGANYIKENI	CHANGANYIKENI	01: River/Stream/Pond/Dam	Sinza River	02: Functioning Partially		01: Supplying Water through the Year	DEC-JUL						
CHANGANYIKENI	CHANGANYIKENI	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year							
KIBWEGERE	KIBWEGERE	01: River/Stream/Pond/Dam	Dam	01: All Functioning		02: Supplying Water Seasonally							
KIBWEGERE	KIBWEGERE	01: River/Stream/Pond/Dam	Dam	02: Functioning Partially		01: Supplying Water through the Year	MAR-JUN						150-200 (by tanker), 250-300 (by bicycle)
KWEMBE	KWEMBE	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year							
KWEMBE	KWEMBE	07: Water Vender	From Kibanba (DAWASA)	02: Functioning Partially		02: Supplying Water through the Year							
KIMARA BARUTI	KIMARA BARUTI	01: River/Stream/Pond/Dam	Ubungo & Luaga Rivers	01: All Functioning		01: Supplying Water through the Year							
KIMARA BARUTI	KIMARA BARUTI	06: Borehole		01: All Functioning		01: Supplying Water through the Year							50/20LT
MAYURUNZA	MAYURUNZA	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally	DEC-MAY						
MAYURUNZA	MAYURUNZA	07: Water Vender	From DAWASA, Mbezi	02: Functioning Partially		Dams x Supplying through the year, River x Seasonal (DEC-JUN)							200/20LT
MADALA	MADALA	01: River/Stream/Pond/Dam	2 Dams, 1 River	02: Functioning Partially		02: Supplying Water Seasonally	DEC-JUN						
MADALA	MADALA	04: Unprotected Well		02: Functioning Partially		01: Supplying Water through the Year							
MADALA	MADALA	06: Borehole		01: All Functioning		01: Supplying Water through the Year							
MADALA	MADALA	07: Water Vender	From Tegeta & Wazo (DAWASA)	02: Functioning Partially	Water provided by divisions	02: Supplying Water Seasonally	Water available 5 days/week						BILLING SYSTEM
MBEZH-LUIS	MBEZH-LUIS	06: City Water/DAWASA		01: All Functioning		01: Supplying Water through the Year							20/20LT
MBEZH-LUIS	MBEZH-LUIS	05: Protected Well		01: All Functioning		01: Supplying Water through the Year							100-300/20LT
MBEZH-LUIS	MBEZH-LUIS	07: Water Vender	From CityWater/DAWASA	01: All Functioning		3 wells x Supplying water through the year, 7 wells x Seasonally (DEC-JUL)							
MPIJI MAGOHE	MPIJI MAGOHE	04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonally	MAR-JUL, DEC-JAN						
MPIJI MAGOHE	MPIJI MAGOHE	01: River/Stream/Pond/Dam	Mpifi River	01: All Functioning		1 GOT well & 1 Private well: Supplying through the year, 11 private wells: Functioning partially							200/20LT
MPIJI MAGOHE	MPIJI MAGOHE	07: Water Vender	From DAWASA, Mbezi	02: Functioning Partially		02: Supplying Water through the Year							
MSAKUZI	MSAKUZI	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year							150-200/20LT
MSAKUZI	MSAKUZI	07: Water Vender	From DAWASA, Mbezi	02: Functioning Partially		02: Supplying Water through the Year	JAN-JUL						
MSUMI	MSUMI	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year							
MSUMI	MSUMI	01: River/Stream/Pond/Dam		02: Functioning Partially		02: Supplying Water Seasonally							

**Village Inventory**  
**TEMEKE Municipality - Basic Information of the Surveyed Villages (1/3)**

1: Target (Whole Community) 2: Partly Target 3: Not Target	A-1	A-6	A-7					B-2 (Sub-Village)				C-1	C-2	
	Serial Number	Name of Village/Mtaa	Ward	Population (2002)	No. of HH	Latitude	Longitude	Name of Sub-Villages (Sub-village names with bold italic: target areas of the study)	Population (2002)	No. of HH	Latitude	Longitude	Form of Community	Dwelling Type
1	TMK 038	MSUFINI	CHAMAZI	6,427	1,320	65655.7	391345						02: Mtaa	04: Scattered
1	TMK 035	KIBANGULILE	CHARAMBE	12,500	6,000	65538	391626						02: Mtaa	01: Concentrated
1	TMK 018	KIZITO HUONJWA	KIMBIJI	1,096	239	65925.8	393139.6	KIZITO HUONJWA KWA CHALE KIJAKA MIKENGE GOLANI NGOBANYA			65925.8 70139.6 65938.4 70243.8 70007.8 65812.2	393139.6 393155.6 392823.4 393156.7 393113.8 393047	02: Mtaa	01: Concentrated
1	TMK 022	MAKANGARAWE	MAKANGARAWE	10,400	4,480	65302.9	391435.5						02: Mtaa	01: Concentrated
1	TMK 023	YOMBO DOVYA	MAKANGARAWE	15,881	3,932	65232.5	391502.6						02: Mtaa	01: Concentrated
1	TMK 001	KINGUGI	MBAGALA	4,663	1,047	65412.2	391451.4						02: Mtaa	01: Concentrated
1	TMK 016	MBAGALA KUU	MBAGALA KUU	11,540	2,000	65232.5	391502.8						02: Mtaa	01: Concentrated
1	TMK 013	MGENI NANI	MBAGALA KUU	7,020	1,020	65402.5	391744.5						02: Mtaa	01: Concentrated
1	TMK 006	KIBUGUMO	MJIMWEMA	1,883	520	65158.7	392207.7						02: Mtaa	01: Concentrated
1	TMK 009	MJIMWEMA	MJIMWEMA	5,670	480	65023.6	392112.4						02: Mtaa	01: Concentrated
1	TMK 027	YALE YALE PUNA	PEMBA MNAZI	3,321	659	70409.7	393158.9	KIBUNGO MUMBA POTEA PUNA CENTRE <b>KICHANGANI</b> <b>MUHIMBILI</b> <b>NYANGE</b> SONGANI TUNDWI	419 624 208 2070 448 281 320 545 610	78 118 63 400 106 52 89 166 186	70548.8 70243.4 70329 70424.4 70437.8 70331.1 70630.1 70606.1 70600.9	393157.6 393156.4 392940.1 393204.1 392604.5 392813.6 392455.7 392554.5 392600.8	01: Village	04: Scattered
1	TMK 028	MAGURUWE	TANDIKA	6,599	1,597	65156.4	391514.1						02: Mtaa	01: Concentrated
1	TMK 031	NYAMBWELA	TANDIKA	4,402	1,147	65217.1	391515						02: Mtaa	01: Concentrated
1	TMK 030	TAMLA	TANDIKA	5,814	1,571	65159.3	391526.3						02: Mtaa	01: Concentrated
1	TMK 019	KONGOWE	TUANGOMA	3,165	1,600	65713.1	391701.4						02: Mtaa	01: Concentrated
1	TMK 008	KIBENE	VIJIBWENI	751	320	65329.4	392020						02: Mtaa	01: Concentrated
1	TMK 020	KISIWANI	VIJIBWENI	1,060	350	65108.4	391923.3						02: Mtaa	01: Concentrated
1	TMK 021	MKWAJUNI	VIJIBWENI	997	240	65130.2	391932.9						02: Mtaa	01: Concentrated
1	TMK 012	VIJIBWENI	VIJIBWENI	1,800	320	65139.5	391837.5						02: Mtaa	01: Concentrated
1	TMK 004	MACHIMBO	YOMBO VITUKA	15,421	3,627	65238.3	391401.3						02: Mtaa	01: Concentrated
1	TMK 003	SIGARA	YOMBO VITUKA	8,024	1,726	65314.3	391305.4						02: Mtaa	01: Concentrated
1	TMK 036	VITUKA	YOMBO VITUKA	11,499	2,721	65208.1	391350.4						02: Mtaa	01: Concentrated
3	TMK 024	MBANDE	CHAMAZI	3,001	768	65827.1	391246.5	KIPONZA KISEWE MAGENGENI MWEMBE BAMIA RUFU	450 590 1219 378 364	119 176 283 101 89	65840.6 65850.1 65827.1 65805.7 65909.4	391307.4 391230.3 391246.5 391329.8 391255.5	01: Village	01: Concentrated
3	TMK 017	SHIMO LA UDONGO	KURASINI	10,000	1,835	65044.1	391714.3						02: Mtaa	01: Concentrated
3	TMK 025	BUZA	MAKANGALAWE	9,771	2,184	65334.5	391413.8						02: Mtaa	04: Scattered
3	TMK 014	MISSION	MBAGALA KUU	5,300	582	65319.7	391613.8						02: Mtaa	01: Concentrated
3	TMK 011	MTONI KIJICHI	MBAGALA KUU	15,897	3,468	65254.9	391700.5						02: Mtaa	01: Concentrated
3	TMK 015	MWANAMTOTO	MBAGALA KUU	7,670	2,208	65707.8	391643.4						02: Mtaa	01: Concentrated
3	TMK 010	MAWENI	MJIMWEMA	3,816	753	65023.6	392039.8						02: Mtaa	01: Concentrated
3	TMK 037	RELINI	MTONI	6,895	1,766	65240.1	391625.4						02: Mtaa	01: Concentrated
3	TMK 026	BUYUNI	PEMBA MNAZI	1,054	218			BUYUNI CENTRE CHAMBEWA MAGENGE MTIMWUPE GURUBWIDA PEMBA CENTRE	451 123 202 278 109 168	85 19 50 64 59 60	70740.9 70702.5 70614.8 70815.4 70924.6 70951	393122.8 393139.2 393153.9 393114.9 393021.6 393032.3	01: Village	04: Scattered
3	TMK 005	PEMBA MNAZI	PEMBA MNAZI	277	119								01: Village	01: Concentrated
3	TMK 033	KILIMAHEWA	TANDIKA	10,404	2,708	65218.9	391523.7						02: Mtaa	01: Concentrated
3	TMK 029	MABATINI	TANDIKA	7,187	1,858	65148.9	391511.4						02: Mtaa	01: Concentrated
3	TMK 032	TANDIKA	TANDIKA	7,196	1,864	70014.5	391547						02: Mtaa	04: Scattered
3	TMK 034	BARABARA YA MWINYI	YOMBO VITUKA	10,110	2,449	65217.2	391429.6						02: Mtaa	01: Concentrated
3	TMK 002	KILAKALA	YOMBO VITUKA	14,464	3,729	65206.6	391435.4						02: Mtaa	01: Concentrated

**Village Inventory**  
**TEMEKE Municipality - Basic Information of the Surveyed Villages (2/3)**

1: Target (Whole Community) 2: Partly Target 3: Not Target	A-1	A-6	D-1	D-2	D-3												D-4	D-5							
	Serial Number	Name of Village/Mtaa	Major Water Source	Specify for 10	Average Time (min)	Reliability												Average Amount (Litre)	Other WSS Intervention						
						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		None	Agency	Period	Plan			
1	TMK 038	MSUFINI	04: Unprotected Well		90	X	X	X	X								X	X	X	200	X				
1	TMK 035	KIBANGULILE	01: River/Stream/Pond/Dam		45	X	X	X	X	X									400	X					
1	TMK 018	KIZITO HUONJWA	01: River/Stream/Pond/Dam		10	X	X	X	X	X	X	X	X	X	X	X	X	X	200	X					
1	TMK 022	MAKANGARAWE	06: Borehole		5	X	X	X	X	X	X	X	X	X	X	X	X	280	X						
1	TMK 023	YOMBO DOVYA	06: Borehole		20	X	X	X	X	X	X	X	X	X	X	X	X	200	X						
1	TMK 001	KINGUGI	01: River/Stream/Pond/Dam		20	X	X	X	X	X	X	X	X	X	X	X	X		X						
1	TMK 016	MBAGALA KUU	06: Borehole		5	X	X	X	X	X	X	X	X	X	X	X	X	280	X						
1	TMK 013	MGENI NANI	01: River/Stream/Pond/Dam		10	X	X	X	X	X	X	X	X	X	X	X	X	280	X						
1	TMK 006	KIBUGUMO	04: Unprotected Well		10	X	X	X	X	X	X	X	X	X	X	X	X	240	X						
1	TMK 009	MJIMWEMA	04: Unprotected Well		30	X	X	X	X	X								200	X						
1	TMK 027	YALE YALE PUNA	01: River/Stream/Pond/Dam		60	X	X	X	X	X								200	X						
1	TMK 007	TUNDWI SONGANI	01: River/Stream/Pond/Dam		30				X	X	X	X						400	X						
1	TMK 028	MAGURUWE	06: Borehole		10	X	X	X	X	X	X	X	X	X	X	X	X	200	X						
1	TMK 031	NYAMBWELA	06: Borehole		60	X	X	X	X	X	X	X	X	X	X	X	X	200	X						
1	TMK 030	TAMLA	06: Borehole		10	X	X	X	X	X	X	X	X	X	X	X	X	400	X						
1	TMK 019	KONGOWE	01: River/Stream/Pond/Dam		30	X	X	X	X	X	X	X	X	X	X	X	X	240	X						
1	TMK 008	KIBENE	01: River/Stream/Pond/Dam		20	X	X	X	X	X	X							280	X						
1	TMK 020	KISIWANI	05: Protected Well		20	X	X	X	X	X	X	X	X	X	X	X	X	200	X						
1	TMK 021	MKWAJUNI	05: Protected Well		20	X	X	X	X	X	X	X	X	X	X	X	X	240	X						
1	TMK 012	VIJIBWENI	05: Protected Well		10	X	X	X	X	X								200	X						
1	TMK 004	MACHIMBO	06: Borehole		10	X	X	X	X	X	X	X	X	X	X	X	X	240	X						
1	TMK 003	SIGARA	06: Borehole		10	X	X	X	X	X	X	X	X	X	X	X	X	400	X						
1	TMK 036	VITUKA	06: Borehole		120	X	X	X	X	X	X	X	X	X	X	X	X	400		WaterAid					
3	TMK 024	MBANDE	01: River/Stream/Pond/Dam		60	X	X	X	X	X	X	X	X	X	X	X	X	200	X						
3	TMK 017	SHIMO LA UDONGO	06: Borehole		20	X	X	X	X	X	X	X	X	X	X	X	X	240	X						
3	TMK 025	BUZA	06: Borehole		10	X	X	X	X	X	X	X	X	X	X	X	X	300	X						
	TMK 014	MISSION	08: City Water/DAWASA		60	X	X	X	X	X	X	X	X	X	X	X	X	200	X						
3	TMK 011	MTONI KIJICHI	06: Borehole		10	X	X	X	X	X	X	X	X	X	X	X	X	280	X						
3	TMK 015	MWANAMTOTO	04: Unprotected Well		20	X	X	X	X	X	X	X	X	X	X	X	X	200	X						
	TMK 010	MAWENI	04: Unprotected Well		10	X	X	X	X	X	X	X	X	X	X	X	X	400	X						
	TMK 037	RELINI	08: City Water/DAWASA		15	X	X	X	X	X	X	X	X	X	X	X	X	400	X						
3	TMK 026	BUYUNI	01: River/Stream/Pond/Dam		60				X	X	X							200		TASAF					
3	TMK 005	PEMBA MNAZI	01: River/Stream/Pond/Dam		45	X	X	X	X	X	X	X	X	X	X	X	X	180	X						
3	TMK 033	KILIMHEWA	06: Borehole		10	X	X	X	X	X	X	X	X	X	X	X	X	200	X						
3	TMK 029	MABATINI	06: Borehole		10	X	X	X	X	X	X	X	X	X	X	X	X	200	X						
3	TMK 032	TANDIKA	06: Borehole		120	X	X	X	X	X	X	X	X	X	X	X	X	200	X						
3	TMK 034	BARABARA YA MWINYI	06: Borehole		10	X	X	X	X	X	X	X	X	X	X	X	X	400	X						
3	TMK 002	KILAKALA	06: Borehole		15	X	X	X	X	X	X	X	X	X	X	X	X	200	X						









**Village Water Inventory  
TEMEKE Municipality - Outline of the Existing Water Supply Conditions (3/6)**

Serial Number	Name of Village	Name of Sub-Village (Shaded in gray; excluded from the target area of the study)	F-2 Water Source		F-3 No of Water Source	F-5 Type of Water Supply System	F-10 Type of Water Supply Facility											F-11 Year of Construction	F-12 Organization that constructed Facility	F-13 Number of			
			Water Source	Specify for 07 and 10			01: Lined with Concrete Ring	02: Bucket	03: Hand Pump	04: Windmill Pump	05: Motor Pump	06: Water Tank (Elevated)	07: Water Tank (Reserve)	08: Generator (Diesel)	09: Generator (Electricity)	10: Solar System	11: Others (Specify)			Public	Private		
TMK 004	MACHIMBO	MACHIMBO	06: Borehole		25 01: Point												2x1999, 7x2000, 16x2004	PRIVATE					
TMK 003	SIGARA	SIGARA	01: River/Stream/Pond/Dam		3 04: Not Applicable 7 01: Point		X																
TMK 003	SIGARA	SIGARA	06: Borehole		6 04: Not Applicable			X									2x2004, 5x2003	PRIVATE					
TMK 003	SIGARA	SIGARA	07: Water Vender	From borehole	3 01: Point												2x2003, 1x2002	2xTASAF, 1xWORLD BANK					
TMK 036	VITUKA	VITUKA	06: Borehole		80 04: Not Applicable																		
TMK 036	VITUKA	VITUKA	07: Water Vender	From borehole	5 01: Point				X								2003	TASAF					
TMK 036	VITUKA	VITUKA	05: Protected Well																				

Village Water Inventory  
TEMEKE Municipality - Outline of the Existing Water Supply Conditions (4/6)

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				F-17 Unit Price		
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use	02: Good for Domestic Use, but not Drinking	03: Muddy	04: Salty	05: Rusty	Price	Unit
MBANDE		01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X							
MBANDE		04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X							
MBANDE		05: Protected Well		01: All Functioning		01: Supplying Water through the Year	X						10.20/LT	
MBANDE		07: Water Vender	From other mtaa			01: Supplying Water through the Year	X						70.20/LT	
MBANDE		01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X							
MBANDE		04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X							
MBANDE		05: Protected Well	From other mtaa			01: Supplying Water through the Year	X						10.20/LT	
MBANDE		07: Water Vender		01: All Functioning		01: Supplying Water through the Year	X						100.20/LT	
MBANDE		01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X							
MBANDE		04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X							
MBANDE		05: Protected Well		01: All Functioning		01: Supplying Water through the Year	X							
MBANDE		06: Borehole		01: All Functioning		01: Supplying Water through the Year	X							
MBANDE		01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X							
MBANDE		04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X							
MBANDE		05: Protected Well		01: All Functioning		01: Supplying Water through the Year	X						20.20/LT	
MBANDE		06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						20.20/LT	
MBANDE		07: Water Vender	From unprotected well			01: Supplying Water through the Year	X							
MBANDE		01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X							
MBANDE		04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X							
MBANDE		07: Water Vender	From other mtaa			01: Supplying Water through the Year	X						100.20/LT	
MSUFINI		04: Unprotected Well	From nearby mtaa (Maji Maititi)	02: Functioning Partially		02: Supplying Water Seasonal		02: Supplying Water Seasonal					20.20/LT	
MSUFINI		07: Water Vender		01: All Functioning		01: Supplying Water through the Year	X							
KIBANGUILILE		01: River/Stream/Pond/Dam		03: Break Down		03: No Supply throughout the Year								
KIBANGUILILE		04: Unprotected Well		03: Break Down		03: No Supply throughout the Year								
KIBANGUILILE		05: Protected Well		03: Break Down	Pump stolen	03: No Supply throughout the Year								
KIBANGUILILE		07: Water Vender											200.20/LT	
KIZITO HUONJWA		01: River/Stream/Pond/Dam	From River/Stream/Pond/Dam	01: All Functioning		01: Supplying Water through the Year	X							
KIZITO HUONJWA		04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X						10.20/LT	
KIZITO HUONJWA		05: Protected Well		03: Break Down	Source has dried up	03: No Supply throughout the Year								
KIZITO HUONJWA		06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						10.20/LT	
SHIMO LA UDONGO		01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X							
SHIMO LA UDONGO		07: Water Vender		01: All Functioning		01: Supplying Water through the Year	X						100.20/LT	
BUZA		06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						20.20/LT	
BUZA		05: Protected Well		01: All Functioning		01: Supplying Water through the Year	X						20.20/LT	
MAKANGARAVE		06: Borehole		01: All Functioning		01: Supplying Water through the Year	X							
YOMBO DOVYA		06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						20.20/LT	
YOMBO DOVYA		05: Protected Well		03: Break Down	Pump stolen	03: No Supply throughout the Year							20.20/LT	
KINGUGI		01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X							
KINGUGI		04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X							
KINGUGI		06: Borehole		01: All Functioning		01: Supplying Water through the Year	X							
KINGUGI		07: Water Vender	From borehole			01: Supplying Water through the Year	X						150.20/LT	
MBAGALA KUJ		06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						20.20/LT	
MBAGALA KUJ		04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X						300.20/LT	
MBAGALA KUJ		07: Water Vender												
MBAGALA KUJ		01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X							
MGENINANI		05: Protected Well		01: All Functioning		01: Supplying Water through the Year	X						20.20/LT	
MGENINANI		06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						20.20/LT	
MGENINANI		07: Water Vender		01: All Functioning		01: Supplying Water through the Year	X						100.20/LT	
MISSION		08: City Water/DAWASA		01: All Functioning		01: Supplying Water through the Year	X							
MISSION		06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						20.20/LT	
MTONI KUICHI		06: Borehole		01: All Functioning		01: Supplying Water through the Year	X							
MTONI KUICHI		08: City Water/DAWASA		01: All Functioning		01: Supplying Water through the Year	X						20.20/LT	
MTONI KUICHI		07: Water Vender	From borehole			01: Supplying Water through the Year	X						150.20/LT	
MWANAMTOTO		04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X							
MWANAMTOTO		05: Protected Well		03: Break Down	Pump stolen	03: No Supply throughout the Year								
MWANAMTOTO		06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						20.20/LT	
MWANAMTOTO		07: Water Vender	From other mtaa			01: Supplying Water through the Year	X						150.20/LT	
KIBUGUMO		04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X							
KIBUGUMO		05: Protected Well		01: All Functioning		01: Supplying Water through the Year	X							
MAWENI		04: Unprotected Well		02: Functioning Partially		02: Supplying Water Seasonal		02: Supplying Water Seasonal					200.20/LT	
MAWENI		06: Borehole	From other ward			03: Break Down								
MAWENI		07: Water Vender		03: Break Down		03: No Supply throughout the Year								
MJMIMEWA		04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X							
MJMIMEWA		06: Borehole	From other mtaa			01: Supplying Water through the Year	X						100.20/LT	
MJMIMEWA		07: Water Vender		01: All Functioning		01: Supplying Water through the Year	X							
RELINI		05: Protected Well		01: All Functioning		01: Supplying Water through the Year	X							
RELINI		08: City Water/DAWASA		01: All Functioning		01: Supplying Water through the Year	X						20.20/LT	
RELINI		04: Unprotected Well		03: Break Down		03: No Supply throughout the Year								

**Village Water Inventory  
TEMEKE Municipality - Outline of the Existing Water Supply Conditions (5/6)**

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality				F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use	02: Good for Domestic Use, but not Drinking	03: Muddy	04: Salty	05: Rusty	Price
RELINI	RELINI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
BUYUNI	BUYUNI CENTRE	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
BUYUNI	BUYUNI CENTRE	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X						
BUYUNI	BUYUNI CENTRE	07: Water Vender	From unprotected well									200	20LT
BUYUNI	CHAMBEWA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
BUYUNI	CHAMBEWA	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X						
BUYUNI	CHAMBEWA	07: Water Vender	From unprotected well									200	20LT
BUYUNI	MAHENG	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
BUYUNI	MAHENG	07: Water Vender	From other mtaa									200	20LT
BUYUNI	MTIMWEUPE	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
BUYUNI	MTIMWEUPE	07: Water Vender	From other mtaa									200	20LT
PEMBANAZI	GURUBWIDA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
PEMBANAZI	GURUBWIDA	05: Protected Well	From River/Stream/Pond/Dam	02: Functioning Partially								100	20LT
PEMBANAZI	GURUBWIDA	07: Water Vender											
PEMBANAZI	PEMBA CENTRE	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
PEMBANAZI	PEMBA CENTRE	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X						
PEMBANAZI	PEMBA CENTRE	05: Protected Well		01: All Functioning		01: Supplying Water through the Year	X						
PEMBANAZI	PEMBA CENTRE	07: Water Vender	From River/Stream/Pond/Dam									100	20LT
TUNDWI SONGANI	KICHANGANI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
TUNDWI SONGANI	MUHIMBILI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
TUNDWI SONGANI	NYANGE	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
TUNDWI SONGANI	SONGANI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
TUNDWI SONGANI	SONGANI	07: Water Vender	From River/Stream/Pond/Dam									200	20LT
TUNDWI SONGANI	TUNDWI	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
TUNDWI SONGANI	TUNDWI	07: Water Vender	From River/Stream/Pond/Dam									200	20LT
YALEYALEPUNA	KIBUNGO	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
YALEYALEPUNA	KIBUNGO	07: Water Vender	From River/Stream/Pond/Dam									100	20LT
YALEYALEPUNA	MUMBA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
YALEYALEPUNA	MUMBA	07: Water Vender	From River/Stream/Pond/Dam									150	20LT
YALEYALEPUNA	MUMBA	05: Protected Well		01: All Functioning		01: Supplying Water through the Year	X						
YALEYALEPUNA	POTEA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
YALEYALEPUNA	POTEA	07: Water Vender	From River/Stream/Pond/Dam									100	20LT
YALEYALEPUNA	PUNA CENTRE	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
YALEYALEPUNA	PUNA CENTRE	04: Unprotected Well		02: Functioning Partially									
YALEYALEPUNA	PUNA CENTRE	05: Protected Well		03: Break Down									
YALEYALEPUNA	PUNA CENTRE	07: Water Vender	From other mtaa									100	20LT
KILIMAHWEA	KILIMAHWEA	06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						
KILIMAHWEA	KILIMAHWEA	08: City Water/DAWASA		02: Functioning Partially		Water available 1day/week	X						
KILIMAHWEA	KILIMAHWEA	07: Water Vender	From DAWASA									100	20LT
MABATINI	MABATINI	06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						
MABATINI	MABATINI	07: Water Vender	From borehole									100	20LT
MAGURUWE	MAGURUWE	06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						
MAGURUWE	MAGURUWE	07: Water Vender										20	20LT
NYAMBWELA	NYAMBWELA	06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						
NYAMBWELA	NYAMBWELA	07: Water Vender	From other mtaa									150	20LT
TAMLA	TAMLA	06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						
TAMLA	TAMLA	07: Water Vender	From borehole									300	20LT
TANDIKA	TANDIKA	06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						
TANDIKA	TANDIKA	07: Water Vender	From other mtaa									100	20LT
KONGOWE	KONGOWE	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X						
KONGOWE	KONGOWE	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X						
KONGOWE	KONGOWE	07: Water Vender	From other village									150	20LT
KIBENE	KIBENE	01: River/Stream/Pond/Dam		02: Functioning Partially									
KIBENE	KIBENE	05: Protected Well		03: Break Down									
KIBENE	KIBENE	07: Water Vender	From River/Stream/Pond/Dam									100	20LT
KISIWANI	KISIWANI	05: Protected Well		01: All Functioning		01: Supplying Water through the Year	X						
KISIWANI	KISIWANI	07: Water Vender	From River/Stream/Pond/Dam									100	20LT
MKWAJUNI	MKWAJUNI	05: Protected Well		01: All Functioning		01: Supplying Water through the Year	X						
MKWAJUNI	MKWAJUNI	07: Water Vender										100	20LT
VUJBWENI	VUJBWENI	01: River/Stream/Pond/Dam		02: Functioning Partially									
VUJBWENI	VUJBWENI	05: Protected Well		01: All Functioning		01: Supplying Water through the Year	X						
VUJBWENI	VUJBWENI	06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						
VUJBWENI	VUJBWENI	04: Unprotected Well		01: All Functioning		01: Supplying Water through the Year	X						
BARABARA YA MWINYI	BARABARA YA MWINYI	06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						
BARABARA YA MWINYI	BARABARA YA MWINYI	07: Water Vender	From borehole									10	20LT
KILAKALA	KILAKALA	06: Borehole		01: All Functioning		01: Supplying Water through the Year	X						

**Village Water Inventory**  
**TEMEKE Municipality - Outline of the Existing Water Supply Conditions (6/6)**

Name of Village	Name of Sub-Village (Shaded in gray: excluded from the target area of the study)	F-2 Water Source		F-14 Functioning Condition		F-15 Supply Condition		F-16 Water Quality					F-17 Unit Price	
		Water Source	Specify for 07 and 10	Condition	Specify for 02 and 03	Condition	Specify for 02	01: Good for Domestic Use	02: Good for Domestic Use, but not Drinking	03: Muddy	04: Salty	05: Rusty	Price	Unit
MACHIMBO	MACHIMBO	06: Borehole		01: All Functioning		01: Supplying Water through the Year	X					20	20LT	
SIGARA	SIGARA	01: River/Stream/Pond/Dam		01: All Functioning		01: Supplying Water through the Year	X							
SIGARA	SIGARA	06: Borehole		01: All Functioning		01: Supplying Water through the Year	X					20	20LT	
SIGARA	SIGARA	07: Water Vendor	From borehole									150	20LT	
VITUKA	VITUKA	06: Borehole		01: All Functioning		01: Supplying Water through the Year	X					20	20LT	
VITUKA	VITUKA	07: Water Vendor	From borehole									150	20LT	
VITUKA	VITUKA	05: Protected Well		03: Break Down		03: No Supply throughout the Year	X							

***Data Book B***  
**Existing Wells Inventory**









**List of Existing Wells in COAST Region**

No.	Coast	Dist.	Data Source	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Geological Information	
														(M <sup>3</sup> /hr)	(l/min)	Unit	Aquifer
190	85	DWE	48/82	Coast	Kisarawe	Changombe Mfuru	1982	21.0						3.80	63.33	N	
191	86	DWE	476/99	Coast	Kisarawe	Kisarawe Town	1999	40.0						0.26	4.33	N	
192	87	DDCA	356/2004	Coast	Kisarawe	Nyota Njema	2004	40.0	5	1.35	33.22	31.85	8.80	146.67	N	fine to coars sand	
193	88	DDCA	247/2004	Coast	Kisarawe	Masanganya	2004	60.0	6	20.84	44.99	24.14	0.10	1.67	N	fine to coars sand	
194	89	DDCA	334/2004	Coast	Kisarawe	Mwanzo Mgumu	2004	60.0	5	8.53	46.22	37.69	3.05	50.83	N	fine to coars sand	
195	90	DDCA	347/2004	Coast	Kisarawe	Mwanzomgumu	2004	54.0	5	5.40	42.66	37.26	3.44	57.33	N	fine to mwdlum	
196	91	DDCA	502/2004	Coast	Kisarawe	Cholesamvula I	2004	60.0	5	35.25	50.89	15.64	0.36	6.00	C	fine to coars sand	
197	92	DDCA	503/2004	Coast	Kisarawe	Cholesamvula I	2004	60.0	5	4.00	31.60	27.56	4.17	69.47	C	fine to coars sand	
198	1	DDCA	28/98	Coast	Mkuranga	Hoyoyo	1998	62.0	5	7.70	NR		3.96	66.00	X	Grey sand	
199	2	DDCA	19/98B	Coast	Mkuranga	Hoyoyo	1998	60.0	5	20.00	71.70	51.70	0.93	15.50	X	Clayey medium sand	
200	3	DDCA	603/99	Coast	Mkuranga	Manambaya	1999	34.0	6	NR	NR		NR	NR	N	Medlum sand	
201	4	DDCA	30/2000	Coast	Mkuranga	Mwanambaya	2000	40.0	5	NR	NR		NR	NR	N	NR	
202	5	DDCA	177/2000	Coast	Mkuranga	Visiga Zegereni	2000	38.0	5	15.34	37.86	22.52	0.36	6.00	N	NR	
203	6	DDCA	251/2000	Coast	Mkuranga	Vikindu	2000	62.0	5	15.75	24.14	8.39	7.20	120.00	N	NR	
204	7	DDCA	264/2001	Coast	Mkuranga	Vianzi- Vikindu	2001	70.0	5	32.36	42.62	10.26	10.56	176.00	N	NR	
205	8	DDCA	185/2001	Coast	Mkuranga	Chamgoi II	2001	54.0	5	30.15	43.46	13.31	2.84	47.33	N	NR	
206	9	DDCA	194/2001	Coast	Mkuranga	Klmanzichana	2001	60.0	5	22.65	55.72	33.07	1.13	18.83	N	NR	
207	10	DDCA	195/2001	Coast	Mkuranga	Mkuranga Town	2001	56.0	6	NR	49.82		4.17	69.50	N	NR	
208	11	DDCA	117/2001	Coast	Mkuranga	Mkuranga	2001	72.0	6	37.60	65.41	27.81	0.44	7.33	N	NR	
209	12	DDCA	112/2001	Coast	Mkuranga	Chamgoi	2001	51.0	5	29.45	44.75	15.30	0.45	7.50	X	NR	
210	13	DDCA	176/2001	Coast	Mkuranga	Vikindu	2001	70.0	NR	14.06	20.23	6.17	11.31	188.50	N	NR	
211	14	DDCA	1/2002	Coast	Mkuranga	Vikindu	2002	60.0	6	14.90	52.95	38.05	5.28	88.00	N	NR	
212	15	DDCA	10/2002	Coast	Mkuranga	Vikindu	2002	63.0	6	11.15	22.04	10.89	13.20	220.00	N	NR	
213	16	DDCA	12/2002	Coast	Mkuranga	Vikindu	2002	50.0	5	NR	31.94		9.90	165.00	N	Fine course sand	
214	17	DDCA	15/2002	Coast	Mkuranga	Mbezi Msufini	2002	48.0	5	2.70	46.17	43.47	0.76	12.67	N	NR	
215	18	DDCA	28/2002	Coast	Mkuranga	Mbezi gongoni	2002	63.0	5	18.28	61.04	42.76	0.20	3.33	N	NR	
216	19	DDCA	137/2002	Coast	Mkuranga	Mkuranga town	2002	68.0	5	13.00	58.10	45.10	0.52	8.67	N	NR	
217	20	DDCA	144/2002	Coast	Mkuranga	Flugwadu	2002	42.0	5	14.48	16.52	2.04	19.80	330.00	X	NR	
218	21	DDCA	333/2002	Coast	Mkuranga	Mkuranga	2002	60.0	5				0.00	0.00	N	NR	
219	22	DDCA	37/2003	Coast	Mkuranga	Vikindu	2003	70.0	6	12.34	15.80	3.46	8.80	146.67	N	Medium course sand	
220	23	DDCA	166/98	Coast	Nkuranga	Kizuda	1998	36.0	5	11.13	13.47	2.34	11.31	188.50	N	Course sand	
221	24	DDCA	32/2004	Coast	Mkuranga	Kipara Village	2004	55.0	5	23.40	16.90	7.20	NR	NR	N	NR	
222	25	DDCA	59/2004	Coast	Mkuranga	Mama Siti Sec. School	2004	80.0	6	32.05	38.51	5.28	NR	NR	N	NR	
223	26	DDCA	324/2003	Coast	Mkuranga	Mbanambaya	2003	70.0	5	41.60	27.80	0.28	NR	NR	N	NR	
224	27	DDCA	360/2003	Coast	Mkuranga	Vikindu	2003	60.0	5	17.70	31.90	0.66	NR	NR	N	Limestone with sand clay	
225	28	DWE	29/92	Coast	Mkuranga	Mwanambaya	1992	30.0					1.00	16.67	N		
226	29	DWE	111/92	Coast	Mkuranga	Kizuda	1992	51.0					1.40	23.33	N		
227	30	DWE	19/98	Coast	Mkuranga	Hoyoyo	1998	60.0					0.93	15.50	N		
228	31	DWE	177/99	Coast	Mkuranga	Vikindu	1999	62.0					7.20	120.00	N		
229	32	DDCA	390/2004	Coast	Mkuranga	Vikindu	2004	60.0	5	0.00	4.68	4.68	26.40	440.00	N	fine to coars sand	





List of Existing Wells in Dar Es Salaam

No.		Data	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.	Source											(M <sup>3</sup> /hr)	(l/min)	
109	109	DDCA	80/99	Dar	Ilala	U. Majumba sita	1999	43.0	6	11.99	19.98	7.99	11.31	188.50	Sand
110	110	DDCA	84/99	Dar	Ilala	Tabata Kimanga	1999	36.0	5	14.55	32.48	17.12	1.76	29.33	Clayey in fine sand
111	111	DDCA	85/99	Dar	Ilala	Ukongwa staki shari	1999	45.0	5	7.96	12.91	4.95	15.84	264.00	Fine medium sand clay
112	112	DDCA	87/99	Dar	Ilala	Ukongwa Banana	1999	31.0	6	9.43	23.15	13.72	1.58	26.33	Sand
113	113	DDCA	88/99	Dar	Ilala	Kidongo chekundu	1999	30.0	5	7.36	12.38	5.02	61.88	1031.33	Medium sand clay
114	114	DDCA	112/99	Dar	Ilala	Segerea	1999	52.0	5	3.64	35.52	31.88	3.96	66.00	Fine course sand
115	115	DDCA	113/99	Dar	Ilala	Segerea	1999	58.0	5	37.60	52.65	15.05	3.44	57.33	Fractured medium sand
116	116	DDCA	116/99	Dar	Ilala	Tabata Kimanga	1999	30.0	5	4.10	27.00	22.90	0.33	5.50	Sand clay
117	117	DDCA	133/99	Dar	Ilala	Ukongwa kichangani	1999	38.0	5	3.20	17.20	14.00	1.60	26.67	Sand in small clay
118	118	DDCA	140/99	Dar	Ilala	Segerea	1999	47.0	5	5.32	29.31	23.99	0.20	3.33	Clay
119	119	DDCA	142/99	Dar	Ilala	Shauri Moyo	1999	42.0	8"	8.33	22.05	13.72	39.60	660.00	Fine to medoum sand
120	120	DDCA	159/99	Dar	Ilala	Mafuliko	1999	35.0	6	5.08	14.07	8.99	13.20	220.00	Medium course sand
121	121	DDCA	163/99	Dar	Ilala	Ilala CCM	1999	46.0	6	11.60	15.80	4.20	7.92	132.00	Medium fine sand
122	122	DDCA	166/99	Dar	Ilala	U. Majumba sita	1999	51.0	5	13.78	29.90	16.12	1.72	28.67	Medium sand in bond clay
123	123	DDCA	182/99	Dar	Ilala	Tabata Kimanga	1999	31.0	6	0.50	25.12	24.46	0.65	10.83	NR
124	124	DDCA	184/99	Dar	Ilala	Shariff Shamba	1999	36.0	5	9.00	28.80	19.80	2.64	44.00	Sandy clay
125	125	DDCA	186/99	Dar	Ilala	Kinondoni	1999	37.0	5	3.60	8.80	5.20	15.84	264.00	Fractured limestone
126	126	DDCA	193/99	Dar	Ilala	Hanasifu Kinondoni	1999	40.0	6	8.00	24.64	16.64	3.96	66.00	Medium sand
127	127	DDCA	198/99	Dar	Ilala	Sitaki shari	1999	45.0	5	6.15	21.60	15.43	3.77	62.83	M. tocourse sand with clay
128	128	DDCA	254/99	Dar	Ilala	MbagalaMachinjioni	1999	60.0	6	12.23	30.85	18.62	11.31	188.50	Sand
129	129	DDCA	256/99	Dar	Ilala	Mtoni kwa Aziz Ally	1999	40.0	6	10.95	18.57	7.62	15.84	264.00	Sandy clay
130	130	DDCA	276/99	Dar	Ilala	Yombo Miembeni	1999	60.0	6	2.82	19.30	9.48	24.00	400.00	Sand
131	131	DDCA	277/99	Dar	Ilala	Pugu	1999	34.0	5	2.55	29.50	26.95	0.32	5.33	Medium to coarse sand
132	132	DDCA	290/99	Dar	Ilala	Gongo la mboto	1999	93.0	8"	10.00	89.55	89.55	0.30	5.00	Clayer sand
133	133	DDCA	292/99	Dar	Ilala	Gongo la Mboto	1999	60.0	8"	2.97	50.14	47.17	0.28	4.67	Sand fine white clay
134	134	DDCA	293/99	Dar	Ilala	Tabata Bima	1999	40.0	5	12.95	30.49	17.49	1.28	21.33	Sandy clay
135	135	DDCA	295/99	Dar	Ilala	G. la Mboto Booster	1999	49.0	6	0.97	45.58	44.61	1.07	17.83	Clayey sand
136	136	DDCA	296/99	Dar	Ilala	G. la Mboto Pr.	1999	40.0	6	2.72	33.40	30.68	0.30	5.00	Sand bound clay
137	137	DDCA	297/99	Dar	Ilala	Kipunguni A	1999	56.0	6	6.50	33.03	26.53	3.17	52.83	Fine course silt
138	138	DDCA	298/99	Dar	Ilala	Ukongwa Staki shari	1999	32.0	6	5.92	8.70	2.78	12.77	212.83	Medium course sand
139	139	DDCA	299/99	Dar	Ilala	Kipunguni B	1999	47.0	6	10.00	45.44	35.44	3.06	51.00	Clay sand fine sand
140	140	DDCA	300/99	Dar	Ilala	Ukongwa staki shari	1999	46.0	6	8.40	10.00	1.60	13.20	220.00	Sand medium clay sand
141	141	DDCA	301/99	Dar	Ilala	Karakata	1999	50.0	6	10.95	28.00	13.89	6.60	110.00	Clay fine sand
142	142	DDCA	303/99	Dar	Ilala	U. majumbasita	1999	38.0	6	10.00	13.76	13.76	13.20	220.00	Sandy
143	143	DDCA	304/99	Dar	Ilala	Karakata	1999	50.0	5	10.61	35.90	25.29	0.86	14.33	Fine medium sand
144	144	DDCA	305/99	Dar	Ilala	Sharif	1999	45.0	5	11.31	25.37	14.06	1.22	20.33	Fine medium sand
145	145	DDCA	328/99	Dar	Ilala	Upanga B/Scout	1999	24.0	6	3.80	6.10	2.30	19.80	330.00	Calcareous sand
146	146	DDCA	329/99	Dar	Ilala	Tabata Kimanga	1999	50.0	6	4.07	14.32	10.25	19.80	330.00	Medium course sand
147	147	DDCA	331/99	Dar	Ilala	Kiwalani M/Mirefu	1999	48.0	5	9.95	31.38	21.43	39.60	660.00	Sand with clay
148	148	DDCA	332/99	Dar	Ilala	Gongo la mboto	1999	33.0	5	2.79	28.42	25.63	1.13	18.83	Medium to coarse sand
149	149	DDCA	335/99 B	Dar	Ilala	Olympio Pr. School	1999	30.0	6	4.68	7.40	2.72	13.20	220.00	Gravel with sand
150	150	DDCA	337/99	Dar	Ilala	Tabata Sigara	1999	54.0	6	6.76	34.90	28.14	15.84	264.00	Fine medium sand
151	151	DDCA	338/99	Dar	Ilala	Segerea Msimbazi	1999	35.0	6	4.16	42.32	43.16	0.32	5.33	Fine course sand
152	152	DDCA	339/99	Dar	Ilala	Vingunguti	1999	20.0	6	8.30	13.60	5.30	19.80	330.00	Medium course sand
153	153	DDCA	343/99	Dar	Ilala	Segerea	1999	30.0	6	3.71	33.18	29.47	1.16	19.33	Fine sand clay
154	154	DDCA	345/99	Dar	Ilala	Gongo la mboto	1999	81.0	8"	0.10	54.11	54.01	1.76	29.33	Sand in small clay
155	155	DDCA	346/99	Dar	Ilala	Segerea	1999	38.0	5"	6.59	28.97	22.38	2.83	47.17	Sand in small clay
156	156	DDCA	348/99	Dar	Ilala	Segerea	1999	46.0	6	11.72	31.40	19.68	1.49	24.83	Fine to course
157	157	DDCA	370/99	Dar	Ilala	Chanika	1999	30.0	6	2.88	23.68	20.80	1.98	33.00	Sand clay

List of Existing Wells in Dar Es Salaam

No.		Data Source	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.												(M <sup>3</sup> /hr)	(l/min)	
158	158	DDCA	371/99	Dar	Ilala	Pugu kajiungeni	1999	40.0	5	12.25	37.90	25.65	0.22	3.67	Fine course sand
159	159	DDCA	375/99	Dar	Ilala	U. Majumba sita	1999	50.0	6	16.67	32.65	15.98	6.60	110.00	Sandy clay
160	160	DDCA	377/99	Dar	Ilala	Kariakoo	1999	26.0	5	8.90	20.30	11.40	3.96	66.00	Sand bond clay
161	161	DDCA	394/99	Dar	Ilala	Kitunda	1999	42.0	6	4.52	24.57	20.05	2.83	47.17	Coarse sand in clay
162	162	DDCA	395/99	Dar	Ilala	Ukongu Staki Shari	1999	37.0	5	8.50	12.52	4.05	15.20	253.33	Greyish clay with sand
163	163	DDCA	397/99	Dar	Ilala	Tabata Kimanga	1999	40.0	6	13.80	18.98	5.18	9.90	165.00	Grey Clay
164	164	DDCA	419/99	Dar	Ilala	Pugu Kajiungeni	1999	47.0	5	9.78	45.07	35.29	0.42	7.00	Sand clay
165	165	DDCA	421/99	Dar	Ilala	Segerea Kinyerezi	1999	50.0	5	21.24	37.90	16.66	0.90	15.00	clay bound sand
166	166	DDCA	426/99	Dar	Ilala	Buguruni police Qts	1999	50.0	6	10.06	28.40	18.34	9.90	165.00	Medium course sand
167	167	DDCA	428/99	Dar	Ilala	Vingunguti	1999	40.0	5	9.09	16.75	7.66	8.80	146.67	Coarse sand to sand clay
168	168	DDCA	458/99	Dar	Ilala	Tabata Mawenzi	1999	34.0	5	15.38	26.95	11.57	0.93	15.50	Medium to coarse sand
169	169	DDCA	463/99	Dar	Ilala	Kipawa	1999	70.0	6	16.08	30.52	14.44	7.20	120.00	Weathered
170	170	DDCA	464/99	Dar	Ilala	Tabata	1999	39.0	6	14.81	35.86	21.05	0.93	15.50	Fine to medium sand
171	171	DDCA	465/99	Dar	Ilala	Tabata	1999	40.0	5	12.33	23.21	19.88	1.72	28.67	Sandy clay
172	172	DDCA	550/99	Dar	Ilala	Tabata Mawenzi	1999	30.0	5	1.11	28.00	26.89	1.23	20.50	Medium - Coarse sand
173	173	DDCA	551/99	Dar	Ilala	Segerea	1999	49.0	6	14.30	47.76	33.46	1.06	17.67	Sandy clay
174	174	DDCA	555/99	Dar	Ilala	Segerea	1999	30.0	5	2.65	27.22	24.53	0.83	13.83	Sand in small clay
175	175	DDCA	573/99	Dar	Ilala	Vingunguti	1999	50.0	5	11.70	17.02	6.00	13.20	220.00	Sand
176	176	DDCA	575/99	Dar	Ilala	Segerea	1999	49.0	5	2.83	29.05	26.22	3.96	66.00	Limestone sand
177	177	DDCA	576/99	Dar	Ilala	Tabata Shuleni	1999	14.0	5	2.32	10.23	7.91	1.44	24.00	Fine to medium sand
178	178	DDCA	577/99	Dar	Ilala	Karakata	1999	40.0	5	8.64	38.30	29.66	0.95	15.83	Fine sand with clay
179	179	DDCA	599/99	Dar	Ilala	Segerea	1999	50.0	5	9.45	41.00	31.55	2.48	41.33	M. course sand in clay
180	180	DDCA	1/2000	Dar	Ilala	Tabata Liwiti	2000	35.0	5	5.70	30.20	24.50	0.93	15.50	Medium sand
181	181	DDCA	3/2000	Dar	Ilala	Ukongu Mombasa	2000	50.0	5	3.35	37.20	33.85	1.13	18.83	Medium fine sand
182	182	DDCA	6/2000	Dar	Ilala	Karakata	2000	43.0	5	15.65	36.20	20.70	1.08	18.00	Medium sand inminority
183	183	DDCA	10/2000	Dar	Ilala	Ukongu Sabasaba	2000	48.0	5	10.78	41.52	30.74	0.79	13.17	course sand in clay
184	184	DDCA	13/2000	Dar	Ilala	Tabata	2000	39.0	5	4.19	35.40	31.30	0.67	11.17	Fine sand with clay
185	185	DDCA	15/2000	Dar	Ilala	Tabata	2000	30.0	5	16.95	27.00	10.05	0.43	7.17	Coarse sand
186	186	DDCA	16/2000	Dar	Ilala	Karakata	2000	50.0	6	10.00	40.90	30.90	1.10	18.33	Medium course sand
187	187	DDCA	73/2000	Dar	Ilala	Ukongu stakishari	2000	29.0	5	6.15	7.87	1.72	15.84	264.00	Medium course sand
188	188	DDCA	29/2000	Dar	Ilala	Tabata Chang'ombe	2000	44.0	5	11.68	39.38	27.70	1.06	17.67	Fine to coarse sand
189	189	DDCA	80/2000	Dar	Ilala	Segerea	2000	46.0	5	5.29	38.74	33.45	1.22	20.33	Medium coarse sand clay
190	190	DDCA	81/2000	Dar	Ilala	Tabata Kimanga	2000	40.0	5	14.90	36.30	21.40	0.29	4.83	Fine to medium sand
191	191	DDCA	85/2000	Dar	Ilala	Tabata Mawenzi	2000	50.0	5	15.50	33.24	17.74	2.30	38.33	Fine to coarse sand
192	192	DDCA	111/2000	Dar	Ilala	Segerea Kinyerezi	2000	40.0	5	4.53	17.87	13.34	15.84	264.00	Coarse sandy
193	193	DDCA	113/2000	Dar	Ilala	Segerea	2000	30.0	5	7.60	21.20	13.60	1.13	18.83	Medium Sandy
194	194	DDCA	115/2000	Dar	Ilala	Segerea	2000	40.0	5	9.40	14.85	5.45	15.84	264.00	Coarse sandy
195	195	DDCA	116/2000	Dar	Ilala	Kiwalani	2000	36.0	5	13.40	27.48	10.08	2.93	48.83	Medium sand coarse
196	196	DDCA	137/2000	Dar	Ilala	Mnazi Mmoja	2000	30.0	5	6.70	8.23	1.53	19.80	330.00	Fine to coarse sand
197	197	DDCA	142/2000	Dar	Ilala	Ukongu Banana	2000	49.0	6	5.49	14.34	8.89	8.80	146.67	Medium course sand
198	198	DDCA	163/2000	Dar	Ilala	Ukongu Mombasa	2000	38.0	5	5.90	27.18	21.28	3.17	52.83	Sandy clay
199	199	DDCA	165/2000	Dar	Ilala	Tabata mawenzi	2000	50.0	5	14.40	37.43	31.23	0.79	13.17	Medium sandy
200	200	DDCA	168/2000	Dar	Ilala	Segerea Bonyekwa	2000	52.0	5	8.08	51.23	42.43	0.42	7.00	Medium coarse sandy
201	201	DDCA	170/2000	Dar	Ilala	Tabata Segerea	2000	39.0	5	5.08	35.75	30.67	0.61	10.17	medium course sand
202	202	DDCA	171/2000	Dar	Ilala	Tabata Kisukulu	2000	30.0	5	6.00	27.00	21.00	0.35	5.83	clayed sand
203	203	DDCA	172/2000	Dar	Ilala	Tabata Liwiti	2000	40.0	5	0.06	30.09	21.03	1.80	30.00	medium course sand
204	204	DDCA	191/2000	Dar	Ilala	Segera	2000	42.0	5	15.12	32.80	17.68	1.58	26.33	Coarse sand
205	205	DDCA	194/2000	Dar	Ilala	Buguruni Kisiwani	2000	46.0	8"	8.64	10.93	2.29	7.20	120.00	Coarse sand bound clay
206	206	DDCA	218/2000	Dar	Ilala	Olympio Pr. School	2000	22.0	4"	4.47	4.86	0.39	2.14	35.67	Coarse sand in limestone
207	207	DDCA	219/2000	Dar	Ilala	Segerea	2000	45.0	5	4.52	38.32	33.80	5.66	94.33	Medium coarse sand

List of Existing Wells in Dar Es Salaam

No.		Data	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.	Source											(M <sup>3</sup> /hr)	(l/min)	
208	208	DDCA	220/2000	Dar	Ilala	Kiwalani	2000	50.0	5	12.23	23.36	11.13	0.88	14.67	Course sand in gravel
209	209	DDCA	233/2000	Dar	Ilala	Segerea	2000	56.0	6	13.40	51.39	37.99	NR	NR	Medium coarse sand
210	210	DDCA	236/2000	Dar	Ilala	Tabata	2000	30.0	4"	4.02	28.40	24.34	0.27	4.50	Clay bound sand
211	211	DDCA	237/2000	Dar	Ilala	Stakishari	2000	39.0	5	12.48	21.02	9.54	7.20	120.00	Medium sand
212	212	DDCA	241/2000	Dar	Ilala	Ukongga	2000	50.0	6	7.55	38.27	30.72	0.22	3.67	Medium sand
213	213	DDCA	296/2000	Dar	Ilala	Ukongga	2000	68.0	5	7.71	56.77	49.06	0.81	13.50	Course sand in gravel
214	214	DDCA	302/2000	Dar	Ilala	Segerea	2000	42.0	5	8.22	32.60	24.38	1.58	26.33	Sandy
215	215	DDCA	303/2000	Dar	Ilala	Ukongga Sabasaba	2000	42.0	5	16.22	35.90	19.68	6.60	110.00	M. sand in minor clay
216	216	DDCA	305/2000	Dar	Ilala	Pugu kajiungeni	2000	50.0	6	17.84	44.96	27.12	0.36	6.00	Gravels with limestone
217	217	DDCA	312/2000	Dar	Ilala	Segerea	2000	38.0	5	7.00	20.54	13.54	1.37	22.83	Medium course sand
218	218	DDCA	314/2000	Dar	Ilala	Ukongga Mombasa	2000	38.0	5	2.88	33.21	30.33	1.98	33.00	Fine to course sand
219	219	DDCA	315/2000	Dar	Ilala	Tabata Mawenzi	2000	38.0	5	15.44	29.20	13.76	0.63	10.50	Sandy clay
220	220	DDCA	316/2000	Dar	Ilala	Ukongga	2000	51.0	5	11.88	15.74	3.86	7.20	120.00	Course sand
221	221	DDCA	317/2000	Dar	Ilala	Tabata Segerea	2000	40.0	5	6.37	29.70	23.33	0.44	7.33	Course sand
222	222	DDCA	318/2000	Dar	Ilala	Tabata	2000	28.0	5	12.11	23.98	11.97	2.33	38.83	Medium course sand
223	223	DDCA	352/2000	Dar	Ilala	Mbande	2000	49.0	5	11.80	41.77	29.97	0.57	9.50	Medium to course sand
224	224	DDCA	358/2000	Dar	Ilala	Mapinga	2000	60.0	5	9.50	30.56	21.16	1.08	18.00	Medium sand course clay
225	225	DDCA	376/2000	Dar	Ilala	Kiharaka Mpiji	2000	29.0	5	13.50	24.22	10.72	6.09	101.50	White course sand
226	226	DDCA	378/2000	Dar	Ilala	Yombo majumba Mapya	2000	48.0	5	3.84	39.50	35.66	0.81	13.50	Medium course sand
227	227	DDCA	381/2000	Dar	Ilala	Mabwe Pande	2000	47.0	5	12.93	42.30	29.37	0.47	7.83	Medium course sand
228	228	DDCA	392/2000	Dar	Ilala	Madale	2000	50.0	5	15.88	25.80	9.92	15.84	264.00	Medium sand limestone
229	229	DDCA	394/2000	Dar	Ilala	Mbagala	2000	40.0	5	12.06	37.59	25.35	6.60	110.00	Course sand with
230	230	DDCA	397/2000	Dar	Ilala	Ukongga Sabasaba	2000	37.0	5	11.60	35.90	24.30	0.83	13.83	Medium course sand
231	231	DDCA	398/2000	Dar	Ilala	Mtoni Kijichi	2000	36.0	5	8.21	31.26	23.05	1.32	22.00	Sand to small clay
232	232	DDCA	423/2000	Dar	Ilala	Chanika	2000	62.0	5	2.86	52.07	49.21	1.08	18.00	Sand clay with fine sand
233	233	DDCA	424/2000	Dar	Ilala	Kurasini	2000	28.0	5	9.70	26.63	16.93	0.51	8.50	Course sand with
234	234	DDCA	426/2000	Dar	Ilala	Kipunguni 'B'	2000	60.0	5	10.72	35.40	24.68	13.20	220.00	M.course sand, smallclay
235	235	DDCA	427/2000	Dar	Ilala	Yombo Relini	2000	40.0	5	1.91	29.50	27.59	2.64	44.00	Clay with course
236	236	DDCA	429/2000	Dar	Ilala	Mvuti Chanika	2000	60.0	5	4.60	48.14	43.54	0.50	8.33	Course sand with limestone
237	237	DDCA	430/2000	Dar	Ilala	Sinza	2000	60.0	6	2.60	56.36	53.76	1.22	20.33	Medium course sand
238	238	DDCA	461/2000	Dar	Ilala	Tabata Shuleni	2000	60.0	5	8.86	46.75	37.89	5.28	88.00	Medium sand
239	239	DDCA	466/2000	Dar	Ilala	Segerea	2000	51.0	6	19.34	48.36	29.02	0.40	6.67	Course sand
240	240	DDCA	468/2000	Dar	Ilala	Kariakoo Gerezani	2000	36.0	5	10.27	25.25	14.98	1.28	21.33	F.medium sand,limestone
241	241	DDCA	477/2000	Dar	Ilala	Tabata Chang'ombe	2000	39.0	5	6.02	37.00	30.98	0.33	5.50	Sand
242	242	DDCA	479/2000	Dar	Ilala	Kigilagila	2000	40.0	5	4.05	32.87	28.82	0.79	13.17	Medium course sand
243	243	DDCA	480/2000	Dar	Ilala	Mtoni kwa Aziz	2000	33.0	5	13.24	15.97	2.73	28.30	471.67	Medium course sand
244	244	DDCA	481/2000	Dar	Ilala	Ukongga	2000	37.0	5	14.70	29.40	16.70	0.57	9.50	Course sand bound clay
245	245	DDCA	484/2000	Dar	Ilala	Olympio Msikitini	2000	22.0	6	4.80	15.65	10.85	6.09	101.50	Fine sand with limestone
246	246	DDCA	485/2000	Dar	Ilala	Segerea	2000	48.0	6	8.20	37.26	29.06	3.60	60.00	Course sand
247	247	DDCA	462/2000	Dar	Ilala	Ilala	2000	50.0	5	8.86	46.75	37.98	3.60	60.00	Fine course sand
248	248	DDCA	2/2001	Dar	Ilala	Ukongga Mombasa	2001	40.0	6	2.97	34.45	31.48	0.93	15.50	Fine to medium sand
249	249	DDCA	3/2001	Dar	Ilala	Ukongga Mikoroshini	2001	46.0	6	7.07	44.15	37.08	0.88	14.67	Medium to course sand
250	250	DDCA	4/2001	Dar	Ilala	Vingunguti Mtakuja	2001	46.0	5	5.01	31.90	26.89	3.96	66.02	Course gravel sand
251	251	DDCA	8/2001	Dar	Ilala	Nyerere Rd	2001	62.0	5	9.82	16.94	7.12	39.60	660.00	Medium course sand
252	252	DDCA	9/2001	Dar	Ilala	Vingunguti - Kombo	2001	62.0	5	16.06	20.10	4.06	31.68	528.00	Medium course sand
253	253	DDCA	10/2001	Dar	Ilala	Vingunguti Mtambani	2001	40.0	4"	15.45	22.47	7.02	26.40	440.00	Medium course sand
254	254	DDCA	18/2001 B	Dar	Ilala	Ukongga Mombasa	2001	40.00	6	4.60	37.62	33.02	0.83	13.83	Course sandy clay
255	255	DDCA	19/2001	Dar	Ilala	Majohhe	2001	98.0	6	11.15	20.60	9.45	1.84	30.67	M. course sand with lignite



List of Existing Wells in Dar Es Salaam

No.		Data	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.	Source											(M <sup>3</sup> /hr)	(l/min)	
256	256	DDCA	20/2001	Dar	Ilala	Karakata Pr. Sch	2001	98.0	5	16.15	46.52	30.37	26.40	440.00	Medium course sand
257	257	DDCA	22/2001	Dar	Ilala	Pugu Kajiungeni	2001	80.0	5	53.53	61.93	8.43	1.13	18.83	Fine to mediumsand
258	258	DDCA	23/2001	Dar	Ilala	Gongo la mboto	2001	70.0	4"	21.22	43.45	22.23	1.13	18.83	Course sand with limestone
259	259	DDCA	25/2001	Dar	Ilala	Yombo Matangini	2001	32.0	6	11.65	23.55	11.90	1.98	33.00	Fine course sand
260	260	DDCA	26/2001	Dar	Ilala	Buguruni	2001	51.0	6	12.53	39.40	26.87	3.17	52.83	M. Course sand with gravel
261	261	DDCA	29/2001	Dar	Ilala	Vingunguti	2001	50.0	6	15.40	38.80	23.40	3.68	61.33	Sandy clay
262	262	DDCA	30/2001	Dar	Ilala	Ukongga Mombasa	2001	70.0	6	15.55	22.60	7.05	3.78	63.00	M. Course sand clay
263	263	DDCA	33/2001	Dar	Ilala	Gongo la mboto	2001	32.0	4"	4.80	29.03	24.23	0.33	5.50	Course sandy gravel
264	264	DDCA	35/2001	Dar	Ilala	Kinyerezi	2001	50.00	5	23.31	42.10	18.77	9.20	153.33	Course sandy clay
265	265	DDCA	36/2001	Dar	Ilala	Vingunguti	2001	51.0	5	3.55	31.25	27.70	13.20	220.00	Course gravel sand
266	266	DDCA	37/2001	Dar	Ilala	Tabata Liwiti	2001	50.0	6	7.64	42.93	35.29	1.98	33.00	Medium course sand
267	267	DDCA	50/2001	Dar	Ilala	Vingunguti	2001	49.00	6	4.75	16.68	11.93	26.40	440.00	NR
268	268	DDCA	51/2001	Dar	Ilala	Tabata/Segerea	2001	60.0	6	10.37	49.90	39.53	10.56	176.00	NR
269	269	DDCA	62/2001	Dar	Ilala	Tabata Mawenzi	2001	50.0	6	13.50	21.75	18.25	13.20	220.00	NR
270	270	DDCA	65/2001	Dar	Ilala	Ukongga Midizini	2001	71.0	6	9.45	50.30	40.85	3.30	55.00	Medium course sand
271	271	DDCA	66/2001	Dar	Ilala	Segerea CCM	2001	47.0	6	13.22	38.75	25.53	1.13	18.83	NR
272	272	DDCA	67/2001	Dar	Ilala	Gongolambot	2001	20.0	6	4.04	16.44	12.40	0.72	12.00	NR
273	273	DDCA	73/2001	Dar	Ilala	Kipawa	2001	49.0	6	9.45	27.95	18.50	11.28	188.00	Fine course sand
274	274	DDCA	74/2001	Dar	Ilala	Tabata Matumbi	2001	35.0	5	NR	9.58	9.58	26.40	440.00	Medium course sand
275	275	DDCA	76/2001	Dar	Ilala	Tabata Kisiwani	2001	50.0	6	14.20	28.80	12.60	6.60	110.00	Medium course sand
276	276	DDCA	79/2001	Dar	Ilala	Segerea Kinyerezi	2001	60.0	5	17.52	51.48	33.56	0.66	11.00	Medium course sand
277	277	DDCA	81/2001	Dar	Ilala	Ukongga Madafu	2001	33.0	5	8.16	27.13	18.97	0.75	12.50	Medium course sand
278	278	DDCA	133/2001	Dar	Ilala	Segerea	2001	44.0	6	8.50	34.38	25.80	5.28	88.00	Fine medium sand
279	279	DDCA	139/2001	Dar	Ilala	Segerea	2001	44.0	5'	6.96	22.84	15.88	7.20	120.00	Fine medium sand
280	280	DDCA	140/2001	Dar	Ilala	Buguruni NMC	2001	50.0	4"	10.62	24.10	13.48	26.40	440.00	Medium course sand
281	281	DDCA	141/2001	Dar	Ilala	Kitunda	2001	50.0	4"	10.20	30.20	20.00	11.31	188.50	Medium course sand
282	282	DDCA	143/2001	Dar	Ilala	Buguruni NMC	2001	50.0	5	11.19	32.58	21.39	28.80	480.00	Medium course sand
283	283	DDCA	144/2001	Dar	Ilala	Ukongga Hill Tech	2001	62.0	6	5.51	11.62	6.11	29.12	485.33	Medium course sand
284	284	DDCA	145/2001	Dar	Ilala	Vingunguti	2001		5	16.30	38.89	22.59	11.31	188.50	Fine course sand
285	285	DDCA	146/2001	Dar	Ilala	Kipawa	2001	45.0	6	16.87	35.76	16.89	11.31	188.50	Sandy gravel
286	286	DDCA	151/2001	Dar	Ilala	Ukongga Kichangani	2001	68.0	6	20.13	53.42	33.29	9.90	165.00	Medium course sand clay
287	287	DDCA	152/2001	Dar	Ilala	Chanika	2001	62.0	5	10.95	52.76	42.81	1.98	33.00	Gravel sand stone
288	288	DDCA	172/2001	Dar	Ilala	Ukongga Banana	2001	38.0	5	5.77	23.67	17.90	4.94	82.33	Medium sandy clay
289	289	DDCA	193/2001	Dar	Ilala	Segerea Kinyerezi	2001	32.0	5	5.70	30.16	24.46	0.60	10.00	Medium sand clay
290	290	DDCA	196/2001	Dar	Ilala	Segerea	2001	60.0	5	10.97	46.90	35.93	2.24	37.33	NR
291	291	DDCA	197/2001	Dar	Ilala	Gongo la mboto	2001	60.0	5	4.35	40.40	36.05	0.32	5.33	Medium course sand
292	292	DDCA	202/2001	Dar	Ilala	Tabata Kisiwani	2001	62.0	5	18.49	39.07	20.78	10.56	176.00	NR
293	293	DDCA	208/2001	Dar	Ilala	Buguruni	2001	50.0	5	11.92	34.13	22.21	10.60	176.67	Course sand
294	294	DDCA	210/2001	Dar	Ilala	Ukongga airwing sec	2001	72.0	6	5.43	55.10	49.98	6.60	110.00	Medium course sand
295	295	DDCA	226/2001	Dar	Ilala	Kipunguni B	2001	50.0	5	2.89	28.78	25.89	1.22	20.33	Medium sand
296	296	DDCA	230/2001	Dar	Ilala	Tabata Bima	2001	28.0	5	11.70	25.07	13.37	0.53	8.83	Sand clay
297	297	DDCA	249/2001	Dar	Ilala	Kitunda Tanzania Bible	2001	60.0	5	4.30	53.98	49.68	2.03	33.83	Medium course sand
298	298	DDCA	250/2001	Dar	Ilala	Ukongga Mombasa	2001	47.0	5	4.51	45.16	40.65	0.54	9.00	Medium sand
299	299	DDCA	251/2001	Dar	Ilala	Kupunguni B	2001	60.0	5	4.80	32.36	27.56	10.56	176.00	Course sand
300	300	DDCA	256/2001	Dar	Ilala	Kipawa	2001	51.0	5	17.60	41.89	24.29	4.95	82.50	Mediumcourse sandy clay
301	301	DDCA	257/2001	Dar	Ilala	Vingunguti	2001	35.0	5	11.02	17.63	6.61	5.66	94.33	Fine to course sand clay
302	302	DDCA	261/2001	Dar	Ilala	Ukongga Madafu	2001	34.0	5	9.93	29.86	19.93	1.10	18.33	Fine to medium sand
303	303	DDCA	280/2001	Dar	Ilala	Ukongga	2001	50.0	5	3.24	36.56	33.32	1.13	18.83	Fine medium sandy clay
304	304	DDCA	282/2001	Dar	Ilala	Kipawa	2001	50.0	6	10.84	48.21	37.37	0.88	14.67	Medium course sandy clay

List of Existing Wells in Dar Es Salaam

No.		Data	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.	Source											(M <sup>3</sup> /hr)	(l/min)	
305	305	DDCA	284/2001	Dar	Ilala	Pugu Kajungeni	2001	41.0	5	3.40	28.03	24.63	1.32	22.00	Fine med. Sand with limestone
306	306	DDCA	287/2001	Dar	Ilala	Ukongga Staki shari	2001	60.0	5	11.52	41.67	30.15	7.20	120.00	Fine course sand
307	307	DDCA	309/2001	Dar	Ilala	Pugu Sec school	2001	80.3	5	15.73	51.17	35.44	0.44	7.33	Medium course sand
308	308	DDCA	310/2001	Dar	Ilala	Segerea Kinyerezi	2001	41.0	5	19.00	32.03	13.03	3.17	52.80	Fine course sand
309	309	DDCA	315/2001	Dar	Ilala	Africatic	2001	50.0	5	12.25	17.91	5.66	11.31	188.50	Course sand with gravel
310	310	DDCA	317/2001	Dar	Ilala	Ukongga	2001	55.0	5	16.13	38.86	22.73	0.79	13.17	Medium course sandy clay
311	311	DDCA	318/2001	Dar	Ilala	Kipawa	2001	45.0	5	17.82	32.91	15.09	7.92	132.00	Medium course sand
312	312	DDCA	329/2001	Dar	Ilala	Segerea	2001	50.0	5	23.74	40.87	17.13	3.90	65.00	Medium sand
313	313	DDCA	340/2001	Dar	Ilala	Kinyerezi	2001	66.0	5	15.39	48.81	33.42	1.44	24.00	Fine to medium sand
314	314	DDCA	346/2001	Dar	Ilala	Gongo la mboto	2001	60.0	5	19.16	53.21	33.05	0.23	3.83	Course sandy clay
315	315	DDCA	348/2001	Dar	Ilala	Kipunguni B	2001	70.0	5	28.00	56.20	53.40	0.72	12.00	Medium to course sand
316	316	DDCA	370/2001	Dar	Ilala	Kinyerezi	2001	60.0	5	20.21	55.44	35.23	0.72	12.00	Medium course sand clay
317	317	DDCA	372/2001	Dar	Ilala	Utumishi	2001	13.0	5	8.17	11.63	3.46	0.66	11.00	Medium sandwith limestone
318	318	DDCA	374/2001	Dar	Ilala	Ukongga Karakata	2001	40.0	5	17.60	36.30	18.69	0.74	12.33	Medium course sand
319	319	DDCA	375/2001	Dar	Ilala	Buguruni - Madenge	2001	46.0	6	40.17	17.13	3.06	27.31	455.17	Medium course sand
320	320	DDCA	378/2001	Dar	Ilala	Kinyerezi	2001	36.0	5	22.90	31.66	8.76	0.88	14.67	Sand weathered limestone
321	321	DDCA	379/2001	Dar	Ilala	Buguruni Kisiwani	2001	60.0	5	11.24	13.14	1.90	26.40	440.00	Weathered limestone sand
322	322	DDCA	349/2001	Dar	Ilala	Kinyerezi	2001	40.0	5	11.86	20.56	8.70	13.20	220.00	Medium sand with limestone
323	323	DDCA	2/2002	Dar	Ilala	Mvuti Kiboga	2002	62.0	6	6.20	38.10	31.90	1.06	17.67	Medium course sand clay
324	324	DDCA	3/2002	Dar	Ilala	Chanika Dispensary	2002	60.0	6	4.65	37.06	32.41	1.98	33.00	M.course sand withlimestone
325	325	DDCA	4/2002	Dar	Ilala	Tabata Dispensary	2002	47.0	6	7.00	31.52	24.52	2.90	48.33	Medium course clay
326	326	DDCA	9/2002	Dar	Ilala	Kisukuru	2002	70.0	5	30.00	56.33	20.33	0.79	13.17	Medium course sand
327	327	DDCA	11/2002	Dar	Ilala	Kipunduni 'A'	2002	50.0	5	6.36	30.22	22.56	3.17	52.83	Fine course sand
328	328	DDCA	13/2002	Dar	Ilala	Pugu Mnadani	2002	45.0	6	11.50	20.67	9.17	11.31	188.50	Medium course sand
329	329	DDCA	14/2002	Dar	Ilala	Ukongga Mombasa	2002	60.0	5	12.52	53.76	41.24	1.27	21.17	Fine course sand
330	330	DDCA	16/2002	Dar	Ilala	Segerea	2002	38.0	5	13.11	32.39	19.28	1.44	24.00	Fine medium sand
331	331	DDCA	26/2002	Dar	Ilala	Tazara	2002	50.0	5	12.20	16.86	4.66	13.20	220.00	Medium course sand
332	332	DDCA	40/2002	Dar	Ilala	Segerea	2002	60.0	5	13.84	32.20	18.46	7.92	132.00	Medium course sand
333	333	DDCA	49/2002	Dar	Ilala	Segerea	2002	52.0	5	18.45	35.25	16.80	3.16	52.67	Fine sandy clay
334	334	DDCA	56/2002	Dar	Ilala	Segerea	2002	50.5	5	16.90	31.05	14.15	4.17	69.50	Medium course sand
335	335	DDCA	57/2002	Dar	Ilala	Mabibo Farasi	2002	29.6	5	8.23	22.35	14.12	1.44	24.00	Fine to course sand
336	336	DDCA	60/2002	Dar	Ilala	Segerea	2002	50.5	5	13.57	45.70	32.13	2.93	48.83	Mediumcourse sand
337	337	DDCA	62/2002	Dar	Ilala	Pugu	2002	70.0	6	6.53	65.40	58.87	0.50	8.33	Medium course sand
338	338	DDCA	65/2002	Dar	Ilala	Mvuti Unyamani	2002	23.0	5	4.20	19.68	15.48	1.22	20.33	Fine medium quartz clay
339	339	DDCA	66/2002	Dar	Ilala	Kitunda Kivule	2002	25.0	5	0.27	24.90	24.63	0.83	13.83	Medium course sand clay
340	340	DDCA	67/2002	Dar	Ilala	Chanika Zingiziwa	2002	27.0	5	1.15	22.70	21.55	3.30	55.00	Fine medium sand
341	341	DDCA	69/2002	Dar	Ilala	Qubar Mosque	2002	52.0	5	8.10	47.90	39.80	0.72	12.00	M.course sand with clay
342	342	DDCA	70/2002	Dar	Ilala	Tabata	2002	30.0	5	6.67	27.71	20.93	1.02	17.00	Mediun sand
343	343	DDCA	71/2002	Dar	Ilala	Segerea	2002	50.0	5	10.26	33.62	23.36	6.09	101.50	Fine to medium sand
344	344	DDCA	72/2002	Dar	Ilala	Tabata Chang'ombe	2002	52.0	5	15.79	40.71	24.92	0.63	10.50	Medium to course sand
345	345	DDCA	75/2002	Dar	Ilala	Buguruni	2002	60.0	5	12.62	33.62	25.91	7.92	132.00	Medium course sand
346	346	DDCA	76/2002	Dar	Ilala	Buyuni Mgeule	2002	22.0	5	0.56	23.24	22.68	0.75	12.50	Medium course sand
347	347	DDCA	80/2002	Dar	Ilala	Vingunguti	2002	30.0	5	13.90	26.46	12.56	2.82	47.00	Course sand with limestone
348	348	DDCA	81/2002	Dar	Ilala	Kipunguni B	2002	60.0	5	28.18	50.03	21.85	2.64	44.00	Fine sand clay
349	349	DDCA	92/2002	Dar	Ilala	Nzasa Chanika	2002	20.0	5	0.03	18.50	18.47	0.31	5.17	Fine sand
350	350	DDCA	95/2002	Dar	Ilala	Kivule	2002	27.0	5	1.27	25.02	23.75	1.72	28.67	Medium course sand
351	351	DDCA	101/2002	Dar	Ilala	Luthuli	2002	13.0	5	3.34	11.12	7.78	0.79	13.17	Fine sand with limestone
352	352	DDCA	107/2002	Dar	Ilala	Kipunguni B	2002	70.0	5	0.90	42.10	41.20	2.62	43.67	Fine medium sand

List of Existing Wells in Dar Es Salaam

No.		Data	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.	Source											(M <sup>3</sup> /hr)	(l/min)	
353	353	DDCA	108/2002	Dar	Ilala	Kariakoo	2002	20.0	5	9.19	16.50	7.31	3.60	60.00	Fine to medium sand
354	354	DDCA	135/2002	Dar	Ilala	Kisukuru	2002	79.0	5	35.00	65.39	30.39	0.99	16.50	Medium sandy clay
355	355	DDCA	136/2002	Dar	Ilala	Nyerere Road	2002	40.0	5	7.67	14.55	6.88	17.60	293.33	Medium course sand
356	356	DDCA	140/2002	Dar	Ilala	Tabata Segerea	2002	53.0	5	7.83	26.30	18.47	3.60	60.00	Medium course sand
357	357	DDCA	143/2002	Dar	Ilala	Yombo Vituka	2002	40.0	5	7.54	30.47	22.93	0.59	9.83	Medium sand clay
358	358	DDCA	145/2002	Dar	Ilala	Tabata Mawenzi	2002	40.0	5	12.20	21.15	8.95	3.77	62.83	Medium course sand clay
359	359	DDCA	146/2002	Dar	Ilala	Pugu Kajungeni	2002	68.0	5	14.31	62.67	48.36	0.29	4.83	Course sand clay
360	360	DDCA	151/2002	Dar	Ilala	Kinyerezi	2002	50.0	5	22.34	46.36	24.02	0.80	13.33	Course sand with limestone
361	361	DDCA	152/2002	Dar	Ilala	Tabata Kimabga	2002	40.0	5	13.58	27.59	14.01	1.06	17.67	Medium course sand
362	362	DDCA	153/2002	Dar	Ilala	Kivule Mjimpya	2002	25.0	5	2.00	24.06	22.06	1.84	30.67	Sandy clay
363	363	DDCA	154/2002	Dar	Ilala	Nyebuka Chanika	2002	27.0	5	0.78	25.35	29.57	0.88	14.67	Sandy clay
364	364	DDCA	155/2002	Dar	Ilala	Ukongga	2002	96.0	5	23.89	57.20	33.31	8.80	146.67	F.to course sand limestone
365	365	DDCA	169/2002	Dar	Ilala	Tungini Chanika	2002	25.0	5	3.43	22.72	19.29	1.07	17.83	Sandy clay
366	366	DDCA	170/2002	Dar	Ilala	Kitonga Mvuti	2002	24.0	5	0.84	9.15	8.35	5.28	88.00	Medium course sandy clay
367	367	DDCA	171/2002	Dar	Ilala	Kidole Mvuti	2002	28.5	5	1.27	21.65	20.41	0.83	13.83	Medium course sandy clay
368	368	DDCA	25/2002	Dar	Ilala	Ukongga Mombasa	2002	65.0	5	2.18	58.03	55.85	0.34	5.67	Medium to course sand
369	369	DDCA	183/2002	Dar	Ilala	Chanika Lubakaya	2002	27.0	5	5.02	10.32	5.30	3.94	65.67	Medium course sandy clay
370	370	DDCA	184/2002	Dar	Ilala	Chanika Yongwe	2002	27.0	5	1.99	25.50	23.51	0.93	15.50	Fine to medium sandy clay
371	371	DDCA	275/2002	Dar	Ilala	Segerea	2002	50.0	5	5.61	45.46	39.80	0.44	7.33	Medium course sand
372	372	DDCA	286/2002	Dar	Ilala	Ilala Bomani	2002	42.0	6	6.98	31.50	24.52	11.31	188.50	Medium course sand
373	373	DDCA	287/2002	Dar	Ilala	Gongo la mboto	2002	60.0	5	9.24	56.94	47.70	0.25	4.17	Course sandy clay
374	374	DDCA	288/2002	Dar	Ilala	Tabata	2002	51.0	5	8.32	46.13	36.18	0.35	5.83	Medium course sand
375	375	DDCA	291/2002	Dar	Ilala	Tabata	2002	40.0	4"	7.37	33.48	26.11	1.52	25.33	Medium course sand
376	376	DDCA	295/2002	Dar	Ilala	Nyerere Road	2002	50.0	6	10.54	13.39	2.85	15.84	264.00	Medium sand with limestone
377	377	DDCA	306/2002	Dar	Ilala	Tabata Chang'ombe	2002	30.0	5	0.20	24.17	23.97	0.26	4.33	Fine medium sand
378	378	DDCA	309/2002	Dar	Ilala	Sitakishari	2002	60.0	5	9.85	41.38	31.53	2.93	48.83	Fine medium sand
379	379	DDCA	310/2002	Dar	Ilala	Msimbazi	2002	43.0	5	12.64	14.95	2.31	19.80	330.00	Course sand with limestone
380	380	DDCA	311/2002	Dar	Ilala	Segerea	2002	50.0	5	15.53	36.34	20.81	2.93	48.83	Medium course sand
381	381	DDCA	313/2002	Dar	Ilala	Segerea	2002	60.0	5	19.22	30.46	11.24	3.30	55.00	Fine medium sand
382	382	DDCA	314/2002	Dar	Ilala	Segerea	2002	50.0	5	10.70	41.71	31.01	0.84	14.00	Course sandy clay
383	383	DDCA	315/2002	Dar	Ilala	Tabata Chang'ombe	2002	50.0	5	4.94	10.28	5.34	3.95	65.83	Medium course sand
384	384	DDCA	316/2002	Dar	Ilala	Tabata Relini	2002	40.0	5	14.88	23.54	8.66	1.15	19.17	Medium course sand
385	385	DDCA	317/2002	Dar	Ilala	Tabata	2002	60.0	5	15.35	30.46	15.11	2.73	45.50	Medium sand
386	386	DDCA	321/2002	Dar	Ilala	Kisukuru	2002	57.0	5	28.65	56.00	27.35	0.21	3.50	Medium sand clay
387	387	DDCA	323/2002	Dar	Ilala	Kisukuru	2002	70.0	5	23.00	65.87	42.87	0.94	15.67	Medium sand with limestone
388	388	DDCA	330/2002	Dar	Ilala	Yombo Vituka	2002	70.0	6	20.75	61.00	40.25	0.66	11.00	Medium course sand
389	389	DDCA	332/2002	Dar	Ilala	Stakishari	2002	40.0	5	7.44	10.21	2.27	15.84	264.00	Course sand with gravel
390	390	DDCA	268/2002	Dar	Ilala	Segerea	2002	40.0	5	6.47	30.45	23.98	1.32	22.00	Fine medium sand
391	391	DDCA	349/2002	Dar	Ilala	Ukongga Stakishari	2002	40.0	5	10.92	12.13	1.21	19.80	330.00	Fine course sand
392	392	DDCA	356/2002	Dar	Ilala	Kinyerezi	2002	40.0	5	14.98	27.69	12.62	0.32	5.33	Fine medium sand
393	393	DDCA	357/2002	Dar	Ilala	Kiwalani	2002	30.0	5	10.04	25.05	15.01	0.56	9.33	Fine sandy clay
394	394	DDCA	366/2002	Dar	Ilala	Segerea	2002	50.0	5	10.10	29.60	19.51	2.24	37.33	Medium quartz sand
395	395	DDCA	370/2002	Dar	Ilala	barabara ya mwinyi	2002	60.0	5	12.91	27.70	14.79	8.80	146.67	Medium course sand
396	396	DDCA	391/2002	Dar	Ilala	Ukongga Mombasa	2002	60.0	5	9.05	45.49	30.44	0.49	8.17	Fine medium sand
397	397	DDCA	393/2002	Dar	Ilala	Ukongga	2002	35.0	5	3.53	26.13	22.60	1.58	26.33	Medium course sand
398	398	DDCA	395/2002	Dar	Ilala	Chanika	2002	70.0	5	3.44	49.25	45.81	0.72	12.00	Medium course sand
399	399	DDCA	397/2002	Dar	Ilala	Yombo Kilakala	2002	40.0	5	13.28	31.85	18.57	2.25	37.50	Fine medium sand
400	400	DDCA	398/2002	Dar	Ilala	B. Mkapa Sec school	2002	50.0	5	9.97	10.90	0.93	4.40	73.33	Weathered limestone
401	401	DDCA	401/2002	Dar	Ilala	Ukongga	2002	100.00	6	12.92	90.03	77.11	1.28	21.33	M. sand with limestone

List of Existing Wells in Dar Es Salaam

No.		Data	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.	Source											(M <sup>3</sup> /hr)	(l/min)	
402	402	DDCA	403/2002	Dar	Ilala	Ukonga Mombasa	2002	51.0	5	14.44	40.09	25.65	1.22	20.33	Medium course sand
403	403	DDCA	404/2002	Dar	Ilala	Kinyerezi	2002	60.0	5	2.57	33.70	31.33	3.86	64.33	Fine course sand
404	404	DDCA	410/2002	Dar	Ilala	Msongola	2002	70.0	6	22.32	47.22	24.90	2.26	37.67	M.course sand limestone
405	405	DDCA	437/2002	Dar	Ilala	Kitunda	2002	50.0	5	12.40	31.22	18.82	11.30	188.33	Medium course sand
406	406	DDCA	438/2002	Dar	Ilala	Nyerere Road	2002	30.0	6	16.45	21.45	15.00	2.98	49.67	Course sand with limestone
407	407	DDCA	441/2002	Dar	Ilala	Tabata	2002	52.0	5	7.00	38.14	31.14	6.60	110.00	Medium sand
408	408	DDCA	442/2002	Dar	Ilala	Ukonga	2002	70.0	5	7.62	43.47	25.85	2.64	44.00	Fine medium sand
409	409	DDCA	452/2002	Dar	Ilala	Ukonga Mombasa	2002	60.0	5	13.75	45.13	31.38	2.55	42.50	Coarse sand with gravels
410	410	DDCA	453/2002	Dar	Ilala	Chanika	2002	60.0	5	1.12	50.30	49.18	1.76	29.33	Course sand with limestone
411	411	DDCA	495/2002	Dar	Ilala	Ukonga	2002	50.0	5	13.40	43.90	30.50	0.41	6.83	Medium sand
412	412	DDCA	1/2003	Dar	Ilala	Gongola mboto	2003	80.0	5	13.20	62.91	49.71	0.44	7.33	Medium sandy clay
413	413	DDCA	8/2003	Dar	Ilala	Ukonga Mombasa	2003	66.0	5	16.50	46.61	30.11	3.60	60.00	Medium course sand
414	414	DDCA	11/2003	Dar	Ilala	Segerea	2003	50.0	5	14.80	20.70	5.20	NR	NR	Coarse sandy clay
415	415	DDCA	17/2003	Dar	Ilala	Kitunda	2003	60.0	5	18.59	42.16	23.57	2.18	36.33	Medium course sand
416	416	DDCA	19/2003	Dar	Ilala	Tabata	2003	34.0	5	3.40	25.05	21.65	4.68	78.00	Medium course sand
417	417	DDCA	21/2003	Dar	Ilala	Kisukuru	2003	60.0	5	27.49	43.63	16.14	0.83	13.83	Coarse sand
418	418	DDCA	22/2003	Dar	Ilala	Pugu	2003	60.0	5	11.45	42.38	30.93	2.68	44.67	Medium course sand
419	419	DDCA	30/2003	Dar	Ilala	Yombo	2003	50.0	5	11.10	35.44	24.34	0.66	11.00	Medium sand
420	420	DDCA	35/2003	Dar	Ilala	Segerea	2003	60.0	5	25.90	42.65	16.75	0.90	15.00	Medium sand clay
421	421	DDCA	43/2003	Dar	Ilala	Tabata	2003	40.0	5	7.70	34.30	26.60	0.93	15.50	Medium course sand
422	422	DDCA	44/2003	Dar	Ilala	Tabata	2003	50.0	5	16.50	33.50	17.00	0.68	11.33	Course sandy clay
423	423	DDCA	46/2003	Dar	Ilala	Tabata	2003	35.0	5	2.80	32.25	29.25	0.33	5.50	Medium course
424	424	DDCA	47/2003	Dar	Ilala	Tabata Liwiti	2003	60.0	5	15.20	29.15	13.95	7.20	120.00	Medium course sand
425	425	DDCA	49/2003	Dar	Ilala	Segerea	2003	60.0	6	16.92	40.24	24.32	3.18	53.00	Coarse sand
426	426	DDCA	71/2003	Dar	Ilala	Yombo Vituka	2003	50.0	5	17.20	40.52	35.15	1.98	33.00	Medium course sand
427	427	DDCA	72/2003	Dar	Ilala	Pugu Mnadani	2003	50.0	6	5.60	40.75	35.15	5.18	86.33	Medium course sand
428	428	DDCA	73/2003	Dar	Ilala	Segerea	2003	60.0	5	17.85	31.87	14.02	2.26	37.67	Fine to medium sand
429	429	DDCA	74/2003	Dar	Ilala	Kitunda	2003	60.0	6	19.55	29.07	9.52	4.68	78.00	Medium course sand
430	430	DDCA	75/2003	Dar	Ilala	Vingunguti	2003	50.0	6	3.10	12.80	9.10	19.80	330.00	Medium course sand
431	431	DDCA	76/2003	Dar	Ilala	Yombo Vituka	2003	40.0	5	7.29	38.92	28.37	NR	NR	Fine medium sand
432	432	DDCA	77/2003	Dar	Ilala	Gongo la mboto	2003	40.0	5	1.04	36.95	35.91	0.29	4.83	Medium course sand
433	433	DDCA	90/2003	Dar	Ilala	Ukonga Mombasa	2003	44.0	5	12.42	35.10	22.68	1.98	33.00	Medium course sand
434	434	DDCA	91/2003	Dar	Ilala	Kinyerezi	2003	40.0	5	17.03	40.30	23.27	0.20	3.33	Medium sandy clay
435	435	DDCA	92/2003	Dar	Ilala	Tabata	2003	40.0	5	13.24	29.14	15.90	0.88	14.67	Medium sandy clay
436	436	DDCA	93/2003	Dar	Ilala	Segerea	2003	60.0	6'	11.42	47.24	35.72	3.33	55.50	Fine medium sand
437	437	DDCA	94/2003	Dar	Ilala	Yombo vituka	2003	50.0	5	11.40	15.60	4.20	4.17	69.50	Medium course sand
438	438	DDCA	95/2003	Dar	Ilala	Yombo vituka	2003	60.0	5	18.11	42.10	23.99	2.26	37.67	Course sand with limestone
439	439	DDCA	96/2003	Dar	Ilala	Ukonga	2003	50.0	6	18.73	44.68	25.95	4.17	69.50	Medium course sand
440	440	DDCA	99/2003	Dar	Ilala	Yombo Vituka	2003	60.0	5	18.45	50.20	31.75	1.98	33.00	Medium course sand
441	441	DDCA	101/2003	Dar	Ilala	Pugu	2003	62.0	5	7.10	53.75	46.65	0.25	4.17	Medium course sand
442	442	DDCA	105/2003	Dar	Ilala	Buguruni	2003	57.0	6	12.04	24.44	12.40	8.80	146.67	Medium course sand
443	443	DDCA	109/2003	Dar	Ilala	Segerea	2003	58.0	5	11.87	53.86	41.99	0.80	13.33	Fine medium sand
444	444	DDCA	114/2003	Dar	Ilala	Tabata Changombe	2003	50.0	5	16.90	47.53	30.63	2.08	34.67	Medium sand
445	445	DDCA	133/2003	Dar	Ilala	Tabata Chang'ombe	2003	30.0	5	3.98	28.08	24.10	0.67	11.17	Medium sandy clay
446	446	DDCA	160/2003	Dar	Ilala	Tabata Chang'ombe	2003	60.0	6	17.24	51.35	34.11	2.65	44.17	Medium course sand
447	447	DDCA	165/2003	Dar	Ilala	Tabata	2003	40.0	5	8.75	11.62	2.87	5.28	88.00	NR
448	448	DDCA	203/2003	Dar	Ilala	Buguruni	2003	48.0	6	16.90	17.72	32.32	15.60	260.00	Medium sand
449	449	DDCA	208/2003	Dar	Ilala	Tabata Chang'ombe	2003	48.0	5	16.72	37.20	20.48	1.10	18.33	NR
450	450	DDCA	224/2003	Dar	Ilala	Pugu kajungeni	2003	70.0	5	36.90	64.50	27.60	0.20	3.33	Course clayey sand
451	451	DDCA	243/2003	Dar	Ilala	Forodhani	2003	17.0	5'	5.38	11.50	6.12	0.18	3.00	Salt Limestone
452	452	DDCA	245/2003	Dar	Ilala	Town Centre	2003	20.0	5	6.00	18.25	12.25	2.48	41.33	Medium course sand

List of Existing Wells in Dar Es Salaam

No.		Data	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.	Source											(M <sup>3</sup> /hr)	(l/min)	
453	453	DDCA	254/2003	Dar	Ilala	Chanika (M/s jerome Kamwela)	2003	60.0	5	2.02	48.20	46.18	3.77	62.85	
454	454	DDCA	259/2003	Dar	Ilala	Kinyerezi (M/s Kisa Mwansasu)	2003	30.0	5				0.00	0.00	
455	455	DDCA	261/2003	Dar	Ilala	Tabata (M/s B.Mole)	2003	30.0	5	10.78	29.20	18.42	0.63	10.53	
456	456	DDCA	273/2003	Dar	Ilala	Ukongwa sitakishari (Summer Bckary)	2003	60.0	6	12.64	14.96	2.32	8.80	146.67	
457	457	DDCA	277/2003	Dar	Ilala	Kipunguni (M/s N.Ngahyoma)	2003	60.0	5	3.76	49.12	45.47	2.65	44.13	
458	458	DDCA	279/2003	Dar	Ilala	Kipunguni B (M/s Lukuta Jaivi)	2003	50.0	5	3.36	44.23	40.87	1.02	16.92	
459	459	DDCA	282/2003	Dar	Ilala	Tabata B ima (M/s C.Mbiku)	2003	50.0	5	17.85	26.90	9.05	1.32	22.00	
460	460	DDCA	285/2003	Dar	Ilala	T/Kisukuru (M/s C.Mbiku)	2003	50.0	5	2.53	46.85	44.32	1.13	18.85	
461	461	DDCA	301/2003	Dar	Ilala	T/Segerea (Mrs Mpaka)	2003	51.0	6	11.62			Dry	0.00	
462	462	DDCA	303/2003	Dar	Ilala	G/Mboto (M/s Lwahgo)	2003	30.0	5				Dry	0.00	
463	463	DDCA	307/2003	Dar	Ilala	T/Chang'ombe (M/s Khamis)	2003	30.0	5	3.32	28.10	24.78	3.11	51.90	
464	464	DDCA	310/2003	Dar	Ilala	T/Kisukuru (M/s Mwangoka)	2003	50.0	5	4.64	48.36	43.72	2.26	37.70	
465	465	DDCA	313/2003	Dar	Ilala	Tabata Bima (Ms Ngilwa)	2003	40.0	5	12.25	32.33	10.08	6.61	110.15	
466	466	DDCA	314/2003	Dar	Ilala	T/Kimanga (M/s Kisanga)	2003	60.0	5	22.57	54.73	32.16	1.02	16.92	
467	467	DDCA	316/2003	Dar	Ilala	T/Bima M/s Kitambi)	2003	40.0	5	12.11	36.43	24.32	1.49	24.90	
468	468	DDCA	326/2003	Dar	Ilala	Y.Vituka (M/s G.G.Kiswaga)	2003	60.0	5	14.67	57.22	42.55	1.32	22.00	
469	469	DDCA	327/2003	Dar	Ilala	Segerea (M/s A.Luagila)	2003	50.0	5	15.73	44.56	28.83	1.98	33.00	
470	470	DDCA	328/2003	Dar	Ilala	Tabata (M/s Mushi)	2003	48.0	5	12.00	36.48	24.48	9.90	165.00	
471	471	DDCA	332/2003	Dar	Ilala	Mchikichini III(M/s TBL)	2003	43.5	8	1.02	12.34	11.32	46.59	776.47	
472	472	DDCA	334/2003	Dar	Ilala	Yombo Vituka (M/s L.Masigo)	2003	60.0	5	18.60	30.94	12.34	4.40	73.33	
473	473	DDCA	342/2003	Dar	Ilala	Tabata Kisukuru (M/s Matika)	2003	27.0	5	2.95	24.30	21.35	1.98	33.00	
474	474	DDCA	343/2003	Dar	Ilala	Tabata Kisukuru (Mrs Kalele)	2003	47.0	5	28.07	40.19	12.12	1.98	33.00	
475	475	DDCA	345/2003	Dar	Ilala	Chanika (Dr.Masaburi)	2003	60.0	5	12.07	49.73	37.66	1.76	29.33	
476	476	DDCA	358/2003	Dar	Ilala	Mchikichini IV (M/s TBL)	2003	36.0	8	6.40	10.09	5.69	15.84	264.00	
477	477	DDCA	359/2003	Dar	Ilala	Kinyerezi (M/s Kisa Mwansasu)	2003	50.0	5	26.68	40.05	13.37	2.20	36.67	
478	478	DDCA	361/2003	Dar	Ilala	Segerea Seminary (M/s A.N Kaaya)	2003	36.0	5	5.19	28.80	23.61	1.76	29.33	
479	479	DDCA	364/2003	Dar	Ilala	Tabata Chang'ombe (M/s Ngalaba)	2003	51.0	5	14.80	48.31	33.51	0.66	11.00	
480	480	DDCA	376/2003	Dar	Ilala	T/Segerea (Mrs.Mwafisi)	2003	50.0	5	14.84	37.52	22.68	0.23	3.77	
481	481	DDCA	385/2003	Dar	Ilala	Pugu Mwakanga (M/s Col Nsa Kaisi)	2003	60.0	5	4.52	47.15	42.63	1.76	29.33	
482	482	DDCA	387/2003	Dar	Ilala	T/Chang'ombe (M/s Mzava)	2003	50.0	5	14.19	26.58	12.39	3.96	66.00	
483	483	DDCA	388/2003	Dar	Ilala	U/Mazizini (M/s Simwaza)	2003	32.0	5	4.02	27.36	23.34	1.98	33.00	

List of Existing Wells in Dar Es Salaam

No.		Data	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.	Source											(M <sup>3</sup> /hr)	(l/min)	
484	484	DDCA	389/2003	Dar	Ilala	Kitunda (M/s Fifi Naftari)	2003		5	19.60	20.50	0.90	5.28	88.00	
485	485	DDCA	412/2003	Dar	Ilala	Buguruni (M/sR.Omari)	2003	46.0	5	12.25	24.05	11.80	0.38	6.25	
486	486	DDCA	413/2003	Dar	Ilala	Karakata (M/s Masanja)	2003	45.0	5	19.05	30.10	11.05	6.60	110.00	
487	487	DDCA	414/2003	Dar	Ilala	T/Chang'ombe (M/s R.Luhanga)	2003	40.0	5	17.90	35.58	7.68	0.83	13.88	
488	488	DDCA	415/2003	Dar	Ilala	Kipunguni (M/sS.Mpapasingo)	2003	40.0	5	3.92	34.39	30.47	2.26	37.70	
489	489	DDCA	418/2003	Dar	Ilala	T/Chang'ombe (M/sT.Michael)	2003	50.0	5	10.10	36.50	17.40	2.48	41.25	
490	490	DDCA	426/2003	Dar	Ilala	Kiwalani (M/s O.Msuya)	2003	50.0	6	15.35	21.26	5.91	15.84	264.00	
491	491	DDCA	428/2003	Dar	Ilala	Gerezani (M/sMunicipal)	2003	50.0	6	12.70	17.04	4.34	13.20	220.00	
492	492	DDCA	429/2003	Dar	Ilala	Kariakoo (M/sMunicipal)	2003	40.0	6	7.42	13.03	5.61	11.31	188.57	
493	493	DDCA	431/2003	Dar	Ilala	T/Sigara (M/sA.Hussein)	2003	40.0	5	17.05	37.88	20.83	0.35	5.90	
494	494	DDCA	433/2003	Dar	Ilala	Ocean Road II (M/sG.Chemist)	2003	14.0	5	5.90	11.74	5.84	2.20	36.67	
495	495	DDCA	268/2002	Dar	Ilala	Segerea II (M/s Swai)	2002	40.0	5	6.47	30.45	23.98	1.32	21.97	
496	496	DDCA	203/2003	Dar	Ilala	Buguruni (M/s Plan International)	2003	48.0	6	16.90	17.72	0.82	4.17	69.47	
497	497	DDCA	440/2003	Dar	Ilala	T/ Chang'ombe	2003	50.0	5	21.20		22.84	0.41	6.77	Fine to medium sand
498	498	DDCA	441/2003	Dar	Ilala	Y/ Vituka	2003	44.0	5	19.97		3.09	4.40	73.33	sandy limestone pebbles
499	499	DDCA	456/2003	Dar	Ilala	T/Chang'ombe	2003	50.0	5	15.30		15.25	4.93	82.17	Clayey sand
500	500	DDCA	460/2003	Dar	Ilala	T/ Relini	2003	50.0	5	6.19		32.11	5.28	88.00	Sand clay and limestone
501	501	DDCA	462/2003	Dar	Ilala	Pugu Mikongeni	2003	48.0	5	7.70		39.40	0.17	2.80	Course sand
502	502	DDCA	463/2003	Dar	Ilala	Vingunguti	2003	50.0	5	16.00		19.69	5.28	88.00	Fine to course sand
503	503	DDCA	464/2003	Dar	Ilala	T/ Kisukuru	2003	33.0	5	8.65		21.65	2.64	44.00	M. sand with limestone
504	504	DDCA	595/2003	Dar	Ilala	T/ Chang'ombe	2003	46.0	5	8.30		16.21	4.95	82.50	Fine sand
505	505	DDCA	599/2003	Dar	Ilala	T/ Chang'ombe	2003	50.0	5	19.34		1.51	6.60	110.00	Clayey in fine sand
506	506	DDCA	601/2003	Dar	Ilala	Gongo la Mboto	2003	50.0	5	8.74		38.51	0.80	13.33	Quartic Sand
507	507	DDCA	603/2003	Dar	Ilala	Forodhani II	2003	20.0	5	7.33		7.79	9.90	165.00	NR
508	508	DDCA	604/2003	Dar	Ilala	TBL Packanging	2003	33.0	8"	14.10		3.14	13.20	220.00	Sand in small clay
509	509	DDCA	609/2003	Dar	Ilala	Segerea	2003	50.0	5	7.40		37.73	2.26	37.70	Weathered
510	510	DDCA	613/2003	Dar	Ilala	Ukonga	2003	50.0	6	10.70		46.93	36.23	603.83	Fine medium sand
511	511	DDCA	614/2003	Dar	Ilala	Ukonga	2003	50.0	5	14.80		29.73	2.03	33.83	Sand clay
512	512	DDCA	622/2003	Dar	Ilala	T/ Kisiwani	2003	34.0	5	9.25		21.15	0.51	8.50	Medium to coarse sand
513	513	DDCA	628/2003	Dar	Ilala	Pugu	2003	60.0	5	8.45		48.89	0.12	1.92	Medium coarse sand
514	514	DDCA	635/2003	Dar	Ilala	T/ Segerea	2003	40.0	5	8.70		28.34	1.06	17.60	Fine course sand
515	515	DDCA	636/2003	Dar	Ilala	U/ Mombasa	2003	50.0	5	12.53		24.94	0.84	14.00	Sand bond clay
516	516	DDCA	641/2003	Dar	Ilala	T/ Mawenzi	2003	50.0	5	19.04		19.89	3.96	66.00	Medium to coarse sand
517	517	DDCA	642/2003	Dar	Ilala	U/ Mombasa	2003	54.0	5	4.00		45.05	0.83	13.88	Sand medium
518	518	DDCA	643/2003	Dar	Ilala	T/ Sigara	2003	50.0	5	20.25		25.70	1.84	30.67	Sand in small clay
519	519	DDCA	656/2003	Dar	Ilala	Kitunda	2003	60.0	5	5.82		46.22	2.73	45.52	NR
520	520	DDCA	657/2003	Dar	Ilala	T/ Bima	2003	45.0	5	19.15		21.30	1.22	20.30	Medium sand to clay
521	521	DDCA	658/2003	Dar	Ilala	Segerea	2003	40.0	5	6.98		30.04	0.61	10.15	Course Sand
522	522	DDCA	664/2003	Dar	Ilala	T/ Chang'ombe	2003	40.0	5	9.95		27.26	0.47	7.75	Fine medium sand clay
523	523	DDCA	666/2003	Dar	Ilala	Segerea	2003	60.0	5	24.10		19.98	3.60	60.00	Clay sand
524	524	DDCA	670/2003	Dar	Ilala	Tabata Sigara	2003	46.0	5	19.00		22.20	1.58	26.40	
525	525	DDCA	22/2004	Dar	Ilala	Chanika	2004	50.0	5	NR		NR	0.00	0.00	NR
526	526	DDCA	22/2004	Dar	Ilala	Chanika	2004	50.0	5	5.80		28.78	1.76	29.33	Coarse sand
527	527	DDCA	93/2004	Dar	Ilala	Kijitonyama	2004	20.0	5	8.25		9.07	5.28	88.00	Sand

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No.		Data	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.	Source											(M <sup>3</sup> /hr)	(l/min)	
528	528	DDCA	150/2004	Dar	Ilala	Segerea	2004	54.0	5	27.47		13.69	11.31	188.57	Clay sand
529	529	DDCA	176/2004	Dar	Ilala	Segerea	2004	60.0	5	15.07		38.73	7.92	132.00	Clayey sand
530	530	DDCA	71/2004	Dar	Ilala	Segerea ( M/s	2004	50.0	5	12.11		34.85	0.93	15.55	Sand clay
531	531	DDCA	60/2004	Dar	Ilala	T/ Chang'ombe	2004	70.0	5	14.67		50.78	1.32	22.00	Fineto coarse sand
532	532	DDCA	61/2004	Dar	Ilala	T/ Chang'ombe	2004	50.0	5	21.00		10.07	13.20	220.00	Fine to course sand
533	533	DDCA	36/2004	Dar	Ilala	T/ Segerea	2004	50.0	5	9.65		35.05	1.44	24.00	Sand to limestone
534	534	DDCA	190/2004	Dar	Ilala	T/ Segerea	2004	50.0	5	NR		NR	0.00	0.00	Sandy clay
535	535	DDCA	98/2004	Dar	Ilala	T/ Segerea II	2004	58.0	5	13.68		38.36	0.88	14.67	Sand clay
536	536	DDCA	79/2004	Dar	Ilala	T/ Sigara	2004	50.0	5	17.37		29.73	1.98	33.00	Sandy clay
537	537	DDCA	49/2004	Dar	Ilala	Tabata	2004	50.0	5	14.52		28.98	1.06	17.60	Sand fine medium
538	538	DDCA	48/2004	Dar	Ilala	Tabata	2004	51.0	5	10.67		10.56	15.84	264.00	Sand to fine medium
539	539	DDCA	24/2004	Dar	Ilala	T/ Kanisani	2004	45.0	5	19.40		10.32	3.05	50.77	Sand fine white clay
540	540	DDCA	20/2004	Dar	Ilala	T/ Segerea	2004	53.0	5	15.55		18.15	1.58	26.40	Sandy clay
541	541	DDCA	73/2004	Dar	Ilala	U/ Stakishari	2004	50.0	5	11.35		22.43	3.96	66.00	Weathered limestone
542	542	DDCA	78/2004	Dar	Ilala	U/Mombasa II	2004		5	24.20		32.01	0.29	4.80	Greyish clay with sand
543	543	DDCA	004/2004	Dar	Ilala	Ukonga	2004	70.0	5	13.90		52.54	0.40	6.60	Weathered
544	544	DDCA	009/2004	Dar	Ilala	Ukonga	2004	50.0	5	11.50		31.62	1.65	27.50	Fine to medium sand
545	545	DDCA	55/2004	Dar	Ilala	Ukonga	2004	60.0	5	9.10		10.38	13.20	220.00	Sandy clay
546	1	DDCA	32/97	Dar	Kinondoni	Mwananyamala Hosp.	1997	42.0	6	8.57	9.41	0.84	8.80	146.67	Sandy
547	2	DDCA	271/97	Dar	Kinondoni	Kijitonyama	1997	50.0	5	6.00	44.96	38.06	24.00	400.00	NR
548	3	DDCA	139/97	Dar	Kinondoni	Kinondoni Msikitini	1997	50.0	6	6.14	17.85	11.71	15.23	253.83	NR
549	4	DDCA	52/97	Dar	Kinondoni	Mwenge Pr. School	1997	40.0	6	9.39	24.85	15.46	6.77	112.83	NR
550	5	DDCA	14/97	Dar	Kinondoni	Lugalo Barracks	1997	40.0	6	21.00	25.51	4.51	5.04	84.00	NR
551	6	DDCA	133/97	Dar	Kinondoni	Kijitonyama	1997	56.0	6	15.42	38.85	23.43	2.26	37.67	NR
552	7	DDCA	68/97	Dar	Kinondoni	K.ndoni Ally Maua	1997	50.0	6	8.25	30.78	22.53	2.10	35.00	Fine to medium sand
553	8	DDCA	190/97	Dar	Kinondoni	Mpji "A"	1997	33.0	5	2.24	7.42	5.18	8.80	146.67	Sand clay
554	9	DDCA	296/97	Dar	Kinondoni	Tondoloni (Kiluvya)	1997	37.0	5	6.20	16.70	10.50	2.40	40.00	NR
555	10	DDCA	106/97	Dar	Kinondoni	Mzimuni Pr. School	1997	46.0	6	9.70	25.14	15.44	12.00	200.00	Sand Gravel
556	11	DDCA	40/97	Dar	Kinondoni	Kijitonyama	1997	50.0	6	8.77	14.03	5.28	0.00	0.00	Clay Grey
557	12	DDCA	57/97	Dar	Kinondoni	Kijitonyama	1997	36.0	6	3.73	9.53	5.80	10.56	176.00	Sand
558	13	DDCA	29/97	Dar	Kinondoni	Magomeni Garden	1997	43.0	6'	1.9.40	6.22	4.28	26.40	440.00	Sand Limestone
559	14	DDCA	60/97	Dar	Kinondoni	M. Nyamala Pr.	1997	NR	6	9.05	16.58	7.53	2.57	42.83	NR
560	15	DDCA	156/97	Dar	Kinondoni	Magomeni Hospital	1997	42.0	6	6.13	9.57	3.44	14.94	249.00	Fine sand
561	16	DDCA	100/97	Dar	Kinondoni	NR	1997	30.0	6	5.80	18.00	12.20	6.00	100.00	White sand gravel
562	17	DDCA	67/97	Dar	Kinondoni	M. Nyamala Pr.	1997	45.0	6	9.05	16.58	7.53	25.70	428.33	White brown sandy
563	18	DDCA	308/97	Dar	Kinondoni	St. Peter II	1997	14.0	5	9.96	11.46	1.51	3.60	60.00	NR
564	19	DDCA	41/97	Dar	Kinondoni	Osterbay Police	1997	26.0	6	8.40	14.90	6.50	2.64	44.00	Sand course with limestone
565	20	DDCA	301/97	Dar	Kinondoni	Osterbay	1997	20.0	NR	14.50	14.79	0.29	18.00	300.00	Limestone
566	21	DDCA	66/97	Dar	Kinondoni	Kigogo Pr. School	1997	28.0	6	8.80	8.65	0.57	12.57	209.50	Sand white medium
567	22	DDCA	65/97	Dar	Kinondoni	Dar Brew	1997	62.0	6	9.78	22.40	12.62	79.20	1320.00	Medium to coarse sand
568	23	DDCA	51/97	Dar	Kinondoni	Kibuku	1997	60.0	6	9.62	22.99	13.37	1.80	30.00	Coarse sand
569	24	DDCA	39/97	Dar	Kinondoni	Kigogo	1997	32.0	6	7.10	14.30	7.20	26.40	440.00	Sand stone
570	25	DDCA	125/97	Dar	Kinondoni	St. Peters	1997	30.0	6	9.86	10.26	0.40	1.08	18.00	Limestone
571	26	DDCA	258/98	Dar	Kinondoni	Mburahati	1998	40.0	5	12.56	15.52	2.96	15.84	264.00	Limestone course sand
572	27	DDCA	125/98	Dar	Kinondoni	Masjid Ladwa	1998	30.0	5	5.76	23.45	17.69	7.20	120.00	Finetocourse sand
573	28	DDCA	363/98	Dar	Kinondoni	Ubungo Kibangu	1998	42.0	5	11.40	33.45	22.05	1.73	28.83	Fine medium sand
574	29	DDCA	92/98	Dar	Kinondoni	Upanga	1998	26.0	5	5.54	5.66	0.12	19.80	330.00	Weathered
575	30	DDCA	130/98	Dar	Kinondoni	Ubungo External	1998	51.0	6	9.97	31.90	21.93	6.60	110.00	Clayey Sand
576	31	DDCA	19/98	Dar	Kinondoni	Ubungo Kibangu	1998	45.0	5	16.50	35.44	18.94	1.06	17.67	Medium sand
577	32	DDCA	103/98	Dar	Kinondoni	Tandale	1998	40.0	5	6.60	9.41	2.81	7.92	132.00	Medium sand
578	33	DDCA	97/98	Dar	Kinondoni	Mbezi Beach	1998	39.0	5	15.30	27.17	11.87	6.60	110.00	Medium course sand
579	34	DDCA	101/98	Dar	Kinondoni	Kinondoni	1998	20.0	5	7.42	11.50	4.08	15.84	264.00	Sand Limestone
580	35	DDCA	282/98	Dar	Kinondoni	Osyterbay	1998	14.0	6	8.97	9.82	0.85	15.84	264.00	Medium course sand
581	36	DDCA	163/98	Dar	Kinondoni	Upanga	1998	25.0	5	6.03	11.03	5.00	15.31	255.17	Limestone and sand

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No.		Data	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.	Source											(M <sup>3</sup> /hr)	(l/min)	
582	37	DDCA	159/98	Dar	Kinondoni	Mbezi Msakuzi	1998	30.0	5	11.42	13.20	1.78	18.80	313.33	Medium course sand
583	38	DDCA	6/98	Dar	Kinondoni	Msasani	1998	15.0	5	1.71	3.98	2.27	2.88	48.00	Gravel medium sand
584	39	DDCA	12/98 B	Dar	Kinondoni	External	1998	42.0	5	9.62	23.60	13.98	1.58	26.33	Course sand bound clay
585	40	DDCA	16/98 B	Dar	Kinondoni	Tegeta	1998	60.0	5	36.30	45.27	8.97	1.88	31.33	Sand small clay
586	41	DDCA	27/98 B	Dar	Kinondoni	Victoria	1998	29.0	5	0.80	15.40	14.60	3.16	52.67	Fine medium sand
587	42	DDCA	287/98	Dar	Kinondoni	Upanga	1998	12.0	6	2.61	8.26	5.65	0.75	12.50	Course sand and
588	43	DDCA	138/98	Dar	Kinondoni	Kimara	1998	51.0	5	8.42	38.54	30.12	0.56	9.33	Sand with clay
589	44	DDCA	288/98	Dar	Kinondoni	Gobba	1998	80.0	6	16.80	24.50	7.70	1.98	33.00	Clay with sand
590	45	DDCA	24/98	Dar	Kinondoni	Magomeni	1998	33.0	5	7.80	30.25	22.45	0.00	0.00	Fine coarse sand
591	46	DDCA	354/98	Dar	Kinondoni	Kunduchi Mtongani	1998	8.0	6	2.27	3.19	0.92	1.32	22.00	Medium course sand
592	47	DDCA	261/98 C	Dar	Kinondoni	Mwananyamala	1998	40.5	5	8.93	33.90	24.98	1.44	24.00	Fine course sand
593	48	DDCA	362/98	Dar	Kinondoni	Osyterbay	1998	14.0	5	10.60	10.90	0.30	2.40	40.00	Limestone
594	49	DDCA	284/97	Dar	Kinondoni	Kunduchi	1997	52.0	5	27.00	33.42	6.42	7.20	120.00	Sand
595	50	DDCA	21/97	Dar	Kinondoni	Ubungo Maji	1997	70.0	6	30.27	49.62	19.35	4.20	70.00	Clay sand
596	51	DDCA	37/97	Dar	Kinondoni	Kinondoni Pr. School	1997	30.0	6	5.68	6.56	0.88	22.63	377.17	Sand weathered limestone
597	52	DDCA	16/99	Dar	Kinondoni	Kinduchi Mtongani	1999	33.0	6	20.70	29.90	8.39	15.84	264.00	Clay sand
598	53	DDCA	18/99	Dar	Kinondoni	Ubungo Kibangu	1999	46.0	6	16.35	42.50	26.15	1.06	17.67	Clayey sand
599	54	DDCA	19/99	Dar	Kinondoni	Ubungo Kibangu	1999	45.0	6	16.56	35.50	18.94	1.06	17.67	Sand clay
600	55	DDCA	25/99	Dar	Kinondoni	Mabibo Makubuli	1999	39.0	5	8.98	36.37	27.39	3.17	52.83	Sand clay bond sand
601	56	DDCA	27/99	Dar	Kinondoni	Mabibo Makubuli	1999	45.0	5	5.65	34.73	29.08	0.93	15.50	Medium sand
602	57	DDCA	28/99	Dar	Kinondoni	Sinza	1999	30.0	5	6.60	23.50	16.96	6.60	110.00	Sand
603	58	DDCA	29/99	Dar	Kinondoni	Kunduchi Ununio	1999	14.0	6	5.37	10.45	5.06	0.51	8.50	Limestone, sand
604	59	DDCA	34/99	Dar	Kinondoni	Mikocheni	1999	13.0	NR	0.63	12.48	11.85	3.20	53.33	Sand clay
605	60	DDCA	75/99	Dar	Kinondoni	Kinondoni	1999	30.0	5	9.41	17.64	8.23	13.20	220.00	Weathered limestone
606	61	DDCA	108/99	Dar	Kinondoni	Mlalakuwa	1999	21.0	6	6.21	14.12	7.91	3.70	61.67	M. sand with limestone
607	62	DDCA	109/99	Dar	Kinondoni	Ubungo kibangu	1999	38.0	5	16.25	32.22	15.97	0.40	6.67	Medium to coarse sand
608	63	DDCA	110/99	Dar	Kinondoni	Magomeni	1999	37.0	5	11.20	26.57	15.37	5.28	88.00	Sand clay and limestone
609	64	DDCA	111/99	Dar	Kinondoni	Mwananyamala	1999	40.0	8"	7.12	9.05	1.93	120.00	2000.00	Medium sand limestone
610	65	DDCA	114/99	Dar	Kinondoni	Mbezi Beach	1999	10.0	4"	1.05	8.55	7.50	1.30	21.67	Sand to limestone
611	66	DDCA	115/99 B	Dar	Kinondoni	Kibaha Maili moja	1999	60.0	6	4.08	15.34	11.26	20.57	342.83	Sandy clay
612	67	DDCA	134/99	Dar	Kinondoni	Mbezi beach	1999	8.0	5	1.35	6.82	5.47	0.45	7.50	Sandy clay
613	68	DDCA	141/99	Dar	Kinondoni	Mabibo Makubuli	1999	37.0	5	6.47	29.85	23.38	0.24	4.00	Sand to clay
614	69	DDCA	157/99	Dar	Kinondoni	Mabibo External	1999	38.0	6	6.68	31.55	24.85	0.57	9.50	Medium course sand
615	70	DDCA	158/99	Dar	Kinondoni	Mikocheni	1999	18.0	5	5.09	12.85	7.76	0.76	12.67	Fine sand
616	71	DDCA	161/99	Dar	Kinondoni	Msasani Hospital	1999	12.0	5	2.30	7.66	5.36	5.70	95.00	Clay brown sand
617	72	DDCA	181/99	Dar	Kinondoni	Kagera maluwi	1999	59.0	6	10.86	12.90	2.05	15.84	264.00	Sand clay
618	73	DDCA	185/99	Dar	Kinondoni	Chang'ombe	1999	39.0	5	7.53	23.35	15.82	2.20	36.67	Sand
619	74	DDCA	188/99	Dar	Kinondoni	Kibada	1999	36.0	6	13.40	29.25	15.85	0.44	7.33	Coarse sand
620	75	DDCA	194/99	Dar	Kinondoni	Mtoni Kijichi Primary	1999	50.0	6	25.61	33.65	8.04	8.80	146.67	Sand fine to medium
621	76	DDCA	195/99	Dar	Kinondoni	Kisarawe II Tumaini	1999	43.0	6	24.40	29.40	5.01	0.44	7.33	Sand fine medium
622	77	DDCA	253/99	Dar	Kinondoni	Tabata Shuleni	1999	43.0	6	14.78	23.74	8.96	13.20	220.00	Sandy clay
623	78	DDCA	268/99	Dar	Kinondoni	Mbagala Nzasa V	1999	54.0	8"	6.10	19.60	13.50	28.29	471.50	Silt sand
624	79	DDCA	274/99	Dar	Kinondoni	Bunju	1999	52.0	5	44.24	48.23	3.99	1.52	25.33	medium to course sand
625	80	DDCA	306/99	Dar	Kinondoni	Tabata Kisukulu	1999	56.0	6	4.00	23.30	21.30	12.00	200.00	Fine course clay
626	81	DDCA	307/99	Dar	Kinondoni	Mpigi	1999	40.0	5	10.15	22.41	12.26	2.08	34.67	Coarse sand in limestone
627	82	DDCA	327/99	Dar	Kinondoni	Turiani pr. School	1999	40.0	5	7.23	14.69	7.46	12.38	206.33	Medium sand
628	83	DDCA	334/99	Dar	Kinondoni	Magomeni.sch ool	1999	22.0	6	10.15	12.74	2.59	19.80	330.00	Medium course sand
629	84	DDCA	336/99	Dar	Kinondoni	Tabata Kimanga	1999	56.0	5	15.02	27.10	12.08	0.66	11.00	Coarse sand
630	85	DDCA	342/99	Dar	Kinondoni	Tegeta	1999	48.0	5	16.92	19.55	2.63	1.44	24.00	Weather limestone granite
631	86	DDCA	347/99	Dar	Kinondoni	Tabata Kisiwani	1999	50.0	6	8.88	14.52	5.64	10.56	176.00	Coarse sand bound clay









List of Existing Wells in Dar Es Salaam

No.		Data	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.	Source											(M <sup>3</sup> /hr)	(l/min)	
786	241	DDCA	256/2003	Dar	Kinondoni	Makuburi (M/s Teresia Jordan)	2003	50.0	5	12.05	36.10	24.05	1.80	30.00	
787	242	DDCA	260/2003	Dar	Kinondoni	Mavurunza (Lutengano)	2003	15.0	5	1.15	12.70	11.55	0.23	3.77	
788	243	DDCA	274/2003	Dar	Kinondoni	Mbweni (M. Assey)	2003	16.0	5	7.67	13.49	5.82	1.13	18.85	
789	244	DDCA	275/2003	Dar	Kinondoni	Makoka (M/s A.N Munishi)	2003	40.0	5	13.80	20.60	6.80	5.50	91.67	
790	245	DDCA	281/2003	Dar	Kinondoni	Upanga (M/s JWTZ)	2003	28.0	5	6.10	6.85	0.75	19.80	330.00	
791	246	DDCA	302/2003	Dar	Kinondoni	Kibamba (M/s TPDF)	2003	50.0	5	27.98	40.42	11.53	2.64	44.00	
792	247	DDCA	305/2003	Dar	Kinondoni	Mikocheni (M/s O.Kituli)	2003	20.0	5	1.53	10.05	8.52	9.90	165.00	
793	248	DDCA	306/2003	Dar	Kinondoni	Makuburi II (M.s RC Mission)	2003	50.0	5	20.95	47.05	26.10	1.32	22.00	
794	249	DDCA	312/2003	Dar	Kinondoni	Ocean Road (M/s Gvt Chemist)	2003	20.0	5	7.46	10.04	2.58	0.61	10.15	
795	250	DDCA	315/2003	Dar	Kinondoni	Tandale kwa tumbo (M/s Municipal)	2003	60.0	5	8.18	42.45	34.27	5.28	88.00	
796	251	DDCA	344/2003	Dar	Kinondoni	Boko (M/s Mheto)	2003	50.0	5	11.18	36.26	25.08	1.58	26.40	
797	252	DDCA	357/2003	Dar	Kinondoni	Upanga (Ministry of Health)	2003	23.0	5	5.75	9.24	3.49	5.28	88.00	
798	253	DDCA	378/2003	Dar	Kinondoni	Kawe Garden (Municipal)	2003	22.0	6	10.96	17.34	6.40	1.98	33.00	
799	254	DDCA	392/2003	Dar	Kinondoni	Mikocheni (M/s Alpher Dry Cleaner)	2003	30.0	5	10.04	19.30	9.26	13.20	220.00	
800	255	DDCA	439/2003	Dar	Kinondoni	Kijitonyama	2003	50.0	5	8.47		7.01	1.13	18.86	Medium sand limestone
801	256	DDCA	455/2003	Dar	Kinondoni	Kilunya	2003	60.0	5	15.30		26.83	11.31	188.57	Quartic course sand
802	257	DDCA	459/2003	Dar	Kinondoni	Makoka	2003	50.0	5	11.54		30.80	0.22	3.67	Course sandy clay
803	258	DDCA	602/2003	Dar	Kinondoni	Mbezi temboni II	2003	80.0	5	53.10		24.30	1.58	26.40	Fine med. Sand with limestone
804	259	DDCA	610/2003	Dar	Kinondoni	Sinza	2003	46.0	5	5.78		0.43	14.40	240.00	Medium course sand
805	260	DDCA	612/2003	Dar	Kinondoni	Tandale	2003	40.0	5	13.82		24.34	0.22	3.67	Fine to medium sandy clay
806	261	DDCA	615/2003	Dar	Kinondoni	Mikicheni	2003	46.0	5	13.30		6.86	15.84	264.00	Clayey sand
807	262	DDCA	616/2003	Dar	Kinondoni	Mbezi Temboni	2003	60.0	5	11.34		5.92	15.84	264.00	Medium course sandy clay
808	263	DDCA	634/2003	Dar	Kinondoni	Makoka	2003	35.0	5	5.40		24.56	1.40	23.33	Course gravel sand
809	264	DDCA	637/2003	Dar	Kinondoni	Mwenge	2003	50.0	5	9.19		12.44	7.92	132.00	Medium course clay
810	265	DDCA	646/2003	Dar	Kinondoni	Kunduchi I	2003	12.0	5	7.86		2.19	0.66	11.00	Course sand bound clay
811	266	DDCA	673/2003	Dar	Kinondoni	Mburahati	2003	45.0	5	12.50		7.80	7.92	132.00	Medium sandwith limestone
812	267	DDCA	54/2004	Dar	Kinondoni	Kawe	2004	30.0	5	2.22		7.99	1.22	20.30	Medium to course sand
813	268	DDCA	65/2004	Dar	Kinondoni	Kinondoni	2004	36.0	5	9.53		12.59	15.84	264.00	Medium sand
814	269	DDCA	58/2004	Dar	Kinondoni	Magomeni	2004	27.0	5	7.93		26.02	1.13	18.85	M. Course sand clay
815	270	DDCA	31/2004	Dar	Kinondoni	Makuburi	2004	50.0	5	14.54		32.56	2.20	36.67	Medium course sand
816	271	DDCA	57/2004	Dar	Kinondoni	Manzese	2004	50.0	5	9.40		35.77	0.79	13.20	Medium course sand
817	272	DDCA	15/2004	Dar	Kinondoni	Mbezi Beach	2004		5	11.60		23.56	0.63	10.57	Fine course sand
818	273	DDCA	15/2004	Dar	Kinondoni	Mbezi Beach	2004	40.0	5	11.60		23.56	0.63	10.57	Sandy clay
819	274	DDCA	47/2004	Dar	Kinondoni	Mbezi Suka	2004	39.0	4	18.40		10.90	2.64	44.00	Fine to course sand clay
820	275	DDCA	18/2004	Dar	Kinondoni	Msasani	2004	12.0	5	6.25		3.11	4.66	77.63	Fractured limestone sand
821	276	DDCA	17/2004	Dar	Kinondoni	Msasani B.Club	2004	11.0	5	2.25		4.97	3.17	52.80	Course sand
822	277	DDCA	28/2004	Dar	Kinondoni	Msasani	2004	10.0	5	1.00		7.48	1.44	24.00	Weathered limestone
823	278	DDCA	97/2004	Dar	Kinondoni	Ubungo External	2004	40.0	4.5	14.00		20.40	0.20	3.33	Weathered limestone
824	279	DDCA	56/2004	Dar	Kinondoni	Upanga	2004	25.0	5	7.83		7.92	15.84	264.00	Medium course sand
825	280	DDCA	74/2004	Dar	Kinondoni	Upanga	2004	32.0	6	6.63		3.54	17.60	293.33	Course sandy clay
826	1	DDCA	192/97	Dar	Tekeme	Kurasini	1997	43.0	5	2.34	6.36	4.02	7.92	132.00	Limestone with weathered
827	2	DDCA	115/97	Dar	Temeke	C.C.M Kivukoni	1997	24.0	5	10.00	19.53	9.53	1.80	30.00	Limestonewith coarse sand
828	3	DDCA	33/97	Dar	Temeke	Police Barracks	1997	10.0	6	10.90	15.87	4.97	19.80	330.00	Medium to coarse sand
829	4	DDCA	126/97	Dar	Temeke	Kurasini	1997	31.0	6	4.90	8.67	3.77	1.58	26.33	NR
830	5	DDCA	64/97	Dar	Temeke	Nyerere Road	1997	22.0	6	7.84	11.52	3.68	12.18	203.00	NR

List of Existing Wells in Dar Es Salaam

No.		Data	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.	Source											(M <sup>3</sup> /hr)	(l/min)	
831	6	DDCA	137/97	Dar	Temeke	Kurasini Pr. School	1997	30.0	5	4.90	12.56	7.66	6.55	109.17	Sand
832	7	DDCA	163/97	Dar	Temeke	Kigamboni - Ferry	1997	17.0	9"	5.30	9.49	4.19	15.84	264.00	NR
833	8	DDCA	44/97	Dar	Temeke	Mji Mwema	1997	18.0	6	11.10	12.75	1.65	1.03	17.17	NR
834	9	DDCA	147/97	Dar	Temeke	Ufukoni - Kigamboni	1997	18.0	4"	6.20	14.50	8.30	16.50	275.00	NR
835	10	DDCA	154/97	Dar	Temeke	JWTZ Kigamboni	1997	15.0	3"	3.64	6.76	3.12	15.80	263.33	NR
836	11	DDCA	198/97	Dar	Temeke	Kibada Hospital	1997	42.0	5	26.66	28.66	2.00	5.20	86.67	Sand course with gravels
837	12	DDCA	283/97	Dar	Temeke	Chang'ombe	1997	31.8	6	11.57	15.97	4.40	14.40	240.00	Fine to medium sand
838	13	DDCA	102/97	Dar	Temeke	RTD II	1997	27.0	6	9.00	24.00	15.00	2.00	33.33	Medium to coarse sand
839	14	DDCA	35/97	Dar	Temeke	Kiwalani CCM	1997	28.0	NR	8.90	9.96	0.98	14.16	236.00	NR
840	15	DDCA	143/97	Dar	Temeke	Kurasini Sisters	1997	34.0	6	2.88	6.00	3.12	16.16	269.33	NR
841	16	DDCA	137/97	Dar	Temeke	Tandika Mabatini	1997	57.0	8"	9.92	23.36	13.44	27.30	455.00	White fine gravel sand
842	17	DDCA	10/97	Dar	Temeke	Vingunguti Gutu	1997	33.0	6	9.50	14.10	4.60	9.43	157.17	Sand
843	18	DDCA	312/97	Dar	Temeke	Mtoni Kijichi	1997	51.0	5	30.17	35.48	5.31	NR	#VALUE!	Sand
844	19	DDCA	131/97	Dar	Temeke	Mbagala Nzasa	1997	42.0	12"	11.22	23.91	12.69	26.40	440.00	Sandy gravel
845	20	DDCA	142/97	Dar	Temeke	M.gala Kichemchem	1997	45.0	6	16.18	16.94	0.76	15.84	264.00	Fine to medium sand
846	21	DDCA	53/97	Dar	Temeke	Maji -Temeke	1997	27.0	6	2.58	9.19	6.61	14.40	240.00	Quartic Sand
847	22	DDCA	160/97	Dar	Temeke	Vetenary	1997	37.0	6	7.50	8.88	1.38	17.60	293.33	Fine to medium sand
848	23	DDCA	42/97	Dar	Temeke	Temeke Hospital	1997	34.0	6	5.75	8.30	2.55	22.60	376.67	Clay
849	24	DDCA	110/97	Dar	Temeke	Temeke - Dawasa	1997	58.0	6	2.70	13.17	6.47	28.00	466.67	NR
850	25	DDCA	138/97	Dar	Temeke	M.gala Kiburugwa	1997	65.0	8"	10.42	17.68	3.66	39.60	660.00	Grey fine sand
851	26	DDCA	98/97	Dar	Temeke	Keko Prison	1997	52.0	6	11.00	20.10	9.10	9.32	155.33	Limestone
852	27	DDCA	275/7	Dar	Temeke	Kurasini	1997	41.5	5	6.50	20.50	14.00	24.00	400.00	Weathered limestone
853	28	DDCA	127/97	Dar	Temeke	Mgulani JWTZ	1997	46.5	5	10.32	14.85	4.53	15.52	258.67	NR
854	29	DDCA	113/97	Dar	Temeke	Temeke - SIDO	1997	40.0	5	7.74	20.27	12.53	4.29	71.50	Sand clay
855	30	DDCA	358/97	Dar	Temeke	Yombo	1997	36.0	5	7.00	28.00	21.00	0.29	4.83	Sand
856	31	DDCA	134/97	Dar	Temeke	Navy Kigamboni	1997	21.0	4"	9.15	10.44	1.29	14.94	249.00	Course sand
857	32	DDCA	159/97B	Dar	Temeke	Maji Kurasini	1997	32.0	6	13.00	14.15	1.15	13.20	220.00	Clay limestone grain
858	33	DDCA	20/97	Dar	Temeke	Mbagala - Nzasa	1997	48.0	8"	3.80	9.22	5.42	32.73	545.50	Fine to medium sand
859	34	DDCA	120/97	Dar	Temeke	K.ndoni Pr. School	1997	54.0	8"	17.05	34.10	17.05	4.65	77.50	Sand with clay
860	35	DDCA	150/97	Dar	Temeke	Zamcargo	1997	43.0	5	11.30	34.88	23.58	6.34	105.67	Sandy clay
861	36	DDCA	12/97	Dar	Temeke	Kurasini P. College	1997	38.0	5	4.00	7.00	3.00	24.00	400.00	Clay sand
862	37	DDCA	151/97	Dar	Temeke	Temeke	1997	59.0	6	13.60	32.76	19.16	1.60	26.67	Gravelly sand
863	38	DDCA	114/97	Dar	Temeke	Kibasila	1997	39.0	5	3.50	9.05	5.55	16.32	272.00	Medium coarse sand
864	39	DDCA	155/97	Dar	Temeke	Vosa Sec School	1997	42.0	5	8.90	28.60	19.70	2.06	34.33	Medium sand
865	40	DDCA	52/98	Dar	Temeke	Mbande	1998	40.0	5	10.80	19.94	9.14	3.16	52.67	Medium course sand
866	41	DDCA	215/98	Dar	Temeke	Temeke Kichemchem	1998	40.0	5	17.74	30.09	12.35	2.26	37.67	Fine sand
867	42	DDCA	129/98	Dar	Temeke	Tandika Maguruwe	1998	50.0	5	7.95	8.86	0.91	7.20	120.00	Sand limestone
868	43	DDCA	359/98	Dar	Temeke	Kigamboni	1998	33.0	6	12.56	15.80	3.31	13.20	220.00	Medium course sand
869	44	DDCA	118/98	Dar	Temeke	Yombo Vituka	1998	50.0	5	8.89	33.19	24.30	1.89	31.50	Sandy clay
870	45	DDCA	131/98	Dar	Temeke	Kurasini	1998	50.0	5	7.48	8.12	0.64	15.84	264.00	Gravelly sand
871	46	DDCA	267/98	Dar	Temeke	Yombo Vituka	1998	53.0	5	7.82	29.08	21.26	0.90	15.00	Sandy clay
872	47	DDCA	207/98	Dar	Temeke	Mbagala	1998	80.0	8	24.84	45.70	20.86	0.66	11.00	Fine sand with limestone
873	48	DDCA	48/98	Dar	Temeke	Yombo Dovya	1998	40.0	5	15.56	21.14	5.58	7.92	132.00	Medium sand
874	49	DDCA	39/98	Dar	Temeke	Mtoni Kijichi	1998	36.0	5	14.00	17.47	3.47	7.92	132.00	Sand clay with gravels
875	50	DDCA	265/98	Dar	Temeke	Gomvu II	1998	21.5	6	11.90	17.60	6.00	2.26	37.67	Sand limestone with clay
876	51	DDCA	117/98	Dar	Temeke	Mbagala Charambe	1998	60.0	5	38.00	46.00	8.00	1.21	20.17	Medium course sand
877	52	DDCA	53/98	Dar	Temeke	Kivukoni	1998	25.0	6	9.12	20.12	11.00	4.95	82.50	Weathered limestone
878	53	DDCA	259/98	Dar	Temeke	Mtoni Kijichi	1998	36.0	5	10.23	16.60	6.37	15.86	264.33	Medium course sand



**List of Existing Wells in Dar Es Salaam**

No.		Data Source	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.												(M <sup>3</sup> /hr)	(l/min)	
932	107	DDCA	273/99	Dar	Temeke	Yombo vituka sec School	1999	60.0	6	1.86	6.47	4.61	15.84	264.00	Clayer sand to sand
933	108	DDCA	275/99	Dar	Temeke	Kilakala Pr. School	1999	60.0	6	2.60	29.26	26.66	5.28	88.00	Sand tosmall clay
934	109	DDCA	288/99	Dar	Temeke	Kilakala magengeni	1999	43.0	6	10.53	24.54	14.01	6.60	110.00	Clayer sand
935	110	DDCA	289/99	Dar	Temeke	Mtoni Kijichi	1999	24.0	6	11.76	12.95	1.19	9.90	165.00	Fine course sand
936	111	DDCA	291/99	Dar	Temeke	Yombo Dovya	1999	56.0	5	0.35	5.58	5.23	12.19	203.17	Medium sand
937	112	DDCA	294/99	Dar	Temeke	Kiburungwa S/ Mchanga	1999	50.0	6	8.03	20.30	12.27	24.00	400.00	Medium sand
938	113	DDCA	302/99	Dar	Temeke	Yombo Vituka	1999	50.0	5	6.72	40.12	33.40	1.44	24.00	Medium coarse sand
939	114	DDCA	330/99	Dar	Temeke	Mjimwema	1999	12.0	6	2.38	3.48	1.10	15.84	264.00	Weathered limestone
940	115	DDCA	333/99	Dar	Temeke	Veterinary	1999	38.0	6	8.65	11.40	2.75	11.31	188.50	Medium to coarse sand
941	116	DDCA	340/99	Dar	Temeke	Mbagala	1999	16.0	5	4.70	15.96	11.26	0.47	7.83	Fine course sand
942	117	DDCA	341/99	Dar	Temeke	Mjimwema	1999	25.0	6	2.60	7.04	4.44	13.20	220.00	Gravel with sand
943	118	DDCA	344/99	Dar	Temeke	Temeke	1999	30.0	6	3.92	17.63	13.71	9.90	165.00	Course sand
944	119	DDCA	372/99	Dar	Temeke	Mjimwema	1999	16.0	6	4.84	14.21	9.37	3.17	52.83	Medium course sand
945	120	DDCA	376/99	Dar	Temeke	Mbagala Mangaya	1999	70.0	6	19.15	32.54	13.39	14.67	244.50	Sandy clay
946	121	DDCA	378/99	Dar	Temeke	Temeke U. Taifa	1999	46.0	6	3.59	7.45	3.39	18.42	307.00	Sand medium
947	122	DDCA	390/99	Dar	Temeke	Yombo - Machimbo	1999	48.0	5	13.67	31.00	17.33	1.06	17.67	Coarse sand
948	123	DDCA	391/99	Dar	Temeke	Tandika maguruwe	1999	40.0	5	9.48	16.18	6.70	13.20	220.00	Medium coarse sand
949	124	DDCA	425/99	Dar	Temeke	Mbagala Mission	1999	37.0	6	4.84	29.23	24.39	1.32	22.00	Medium coarse sand
950	125	DDCA	460/99	Dar	Temeke	Mtoni Kijichi	1999	59.0	5	31.20	44.83	13.63	2.03	33.83	Fine medium sand
951	126	DDCA	552/99	Dar	Temeke	Kibada	1999	40.0	6	14.16	18.44	4.28	8.80	146.67	Medium Coarse sand
952	127	DDCA	553/99	Dar	Temeke	Kisarawe II	1999	48.0	6	30.45	39.90	9.45	1.98	33.00	Fine sand bound
953	128	DDCA	571/99	Dar	Temeke	Mbagala	1999	45.0	5	16.50	34.74	18.24	0.22	3.67	Medium sand
954	129	DDCA	572/99	Dar	Temeke	Kurasini	1999	40.0	5	9.80	20.46	10.66	7.72	128.67	Limestone with minor clay
955	130	DDCA	4/2000	Dar	Temeke	Mtoni Creek	2000	32.0	5	9.35	15.46	6.11	15.84	264.00	Medium course sand
956	131	DDCA	7/2000	Dar	Temeke	Yombo Vituka	2000	36.0	NR	1.44	33.04	31.60	0.31	5.17	NR
957	132	DDCA	12/2000	Dar	Temeke	Mtoni Kijichi	2000	40.0	5	13.78	19.31	6.30	7.20	120.00	Course sand in clay
958	133	DDCA	14/2000	Dar	Temeke	Mtoni Kijichi	2000	40.0	6	15.05	21.68	6.63	7.92	132.00	Fine course sand
959	134	DDCA	18/2000	Dar	Temeke	Nyerere Road	2000	30.0	5	10.66	26.84	16.18	0.63	10.50	Course sand
960	135	DDCA	19/2000	Dar	Temeke	Kongowe minga	2000	60.0	6	9.80	22.70	12.90	11.31	188.50	Sand fine course
961	136	DDCA	70/2000	Dar	Temeke	Chuma Road changombe	2000	33.0	5	10.51	29.80	19.29	0.50	8.33	Coarse sand
962	137	DDCA	71/2000	Dar	Temeke	Kongowe	2000	40.0	5	10.60	24.60	14.00	6.09	101.50	Medium course sand
963	138	DDCA	84/2000	Dar	Temeke	Mji Mwema	2000	13.0	3"	8.43	8.40	0.03	15.84	264.00	Coarse sandy clay
964	139	DDCA	108/2000	Dar	Temeke	Yombo Vituka	2000	40.0	5	13.99	36.73	22.74	1.32	22.00	Medium to coarse sand
965	140	DDCA	109/2000	Dar	Temeke	Mtoni Kijichi	2000	50.0	6	14.70	27.10	12.40	11.31	188.50	Sandy clay- coarse sandy
966	141	DDCA	135/2000	Dar	Temeke	Mtoni Kijichi	2000	50.0	5	19.40	32.40	13.00	8.80	146.67	Course sand
967	142	DDCA	136/2000	Dar	Temeke	Mbagala Disp.	2000	41.0	6	16.45	33.50	17.05	0.23	3.83	Fine to course sand
968	143	DDCA	140/2000	Dar	Temeke	Mtoni Kijichi	2000	40.0	6	11.77	12.80	1.03	3.17	52.83	Fine to course sand
969	144	DDCA	160/2000	Dar	Temeke	Mtoni Kijichi	2000	40.0	5	13.13	17.15	4.02	7.20	120.00	Medium coarse sand
970	145	DDCA	161/2000	Dar	Temeke	Mbagala Kibonde Maji	2000	60.0	5	20.53	43.50	22.97	0.99	16.50	sand in course clay
971	146	DDCA	167/2000	Dar	Temeke	Mbagala Charambe	2000	48.0	5	6.75	39.20	32.45	0.55	9.17	Clay bound sand
972	147	DDCA	190/2000	Dar	Temeke	Kigamboni	2000	28.0	6	10.02	18.61	8.59	7.20	120.00	Medium course sand
973	148	DDCA	198/2000	Dar	Temeke	Tuwangoma	2000	50.0	6	3.57	44.93	41.36	0.83	13.83	Sand with clay
974	149	DDCA	211/2000	Dar	Temeke	Mwanamoti	2000	51.0	6	34.05	47.55	13.50	7.20	120.00	M. sand in small clay
975	150	DDCA	212/2000	Dar	Temeke	Mbande	2000	40.0	6	7.30	8.93	1.63	3.96	66.00	M. sand insmall clay
976	151	DDCA	214/2000	Dar	Temeke	Yombo Vituka	2000	45.0	5	9.88	42.37	32.49	1.13	18.83	M. sand in small clay
977	152	DDCA	215/2000	Dar	Temeke	Mbagala	2000	58.0	6	30.00	48.07	18.07	7.20	120.00	Fine to medium sand
978	153	DDCA	216/2000	Dar	Temeke	Mtoni Sabasaba	2000	42.0	6	12.56	13.34	0.78	0.83	13.83	Medium sand
979	154	DDCA	235/2000	Dar	Temeke	Njaro	2000	42.0	6	6.76	9.10	2.34	7.20	120.00	Medium coarse sand









List of Existing Wells in Dar Es Salaam

No.		Data	B/No	Region	District	Area/Village	Year	Depth (m)	Dia (inch)	SWL (m)	DWL (m)	DD (m)	Yield		Aquifer type
Dar	Muni.	Source											(M <sup>3</sup> /hr)	(l/min)	
1127	302	DDCA	390/2003	Dar	Temeke	Y/ Vituka	2003	40.0	5	3.01		28.06	1.93	32.18	Fractured limestone
1128	303	DDCA	438/2003	Dar	Temeke	Mtoni Kijichi	2003	45.0	5	18.78		3.39	13.20	220.00	Fine medium sand
1129	304	DDCA	442/2003	Dar	Temeke	Y/ Buza	2003	46.0	5	15.85		27.65	0.34	5.73	Medium sand
1130	305	DDCA	461/2003	Dar	Temeke	Mbagala II	2003	44.0	5	23.70		13.59	6.09	101.53	Fine medium sand
1131	306	DDCA	608/2003	Dar	Temeke	Chang'ombe	2003	50.0	6	11.93		9.17	9.90	165.00	Weathered limestone
1132	307	DDCA	611/2003	Dar	Temeke	Y/Buza	2003	30.0	5	12.94		11.40	4.17	69.47	Fine medium sand
1133	308	DDCA	627/2003	Dar	Temeke	Kurasini	2003	50.0	5	9.76		13.29	7.92	132.00	Fine sandy clay
1134	309	DDCA	660/2003	Dar	Temeke	Chang'ombe	2003	45.0	5	5.60		9.60	11.31	188.57	Sandy clay
1135	310	DDCA	665/2003	Dar	Temeke	M/Kijichi	2003	60.0	5	15.25		32.80	13.20	220.00	Medium course sand
1136	311	DDCA	97/2003	Dar	Temeke	Mbagala	2003	57.0	5	18.75		18.78	2.93	48.83	Medium course sand
1137	312	DDCA	174/2004	Dar	Temeke	Buza	2004	60.0	5	14.57		42.94	0.53	8.80	Medium course sand
1138	313	DDCA	64/2004	Dar	Temeke	Chamazi	2004	60.0	5	20.25		28.43	1.58	26.40	Fine medium sand
1139	314	DDCA	Feb-04	Dar	Temeke	Kiburugwa	2004	60.0	5	15.20		20.95	9.90	165.00	Weathered limestone
1140	315	DDCA	29/2004	Dar	Temeke	Kigamboni	2004	29.0	5	9.48		0.11	15.84	264.00	Fine medium sand
1141	316	DDCA	1/2004	Dar	Temeke	Kipunguni II	2004	56.0	5	10.15		33.95	3.05	50.77	Sandy clay
1142	317	DDCA	Jan-04	Dar	Temeke	Kipunguni II	2004	56.0	5	10.15		33.95	3.05	50.77	Fine sand with limestone
1143	318	DDCA	83/2004	Dar	Temeke	Kongowe	2004	60.0	5	21.10		24.06	4.40	73.33	Medium sand
1144	319	DDCA	50/2004	Dar	Temeke	Kurasini	2004	42.3	5	4.00		15.12	15.84	264.00	Medium sand
1145	320	DDCA	30/2004	Dar	Temeke	Mikoroshoni	2004	44.0	6	15.30		13.83	9.90	165.00	Medium sand
1146	321	DDCA	Mar-04	Dar	Temeke	Y/ Buza	2004	60.0	5	13.50		26.71	7.92	132.00	Medium sand
1147	322	DDCA	63/2004	Dar	Temeke	Y/ Buza	2004	50.0	5	22.55		17.49	2.26	37.70	Fine medium sand
1148	323	DDCA	99/2004	Dar	Temeke	Y/ Buza II	2004	60.0	5	19.40		18.90	11.31	188.57	Medium sand
1149	324	DDCA	173/2004	Dar	Temeke	Y/ Vituka	2004	70.0	6	19.44		40.78	3.60	60.00	Medium course sand
1150	325	DDCA	21/2004	Dar	Temeke	Yombo Vituka	2004	57.0	5	21.40		28.55	3.17	52.80	Medium course sand
1151	326	DDCA	23/2004	Dar	Temeke	Y/ Vituka	2004	60.0	5	14.55		43.95	1.06	17.60	Medium course sand
1152	327	RWE	44/97	Dar	Temeke	Mjimwema/Ju mbe	1997	18.0		11.10	1.65	12.75	NR	NR	
1153	328	RWE	99/97	Dar	Temeke	Mtoni/Pschool	1997	42.0		13.31	14.33	1.02	15.80	263.33	
1154	329	RWE	111/97	Dar	Temeke	Tandika M/Yanga	1997	58.0		2.70	9.17	6.47	28.00	466.67	
1155	330	RWE	128/97	Dar	Temeke	Mtoni Kijichi	1997	32.0		14.51	17.38	2.87	3.40	56.67	
1156	331	RWE	145/97	Dar	Temeke	Kurasini BP S/TS	1997	16.5		2.76	12.76	10.00	1.00	16.67	
1157	332	RWE	147/97	Dar	Temeke	Kigamboni Town	1997	18.0		6.20	14.50	8.30	16.50	275.00	
1158	333	RWE	154/97	Dar	Temeke	Mzinga JWTZ KG	1997	15.0		3.64	6.76	19.78	20.57	342.83	
1159	334	RWE	157/97	Dar	Temeke	Kurasini CSO	1997	30.0		13.43	14.58	1.15	13.20	220.00	
1160	335	RWE	158/97	Dar	Temeke	KongoweP/School	1997	45.0		22.90	9.00	31.90	1.10	18.33	
1161	336	RWE	170/97	Dar	Temeke	Kigamboni/Tuangoma	1997	19.0		2.43	8.90	6.47	15.84	264.00	
1162	337	RWE	188/97	Dar	Temeke	Kurasini NASACO	1997	33.0		6.54	4.71	1.83	15.23	253.83	
1163	338	RWE	183/97	Dar	Temeke	Mtoni Azimio	1997	24.0					Dry	0.00	
1164	339	RWE	196/97	Dar	Temeke	Mjimwema/P School	1997	16.0		10.00	20.00	10.00	0.90	15.00	
1165	340	RWE	205/97	Dar	Temeke	Tazara QTS	1997	42.0		6.13	-	-	18.90	315.00	
1166	341	RWE	272/97	Dar	Temeke	Tandika Msikitini	1997	33.0		11.65	26.00	14.35	3.60	60.00	
1167	342	RWE	306/97	Dar	Temeke	Keko Gerezani II	1997	36.0		10.85	13.60	2.75	14.40	240.00	
1168	343	RWE	265/99	Dar	Temeke	Mbagala Nzasa V	1999	54.0		6.10	19.60	13.50	28.29	471.50	
1169	344	RWE	269/99	Dar	Temeke	Yombo Vituka	1999	60.0		5.87	34.65	28.78	10.42	173.67	
1170	345	RWE	263/98	Dar	Temeke	Buza - Yombo (UNICEF) II	1998	51.0		16.51	24.72	8.21	11.31	188.50	

# RESULTS OF WATER QUALITY ANALYSES

## 1. SURVEY TIMING AND QUANTITIES

The water quality analyses were carried out at following periods.

- Surface water (river, charco-dam, shallow well) in dry season (sampling period: 21 to 29 October 2004) in rainy season (sampling period: 17 to 20 January 2005) at 36 locations
- Groundwater (existing wells) (sampling period: 21 to 29 October 2004) at 35 locations
- Groundwater (test wells drilled in the Study) (sampling period: November to December 2004) at 9 locations

A total of 110 samples were collected and analysed. Demarcation of the sampling number from each water source and detailed sampling points are tabulated in *Table C.1* and *C.2*, respectively. Their locations are shown in *Figure C.1*. *Table C.3* summarised analyses methods applied for each parameter.

**Table C.1 Number of Samples Collected for the Water Quality Analyses**

Water Source		Number of samples collected		Total number of samples
		Dry season	Rainy season	
Groundwater	Test well	9		9
	Existing well	35		35
Surface Water	Dug well	4	5	9
	Shallow well	10	10	20
	Spring	2	2	4
	River	13	12	25
	Dam	3	3	6
	Charco Dam	1	1	2
Total				110

## 2. GUIDELINE AND STANDARD APPLIED FOR EVALUATION OF WATER QUALITY

For the evaluation of the water quality, following Guideline and Standard are applied based on the agreement with MoWLD.

- (1) Microbial Aspects: WHO Guideline (Version 3)
- (2) Chemicals that are of Health Significance: WHO Guideline (Version 3)
- (3) Acceptable Aspects: Tanzania Standard for Rural Water Supplies

Comparative table of Guideline and Standard for water quality is shown in *Table C.4*.

## 3. RESULT OF THE ANALYSES

The results of the water quality analyses are shown in *Table C.5* (groundwater: test wells), *Table C.6* (groundwater: existing wells) and *Table C.7* (surface water).



**Table C.3 Methods of Water Quality Analyses**

		Aspects and Items	Method of Analysis	Detection Limit	
Microbial aspects	1	Total coliform bacteria	Membrane filtration	-	
	2	Escherichia Coli		-	
Chemicals that are of health significance	3	Cadmium (Cd)	Atomic Absorption Spectrometer	<0.001 mg/liter	
	4	Cyanide (CN)	Atomic Absorption Spectrometer	<0.001 mg/liter	
	5	Lead (Pb)	Atomic Absorption Spectrometer	<0.01 mg/liter	
	6	Arsenic (As)	Atomic Absorption Spectrometer	<0.001 mg/liter	
	7	Mercury (Hg)	Atomic Absorption Spectrometer	<0.00001 mg/liter	
	8	Selenium (Se)	Atomic Absorption Spectrometer	<0.001 mg/liter	
	9	Barium (Ba)	Atomic Absorption Spectrometer	<0.01 mg/liter	
	10	Fluoride (F)	Potentiometric	<0.01 mg/liter	
	11	Hexavalent-chromium (Cr <sup>6+</sup> )	Atomic Absorption Spectrometer	<0.001 mg/liter	
	12	Total chromium (T-Cr)	Atomic Absorption Spectrometer	<0.001 mg/liter	
	13	Nitrate (NO <sub>3</sub> -N)	Cadmium reduction Spectrophotometric	<0.01 mg/liter	
	14	Nitrite (NO <sub>2</sub> -N)		<0.001 mg/liter	
	15	Boron (B)	Carmine	<0.1 mg/liter	
	16	Nickel (Ni)	Atomic Absorption Spectrometer	<0.001 mg/liter	
	17	Antimony (Sb)	Atomic Absorption Spectrometer	<0.001 mg/liter	
	18	Molybdenum (Mo)	Atomic Absorption Spectrometer	<0.0005 mg/liter	
	19	Manganese (Mn)	Periodate Method	<0.01 mg/liter	
	20	Organic Carbon (as carbon in Chloroform)	Dichromate	<0.001 mg/liter	
	Acceptability aspects	21	Hardness	EDTA Titrimetric	<0.1 mg/liter
		22	Calcium (Ca)	EDAT Titrimetric	<0.1 mg/liter
23		Magnesium (Mg)	<0.1 mg/liter		
24		Iron (Fe)	Spectrophotometric	<0.01 mg/liter	
25		Zinc (Zn)	Atomic Absorption Spectrometer	<0.01 mg/liter	
26		Copper (Cu)	Atomic Absorption Spectrometer	<0.01 mg/liter	
27		Chloride (Cl)	Argentometric (titration)	<0.1 mg/liter	
28		Residue	Filtration (using GFC) and Drying at 105°C	<0.1 mg/liter	
29		Total filterable residue	Gravimetric	<0.1 mg/liter	
30		Anionic surface active agents (as ABS)	MBAS Method	<0.001 mg/liter	
31		Phenols	4-Amino antipyrine	<0.001 mg/liter	
32		Hydrogen sulfide (H <sub>2</sub> S)	Iodometric	<0.01 mg/liter	
33		Ammonium (NH <sub>3</sub> +NH <sub>4</sub> )	Nessler reagent	<0.01 mg/liter	
34		Total nitrogen (Excluding NO <sub>3</sub> )	Titration	<0.01 mg/liter	
35		BOD	5-day BOD test	<0.1 mg/liter	
36		Potassium permanganate consumption	Oxidation reduction	<0.1 mg/liter	
37		pH	Potentiometric	<0.1	
38		Taste	-	-	
39		Odour	Threshold	-	
40		Colour	Platinum cobolt	1 mg Pt/liter	
41		Turbidity (Tr)	Nephelometric	<0.1 NTU	
42		Temperature	Thermometer	< 1 °C	
43		Conductivity (EC)	Conductivity meter	< 1 micro S/cm	
44		Residual chlorine (Cl)	DPD (No analysis)	<0.1 mg/liter	
45		Sulfate (Mg+Na Salts)	Spectrophotometric	<0.1 mg/liter	
Water quality items related to the characteristics of groundwater	46	Sodium (Na)	Atomic Absorption Spectrometer	<0.1 mg/liter	
	47	Potassium (K)	Atomic Absorption Spectrometer	<0.1 mg/liter	
	48	Bicarbonate (HCO <sup>3-</sup> )	Titrimetric	<0.1 mg/liter	
	49	Total alkalinity	Titration	<0.1 mg/liter	
	50	Sulfate (SO <sub>4</sub> <sup>2-</sup> )	Tubdimetric	<0.1 mg/liter	

**Table C.4 Comparative Table of Water Quality Standard for Drinking Water**

		Aspects and Items	Unit	Tanzanian Standard (1974) *1	WHO Guideline (2004) *2	
Microbial aspects	1	Total coliform bacteria	count/100ml	0	-	
	2	Escherichia Coli	count/100ml	0	0	
Chemicals that are of health significance	3	Cadmium (Cd)	mg/l	0.05	0.003	
	4	Cyanide (CN)	mg/l	0.20	0.07	
	5	Lead (Pb)	mg/l	0.10	0.01	
	6	Arsenic (As)	mg/l	0.05	0.01	
	7	Mercury (Hg)	mg/l	-	0.001	
	8	Selenium (Se)	mg/l	0.05	0.01	
	9	Barium (Ba)	mg/l	1.00	0.7	
	10	Fluoride (F)	mg/l	8.0	1.5	
	11	Hexavalent-chromium (Cr <sup>6+</sup> )	mg/l	0.05	-	
	12	Total chromium (T-Cr)	mg/l	-	0.05	
	13	Nitrate (NO <sub>3</sub> -N)	mg NO <sub>3</sub> /l	100	50	
	14	Nitrite (NO <sub>2</sub> -N)	mg NO <sub>2</sub> /l	-	3 / 0.2 *3	
	15	Boron (B)	mg/l	-	0.5	
	16	Nickel (Ni)	mg/l	-	0.02	
	17	Antimony (Sb)	mg/l	-	0.020	
	18	Molybdenum (Mo)	mg/l	-	0.07	
	19	Manganese (Mn)	mg/l	0.5	0.4	
	Acceptability aspects	20	Organic Carbon (as carbon in Chloroform)	mg/l	0.5	-
		21	Hardness	mg/l	600	-
22		Calcium (Ca)	mg/l	-	-	
23		Magnesium (Mg)	mg/l	-	-	
24		Iron (Fe)	mg/l	1.0	-	
25		Zinc (Zn)	mg/l	15.0	-	
26		Copper (Cu)	mg/l	3.0	2.0	
27		Chloride (Cl)	mg/l	800	-	
28		Residue*4	mg/l	-	-	
29		Total filterable residue*5	mg/l	2,000	-	
30		Anionic surface active agents (as ABS)	mg ABS/l	2.0	-	
31		Phenols	mg/l	0.002	-	
32		Hydrogen sulfide (H <sub>2</sub> S)	mg/l	-	-	
33		Ammonium (NH <sub>3</sub> +NH <sub>4</sub> )	mg/l	-	1.5	
34		Total nitrogen (Excluding NO <sub>3</sub> )	mg/l	1.0	-	
35		BOD	mg/l	6.0	-	
36		Potassium permanganate consumption	mg/l	20	-	
37		pH	-	6.5 - 9.2	-	
38		Taste	dilution	not objectionable	-	
39		Odour	dilution	not objectionable	-	
40	Colour	mg Pt/l	50	15		
41	Turbidity (Tr)	NTU	30	5		
42	Temperature	°C	-	-		
43	Conductivity (EC)	mS/m	-	-		
44	Residual chlorine (Cl)	mg/l	-	-		
45	Sulfate (Mg+Na Salts)	mg/l	-	-		
Water quality items related to the characteristics of groundwater	46	Sodium (Na)	mg/l	-	-	
	47	Potassium (K)	mg/l	-	-	
	48	Bicarbonate (HCO <sub>3</sub> <sup>-</sup> )	mg/l	-	-	
	49	Total alkalinity	mg/l	-	-	
	50	Sulfate (SO <sub>4</sub> <sup>2-</sup> )	mg/l	600	-	

\*1: "Maji Review" Ministry of Water Development and Power vol. 1, No. 1, MoWDP, Dar es Salaam, 1974

\*2: "WHO Guideline for Drinking Water Quality Third Edition", World Health Organization, Geneva, 2004

\*3: Short term / long term

\*4: Residue is equal to [Total solids - Total dissolved solids]

\*5: Total filterable residue is equal to Total dissolved solids (TDS).

Items adopted for water quality evaluation.





**Table C.6 Result of Water Quality Analysis, Existing Wells (1/5)**

Water Quality Analysis Items	Tanzania Standard for Rural Water Supplies (1974)	WHO Guideline (2004)*1	B-01	B-02	B-03	B-04	B-05	B-06	B-07	
			Bagamoyo	Bagamoyo	Bagamoyo	Bagamoyo	Kinondoni	Kinondoni	Kinondoni	
			Kibindu	Bagamoyo Secondary	Mbegani Fisheries	Ziko Village	Bunju 'A'	Wazo Hill	J.K.Nyerere School(Kawe)	
1	Total coliform bacteria (count/100ml)	0	0	1.3 x10 <sup>3</sup>	2.6 x10	0	0	0	8	1.1 x10 <sup>2</sup>
2	Escherichia coli (count/100ml)	0	0	1.0 x10 <sup>3</sup>	2.0 x10	0	0	0	1	6
3	Cadmium: Cd (mg/l)	0.05	0.003	<0.001	<0.001	<0.001	<0.001	0.100	<0.001	<0.001
4	Cyanide: CN (mg/l)	0.20	0.07	0.004	0.032	0.028	0.008	0.067	0.054	0.042
5	Lead: Pb (mg/l)	0.1	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6	Arsenic: As (mg/l)	0.05	0.01	<0.001	<0.001	<0.01	<0.001	<0.01	<0.001	0.006
7	Mercury: Hg (mg/l)	-	0.001	<0.00001	<0.001	<0.00001	0.00006	0.00088	<0.00001	<0.001
8	Selenium: Se (mg/l)	0.05	0.01	<0.01	<0.001	<0.01	<0.001	<0.01	<0.001	<0.01
9	Barium: Ba (mg/l)	1.00	0.7	<0.7	<0.01	<0.7	<0.7	<0.7	<0.7	<0.7
10	Fluoride: F (mg/l)	8.00	1.5	0.50	0.31	0.36	0.21	0.75	0.20	0.31
11	Hexavalent-chromium : Cr <sup>6+</sup> (mg/l)	0.05	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.100
12	Total chromium : T-Cr (mg/l)	-	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.05
13	Nitrate: (as NO <sub>3</sub> mg/l)	100	50	6.20	2.66	6.20	10.2	5.32	8.90	3.50
14	Nitrite: (as NO <sub>2</sub> mg/l)	-	3/0.2	0.062	<0.2	0.026	0.039	0.030	0.007	0.039
15	Boron: B (mg/l)	-	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
16	Nickel: Ni (mg/l)	-	0.02	<0.001	<0.001	<0.001	0.228	<0.001	<0.001	<0.001
17	Antimony: Sb (mg/l)	-	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
18	Molybdenum: Mo (mg/l)	-	0.07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
19	Manganese: Mn (mg/l)	0.5	0.40	0.04	<0.01	0.10	<0.01	<0.01	0.20	<0.01
20	Organic carbon as carbon in chloroform (mg/l)	0.5	-	0.200	0.158	0.194	0.188	0.195	0.093	0.137
21	Hardness (as CaCO <sub>3</sub> mg/l)	600	-	540	728	295	255	496	260	1,990
22	Hardness (as CaCO <sub>3</sub> mg/l)	-	-	108	184	46.0	70.0	146	62.4	544
23	Magnesium: Mg (mg/l)	-	-	65.7	65.1	43.8	19.5	32.0	25.3	153
24	Iron: Fe (mg/l)	1.0	-	0.10	0.10	0.18	0.46	0.02	0.54	<0.01
25	Zinc: Zn (mg/l)	15	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
26	Copper: Cu (mg/l)	3.0	2.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
27	Chlorides: Cl (mg/l)	800	-	514	915	970	568	750	270	3,340
28	Residue (mg/l)	-	-	1,420	2,190	2,150	1,210	1,600	772	6,370
29	Total filterable residue (mg/l)	2,000	-	1,290	1,790	2,140	1,200	1,460	565	5,990
30	Surfactants: ABS (mg/l)	2.0	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.035
31	Phenolic substance as phenol (mg/l)	0.002	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
32	Hydrogen sulfide: H <sub>2</sub> S (mg/l)	-	-	0.74	0.55	0.55	0.28	0.49	0.55	0.87
33	Ammonium: NH <sub>3</sub> (mg/l)	-	1.5	<0.01	<0.01	0.09	<0.01	0.04	0.19	1.13
34	Ammonium: NH <sub>3</sub> (mg/l)	1.0	-	0.03	0.07	0.02	<0.01	0.44	0.04	0.15
35	BOD <sub>5</sub> (mg/l)	6	-	1.5	1.6	4.5	0.9	3.4	1.5	2.0
36	PV: Oxygen abs. KMnO <sub>4</sub> (mg/l)	20	-	2.8	3.0	8.0	1.8	5.6	2.2	3.2
37	pH	6.5 - 9.2	-	6.5	6.8	6.8	7.3	6.9	6.8	6.0
38	Taste	not objectionable	-	Sweet	Salty	Salty	Sweet	Salty	Sweet	Salty
39	Odour	not objectionable	-	UN	OB	OB	OB	OB	UN	OB
40	Colour (TCU mg Pt/l)	50	15	16	5	14	22	11	34	7
41	Turbidity: Tr (NTU)	30	5	2.1	0.2	9.5	7.4	2.0	24.0	2.0
42	Temperature (°C)	-	-	25	30	31	30	30	30	30
43	Conductivity: EC (microS/cm)	-	-	1,990	3,200	3,290	1,850	2,430	1,048	9,220
44	Conductivity: EC (microS/cm)	-	-	-	-	-	-	-	-	-
45	Sulphate as Mg+Na Salts (mg/l)	-	-	350	630	874	400	355	315	1,450
46	Sodium: Na (mg/l)	-	-	200	400	600	300	250	150	1,200
47	Potassium: K (mg/l)	-	-	15.0	16.0	34.0	3.5	5.0	10.0	10.0
48	Bicarbonate: HCO <sub>3</sub> (as CaCO <sub>3</sub> mg/l)	-	-	182	60.0	32.0	48.0	80.0	60.0	118
49	Total alkalinity (mg/l)	-	-	182	60.0	32.0	48.0	80.0	60.0	118
50	Sulphate: SO <sub>4</sub> (mg/l)	600	-	85.0	165	230	80.0	70.0	140	97.5

\*1: "MAJI REVIEW" Ministry of Water Development and Power, vol 1, No. 1, July 1974, Dar es Salaam

\*2: "WHO Guideline for Drinking Water Quality Third Edition", World Health Organization, Geneva 2004

UN : unobjectionable

OB: objectionable

**Table C.6 Result of Water Quality Analysis, Existing Wells (2/5)**

Water Quality Analysis Items	Tanzania Standard for Rural Water Supplies (1974)	WHO Guideline (2004)*1	B-08	B-09	B-10	B-11	B-12	B-13	B-14	
			Kibaha	Kinondoni	Kinondoni	Kibaha	Kibaha	Kinondoni	Ilala	
			Kitomondo P/School	Mwenge	Kagera Maluwi	Maili Moja	Disunyala	Ubungo Kisiwani	Tabata Lawiti	
1	Total coliform bacteria (count/100ml)	0	0	1	0	1.4 x10 <sup>4</sup>	9	0	0	0
2	Escherichia coli (count/100ml)	0	0	0	0	8.0 x10 <sup>3</sup>	4	0	0	0
3	Cadmium: Cd (mg/l)	0.05	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4	Cyanide: CN (mg/l)	0.20	0.07	0.059	0.047	0.057	0.020	0.010	0.051	0.051
5	Lead: Pb (mg/l)	0.1	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6	Arsenic: As (mg/l)	0.05	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.008
7	Mercury: Hg (mg/l)	-	0.001	<0.00001	<0.00001	<0.001	<0.00001	<0.001	<0.001	<0.00001
8	Selenium: Se (mg/l)	0.05	0.01	<0.01	<0.01	<0.001	<0.001	<0.01	<0.001	<0.01
9	Barium: Ba (mg/l)	1.00	0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7
10	Fluoride: F (mg/l)	8.00	1.5	<0.01	0.17	0.53	<1.5	<1.5	0.41	0.36
11	Hexavalent-chromium : Cr <sup>6+</sup> (mg/l)	0.05	-	<0.001	<0.001	<0.001	<0.001	0.030	<0.001	<0.001
12	Total chromium : T-Cr (mg/l)	-	0.05	<0.001	<0.001	<0.001	<0.001	0.041	<0.001	<0.001
13	Nitrate: (as NO <sub>3</sub> mg/l)	100	50	4.00	19.0	316	4.90	12.8	27.9	9.70
14	Nitrite: (as NO <sub>2</sub> mg/l)	-	3/0.2	0.016	<0.2	0.049	0.043	0.043	0.082	0.030
15	Boron: B (mg/l)	-	0.5	<0.5	0.4	0.3	0.3	<0.1	<0.5	<0.1
16	Nickel: Ni (mg/l)	-	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
17	Antimony: Sb (mg/l)	-	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
18	Molybdenum: Mo (mg/l)	-	0.07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
19	Manganese: Mn (mg/l)	0.5	0.40	0.20	<0.01	<0.01	0.20	<0.01	0.03	<0.01
20	Organic carbon as carbon in chloroform (mg/l)	0.5	-	0.003	0.154	0.163	0.002	0.201	0.194	0.194
21	Hardness (as CaCO <sub>3</sub> mg/l)	600	-	129	260	535	252	605	625	413
22	Hardness (as CaCO <sub>3</sub> mg/l)	-	-	22.0	46.0	130	40.8	118	114	95.2
23	Magnesium: Mg (mg/l)	-	-	18.0	35.3	51.1	36.5	75.4	82.7	42.7
24	Iron: Fe (mg/l)	1.0	-	0.80	<0.01	0.03	0.35	0.04	0.05	0.20
25	Zinc: Zn (mg/l)	15	-	<0.01	<0.01	<0.01	0.10	<0.01	<0.01	<0.01
26	Copper: Cu (mg/l)	3.0	2.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
27	Chlorides: Cl (mg/l)	800	-	56.7	687	620	131	689	959	543
28	Residue (mg/l)	-	-	197	1,060	1,200	500	1,620	2,240	1,350
29	Total filterable residue (mg/l)	2,000	-	150	1,030	1,020	475	1,520	1,920	1,060
30	Surfactants: ABS (mg/l)	2.0	-	<0.001	<0.001	<0.001	<0.001	<0.001	0.034	<0.001
31	Phenolic substance as phenol (mg/l)	0.002	-	<0.002	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002
32	Hydrogen sulfide: H <sub>2</sub> S (mg/l)	-	-	0.72	0.33	0.70	0.51	0.23	0.88	0.86
33	Ammonium: NH <sub>3</sub> (mg/l)	-	1.5	0.18	0.10	0.95	<0.01	0.08	0.06	0.03
34	Ammonium: NH <sub>3</sub> (mg/l)	1.0	-	<0.01	0.89	0.15	0.02	0.07	0.76	0.03
35	BOD <sub>5</sub> (mg/l)	6	-	1.4	1.7	3.6	1.7	1.1	2.2	1.9
36	PV: Oxygen abs. KMnO <sub>4</sub> (mg/l)	20	-	2.0	2.4	5.8	2.8	2.0	3.4	2.8
37	pH	6.5 - 9.2	-	6.5	7.2	6.5	6.9	7.5	6.0	6.1
38	Taste	not objectionable	-	Sweet	Sweet	Sweet	Sweet	Salty	Salty	Sweet
39	Odour	not objectionable	-	UN	UN	UN	UN	OB	OB	UN
40	Colour (TCU mg Pt/l)	50	15	17	7	11	<1	8	11	5
41	Turbidity: Tr (NTU)	30	5	44.7	0.3	1.7	3.4	0.6	1.4	1.9
42	Temperature (°C)	-	-	28	29	29	29	27	29	29
43	Conductivity: EC (microS/cm)	-	-	283	1,880	1,860	730	2,330	3,210	1,912
44	Conductivity: EC (microS/cm)	-	-	-	-	-	-	-	-	-
45	Sulphate as Mg+Na Salts (mg/l)	-	-	66.0	582	391	105	505	688	408
46	Sodium: Na (mg/l)	-	-	25.0	400	250	50.6	250	450	225
47	Potassium: K (mg/l)	-	-	7.5	10.0	50.0	3.5	14.0	5.0	7.5
48	Bicarbonate: HCO <sub>3</sub> (as CaCO <sub>3</sub> mg/l)	-	-	88.0	18.0	170	160	122	94.0	68.0
49	Total alkalinity (mg/l)	-	-	88.0	18.0	170	160	162	94.0	68.0
50	Sulphate: SO <sub>4</sub> (mg/l)	600	-	23.0	148	90.0	18.0	180	155	140

\*1: "MAJI REVIEW" Ministry of Water Development and Power, vol 1, No. 1, July 1974, Dar es Salaam

\*2: "WHO Guideline for Drinking Water Quality Third Edition", World Health Organization, Genova 2004

UN : unobjectionable

OB: objectionable

**Table C.6 Result of Water Quality Analysis, Existing Wells (3/5)**

Water Quality Analysis Items	Tanzania Standard for Rural Water Supplies (1974)	WHO Guideline (2004)*1	B-15	B-16	B-17	B-18	B-19	B-20	B-21	
			Kibaha	Temeke	Temeke	Temeke	Temeke	Ilala	Ilala	
			Zogowale	Chang'Omba Tte	Mwembe Yanga	Yombo Kilakala (Mwinyi Road)	Kibugumo P/School	Kipunguni-Kitunda	Pugu Mnadani	
1	Total coliform bacteria (count/100ml)	0	0	0	0	6.5 x10	9.2 x10	4	0	0
2	Escherichia coli (count/100ml)	0	0	0	0	5.6 x10	5.3 x10	2	0	0
3	Cadmium: Cd (mg/l)	0.05	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4	Cyanide: CN (mg/l)	0.20	0.07	0.021	0.070	0.065	0.053	0.036	0.012	0.043
5	Lead: Pb (mg/l)	0.1	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6	Arsenic: As (mg/l)	0.05	0.01	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001
7	Mercury: Hg (mg/l)	-	0.001	<0.00001	<0.00001	<0.00001	<0.001	<0.001	<0.001	0.00037
8	Selenium: Se (mg/l)	0.05	0.01	<0.01	<0.001	<0.01	<0.001	<0.01	<0.01	<0.01
9	Barium: Ba (mg/l)	1.00	0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7
10	Fluoride: F (mg/l)	8.00	1.5	<1.5	0.34	0.16	0.08	<0.01	0.42	0.30
11	Hexavalent-chromium : Cr <sup>6+</sup> (mg/l)	0.05	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12	Total chromium : T-Cr (mg/l)	-	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
13	Nitrate: (as NO <sub>3</sub> mg/l)	100	50	5.80	38.5	70.0	17.3	2.20	9.70	11.1
14	Nitrite: (as NO <sub>2</sub> mg/l)	-	3/0.2	0.030	0.059	0.102	0.033	0.020	0.033	0.036
15	Boron: B (mg/l)	-	0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
16	Nickel: Ni (mg/l)	-	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
17	Antimony: Sb (mg/l)	-	0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02
18	Molybdenum: Mo (mg/l)	-	0.07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
19	Manganese: Mn (mg/l)	0.5	0.40	<0.01	0.02	<0.01	<0.01	<0.01	0.10	0.03
20	Organic carbon as carbon in chloroform (mg/l)	0.5	-	0.153	0.009	0.007	0.009	0.096	0.096	0.076
21	Hardness (as CaCO <sub>3</sub> mg/l)	600	-	78.0	138	165	25.0	138	103	96.0
22	Hardness (as CaCO <sub>3</sub> mg/l)	-	-	8.8	40.0	33.6	4.8	40.8	9.6	21.6
23	Magnesium: Mg (mg/l)	-	-	13.6	9.2	19.7	3.2	8.8	19.2	10.2
24	Iron: Fe (mg/l)	1.0	-	0.12	0.03	0.02	0.03	0.02	0.19	0.12
25	Zinc: Zn (mg/l)	15	-	<0.01	<0.01	0.10	<0.01	<0.01	<0.01	<0.01
26	Copper: Cu (mg/l)	3.0	2.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
27	Chlorides: Cl (mg/l)	800	-	273	50.4	160	78.0	250	316	170
28	Residue (mg/l)	-	-	890	368	565	200	560	821	498
29	Total filterable residue (mg/l)	2,000	-	839	320	325	182	560	644	465
30	Surfactants: ABS (mg/l)	2.0	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31	Phenolic substance as phenol (mg/l)	0.002	-	<0.001	<0.001	<0.002	<0.001	<0.002	<0.002	<0.001
32	Hydrogen sulfide: H <sub>2</sub> S (mg/l)	-	-	0.11	0.39	0.91	0.94	0.50	0.56	0.83
33	Ammonium: NH <sub>3</sub> (mg/l)	-	1.5	0.33	0.04	0.06	0.03	<0.01	<0.01	<0.01
34	Ammonium: NH <sub>3</sub> (mg/l)	1.0	-	0.27	0.05	0.81	0.03	0.02	<0.01	0.03
35	BOD <sub>5</sub> (mg/l)	6	-	0.9	1.8	2.3	1.6	2.8	2.2	2.2
36	PV: Oxygen abs. KMnO <sub>4</sub> (mg/l)	20	-	1.4	2.8	3.6	2.4	4.0	4.0	3.4
37	pH	6.5 - 9.2	-	7.8	7.1	5.8	5.5	6.9	6.0	6.2
38	Taste	not objectionable	-	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet
39	Odour	not objectionable	-	UN	UN	UN	UN	UN	UN	UN
40	Colour (TCU mg Pt/l)	50	15	13	12	55	11	15	11	11
41	Turbidity: Tr (NTU)	30	5	1.9	<0.1	0.3	0.2	0.4	10.2	1.6
42	Temperature (°C)	-	-	28	30	32	29	30	28	28
43	Conductivity: EC (microS/cm)	-	-	1,290	580	590	330	940	990	864
44	Conductivity: EC (microS/cm)	-	-	-	-	-	-	-	-	-
45	Sulphate as Mg+Na Salts (mg/l)	-	-	341	107	117	95.7	202	242	268
46	Sodium: Na (mg/l)	-	-	260	62.5	50.0	62.5	150	175	125
47	Potassium: K (mg/l)	-	-	5.0	12.5	16.0	4.5	7.0	7.5	7.5
48	Bicarbonate: HCO <sub>3</sub> (as CaCO <sub>3</sub> mg/l)	-	-	144	192	22.0	26.0	62.0	32.0	32.0
49	Total alkalinity (mg/l)	-	-	188	192	22.0	26.0	62.0	32.0	32.0
50	Sulphate: SO <sub>4</sub> (mg/l)	600	-	67.5	35.0	47.5	30.0	43.0	47.5	133

\*1: "MAJI REVIEW" Ministry of Water Development and Power, vol 1, No. 1, July 1974, Dar es Salaam

\*2: "WHO Guideline for Drinking Water Quality Third Edition", World Health Organization, Geneva 2004

UN : unobjectionable

OB: objectionable

**Table C.6 Result of Water Quality Analysis, Existing Wells (4/5)**

Water Quality Analysis Items	Tanzania Standard for Rural Water Supplies (1974)	WHO Guideline (2004)*1	B-22	B-23	B-24	B-25	B-26	B-27	B-28	
			Kibaha	Temeke	Mkuranga	Ilala	Kisarawe	Mkuranga	Kisarawe	
			Kabunduguru	Mbagala Kibangulile	Vikindu	Msongola Kitonga	Homboza Near P/School	Mama Siti Sec.School	Msimbu	
1	Total coliform bacteria (count/100ml)	0	0	0	0	0	0	0	1.5 x10 <sup>2</sup>	0
2	Escherichia coli (count/100ml)	0	0	0	0	0	0	0	9.8 x10	0
3	Cadmium: Cd (mg/l)	0.05	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4	Cyanide: CN (mg/l)	0.20	0.07	0.028	<0.07	0.057	<0.07	0.014	0.063	0.021
5	Lead: Pb (mg/l)	0.1	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6	Arsenic: As (mg/l)	0.05	0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	0.007
7	Mercury: Hg (mg/l)	-	0.001	<0.00001	0.00040	0.00023	<0.00001	<0.00001	0.00078	<0.00001
8	Selenium: Se (mg/l)	0.05	0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.01
9	Barium: Ba (mg/l)	1.00	0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7
10	Fluoride: F (mg/l)	8.00	1.5	<1.5	<0.01	0.29	<0.01	<0.01	0.53	0.55
11	Hexavalent-chromium : Cr <sup>6+</sup> (mg/l)	0.05	-	<0.001	0.010	<0.001	<0.001	<0.001	<0.001	<0.001
12	Total chromium : T-Cr (mg/l)	-	0.05	<0.001	0.020	<0.001	<0.001	<0.001	<0.001	<0.001
13	Nitrate: (as NO <sub>3</sub> mg/l)	100	50	9.30	5.30	11.1	15.9	1.30	7.10	1.30
14	Nitrite: (as NO <sub>2</sub> mg/l)	-	3/0.2	<0.2	0.026	0.033	0.033	0.033	0.039	0.026
15	Boron: B (mg/l)	-	0.5	0.3	<0.1	<0.1	0.4	<0.1	<0.1	<0.1
16	Nickel: Ni (mg/l)	-	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
17	Antimony: Sb (mg/l)	-	0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
18	Molybdenum: Mo (mg/l)	-	0.07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
19	Manganese: Mn (mg/l)	0.5	0.40	0.10	<0.01	<0.01	0.02	0.05	0.02	0.03
20	Organic carbon as carbon in chloroform (mg/l)	0.5	-	0.152	0.160	0.006	0.010	0.005	0.162	0.008
21	Hardness (as CaCO <sub>3</sub> mg/l)	600	-	362	620	33.0	144	94.0	100	54.2
22	Hardness (as CaCO <sub>3</sub> mg/l)	-	-	21.6	76.0	0.4	23.2	7.2	16.0	7.2
23	Magnesium: Mg (mg/l)	-	-	74.9	105	7.8	20.9	18.5	14.6	8.8
24	Iron: Fe (mg/l)	1.0	-	0.45	0.02	0.02	0.07	0.08	0.09	0.10
25	Zinc: Zn (mg/l)	15	-	<0.01	<0.01	<0.01	0.10	<0.01	0.10	<0.01
26	Copper: Cu (mg/l)	3.0	2.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
27	Chlorides: Cl (mg/l)	800	-	102	834	12.0	245	179	460	103
28	Residue (mg/l)	-	-	905	1,960	194	527	464	1,070	318
29	Total filterable residue (mg/l)	2,000	-	871	1,820	144	393	398	873	260
30	Surfactants: ABS (mg/l)	2.0	-	0.074	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31	Phenolic substance as phenol (mg/l)	0.002	-	<0.002	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002
32	Hydrogen sulfide: H <sub>2</sub> S (mg/l)	-	-	0.99	0.65	0.88	0.72	0.98	0.71	0.95
33	Ammonium: NH <sub>3</sub> (mg/l)	-	1.5	<0.01	0.04	<0.01	<0.01	<0.01	0.08	<0.01
34	Ammonium: NH <sub>3</sub> (mg/l)	1.0	-	0.34	0.04	<0.01	0.02	0.20	0.07	0.02
35	BOD <sub>5</sub> (mg/l)	6	-	1.6	3.0	1.1	1.2	1.6	1.3	1.5
36	PV: Oxygen abs. KMnO <sub>4</sub> (mg/l)	20	-	2.8	4.8	1.8	1.8	2.6	2.0	2.4
37	pH	6.5 - 9.2	-	6.7	6.6	6.0	6.5	5.0	6.5	5.5
38	Taste	not objectionable	-	Sweet	Salty	Sweet	Sweet	Sweet	Sweet	Sweet
39	Odour	not objectionable	-	UN	OB	UN	UN	UN	UN	UN
40	Colour (TCU mg Pt/l)	50	15	<1	10	15	14	17	4	16
41	Turbidity: Tr (NTU)	30	5	13.2	<0.1	<0.1	1.6	2.8	0.2	2.1
42	Temperature (°C)	-	-	28	29	29	29	28	30	27
43	Conductivity: EC (microS/cm)	-	-	1,340	2,800	240	736	744	1,530	400
44	Conductivity: EC (microS/cm)	-	-	-	-	-	-	-	-	-
45	Sulphate as Mg+Na Salts (mg/l)	-	-	256	607	54.8	231	216	325	109
46	Sodium: Na (mg/l)	-	-	150	350	40.0	150	115	250	65.0
47	Potassium: K (mg/l)	-	-	1.5	12.0	2.5	5.5	6.0	13.0	4.0
48	Bicarbonate: HCO <sub>3</sub> (as CaCO <sub>3</sub> mg/l)	-	-	524	110	22	12.0	14.0	40.0	22.0
49	Total alkalinity (mg/l)	-	-	524	110	22	12.0	14.0	40.0	22.0
50	Sulphate: SO <sub>4</sub> (mg/l)	600	-	1.0	153	7.0	60.0	82.5	60.0	35.0

\*1: "MAJI REVIEW" Ministry of Water Development and Power, vol 1, No. 1, July 1974, Dar es Salaam

\*2: "WHO Guideline for Drinking Water Quality Third Edition", World Health Organization, Geneva 2004

UN : unobjectionable  
OB: objectionable

**Table C.6 Result of Water Quality Analysis, Existing Wells (5/5)**

Water Quality Analysis Items	Tanzania Standard for Rural Water Supplies (1974)	WHO Guideline (2004)*1	B-29	B-30	B-31	B-32	B-33	B-34	B-35	
			Mkuranga	Kisarawe	Kisarawe	Kisarawe	Kisarawe	Kisarawe	Kisarawe	
			Mbezi- Gongoni	Masanganya	Kikwete P/School	Boga	Msanga Dibilulize	Chole Samvula	Chole Vikumburu	
1	Total coliform bacteria (count/100ml)	0	0	0	0	0	0	0	0	7.0 x10
2	Escherichia coli (count/100ml)	0	0	0	0	0	0	0	0	0
3	Cadmium: Cd (mg/l)	0.05	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4	Cyanide: CN (mg/l)	0.20	0.07	0.051	0.033	0.008	<0.07	<0.07	0.066	0.057
5	Lead: Pb (mg/l)	0.1	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6	Arsenic: As (mg/l)	0.05	0.01	<0.001	<0.01	<0.001	<0.001	<0.01	<0.001	<0.001
7	Mercury: Hg (mg/l)	-	0.001	<0.00001	<0.00001	<0.00001	<0.001	<0.00001	<0.00001	0.00066
8	Selenium: Se (mg/l)	0.05	0.01	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01
9	Barium: Ba (mg/l)	1.00	0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7
10	Fluoride: F (mg/l)	8.00	1.5	0.19	0.40	0.40	0.29	0.56	<0.01	<0.01
11	Hexavalent-chromium : Cr <sup>6+</sup> (mg/l)	0.05	-	<0.001	0.010	<0.001	<0.001	<0.001	<0.001	<0.001
12	Total chromium : T-Cr (mg/l)	-	0.05	<0.001	0.020	<0.001	<0.001	<0.001	<0.001	<0.001
13	Nitrate: (as NO <sub>3</sub> mg/l)	100	50	3.10	2.70	23.0	8.00	12.4	12.8	210
14	Nitrite: (as NO <sub>2</sub> mg/l)	-	3/0.2	0.016	0.026	0.016	0.039	0.013	0.026	<0.2
15	Boron: B (mg/l)	-	0.5	0.5	<0.5	<0.1	<0.1	0.5	<0.1	<0.1
16	Nickel: Ni (mg/l)	-	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
17	Antimony: Sb (mg/l)	-	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
18	Molybdenum: Mo (mg/l)	-	0.07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
19	Manganese: Mn (mg/l)	0.5	0.40	<0.01	0.05	0.10	0.04	<0.01	<0.01	0.10
20	Organic carbon as carbon in chloroform (mg/l)	0.5	-	0.002	0.008	0.005	<0.001	0.195	0.006	<0.001
21	Hardness (as CaCO <sub>3</sub> mg/l)	600	-	55.0	46.0	28.0	61.0	350	31.0	14.0
22	Hardness (as CaCO <sub>3</sub> mg/l)	-	-	3.2	6.0	4.8	8.8	56.0	1.2	<0.1
23	Magnesium: Mg (mg/l)	-	-	11.4	7.5	389	9.5	51.1	6.8	3.4
24	Iron: Fe (mg/l)	1.0	-	0.13	0.10	0.49	0.06	0.02	0.04	0.40
25	Zinc: Zn (mg/l)	15	-	<0.01	<0.01	0.10	<0.01	<0.01	<0.01	0.20
26	Copper: Cu (mg/l)	3.0	2.0	<0.01	<0.01	0.30	<0.01	<0.01	<0.01	<0.01
27	Chlorides: Cl (mg/l)	800	-	67.5	145	42.5	53.0	504	50.0	19.0
28	Residue (mg/l)	-	-	205	490	191	155	1,420	243	90.0
29	Total filterable residue (mg/l)	2,000	-	180	321	154	127	1,100	160	70.0
30	Surfactants: ABS (mg/l)	2.0	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31	Phenolic substance as phenol (mg/l)	0.002	-	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	0.002
32	Hydrogen sulfide: H <sub>2</sub> S (mg/l)	-	-	0.95	0.96	0.81	0.57	0.88	0.99	0.94
33	Ammonium: NH <sub>3</sub> (mg/l)	-	1.5	0.13	0.04	0.14	0.06	0.05	0.09	<0.01
34	Ammonium: NH <sub>3</sub> (mg/l)	1.0	-	0.11	<0.01	0.12	0.06	0.08	0.08	0.19
35	BOD <sub>5</sub> (mg/l)	6	-	3.1	1.6	1.1	1.0	3.8	1.3	5.1
36	PV: Oxygen abs. KMnO <sub>4</sub> (mg/l)	20	-	5.0	2.6	1.8	1.6	6.2	2.0	8.4
37	pH	6.5 - 9.2	-	5.5	5.2	6.3	5.7	6.0	5.0	5.5
38	Taste	not objectionable	-	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet
39	Odour	not objectionable	-	UN	UN	UN	UN	UN	UN	UN
40	Colour (TCU mg Pt/l)	50	15	37	12	40	45	10	37	>500
41	Turbidity: Tr (NTU)	30	5	7.3	0.4	13.4	9.3	2.9	8.4	255
42	Temperature (°C)	-	-	28	28	28	27	27	27	29
43	Conductivity: EC (microS/cm)	-	-	290	600	280	230	2,000	290	140
44	Conductivity: EC (microS/cm)	-	-	-	-	-	-	-	-	-
45	Sulphate as Mg+Na Salts (mg/l)	-	-	62.4	168	181	63.5	636	96.8	57.0
46	Sodium: Na (mg/l)	-	-	40.0	85.1	50.0	23.0	350	50.0	20.0
47	Potassium: K (mg/l)	-	-	3.0	5.5	4.0	3.0	22.0	1.0	7.0
48	Bicarbonate: HCO <sub>3</sub> (as CaCO <sub>3</sub> mg/l)	-	-	46.0	14.0	48.0	46.0	22.0	34.0	8.0
49	Total alkalinity (mg/l)	-	-	46.0	14.0	48.0	46.0	22.0	34.0	8.0
50	Sulphate: SO <sub>4</sub> (mg/l)	600	-	11.0	75.0	27.3	31.0	235	40.0	33.6

\*1: "MAJI REVIEW" Ministry of Water Development and Power, vol 1, No. 1, July 1974, Dar es Salaam

\*2: "WHO Guideline for Drinking Water Quality Third Edition", World Health Organization, Genova 2004

UN : unobjectionable

OB: objectionable

**Table C.7 Result of Water Quality Analysis, Surface Water (1/8)**

Water Quality Analysis Items	Tanzania Standard for Rural Water Supplies (1974)	WHO Guideline (2004)*1	W-01		W-02		W-03		W-04		
			Bagamoyo		Bagamoyo		Bagamoyo		Bagamoyo		
			Pongwe Kiona (Ring Well)		Miono Mandera (Wami River)		Kiwangwa (Ring Well)		Fukayosi Wws Intake (Dam)		
			Dry	Rain	Dry	Rain	Dry	Rain	Dry	Rain	
1	Total coliform bacteria (count/100ml)	0	0	4.0 x10	9.0 x10	8.0 x10 <sup>2</sup>	1.0 x10 <sup>3</sup>	1.2 x10 <sup>3</sup>	3.5 x10 <sup>3</sup>	5.2 x10 <sup>3</sup>	5.0 x10 <sup>3</sup>
2	Escherichia coli (count/100ml)	0	0	1.0 x10	3.0 x10	6.4 x10 <sup>2</sup>	8.5 x10 <sup>2</sup>	2.0 x10	2.0 x10 <sup>3</sup>	2.1 x10 <sup>3</sup>	3.8 x10 <sup>3</sup>
3	Cadmium: Cd (mg/l)	0.05	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4	Cyanide: CN (mg/l)	0.20	0.07	0.025	<0.001	0.022	<0.001	<0.001	0.002	0.014	0.010
5	Lead: Pb (mg/l)	0.1	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6	Arsenic: As (mg/l)	0.05	0.01	0.047	0.080	<0.001	<0.01	<0.001	0.010	<0.001	0.070
7	Mercury: Hg (mg/l)	-	0.001	0.00019	<0.00001	<0.00001	<0.00001	0.00031	<0.00001	<0.00001	<0.00001
8	Selenium: Se (mg/l)	0.05	0.01	0.106	0.005	<0.01	0.010	0.086	<0.001	0.017	<0.001
9	Barium: Ba (mg/l)	1.00	0.7	6.00	<0.01	<0.7	<0.01	5.00	0.70	<0.01	<0.01
10	Fluoride: F (mg/l)	8.00	1.5	1.19	<1.5	0.41	0.65	0.34	<0.01	<0.01	0.64
11	Hexavalent-chromium : Cr <sup>6+</sup> (mg/l)	0.05	-	<0.001	<0.001	0.010	<0.001	<0.001	<0.001	0.010	<0.001
12	Total chromium: T-Cr (mg/l)	-	0.05	0.050	<0.001	0.020	<0.001	<0.001	<0.001	0.020	<0.001
13	Nitrate: (as NO <sub>3</sub> mg/l)	100	50	11.5	<0.01	5.80	20.8	8.40	72.7	30.6	<0.01
14	Nitrite: (as NO <sub>2</sub> mg/l)	-	3.0.2	0.030	0.030	0.020	0.049	0.020	<0.2	<0.001	0.023
15	Boron: B (mg/l)	-	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
16	Nickel: Ni (mg/l)	-	0.02	<0.001	0.020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
17	Antimony: Sb (mg/l)	-	0.02	<0.001	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
18	Molybdenum: Mo (mg/l)	-	0.07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
19	Manganese: Mn (mg/l)	0.5	0.40	0.03	0.10	0.40	<0.01	1.10	<0.01	<0.01	<0.01
20	Organic carbon as carbon in chloroform (mg/l)	0.5	-	0.152	0.005	0.006	<0.001	0.010	<0.001	0.005	0.035
21	Hardness (as CaCO <sub>3</sub> mg/l)	600	-	535	500	33.0	102	121	33.0	33.2	40.5
22	Calcium: Ca (mg/l)	-	-	64.0	50.0	7.2	22.0	21.2	7.2	5.2	7.0
23	Magnesium: Mg (mg/l)	-	-	91.2	91.2	3.7	11.4	16.5	3.6	4.9	5.6
24	Iron: Fe (mg/l)	1.0	-	0.06	0.10	0.77	<0.01	0.41	<0.01	1.75	<0.01
25	Zinc: Zn (mg/l)	15	-	<0.01	<0.01	<0.01	<0.01	0.10	<0.01	<0.01	<0.01
26	Copper: Cu (mg/l)	3.0	2.0	<0.01	0.30	<0.01	0.10	<0.01	0.30	<0.01	0.90
27	Chlorides: Cl (mg/l)	800	-	900	650	8.5	56.7	36.2	92.2	7.1	35.5
28	Residue (mg/l)	-	-	1,750	1,840	128	205	507	338	250	551
29	Total filterable residue (mg/l)	2,000	-	1,710	1,830	71.5	186	325	185	63.0	162
30	Surfactants: ABS (mg/l)	2.0	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31	Phenolic substance as phenol (mg/l)	0.002	-	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001
32	Hydrogen sulfide: H <sub>2</sub> S (mg/l)	-	-	0.47	0.01	0.58	<0.01	>1.0	<0.01	0.52	0.89
33	Ammonium: NH <sub>3</sub> (mg/l)	-	1.5	<0.01	<0.01	0.19	0.27	<0.01	1.76	0.22	2.45
34	Total Nitrogen, exclusive Nitrate (mg/l)	1.0	-	0.02	<0.01	0.16	0.23	<0.01	1.47	0.17	1.91
35	BOD <sub>5</sub> (mg/l)	6	-	0.8	11.0	5.0	4.0	3.6	6.1	50.0	40.0
36	PV: Oxygen abs. KMnO <sub>4</sub> (mg/l)	20	-	1.6	2.0	8.6	6.8	6.2	10.2	84.0	68.0
37	pH	6.5 - 9.2	-	7.0	7.1	6.8	8.3	4.3	5.4	6.2	6.0
38	Taste	objectionable	-	Salty	Salty	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet
39	Odour	objectionable	-	OB	UN	UN	UN	UN	UN	UN	UN
40	Colour (TCU mg Pvl)	50	15	22	<1	120	62	21	47	350	390
41	Turbidity: Tr (NTU)	30	5	0.2	<0.1	22.5	53.0	41.0	178	52.0	520
42	Temperature (°C)	-	-	26	29	28	30	32	30	28	29
43	Conductivity: EC (microS/cm)	-	-	3,000	3,550	110	330	500	300	120	220
44	Residual chlorine (mg/l)	-	-	-	-	-	-	-	-	-	-
45	Sulphate as Mg+Na Salts (mg/l)	-	-	785	765	26.6	100	232	69.6	<0.1	30.6
46	Sodium: Na (mg/l)	-	-	500	550	6.0	25.0	40.0	50.0	15.0	25.0
47	Potassium: K (mg/l)	-	-	2.0	5.0	4.0	7.5	22.0	2.5	8.0	10.0
48	Bicarbonate: HCO <sub>3</sub> (as CaCO <sub>3</sub> mg/l)	-	-	32.0	756	26.0	57.0	20.0	4.0	50.0	58.0
49	Total alkalinity (mg/l)	-	-	32.0	756	26.0	93.0	20.0	4.0	50.0	580
50	Sulphate: SO <sub>4</sub> (mg/l)	600	-	194	74.0	17.0	27.0	175	16.0	<0.1	<0.1

\*1: "MAJI REVIEW" Ministry of Water Development and Power, vol 1, No. 1, July 1974, Dar es Salaam

\*2: "WHO Guideline for Drinking Water Quality Third Edition", World Health Organization, Geneva 2004

UN : unobjectionable  
OB: objectionable

**Table C.7 Result of Water Quality Analysis, Surface Water (2/8)**

Water Quality Analysis Items	Tanzania Standard for Rural Water Supplies (1974)	WHO Guideline (2004)*1	W-05		W-06		W-07		W-08		
			Kinondoni		Kibaha		Kibaha		Kinondoni		
			Mabwepande(Bunju) (Ring Well)		Kidogozero Vigwaza Intake Ruvu River)		Mlandizi Dawasa Wss Intake (Ruvu River)		Kimara King'Ong'O (Dug Well)		
		Dry	Rain	Dry	Rain	Dry	Rain	Dry	Rain		
1	Total coliform bacteria (count/100ml)	0	0	1.6 x10 <sup>4</sup>	1.4 x10 <sup>4</sup>	9.4 x10 <sup>2</sup>	9.2 x10	8.8 x10 <sup>2</sup>	3.2 x10 <sup>3</sup>	8.3 x10 <sup>3</sup>	9.0 x10 <sup>3</sup>
2	Escherichia coli (count/100ml)	0	0	9.0 x10 <sup>3</sup>	8.0 x10 <sup>3</sup>	6.9 x10 <sup>2</sup>	7.2 x10	3.0 x10 <sup>2</sup>	1.0 x10 <sup>3</sup>	5.8 x10 <sup>3</sup>	6.0 x10 <sup>3</sup>
3	Cadmium: Cd (mg/l)	0.05	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4	Cyanide: CN (mg/l)	0.20	0.07	0.054	<0.001	0.012	<0.001	0.004	<0.001	<0.07	<0.001
5	Lead: Pb (mg/l)	0.1	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6	Arsenic: As (mg/l)	0.05	0.01	0.119	0.180	<0.001	<0.001	<0.001	<0.001	<0.001	0.090
7	Mercury: Hg (mg/l)	-	0.001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00060	<0.00001
8	Selenium: Se (mg/l)	0.05	0.01	0.044	0.010	0.446	0.039	0.162	<0.001	<0.01	<0.01
9	Barium: Ba (mg/l)	1.00	0.7	<0.01	<0.01	2.00	<0.01	<0.7	<0.01	10.0	1.00
10	Fluoride: F (mg/l)	8.00	1.5	<0.01	0.54	<0.01	0.40	<1.5	0.55	<0.01	0.17
11	Hexavalent-chromium : Cr <sup>6+</sup> (mg/l)	0.05	-	0.050	<0.001	0.050	<0.001	<0.001	0.020	<0.001	0.010
12	Total chromium: T-Cr (mg/l)	-	0.05	<0.05	<0.001	<0.05	0.031	<0.001	0.027	<0.001	0.040
13	Nitrate: (as NO <sub>3</sub> mg/l)	100	50	64.7	636	<0.01	3.54	5.80	14.6	82.8	<0.01
14	Nitrite: (as NO <sub>2</sub> mg/l)	-	3.0/2	0.141	0.082	0.016	0.013	0.020	0.010	0.079	0.026
15	Boron: B (mg/l)	-	0.5	4.0	<0.1	<0.1	<0.1	<0.1	<0.1	0.6	<0.1
16	Nickel: Ni (mg/l)	-	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
17	Antimony: Sb (mg/l)	-	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
18	Molybdenum: Mo (mg/l)	-	0.07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
19	Manganese: Mn (mg/l)	0.5	0.40	0.60	<0.01	<0.01	0.03	<0.01	0.50	0.10	0.60
20	Organic carbon as carbon in chloroform (mg/l)	0.5	-	0.008	0.012	0.003	0.026	0.001	<0.001	0.009	0.023
21	Hardness (as CaCO <sub>3</sub> mg/l)	600	-	200	248	29.0	110	35.0	42.0	62.0	108
22	Calcium: Ca (mg/l)	-	-	56.8	44.0	6.4	12.8	7.2	7.2	15.2	21.6
23	Magnesium: Mg (mg/l)	-	-	14.0	33.6	3.2	19.0	4.1	5.8	5.8	13.1
24	Iron: Fe (mg/l)	1.0	-	3.03	<0.01	0.98	0.06	0.66	1.61	1.55	0.70
25	Zinc: Zn (mg/l)	15	-	<0.01	<0.01	<0.01	0.20	<0.01	0.30	<0.01	<0.01
26	Copper: Cu (mg/l)	3.0	2.0	<0.01	0.50	<0.01	0.20	<0.01	0.20	<0.01	3.00
27	Chlorides: Cl (mg/l)	800	-	184	100	11.0	78.0	7.8	21.3	113	171
28	Residue (mg/l)	-	-	6.650	499	86.0	192	169	191	300	419
29	Total filterable residue (mg/l)	2.000	-	418	448	38.8	165	60.5	77.0	265	338
30	Surfactants: ABS (mg/l)	2.0	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31	Phenolic substance as phenol (mg/l)	0.002	-	<0.002	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001
32	Hydrogen sulfide: H <sub>2</sub> S (mg/l)	-	-	0.22	<0.01	0.58	<0.01	0.30	<0.01	0.89	0.02
33	Ammonium: NH <sub>3</sub> (mg/l)	-	1.5	0.52	2.94	0.35	0.22	0.23	0.40	1.03	2.20
34	Total Nitrogen, exclusive Nitrate (mg/l)	1.0	-	0.15	2.30	0.28	0.17	0.19	0.31	0.07	1.72
35	BOD <sub>5</sub> (mg/l)	6	-	41.6	12.0	3.4	31.0	1.0	4.3	10.9	34.0
36	PV: Oxygen abs. KMnO <sub>4</sub> (mg/l)	20	-	68.0	20.0	6.0	52.0	1.8	7.2	18.0	58.0
37	pH	6.5 - 9.2	-	7.5	6.4	6.8	6.9	7.3	7.2	6.0	8.6
38	Taste	objectionable	-	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet
39	Odour	objectionable	-	Earthy	UN	UN	UN	UN	UN	UN	UN
40	Colour (TCU mg Pvl)	50	15	110	37	150	62	140	62	300	260
41	Turbidity: Tr (NTU)	30	5	3,080	193	61.8	46.0	47.5	40.0	8.7	126
42	Temperature (°C)	-	-	30	28	30	31	30	29	30	28
43	Conductivity: EC (microS/cm)	-	-	760	830	76	320	110	140	480	570
44	Residual chlorine (mg/l)	-	-	-	-	-	-	-	-	-	-
45	Sulphate as Mg+Na Salts (mg/l)	-	-	138	139	10.2	34.0	18.1	18.3	101	112
46	Sodium: Na (mg/l)	-	-	75.0	75.0	5.0	15.0	7.0	7.5	75.0	75.0
47	Potassium: K (mg/l)	-	-	12.5	2.5	1.9	12.5	2.5	7.5	7.5	10.0
48	Bicarbonate: HCO <sub>3</sub> (as CaCO <sub>3</sub> mg/l)	-	-	72.0	250	24.0	34.0	44.0	<0.1	58.0	156
49	Total alkalinity (mg/l)	-	-	72.0	355	24.0	34.0	44.0	36.0	58.0	18.0
50	Sulphate: SO <sub>4</sub> (mg/l)	600	-	49.0	18.0	2.0	<0.1	7.0	5.0	20.0	24.0

\*1: "MAJI REVIEW" Ministry of Water Development and Power, vol 1, No. 1, July 1974, Dar es Salaam

\*2: "WHO Guideline for Drinking Water Quality Third Edition", World Health Organization, Geneva 2004

UN : unobjectionable  
OB: objectionable

**Table C.7 Result of Water Quality Analysis, Surface Water (3/8)**

Water Quality Analysis Items	Tanzania Standard for Rural Water Supplies (1974)	WHO Guideline (2004)*1	W-09 Kibaha		W-10 Kibaha		W-11 Kibaha		W-12 Kibaha		
			Ruvu Stat.Intake (Ruvu)		Kikongo (Dug Well)		Bokotimiza (Ring Well)		Soga Secondary (Ring Well)		
			Dry	Rain	Dry	Rain	Dry	Rain	Dry	Rain	
1	Total coliform bacteria (count/100ml)	0	0	2.8 x10 <sup>2</sup>	7.0 x10 <sup>2</sup>	3.6 x10 <sup>3</sup>	1.0 x10	1.0 x10 <sup>3</sup>	4.1 x10 <sup>3</sup>	1.1 x10 <sup>3</sup>	1.2 x10 <sup>3</sup>
2	Escherichia coli (count/100ml)	0	0	2.6 x10 <sup>2</sup>	5.6 x10 <sup>2</sup>	5.0 x10 <sup>2</sup>	3.5 x10 <sup>2</sup>	4.8 x10 <sup>2</sup>	2.8 x10 <sup>3</sup>	8.0 x10 <sup>2</sup>	9.5 x10 <sup>2</sup>
3	Cadmium: Cd (mg/l)	0.05	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4	Cyanide: CN (mg/l)	0.20	0.07	0.039	<0.001	0.030	<0.001	0.026	<0.001	<0.001	<0.001
5	Lead: Pb (mg/l)	0.1	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6	Arsenic: As (mg/l)	0.05	0.01	0.004	<0.001	0.033	<0.001	<0.01	<0.01	<0.001	0.050
7	Mercury: Hg (mg/l)	-	0.001	<0.00001	0.00300	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
8	Selenium: Se (mg/l)	0.05	0.01	0.029	<0.001	<0.001	0.050	<0.001	<0.001	<0.001	0.030
9	Barium: Ba (mg/l)	1.00	0.7	<0.7	<0.7	<0.7	<0.1	<0.1	<0.1	6.00	<0.1
10	Fluoride: F (mg/l)	8.00	1.5	<1.5	0.73	1.50	<0.1	1.33	0.02	<1.5	0.61
11	Hexavalent-chromium : Cr <sup>6+</sup> (mg/l)	0.05	-	<0.001	0.010	0.020	0.010	<0.001	0.020	<0.001	0.010
12	Total chromium: T-Cr (mg/l)	-	0.05	<0.001	0.024	0.034	0.028	<0.001	0.040	<0.001	<0.05
13	Nitrate: (as NO <sub>3</sub> mg/l)	100	50	14.6	<0.01	34.6	11.52	<50	1.33	4.90	<0.01
14	Nitrite: (as NO <sub>2</sub> mg/l)	-	3.02	0.020	0.023	<0.001	0.023	<0.2	0.007	0.030	0.020
15	Boron: B (mg/l)	-	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
16	Nickel: Ni (mg/l)	-	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
17	Antimony: Sb (mg/l)	-	0.02	<0.001	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001	<0.001
18	Molybdenum: Mo (mg/l)	-	0.07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
19	Manganese: Mn (mg/l)	0.5	0.40	<0.01	<0.01	0.10	<0.01	<0.01	<0.01	<0.01	<0.01
20	Organic carbon as carbon in chloroform (mg/l)	0.5	-	0.001	0.014	0.002	0.021	0.006	0.005	0.190	<0.001
21	Hardness (as CaCO <sub>3</sub> mg/l)	600	-	31.0	33.0	12.0	95.0	66.0	75.0	59.0	73.0
22	Calcium: Ca (mg/l)	-	-	0.8	8.0	2.8	6.0	9.2	10.0	12.8	19.2
23	Magnesium: Mg (mg/l)	-	-	2.8	3.2	1.2	19.5	105	12.2	6.6	6.1
24	Iron: Fe (mg/l)	1.0	-	0.55	0.80	0.55	0.39	1.86	0.89	0.05	<0.01
25	Zinc: Zn (mg/l)	15	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
26	Copper: Cu (mg/l)	3.0	2.0	<0.01	0.50	<0.01	0.20	<0.01	0.30	<0.01	3.00
27	Chlorides: Cl (mg/l)	800	-	5.0	10.6	11.4	70.0	58.2	95.7	44.7	103
28	Residue (mg/l)	-	-	100	150	40.0	116	438	303	195	261
29	Total filterable residue (mg/l)	2,000	-	37.3	74.0	39.0	110	163	294	170	260
30	Surfactants: ABS (mg/l)	2.0	-	<0.001	<0.001	<0.001	<0.001	0.042	<0.001	<0.001	<0.001
31	Phenolic substance as phenol (mg/l)	0.002	-	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001
32	Hydrogen sulfide: H <sub>2</sub> S (mg/l)	-	-	0.40	0.46	0.35	<0.01	0.56	<0.01	0.71	0.76
33	Ammonium: NH <sub>3</sub> (mg/l)	-	1.5	0.31	0.27	0.41	0.43	<0.01	0.91	<0.01	<0.01
34	Total Nitrogen, exclusive Nitrate (mg/l)	1.0	-	0.25	0.22	0.32	0.34	0.11	0.71	<0.01	0.02
35	BOD <sub>5</sub> (mg/l)	6	-	2.4	4.1	3.3	2.7	2.8	32.0	2.7	21.2
36	PV: Oxygen abs. KMnO <sub>4</sub> (mg/l)	20	-	4.2	6.8	5.6	4.6	4.6	54.0	4.4	36.0
37	pH	6.5 - 9.2	-	7.1	7.0	7.3	5.6	6.9	6.4	6.6	6.4
38	Taste	objectionable	-	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet
39	Odour	objectionable	-	UN	UN	Earthy	UN	UN	UN	UN	UN
40	Colour (TCU mg Pvl)	50	15	97	32	430	220	>500	250	57	<1
41	Turbidity: Tr (NTU)	30	5	34.3	60.0	35.9	54.0	14.3	92.0	5.7	2.0
42	Temperature (°C)	-	-	30	29	27	29	26	28	26	28
43	Conductivity: EC (microS/cm)	-	-	64	110	60	220	250	380	330	510
44	Residual chlorine (mg/l)	-	-	-	-	-	-	-	-	-	-
45	Sulphate as Mg+Na Salts (mg/l)	-	-	13.7	11.7	10.2	27.5	49.5	78.2	74.6	101.1
46	Sodium: Na (mg/l)	-	-	6.0	7.5	6.0	5.0	25.0	50.0	50.0	80.0
47	Potassium: K (mg/l)	-	-	2.0	2.5	1.5	2.5	1.0	2.5	1.5	5.0
48	Bicarbonate: HCO <sub>3</sub> (as CaCO <sub>3</sub> mg/l)	-	-	22.0	42.0	8.0	6.0	20.0	42.0	76.0	94.0
49	Total alkalinity (mg/l)	-	-	22.0	42.0	8.0	6.0	20.0	42.0	76.0	94.0
50	Sulphate: SO <sub>4</sub> (mg/l)	600	-	5.0	1.0	3.0	3.0	14.0	16.0	18.0	15.0

\*1: "MAJI REVIEW" Ministry of Water Development and Power, vol 1, No. 1, July 1974, Dar es Salaam

\*2: "WHO Guideline for Drinking Water Quality Third Edition", World Health Organization, Genova 2004

UN : unobjectionable  
OB: objectionable



**Table C.7 Result of Water Quality Analysis, Surface Water (4/8)**

Water Quality Analysis Items	Tanzania Standard for Rural Water Supplies (1974)	WHO Guideline (2004)*1	W-13 Temeke		W-14 Kibaha		W-15 Temeke		W-16 Kisarawe	
			Kisiwani P/School (Dug Well)		Kwala Wss (River)		Ukoeni Somangira (River)		Kisarawe Intake (Reservoir)	
			Dry	Rain	Dry	Rain	Dry	Rain	Dry	Rain
1 Total coliform bacteria (count/100ml)	0	0	0	1.5 x10 <sup>2</sup>	1.4 x10 <sup>2</sup>	2.0 x10 <sup>2</sup>	1.8 x10 <sup>4</sup>	1.6 x10 <sup>4</sup>	5.1 x10 <sup>2</sup>	8.1 x10 <sup>2</sup>
2 Escherichia coli (count/100ml)	0	0	0	1.1 x10 <sup>2</sup>	4.0 x10	5.0 x10	9.2 x10 <sup>3</sup>	7.8 x10 <sup>3</sup>	2.5 x10 <sup>2</sup>	7.0 x10 <sup>2</sup>
3 Cadmium: Cd (mg/l)	0.05	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4 Cyanide: CN (mg/l)	0.20	0.07	0.034	<0.001	0.019	<0.001	0.061	<0.001	0.023	<0.001
5 Lead: Pb (mg/l)	0.1	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6 Arsenic: As (mg/l)	0.05	0.01	<0.001	0.020	<0.001	<0.001	0.016	0.050	<0.001	0.030
7 Mercury: Hg (mg/l)	-	0.001	<0.00001	0.00700	<0.00001	<0.00001	0.00121	0.00200	<0.00001	<0.00001
8 Selenium: Se (mg/l)	0.05	0.01	0.065	0.050	0.852	0.040	<0.001	0.020	0.172	0.020
9 Barium: Ba (mg/l)	1.00	0.7	4.00	2.00	6.00	1.00	11.0	1.00	4.00	2.00
10 Fluoride: F (mg/l)	8.00	1.5	<0.01	<0.01	<1.5	0.46	<0.01	<0.01	0.61	0.42
11 Hexavalent-chromium : Cr <sup>6+</sup> (mg/l)	0.05	-	<0.001	0.010	<0.001	0.020	<0.001	0.010	<0.001	<0.001
12 Total chromium: T-Cr (mg/l)	-	0.05	<0.001	0.042	<0.001	0.030	<0.001	0.031	<0.001	0.018
13 Nitrate: (as NO <sub>3</sub> mg/l)	100	50	5.30	61.1	16.8	<0.01	2.70	24.8	3.10	12.0
14 Nitrite: (as NO <sub>2</sub> mg/l)	-	3/0.2	0.033	0.026	0.033	0.026	0.033	0.026	0.013	0.023
15 Boron: B (mg/l)	-	0.5	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
16 Nickel: Ni (mg/l)	-	0.02	<0.001	<0.001	<0.001	0.013	<0.001	<0.001	<0.001	<0.001
17 Antimony: Sb (mg/l)	-	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
18 Molybdenum: Mo (mg/l)	-	0.07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
19 Manganese: Mn (mg/l)	0.5	0.40	<0.01	<0.01	<0.01	<0.01	0.10	<0.01	0.10	<0.01
20 Organic carbon as carbon in chloroform (mg/l)	0.5	-	0.001	0.006	0.001	0.005	0.007	0.015	0.163	0.005
21 Hardness (as CaCO <sub>3</sub> mg/l)	600	-	29.0	155	85.0	62.0	65.0	70.0	218	250
22 Calcium: Ca (mg/l)	-	-	6.0	18.0	17.2	10.0	19.6	17.6	29.6	30.0
23 Magnesium: Mg (mg/l)	-	-	3.4	26.8	10.2	9.0	3.9	6.3	35.0	42.6
24 Iron: Fe (mg/l)	1.0	-	0.02	0.02	0.22	<0.01	0.40	0.17	0.16	<0.01
25 Zinc: Zn (mg/l)	15	-	<0.01	<0.01	0.20	<0.01	<0.01	<0.01	0.10	<0.01
26 Copper: Cu (mg/l)	3.0	2.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.60
27 Chlorides: Cl (mg/l)	800	-	99.4	121	15.6	35.5	48.3	67.0	494	409
28 Residue (mg/l)	-	-	142	249	170	130	190	171	950	758
29 Total filterable residue (mg/l)	2,000	-	83.6	245	138	130	161	161	836	743
30 Surfactants: ABS (mg/l)	2.0	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31 Phenolic substance as phenol (mg/l)	0.002	-	<0.001	<0.001	<0.002	<0.002	<0.002	<0.001	<0.002	<0.002
32 Hydrogen sulfide: H <sub>2</sub> S (mg/l)	-	-	0.72	<0.01	0.57	0.68	0.40	<0.01	0.55	<0.01
33 Ammonium: NH <sub>3</sub> (mg/l)	-	1.5	<0.01	<0.01	0.06	0.27	0.52	0.14	0.39	0.17
34 Total Nitrogen, exclusive Nitrate (mg/l)	1.0	-	0.02	<0.01	0.06	0.22	0.41	0.12	0.30	0.14
35 BOD <sub>5</sub> (mg/l)	6	-	1.4	2.1	2.6	6.8	2.7	5.4	4.9	4.6
36 PV: Oxygen abs. KMnO <sub>4</sub> (mg/l)	20	-	2.0	3.8	4.2	11.4	4.2	9.0	8.0	7.8
37 pH	6.5 - 9.2	-	6.5	6.1	6.8	6.6	7.1	8.3	6.0	6.3
38 Taste	objectionable	-	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet
39 Odour	objectionable	-	UN	UN	UN	UN	UN	UN	UN	UN
40 Colour (TCU mg P/l)	50	15	13	<1	20	19	31	<1	26	<1
41 Turbidity: Tr (NTU)	30	5	0.3	0.5	3.4	13.0	5.7	12.7	20.2	6.0
42 Temperature (°C)	-	-	39	29	38	32	40	27	28	29
43 Conductivity: EC (microS/cm)	-	-	160	480	250	240	304	185	1,530	1,530
44 Residual chlorine (mg/l)	-	-	-	-	-	-	-	-	-	-
45 Sulphate as Mg+Na Salts (mg/l)	-	-	34.4	72.3	26.2	34.0	64.9	87.3	385	355
46 Sodium: Na (mg/l)	-	-	25.0	37.5	15.0	25.0	45.0	40.0	240	230
47 Potassium: K (mg/l)	-	-	6.0	5.0	5.0	5.0	4.0	5.0	18.0	7.5
48 Bicarbonate: HCO <sub>3</sub> (as CaCO <sub>3</sub> mg/l)	-	-	52.0	60.0	105	70.0	74.0	18.0	8.0	22.0
49 Total alkalinity (mg/l)	-	-	52.0	60.0	105	70.0	74.0	66.0	8.0	22.0
50 Sulphate: SO <sub>4</sub> (mg/l)	600	-	6.0	8.0	1.0	<0.1	16.0	41.0	110	82.5

\*1: "MAJI REVIEW" Ministry of Water Development and Power, vol 1, No. 1, July 1974, Dar es Salaam

\*2: "WHO Guideline for Drinking Water Quality Third Edition", World Health Organization, Genova 2004

UN : unobjectionable

OB: objectionable

**Table C.7 Result of Water Quality Analysis, Surface Water (5/8)**

Water Quality Analysis Items	Tanzania Standard for Rural Water Supplies (1974)	WHO Guideline (2004)*1	W-17		W-18		W-19		W-20		
			Kisarawe		Temeke		Temeke		Ilala		
			Sanze Intake (Stream)		Mzinga (At Bridge Charambe) (River)		Mkongoe (River)		Mbuyuni (Ring Well)		
			Dry	Rain	Dry	Rain	Dry	Rain	Dry	Rain	
1	Total coliform bacteria (count/100ml)	0	0	5.0 x10	1.0 x10	8.3 x10 <sup>3</sup>	1.5 x10 <sup>4</sup>	1.5 x10 <sup>4</sup>	2.9 x10 <sup>4</sup>	7.0 x10	2.5 x10 <sup>2</sup>
2	Escherichia coli (count/100ml)	0	0	2.0 x10	5	6.0 x10 <sup>3</sup>	9.0 x10 <sup>3</sup>	6.2 x10 <sup>3</sup>	9.0 x10 <sup>3</sup>	1.1 x10 <sup>2</sup>	2.0 x10 <sup>2</sup>
3	Cadmium: Cd (mg/l)	0.05	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4	Cyanide: CN (mg/l)	0.20	0.07	0.021	0.026	0.052	0.002	0.061	<0.001	0.046	<0.001
5	Lead: Pb (mg/l)	0.1	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6	Arsenic: As (mg/l)	0.05	0.01	<0.001	<0.001	0.011	0.020	<0.001	0.050	<0.01	<0.01
7	Mercury: Hg (mg/l)	-	0.001	<0.00001	<0.00001	<0.00001	0.00300	0.00026	<0.00001	0.00149	0.00300
8	Selenium: Se (mg/l)	0.05	0.01	<0.001	0.070	0.035	0.090	0.195	0.030	<0.001	0.010
9	Barium: Ba (mg/l)	1.00	0.7	3.00	1.00	6.00	1.00	9.00	1.00	6.00	0.90
10	Fluoride: F (mg/l)	8.00	1.5	0.64	0.47	<0.01	<0.01	0.15	<0.01	0.24	<0.01
11	Hexavalent-chromium : Cr <sup>6+</sup> (mg/l)	0.05	-	<0.001	<0.001	<0.001	0.020	<0.001	0.020	<0.001	<0.001
12	Total chromium: T-Cr (mg/l)	-	0.05	<0.001	<0.001	<0.001	0.044	<0.001	0.049	<0.001	0.011
13	Nitrate: (as NO <sub>3</sub> mg/l)	100	50	7.10	11.5	10.2	20.8	5.30	11.5	10.6	<0.01
14	Nitrite: (as NO <sub>2</sub> mg/l)	-	3.02	0.069	0.039	0.089	<0.2	0.026	0.066	0.039	<0.001
15	Boron: B (mg/l)	-	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
16	Nickel: Ni (mg/l)	-	0.02	<0.001	<0.001	<0.001	0.044	<0.001	<0.001	<0.001	<0.001
17	Antimony: Sb (mg/l)	-	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.001
18	Molybdenum: Mo (mg/l)	-	0.07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
19	Manganese: Mn (mg/l)	0.5	0.40	0.03	<0.01	<0.01	<0.01	0.03	<0.01	0.02	0.15
20	Organic carbon as carbon in chloroform (mg/l)	0.5	-	0.200	0.023	0.121	0.014	0.052	0.020	0.061	0.017
21	Hardness (as CaCO <sub>3</sub> mg/l)	600	-	610	672	234	224	75.0	118	136	110
22	Calcium: Ca (mg/l)	-	-	82.0	68.0	4.9	40.0	13.2	17.6	44.0	29.6
23	Magnesium: Mg (mg/l)	-	-	98.5	122	33.1	30.2	10.2	18.0	6.3	8.8
24	Iron: Fe (mg/l)	1.0	-	0.12	<0.01	0.68	<0.01	0.06	0.03	0.07	0.36
25	Zinc: Zn (mg/l)	15	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.10
26	Copper: Cu (mg/l)	3.0	2.0	<0.01	0.30	<0.01	0.20	<0.01	0.10	<0.01	0.30
27	Chlorides: Cl (mg/l)	800	-	1,050	145	302	241	124	206	141	262
28	Residue (mg/l)	-	-	2,350	2,260	872	569	359	401	548	780
29	Total filterable residue (mg/l)	2,000	-	2,280	2,250	663	530	297	398	365	706
30	Surfactants: ABS (mg/l)	2.0	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31	Phenolic substance as phenol (mg/l)	0.002	-	0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001
32	Hydrogen sulfide: H <sub>2</sub> S (mg/l)	-	-	0.78	<0.01	0.60	<0.01	0.39	<0.01	0.72	0.67
33	Ammonium: NH <sub>3</sub> (mg/l)	-	1.5	0.03	0.14	0.32	0.26	0.12	<0.01	<0.01	2.56
34	Total Nitrogen, exclusive Nitrate (mg/l)	1.0	-	0.04	0.12	0.28	0.31	0.10	0.02	<0.01	1.99
35	BOD <sub>5</sub> (mg/l)	6	-	2.7	4.8	8.0	6.6	4.7	5.1	2.7	12.0
36	PV: Oxygen abs. KMnO <sub>4</sub> (mg/l)	20	-	4.4	8.0	12.8	11.0	7.5	8.6	4.2	18.8
37	pH	6.5 - 9.2	-	6.3	8.3	6.8	8.4	7.2	8.3	6.8	6.6
38	Taste	objectionable	-	Salty	Salty	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet
39	Odour	objectionable	-	OB	UN	UN	UN	UN	UN	UN	UN
40	Colour (TCU mg Pvl)	50	15	18	<1	36	<1	30	<1	10	330
41	Turbidity: Tr (NTU)	30	5	23.0	7.0	8.5	21.1	4.8	1.5	2.2	321
42	Temperature (°C)	-	-	30	29	27	28	26	31	27	29
43	Conductivity: EC (microS/cm)	-	-	3,510	4,420	1,220	1,060	540	780	660	900
44	Residual chlorine (mg/l)	-	-	-	-	-	-	-	-	-	-
45	Sulphate as Mg+Na Salts (mg/l)	-	-	914	977	376	218	121	158	141	167
46	Sodium: Na (mg/l)	-	-	600	700	200	140	87.5	125	87.5	150
47	Potassium: K (mg/l)	-	-	34.0	15.0	7.5	2.5	4.5	5.0	5.0	10.0
48	Bicarbonate: HCO <sub>3</sub> (as CaCO <sub>3</sub> mg/l)	-	-	45.0	<0.1	72.0	104	70.0	88.0	82.0	68.0
49	Total alkalinity (mg/l)	-	-	48.0	30.0	72.0	140	70.0	116	82.0	68.0
50	Sulphate: SO <sub>4</sub> (mg/l)	600	-	215	155	143	48.0	23.0	15.0	47.5	8.0

\*1: "MAJI REVIEW" Ministry of Water Development and Power, vol 1, No. 1, July 1974, Dar es Salaam

\*2: "WHO Guideline for Drinking Water Quality Third Edition", World Health Organization, Genova 2004

UN : unobjectionable

OB: objectionable

**Table C.7 Result of Water Quality Analysis, Surface Water (6/8)**

Water Quality Analysis Items	Tanzania Standard for Rural Water Supplies (1974)	WHO Guideline (2004)*1	W-21		W-22		W-23		W-24	
			Ilala		Temeke		Ilala		Kisarawe	
			Msongola (Ring Well)		Mbungoni Kimbiji (River)		Msongola Mvuti (Spring)		Mafizi (Ruvu River)	
			Dry	Rain	Dry	Rain	Dry	Rain	Dry	Rain
1 Total coliform bacteria (count/100ml)	0	0	1.0 x10 <sup>3</sup>	2.0 x10 <sup>3</sup>	6.4 x10 <sup>2</sup>	6.4 x10 <sup>2</sup>	1	3.4 x10 <sup>3</sup>	2.9 x10 <sup>2</sup>	3.5 x10 <sup>2</sup>
2 Escherichia coli (count/100ml)	0	0	5.5 x10 <sup>2</sup>	1.4 x10 <sup>3</sup>	6.0 x10 <sup>2</sup>	4.0 x10 <sup>2</sup>	0	2.6 x10 <sup>3</sup>	1.6 x10 <sup>2</sup>	2.2 x10 <sup>3</sup>
3 Cadmium: Cd (mg/l)	0.05	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4 Cyanide: CN (mg/l)	0.20	0.07	0.022	<0.001	0.034	0.025	0.051	<0.001	0.049	<0.001
5 Lead: Pb (mg/l)	0.1	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6 Arsenic: As (mg/l)	0.05	0.01	<0.001	0.020	<0.001	0.020	<0.001	0.020	0.015	0.060
7 Mercury: Hg (mg/l)	-	0.001	<0.00001	<0.00001	0.00080	0.00300	<0.00001	<0.00001	<0.00001	0.00200
8 Selenium: Se (mg/l)	0.05	0.01	<0.001	0.020	0.102	<0.001	0.070	<0.001	<0.001	<0.001
9 Barium: Ba (mg/l)	1.00	0.7	7.00	1.00	3.00	<0.01	<0.01	0.59	13.0	0.90
10 Fluoride: F (mg/l)	8.00	1.5	0.47	0.43	0.38	<0.01	0.28	0.35	<1.5	<0.01
11 Hexavalent-chromium : Cr <sup>6+</sup> (mg/l)	0.05	-	<0.001	<0.001	<0.001	0.020	<0.001	<0.001	0.010	<0.001
12 Total chromium: T-Cr (mg/l)	-	0.05	<0.001	0.013	<0.001	0.040	<0.001	<0.001	0.015	0.031
13 Nitrate: (as NO <sub>3</sub> mg/l)	100	50	12.8	32.8	7.10	7.09	26.1	16.8	12.4	8.86
14 Nitrite: (as NO <sub>2</sub> mg/l)	-	3.02	0.062	0.020	0.033	0.052	0.049	0.036	0.033	<0.001
15 Boron: B (mg/l)	-	0.5	<0.1	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	<0.1
16 Nickel: Ni (mg/l)	-	0.02	<0.001	0.013	<0.001	0.050	<0.001	<0.001	<0.001	<0.001
17 Antimony: Sb (mg/l)	-	0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
18 Molybdenum: Mo (mg/l)	-	0.07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
19 Manganese: Mn (mg/l)	0.5	0.40	0.20	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.10
20 Organic carbon as carbon in chloroform (mg/l)	0.5	-	<0.001	0.005	0.072	0.015	0.004	0.005	<0.001	0.014
21 Hardness (as CaCO <sub>3</sub> mg/l)	600	-	68.0	24.0	218	260	56.0	84.9	37.0	105
22 Calcium: Ca (mg/l)	-	-	18.4	4.0	64.8	82.0	7.2	20.8	6.4	8.0
23 Magnesium: Mg (mg/l)	-	-	5.4	3.4	13.6	13.4	9.2	8.0	5.1	20.7
24 Iron: Fe (mg/l)	1.0	-	0.24	<0.01	0.02	<0.01	0.04	0.07	0.36	0.14
25 Zinc: Zn (mg/l)	15	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
26 Copper: Cu (mg/l)	3.0	2.0	<0.01	0.90	<0.01	4.00	<0.01	<0.01	<0.01	0.20
27 Chlorides: Cl (mg/l)	800	-	21.3	42.5	166	1,600	70.3	81.5	10.6	60.3
28 Residue (mg/l)	-	-	180	156	396	445	200	304	130	175
29 Total filterable residue (mg/l)	2,000	-	122	148	358	440	160	291	59	135
30 Surfactants: ABS (mg/l)	2.0	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31 Phenolic substance as phenol (mg/l)	0.002	-	<0.002	<0.001	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002
32 Hydrogen sulfide: H <sub>2</sub> S (mg/l)	-	-	0.46	<0.01	0.38	<0.01	0.18	<0.01	0.40	<0.01
33 Ammonium: NH <sub>3</sub> (mg/l)	-	1.5	0.05	0.22	0.04	<0.01	<0.01	0.50	0.19	<0.01
34 Total Nitrogen, exclusive Nitrate (mg/l)	1.0	-	0.06	0.76	0.04	0.03	0.02	0.40	0.16	<0.01
35 BOD <sub>5</sub> (mg/l)	6	-	1.9	2.5	2.8	2.1	1.0	3.2	2.6	6.1
36 PV: Oxygen abs. KMnO <sub>4</sub> (mg/l)	20	-	3.2	4.2	4.4	3.6	1.6	5.4	4.6	10.0
37 pH	6.5 - 9.2	-	6.0	5.4	7.2	8.3	7.6	7.9	7.1	6.4
38 Taste	objectionable	-	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet
39 Odour	objectionable	-	UN	UN	UN	UN	UN	UN	UN	UN
40 Colour (TCU mg P/l)	50	15	22	<1	23	<1	9	150	52	9
41 Turbidity: Tr (NTU)	30	5	3.7	3.0	0.6	0.5	3.1	48.0	25.0	51.0
42 Temperature (°C)	-	-	27	29	27	27	29	29	30	29
43 Conductivity: EC (microS/cm)	-	-	232	2,300	650	860	290	400	90	270
44 Residual chlorine (mg/l)	-	-	-	-	-	-	-	-	-	-
45 Sulphate as Mg+Na Salts (mg/l)	-	-	70.8	83.4	82.6	111	76.2	90.5	10.1	36.2
46 Sodium: Na (mg/l)	-	-	30.0	40.0	50.0	75.0	35.0	50.0	3.0	7.5
47 Potassium: K (mg/l)	-	-	5.0	2.5	4.5	2.5	7.5	5.0	2.0	10.0
48 Bicarbonate: HCO <sub>3</sub> (as CaCO <sub>3</sub> mg/l)	-	-	48.0	14.0	68.0	185	18.0	51.0	32.0	40.0
49 Total alkalinity (mg/l)	-	-	48.0	14.0	68.0	217	18.0	51.0	32.0	40.0
50 Sulphate: SO <sub>4</sub> (mg/l)	600	-	35.4	40.0	19.0	23.0	32.0	32.5	2.0	8.0

\*1: "MAJI REVIEW" Ministry of Water Development and Power, vol 1, No. 1, July 1974, Dar es Salaam

\*2: "WHO Guideline for Drinking Water Quality Third Edition", World Health Organization, Genova 2004

UN : unobjectionable

OB: objectionable

**Table C.7 Result of Water Quality Analysis, Surface Water (7/8)**

Water Quality Analysis Items	Tanzania Standard for Rural Water Supplies (1974)	WHO Guideline (2004)*1	W-25		W-26		W-27	W-28		W-29	
			Kisarawe		Mkuranga		Kisarawe	Kisarawe		Mkuranga	
			Masaki (Dug Well)		Mbezi- Gongoni (Ring Well)		Gwata Wss Intake (Ruvu River)	Maneromango Wss (Kanga Dam)		Kimanzichana (Ring Well)	
			Dry	Rain	Dry	Rain	Dry	Dry	Rain	Dry	Rain
1 Total coliform bacteria (count/100ml)	0	0	2.4 x10 <sup>2</sup>	1.0 x10 <sup>4</sup>	2.1 x10	2.4 x10 <sup>3</sup>	9.0 x10	1.2 x10 <sup>2</sup>	2.3 x10 <sup>3</sup>	3.0 x10	7.8 x10 <sup>2</sup>
2 Escherichia coli (count/100ml)	0	0	2.1 x10 <sup>2</sup>	6.9 x10 <sup>3</sup>	9	8.0 x10	5.0 x10	2.8 x10	1.2 x10 <sup>3</sup>	8	4.2 x10 <sup>2</sup>
3 Cadmium: Cd (mg/l)	0.05	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4 Cyanide: CN (mg/l)	0.20	0.07	0.043	0.002	0.057	<0.001	0.030	0.057	0.005	0.063	<0.001
5 Lead: Pb (mg/l)	0.1	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6 Arsenic: As (mg/l)	0.05	0.01	0.002	0.030	0.175	0.101	<0.001	<0.001	<0.001	<0.001	<0.001
7 Mercury: Hg (mg/l)	-	0.001	<0.00001	0.00400	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00018	<0.00001
8 Selenium: Se (mg/l)	0.05	0.01	0.048	0.005	0.019	<0.001	<0.001	0.091	0.004	0.225	0.050
9 Barium: Ba (mg/l)	1.00	0.7	12.0	<0.01	5.00	<0.01	16.0	4.00	2.00	9.00	<0.01
10 Fluoride: F (mg/l)	8.00	1.5	<0.01	<0.01	0.34	<0.01	<1.5	0.48	0.44	0.29	0.30
11 Hexavalent-chromium :Cr <sup>6+</sup> (mg/l)	0.05	-	<0.001	0.030	<0.001	0.010	<0.001	<0.001	<0.001	0.010	0.020
12 Total chromium: T-Cr (mg/l)	-	0.05	<0.001	<0.05	<0.001	0.024	<0.001	<0.001	0.046	0.020	0.045
13 Nitrate: (as NO <sub>3</sub> mg/l)	100	50	142	36.3	2.20	5.76	11.5	4.90	12.4	47.8	14.6
14 Nitrite: (as NO <sub>2</sub> mg/l)	-	3/0.2	<0.2	<0.2	0.033	0.026	0.026	0.10	0.085	0.049	0.003
15 Boron: B (mg/l)	-	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	1.0	<0.1	0.7	<0.1
16 Nickel: Ni (mg/l)	-	0.02	<0.001	0.057	<0.001	<0.001	<0.001	<0.001	0.046	<0.001	0.016
17 Antimony: Sb (mg/l)	-	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
18 Molybdenum: Mo (mg/l)	-	0.07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
19 Manganese: Mn (mg/l)	0.5	0.40	0.60	0.70	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
20 Organic carbon as carbon in chloroform (mg/l)	0.5	-	0.004	<0.001	0.003	0.009	<0.001	0.004	0.006	0.005	0.041
21 Hardness (as CaCO <sub>3</sub> mg/l)	600	-	66.0	210	49.0	106	33.0	37.0	80.0	53.0	80.0
22 Calcium: Ca (mg/l)	-	-	9.0	14.0	11.6	30.8	8.8	4.8	6.0	9.6	14.8
23 Magnesium: Mg (mg/l)	-	-	10.2	42.6	4.9	7.0	2.7	6.1	15.8	7.1	10.5
24 Iron: Fe (mg/l)	1.0	-	0.91	3.02	0.02	0.09	0.37	0.31	0.14	0.23	0.33
25 Zinc: Zn (mg/l)	15	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
26 Copper: Cu (mg/l)	3.0	2.0	<0.01	0.20	<0.01	3.00	<0.01	<0.01	0.10	<0.01	0.10
27 Chlorides: Cl (mg/l)	800	-	135	180	79.5	199	14.1	128	160	74.4	42.5
28 Residue (mg/l)	-	-	380	659	294	391	180	374	365	369	194
29 Total filterable residue (mg/l)	-	-	-	-	-	-	-	-	-	-	-
30 Surfactants: ABS (mg/l)	2.000	-	220	418	202	389	65.0	338	365	154	177
31 Phenolic substance as phenol (mg/l)	0.002	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
32 Hydrogen sulfide: H <sub>2</sub> S (mg/l)	-	-	0.80	<0.01	0.92	<0.01	0.52	0.57	<0.01	0.54	<0.01
33 Ammonium: NH <sub>3</sub> (mg/l)	-	1.5	0.04	2.76	0.12	0.12	0.13	0.27	0.82	0.52	0.27
34 Total Nitrogen, exclusive Nitrate (mg/l)	1.0	-	0.18	2.30	0.10	0.10	0.11	0.21	0.67	0.42	0.21
35 BOD <sub>5</sub> (mg/l)	6	-	1.7	10.5	1.2	2.2	2.8	1.4	21.0	2.3	3.1
36 PV: Oxygen abs. KMnO <sub>4</sub> (mg/l)	20	-	2.8	17.6	2.0	3.8	4.6	2.2	35.0	3.8	5.2
37 pH	6.5 - 9.2	-	6.3	6.1	5.9	8.5	6.9	6.8	7.8	6.3	6.0
38 Taste	not objectionable	-	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet	Sweet	Salty
39 Odour	not objectionable	-	Muy	UN	UN	UN	UN	Earthy	UN	UN	UN
40 Colour (TCU mg Pt/l)	50	15	>500	>550	27	<1	45	74	46	310	70
41 Turbidity: Tr (NTU)	30	5	194	265	4.6	2.0	18.5	6.8	87.0	82.0	28.0
42 Temperature (°C)	-	-	33	29	27	29	30	30	29	27	29
43 Conductivity: EC (microS/cm)	-	-	400	600	310	600	100	520	720	280	320
44 Residual chlorine (mg/l)	-	-	-	-	-	-	-	-	-	-	-
45 Sulphate as Mg+Na Salts (mg/l)	-	-	<0.1	108	71.8	113	10.7	139	179	59.1	64.5
46 Sodium: Na (mg/l)	-	-	60.0	40.0	50.0	87.5	6.0	100	125	30.0	30.0
47 Potassium: K (mg/l)	-	-	2.0	2.5	3.0	5.0	2.5	7.5	7.5	14.0	10.0
48 Bicarbonate: HCO <sub>3</sub> (as CaCO <sub>3</sub> mg/l)	-	-	10.0	18.0	40.0	<0.1	30.0	46.0	94.0	10.0	76.0
49 Total alkalinity (mg/l)	-	-	10.0	18.0	40.0	68.0	30.0	46.0	94.0	10.0	76.0
50 Sulphate: SO <sub>4</sub> (mg/l)	600	-	<0.1	25.0	17.0	18.0	2.0	32.5	38.0	22.0	24.0

\*1: "MAJI REVIEW" Ministry of Water Development and Power, vol 1, No. 1, July 1974, Dar es Salaam

\*2: "WHO Guideline for Drinking Water Quality Third Edition", World Health Organization, Genova 2004

UN : unobjectionable  
OB: objectionable

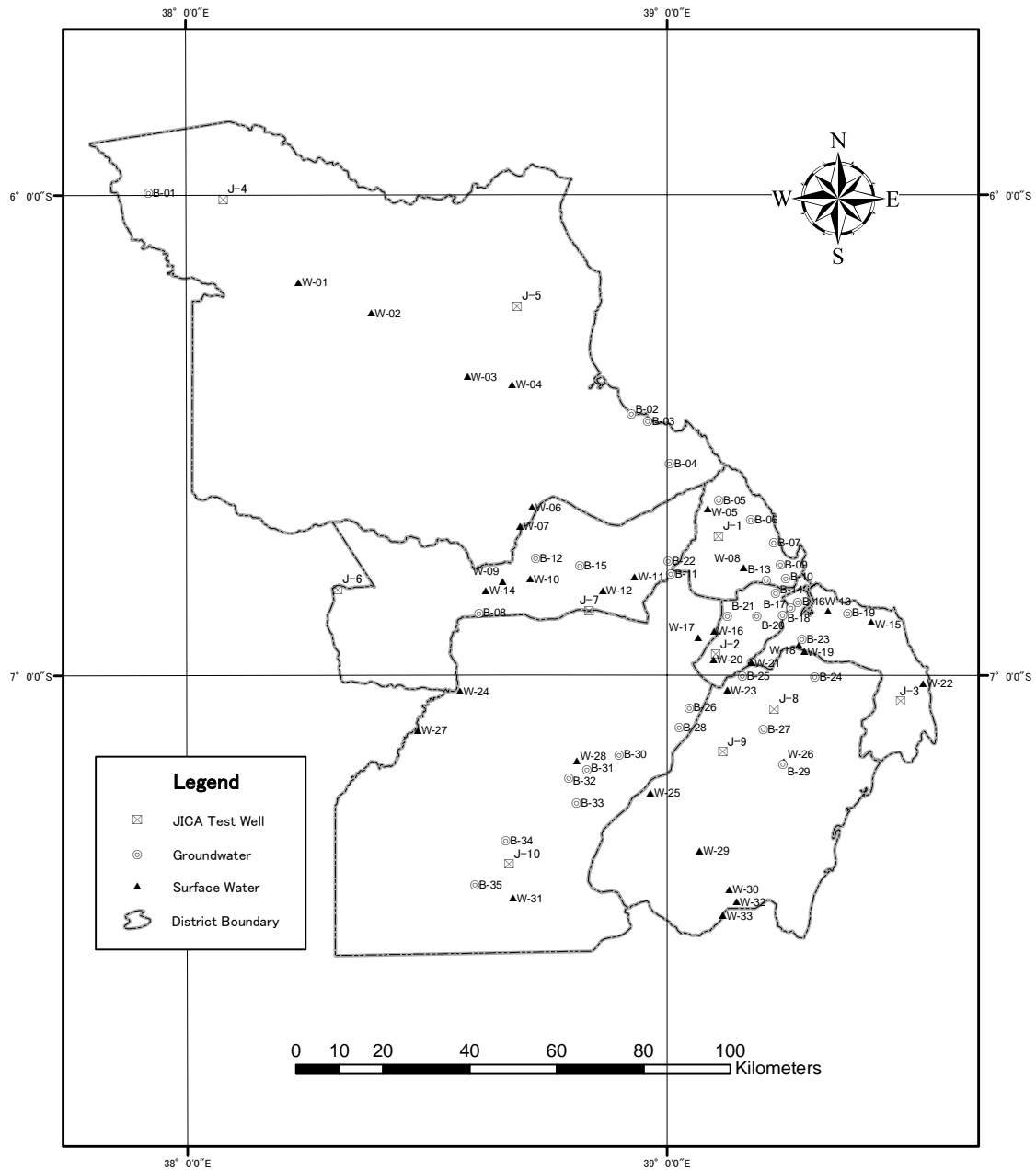
**Table C.7 Result of Water Quality Analysis, Surface Water (8/8)**

Water Quality Analysis Items	Tanzania Standard for Rural Water Supplies (1974)	WHO Guideline (2004)*1	W-30 Mkuranga		W-31 Kisarawe		W-32 Mkuranga		W-33 Mkuranga		W-34		
			Mkiu-Mbwingo (Ring Well)		Marui Kihare (Charco Dam)		Lukanga (River)		Njopeka Spring Wss (Spring)		Kisarawe		
			Dry	Rain	Dry	Rain	Dry	Rain	Dry	Rain	Dry	Rain	Rain
1	Total coliform bacteria (count/100ml)	0	0	7	9.6 x10 <sup>2</sup>	3.5 x10 <sup>2</sup>	1.2 x10 <sup>3</sup>	3.2 x10 <sup>2</sup>	1.4 x10 <sup>3</sup>	3.5 x10 <sup>2</sup>	1.3 x10 <sup>3</sup>	2.4 x10 <sup>3</sup>	
2	Escherichia coli (count/100ml)	0	0	4	8.4 x10 <sup>2</sup>	1.4 x10 <sup>2</sup>	1.0 x10 <sup>3</sup>	2.0 x10 <sup>2</sup>	1.0 x10 <sup>3</sup>	2.3 x10 <sup>2</sup>	5.2 x10 <sup>2</sup>	1.5 x10 <sup>3</sup>	
3	Cadmium: Cd (mg/l)	0.05	<b>0.003</b>	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
4	Cyanide: CN (mg/l)	0.20	<b>0.07</b>	0.036	0.002	0.052	0.019	0.058	0.006	0.066	<0.001	0.004	
5	Lead: Pb (mg/l)	0.1	<b>0.01</b>	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
6	Arsenic: As (mg/l)	0.05	<b>0.01</b>	<0.001	0.020	0.178	0.052	<0.001	0.040	<0.01	<0.001	0.020	
7	Mercury: Hg (mg/l)	-	<b>0.001</b>	<0.00001	<0.00001	0.01880	0.0400	0.00085	<0.00001	0.00102	<0.00001	0.00800	
8	Selenium: Se (mg/l)	0.05	<b>0.01</b>	0.086	0.040	<0.001	0.090	0.175	0.010	<0.01	<0.001	0.080	
9	Barium: Ba (mg/l)	1.00	<b>0.7</b>	6.00	3.34	<0.01	3.61	3.00	1.00	<0.7	<0.7	<0.01	
10	Fluoride: F (mg/l)	8.00	<b>1.5</b>	<0.01	0.24	<0.01	<0.01	0.37	0.33	0.76	0.52	<0.01	
11	Hexavalent-chromium :Cr <sup>6+</sup> (mg/l)	0.05	-	<0.001	0.020	<0.001	<0.001	<0.001	0.020	<0.001	0.010	<0.001	
12	Total chromium: T-Cr (mg/l)	-	<b>0.05</b>	<0.001	0.031	<0.001	<0.05	<0.001	0.044	<0.001	<0.05	<0.001	
13	Nitrate: (as NO <sub>3</sub> mg/l)	100	<b>50</b>	<50	<0.01	483	93.0	7.10	<0.01	2.70	<0.01	<0.01	
14	Nitrite: (as NO <sub>2</sub> mg/l)	-	<b>30.2</b>	<0.2	0.082	<0.2	0.082	0.030	0.043	0.036	0.037	0.036	
15	Boron: B (mg/l)	-	<b>0.5</b>	0.9	<0.1	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
16	Nickel: Ni (mg/l)	-	<b>0.02</b>	<0.001	<0.001	0.128	0.056	<0.001	0.020	<0.001	<0.02	<0.001	
17	Antimony: Sb (mg/l)	-	<b>0.02</b>	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
18	Molybdenum: Mo (mg/l)	-	<b>0.07</b>	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
19	Manganese: Mn (mg/l)	<b>0.5</b>	<b>0.40</b>	0.10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.20	<0.01	
20	Organic carbon as carbon in chloroform (mg/l)	<b>0.5</b>	-	0.078	0.014	0.130	0.026	0.196	0.012	0.196	0.026	<0.001	
21	Hardness (as CaCO <sub>3</sub> mg/l)	<b>600</b>	-	38.2	42.0	38.0	110	420	355	505	325	240	
22	Calcium: Ca (mg/l)	-	-	4.1	5.2	3.2	6.0	84.0	48.0	110	46.0	28.0	
23	Magnesium: Mg (mg/l)	-	-	6.8	7.1	7.3	23.1	51.1	57.0	56.0	51.1	41.3	
24	Iron: Fe (mg/l)	<b>1.0</b>	-	0.65	<0.01	14.0	2.00	<0.01	<0.01	<0.01	0.09	0.45	
25	Zinc: Zn (mg/l)	<b>15</b>	-	<0.01	<0.01	0.10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
26	Copper: Cu (mg/l)	<b>3.0</b>	<b>2.0</b>	<0.01	0.10	<0.01	0.20	<0.01	0.20	<0.01	0.30	0.10	
27	Chlorides: Cl (mg/l)	<b>800</b>	-	55.4	113	18.5	42.5	717	589	646	582	160	
28	Residue (mg/l)	-	-	934	221	1,880	203	1,620	1,330	1,490	1,350	300	
29	Total filterable residue (mg/l)	<b>2,000</b>	-	132	190	88	158	1,320	1,320	1,440	1,350	288	
30	Surfactants: ABS (mg/l)	<b>2.0</b>	-	<0.001	<0.001	<0.001	0.010	<0.001	<0.001	0.039	0.010	<0.001	
31	Phenolic substance as phenol (mg/l)	<b>0.002</b>	-	<0.002	<0.001	<0.002	<0.002	<0.001	<0.002	<0.001	<0.001	<0.002	
32	Hydrogen sulfide: H <sub>2</sub> S (mg/l)	-	-	0.92	0.92	0.47	0.72	0.74	0.60	0.68	0.55	0.04	
33	Ammonium: NH <sub>3</sub> (mg/l)	-	<b>1.5</b>	94.02	1.57	0.45	2.91	0.17	0.02	0.12	<0.01	0.59	
34	Total Nitrogen, exclusive Nitrate (mg/l)	<b>1.0</b>	-	0.93	1.25	0.67	2.29	0.14	0.03	0.10	0.02	0.15	
35	BOD <sub>5</sub> (mg/l)	<b>6</b>	-	19.0	14.0	24.0	19.0	6.8	6.1	5.0	5.2	3.9	
36	PV: Oxygen abs. KMnO <sub>4</sub> (mg/l)	<b>20</b>	-	31.0	23.6	39.0	30.0	11.2	10.2	8.2	8.8	6.6	
37	pH	<b>6.5 - 9.2</b>	-	5.7	5.9	7.0	6.5	6.5	6.7	6.6	6.8	8.3	
38	Taste	not objectionable	-	Sweet	Sweet	Sweet	Sweet	Salty	Sweet	Salty	Sweet	Sweet	
39	Odour	not objectionable	-	UN	UN	UN	UN	OB	UN	OB	UN	UN	
40	Colour (TCU mg Pt/l)	<b>50</b>	<b>15</b>	>500	>550	>500	>550	95	20	40	9	140	
41	Turbidity: Tr (NTU)	<b>30</b>	<b>5</b>	223	186	327	500	9.7	3.0	0.2	8.0	56.0	
42	Temperature (°C)	-	-	29	29	35	29	26	29	26	29	29	
43	Conductivity: EC (microS/cm)	-	-	240	370	160	310	2,370	2,020	2,260	2,000	570	
44	Residual chlorine (mg/l)	-	-	-	-	-	-	-	-	-	-	-	
45	Sulphate as Mg+Na Salts (mg/l)	-	-	72.8	67.1	62.3	39.1	491	465	601	516	62.8	
46	Sodium: Na (mg/l)	-	-	35.0	60.0	15.0	15.0	300	300	400	350	17.5	
47	Potassium: K (mg/l)	-	-	4.0	7.5	5.0	1.5	18.0	5.0	18.0	5.0	2.5	
48	Bicarbonate: HCO <sub>3</sub> (as CaCO <sub>3</sub> mg/l)	-	-	10.0	24.0	15.0	94.0	44.0	66.0	72.0	60.0	16.0	
49	Total alkalinity (mg/l)	-	-	10.0	24.0	15.0	94.0	44.0	66.0	72.0	60.0	136	
50	Sulphate: SO <sub>4</sub> (mg/l)	<b>600</b>	-	31.0	<0.1	40.0	1.0	140	108	145	115	4.0	

\*1: "MAJH REVIEW" Ministry of Water Development and Power, vol 1, No. 1, July 1974, Dar es Salaam

\*2: "WHO Guideline for Drinking Water Quality Third Edition", World Health Organization, Geneva 2004

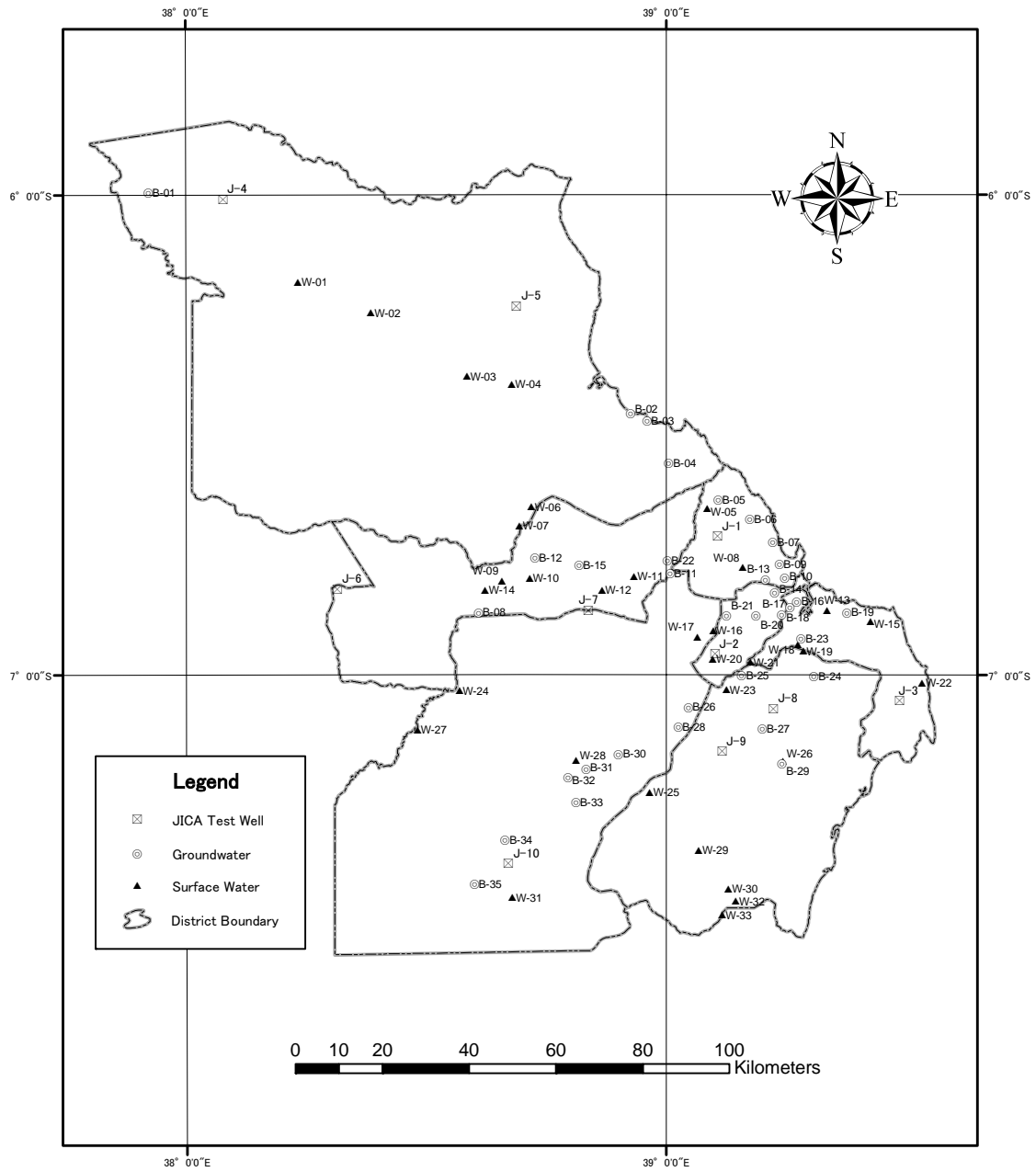
UN : unobjectionable  
OB: objectionable



**FIGURE C.1 LOCATION OF SAMPLING POINT FOR WATER QUALITY ANALYSES**

**THE STUDY ON WATER SUPPLY IMPROVEMENT IN COAST & DAR ES SALAAM**

**JICA**



**FIGURE C.1 LOCATION OF SAMPLING POINT FOR WATER QUALITY ANALYSES**

**THE STUDY ON WATER SUPPLY IMPROVEMENT IN COAST & DAR ES SALAAM**

**JICA**

***Data Book D***  
**Existing Water Supply Systems**



## **EXISTING WATER SUPPLY SCHEME**

The Study Team carried out the survey on existing water supply schemes. Based on the results of village inventory survey and information from district and municipality water engineer offices, the water supply schemes were selected for the survey targets from viewpoints below.

- Water supply scheme is small-scale as rural water supply.
- Water supply schemes owned and managed by village government or communities and main user are residents.

According to the selection of survey target, 20 schemes in Coast Region and 73 schemes in Dar es Salaam Region were investigated in this survey. Surveyed water supply schemes and its outline of survey results are shown in *Table D.1*.

**Table D.1 Results of Existing Water Supply Scheme Survey (1/13)**

District / Municipal	Bagamoyo	Bagamoyo	Bagamoyo	Bagamoyo	Bagamoyo	Bagamoyo	Bagamoyo	Bagamoyo	Bagamoyo	Bagamoyo	Bagamoyo
Name of Water Supply Scheme	Mdaula/Matuli WSS	Mdaula/Matuli WSS	Kibindu WSS	Fikayosi WSS	Kiwangwa WSS	Mindutuli WSS	Kwanhombi WSS	Saadani WSS	Bagamoyo WSS	Kidogero WSS	Bagamoyo
Name of Ward	Chalirze	Chalirze	Kibindu	Kiwangwa	Kiwangwa	Lugaba	Mbewe	Mkange	Bagamoyo	Vigwaza	Bagamoyo
Name of MTA or Village	Mdaula	Matuli	Kibindu	Fikayosi	Kiwangwa	Mindutuli	Kwanhombi	Saadani	Bagamoyo	Kidogero	Bagamoyo
Name of sub-Village	-	-	-	-	-	-	-	-	-	-	-
Water Sources	Matuli Dam	Deep well (depth=35 m)	Deep well (depth=35 m)	Lembo Dam	Shallow well (depth=6 m)	Mindutuli earth dam	Shallow well (depth=32 m)	Shallow well (depth=4 m)	Shallow well (depth=4 m)	Rovu River (through shallow well)	Rovu River (through shallow well)
Population served (2002)	8,612	2,500	3,500	3,700	-	28,104	100% of population	-	-	75% of population (Mgaidani, Soko, Kionga)	75% of population (Mgaidani, Soko, Kionga)
Operation Condition (suspension year)	not working (2003)	not working (1992)	not working (1992)	not working (2003)	not working (1984)	working	not working (2001)	not working (1994)	not working (1994)	working	working
Annual Operation Period	throughout the year	throughout the year	throughout the year	throughout the year	-	-	throughout the year	-	-	throughout the year	throughout the year
Water Quality	good	good	salty	not good but enough	-	-	salty	-	-	not good (Turbidity)	not good (Turbidity)
Year of Construction	1991	1991	1974	1976	1974	1980s	1972	-	-	1997	1997
Organization	District Council	District Council	District Council	District Council	District Council	District Council	District Council	District Council	District Council	BTS	BTS
Ownership	Village Council	Village Council	Village Council	Village Council	Village Council	Village Council	Village Council	Village Council	Village Council	Village Council	Village Council
Management	Water Committee	Water Committee	Water Committee	Water Committee	Water Committee	Water Committee	Water Committee	Water Committee	Water Committee	Water Committee	Water Committee
Water Tariff (T/s/20L)	-	-	free of charge	20	-	-	20	-	-	10	10
Pump (Power)	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Pump with solar power (21 panels)	Pump with solar power (21 panels)
Operation time (hr./day)	from 8 am to 9 am from 11 am to 1 pm (6 hours)	from 8 am to 9 am from 11 am to 1 pm (6 hours)	from 6 am to 9 am from 4 pm to 7 pm (6 hours)	from 8 am to 4 pm (8 hours)	-	-	8 hours (morning and evening)	-	-	daytime (10 - 11 hours)	daytime (10 - 11 hours)
Storage Tank (m <sup>3</sup> )	225 m <sup>3</sup>	135 m <sup>3</sup>	90 m <sup>3</sup> x 2 tanks (Total 180 m <sup>3</sup> )	45 m <sup>3</sup>	-	-	45 m <sup>3</sup> x 2 tanks (total 90 m <sup>3</sup> )	-	-	135 m <sup>3</sup>	135 m <sup>3</sup>
Material of S. Tank	concrete	concrete	concrete	concrete	-	-	concrete	-	-	concrete	concrete
No. of distrib. Point (PWP)	4 taps	10 taps	15 taps	9 taps (working: 3 taps)	-	-	10 taps	-	-	21 taps	21 taps
Remarks (Reasons of stop working)	Reason of Suspension: breakdown of diesel engine and pump	Reason of Suspension: breakdown of diesel engine and pump	Reason of Suspension: breakdown of diesel engine and pump	Reason of Suspension: breakdown of diesel engine and pump	Reason of Suspension: water source was shortage	The area is now served by Chalirze WSS. The dam is used to supply water for livestock.	Reason of Suspension: breakdown of diesel engine and pump	Reason of Suspension: breakdown of diesel engine and pump	Reason of Suspension: breakdown of diesel engine and pump	Reason of Suspension: Solar panels were stolen in 2000. Once again, BTS provided it for village.	Reason of Suspension: Solar panels were stolen in 2000. Once again, BTS provided it for village.

**Table D.1 Results of Existing Water Supply Scheme Survey (2/13)**

District / Municipal	Kibaha	Kibaha	Kibaha	Kisarawe	Kisarawe	Kisarawe	Kisarawe	Kisarawe
Name of Water Supply Scheme	Kwala / Mwembengozi WSS	Kwala / Mwembengozi WSS	Ruvu WSS	Kisarawe Town WSS	Kisarawe	Kisarawe	Kisarawe	Kisarawe
Name of Ward	Kwala	Kwala	Ruvu	Kisarawe	Kisarawe	Kisarawe	Kisarawe	Gwata WSS
Name of MTEA or Village	Kwala	Mwembengozi	Ruvu	Kisarawe	Kisarawe	Kisarawe	Kisarawe	Malizi
Name of sub-Village	-	-	-	-	-	-	-	Gwata
Water Sources	Mongomole natural pond	-	Ruvu River	Minaki Dam	Ring well (2 wells depth 7-10m)	Ring well (2 wells depth 7-10m)	Ring well (2 wells depth 7-10m)	Ruvu River
Population served (2002)	2493	460	3,100	12,000	100% of population	100% of population	100% of population	2,393
Operation Condition (suspension year)	working	working	not working (2000)	working	working (partly)	working (partly)	working (partly)	working
Annual Operation Period	throughout the year	throughout the year	throughout the year	throughout the year	9 - 10 months	9 - 10 months	9 - 10 months	throughout the year
Water Quality	good	good	good	slightly salty	good	good	good	good
Year of Construction	1975	1975	1970's	-	1973	1973	1973	1975
Organization	District Council	District Council	District Council	District Council	District Council	District Council	District Council	District Council
Ownership	District Council	District Council	District Council	District Council	District Council	District Council	District Council	District Council
Management	Water Committee	Water Committee	Water Committee	District Engineer	Village Council	Village Council	Village Council	Village Council
Water Tariff (T\$/20L)	20	20	20	-	-	-	-	30
Pump (Power)	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Electric Pump	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump
Operation time (hr/day)	from 7 am to 5 pm (4 hours)	1 hours	from 7 am to 12 pm (5 hours)	-	from 7 am to 4 pm (operation 15 min. /pause 30min.)	from 7 am to 4 pm (operation 15 min. /pause 30min.)	from 7 am to 4 pm (operation 15 min. /pause 30min.)	from 7 am to 2 pm (7 hours)
Storage Tank ( m <sup>3</sup> )	45 m <sup>3</sup>	10 m <sup>3</sup>	40 m <sup>3</sup>	20,000 GAL	more than 3,000 GAL	3,000 GAL	3,000 GAL	50 m <sup>3</sup>
Material of S. Tank	concrete	polyethylene	concrete	concrete	concrete	concrete	concrete	concrete
No. of Public Water Point (PWP)	8 taps (not working)	4 taps (not working)	12 taps	-	11 taps (7 taps were not working)	2 taps	2 taps	6 taps (3 taps were not working)
Remarks (Reasons of malfunction and others)	Pipe facilities was damaged (all of public water points were suspended)		Reason of Suspension: breakdown of diesel engine and pump					

**Table D.1 Results of Existing Water Supply Scheme Survey (3/13)**

District/Municipal	Kisarawe	Kisarawe	Kisarawe	Kisarawe	Kisarawe	Mkuranga	Mkuranga	Mkuranga	Mkuranga
Name of Water Supply Scheme	Maneromango WSS	Maneromango WSS	Maneromango WSS	Maneromango WSS	Mzenge WSS	Kisiju Pwani WSS	Kalole WSS	Njopeka WSS	Ntshigani WSS
Name of Ward	Maneromango	Maneromango	Maneromango	Maneromango	Mzenge	Kisiju	Lukanga	Lukanga	Magawa
Name of MTAAs or Village	Maneromango Skoni	Kironga	Msegamo	Msegamo	Mzenge	Kisiju Pwani	Kalole	Njopeka	Ntshigani
Name of sub-Village	-	-	-	-	-	-	-	-	-
Water Sources	Kanga Dam	-	Ruvu River	Shallow well	Ring well (depth=5 m)	more than 2,000	Spring	Spring	Mwinya River
Population served (2002)	100%	-	2,416	more than 2,000	6,000	not working (2002)	not working (1998)	not working (2002)	979
Operation Condition (suspension year)	working	not working (1998)	not working (2002)	throughout the year (not enough water in dry season)	throughout the year	throughout the year	throughout the year	throughout the year	not working (2002)
Annual Operation Period	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year
Water Quality	good	good	good	good	good	colored (brown)	good	good	colored (brown)
Year of Construction	1973	1970's	1981	1981	1994	1976	1990	1990	1990
Organization	District Council	District government	District government	District government	District government	District government	District government	District government	District government
Ownership	District Council	-	Village government	Village government	Village government	Village government	Village government	Village government	Village government
Management	Village Council	-	Village government	Village government	Village government	Village government	Village government	Village government	Village government
Water Tariff (T\$/20L)	30	-	10	free of charge	free of charge	free of charge	free of charge	free of charge	20
Pump (Power)	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump	Diesel engine + Pump
Operation time (hr./day)	1 hour	-	from 7 am to 9 pm (2 hours)	from 6 am to 8 am from 4 pm to 6 pm (4 hours)	from 7 am to 12 am from 3 pm to 6 pm (8 hours)	from 7 am to 10 pm (3 hours)	from 7 am to 12 am from 3 pm to 6 pm (8 hours)	from 7 am to 10 pm (3 hours)	from 7 am to 10 pm (3 hours)
Storage Tank ( m <sup>3</sup> )	10,000 GAL, 20,000 GAL, 30,000 GAL	100,000 GAL, 50,000 GAL, 20,000 GAL	20,000 GAL	20,000 GAL	20,000 GAL	30,000 GAL	30,000 GAL	10,000 GAL	10,000 GAL
Material of S. Tank	concrete	concrete	concrete	concrete	concrete	concrete	concrete	concrete	concrete
No. of Public Water Point (PWP)	4 taps and 1 house connection	-	6 taps (3 taps were not working) House connection : 7	13 taps	14 taps	14 taps	14 taps	14 taps	-
Remarks (Reasons of malfunction and others)	-	Reason of Suspension: breakdown of diesel engine and pump	Reason of Suspension: breakdown of diesel engine	Reason of Suspension: breakdown of diesel engine	Reason of Suspension: breakdown of diesel engine	Reason of Suspension: breakdown of diesel engine	Reason of Suspension: breakdown of diesel engine	Reason of Suspension: breakdown of diesel engine	Reason of Suspension: breakdown of diesel engine and pump

**Table D.1 Results of Existing Water Supply Scheme Survey (4/13)**

District / Municipal	Mkuranga	Mkuranga	Mkuranga	Kinondoni	Kinondoni	Kinondoni	Kinondoni	Kinondoni	Itala	Itala
Name of Water Supply Scheme	Mkuranga WSS	Mkuranga WSS	Mkuranga WSS	-	-	-	-	-	-	-
Name of Ward	Mkuranga	Mkuranga	Mkuranga	Mbezi	Kibamba	Burju	Goba	Goba	Tabata	Tabata
Name of MTA or Village	Mkuranga	Mkuranga	Mkuranga	Mipiji Magoo	Kibamba	Mabwe Pande	Goba	Goba	Msimbazi (1)	Msimbazi (2)
Name of sub-Village	-	-	-	-	-	-	-	-	Msimbazi	Msimbazi
Water Sources	Borehole (depth=6 m) Ring well (depth=6 m)	Borehole (shallow well, depth=6 m)	Main DAWASA pipe	Main DAWASA pipe	Main DAWASA pipe	Main DAWASA pipe	Main DAWASA pipe	Main DAWASA pipe	Deep well	Deep well
Population served (2002)	10,000	2,800	50% of population	100% of population	100% of population	50% of population	100% of population	100% of population	100% of population	100% of population
Operation Condition (suspension year)	working	not working (1996)	not working (1996)	not working	not working	working	not working	not working	not working	working
Annual Operation Period	throughout the year (not enough water in dry season)	3 months for the year	throughout the year	throughout the year	throughout the year	throughout the year (3 times per week)	throughout the year	throughout the year	throughout the year	throughout the year
Water Quality	good	high turbidity	good	good	good	good	good	good	good	good
Year of Construction	1974	1972	1987	1987	1987	1979	1978	1998	2000	2000
Organization	District government	District government	Central Government	Central Government	Central Government	Central Government & Community	Central government	TDF (Tabata Development Fund & Fish Aid)	TDF (Tabata Development Fund & Fish Aid)	TDF (Tabata Development Fund & Fish Aid)
Ownership	Village government	Village government	Municipal/Community	Community	Community	Community	municipal	TDF (Tabata Development Fund & Fish Aid)	TDF (Tabata Development Fund & Fish Aid)	TDF (Tabata Development Fund & Fish Aid)
Management	Village government	Village government	Municipal/Community	Community	Community	Community	municipal	TDF (Tabata Development Fund & Fish Aid)	TDF (Tabata Development Fund & Fish Aid)	TDF (Tabata Development Fund & Fish Aid)
Water Tariff (Ts/20L)	20	-	free of charge	free of charge	free	20	30	20	20	20
Pump (Power)	Diesel engine + Pump	Diesel engine + Pump	Electricity (30 kw)	Electricity (30 kw)	Electricity	Diesel generator	Electricity	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)
Operation time (hr/day)	from 6 am to 10 pm (4 hours)	from 8 am to 9 pm (1 hour)	7am to 4pm (10 hours) manual	7am to 4pm (10 hours) manual	manual	6am to 8am and 3pm to 5pm (4 hours) manual	automatic	manual	manual	manual
Storage Tank ( m3 )	5,000 GAL (new construction: 30,000 GAL)	5,000 GAL	4 tanks 20,50,10,10 m <sup>3</sup>	2 tanks 20,30 m <sup>3</sup>	2 tanks 20,30 m <sup>3</sup>	6 tanks: 20, 30, 5m <sup>3</sup> and 3m <sup>3</sup> x 3 tanks	2 tanks each 10 m <sup>3</sup> and 1 tank 30 m <sup>3</sup>	5 m <sup>3</sup>	65 m <sup>3</sup>	65 m <sup>3</sup>
Material of S. Tank	concrete	concrete	concrete	concrete	concrete	20 & 30 m <sup>3</sup> are concrete, 5, and 3 m <sup>3</sup> are polyethylene	2 tanks poly, one is concrete	polyethylene	concrete	concrete
No. of Public Water Point (PWP)	6 taps	13 taps	12 taps	7 taps	7 taps	17 taps	15 taps	6 taps	15 taps	15 taps
Remarks (Reasons of malfunction and others)		Reason of Suspension: breakdown of diesel engine and pump	Rehabilitation plan: 2004 (Now started) Reason of Suspension: pump was damaged.	Reason of Suspension: pipes were stolen and pump was damaged. Rehabilitation plan: 2003, change the pipe distribution network and lay the new pipes	Reason of Suspension: pipes were stolen and pump was damaged. Rehabilitation plan: 2003, change the pipe distribution network and lay the new pipes	Request: There is a leakage at the pipes and generator is overage.	Rehabilitation plan: 2002 (50% of the laid pipes has been replaced by Municipal) Reason of Suspension: there is leakage by pipe damage.	Reason of Suspension: Electric problem, it cause over voltage, and motor was damaged. Year of rehabilitation: 2002, Replacement and repairing of public water point	Request: Storage tanks is small requested to replace the big s/tank.	Request: Storage tanks is small requested to replace the big s/tank.

**Table D.1 Results of Existing Water Supply Scheme Survey (5/13)**

District / Municipal	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala
Name of Water Supply Scheme	-	-	-	-	-	-	-	-	-	-
Name of Ward	Tabata	Tabata	Ukongu	Ukongu	Ukongu	Ukongu	Ukongu	Ukongu	Vingunguti	Vingunguti
Name of MTAA or Village	Msimbazi (3)	Msimbazi (4)	Mazizini	Mazizini	Guhaka Kwalala	Mvembe Madafu	Mvembe Madafu	Mvembe Madafu	Mtakuja	Mtambeni
Name of sub-Village	Tabata Zahamati	Msimbazi Bondeni (Msikitiini)	Dumpe La Zamani	Mazizini	Mwasisho Wa Lami	Ukongu Madafu	Ukongu Madafu	Ukongu Madafu	Mwambeni	Zuhanki
Water Sources	Deep well	Deep well	Deep well	Deep well (55 m)	Deep well (60 m)	Deep well	Deep well	Deep well	Deep well	Deep well (30 m)
Population served (2002)	Dispensary, 50% of population	Mosque, 2% of population	100% of population	30% of population	100% of population	80% of population	80% of population	30% of population	30% of population	25% of population
Operation Condition (suspension year)	working	working	working	working	working	not working	not working	working	working	working
Annual Operation Period	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	Throughout the year
Water Quality	good	yellow color water	good	good	good	good	good	good	good	good
Year of Construction	2002	2004	2001	2002	2002	2002	2002	2002	2002	1998
Organization	Municipality	World Bank	Municipality	Care International & Municipality	Care International & Municipality	Municipality	Municipality	Municipality	Municipality	Malaria Project
Ownership	Community	TDF	Community	Community	Community	Community	Community	Community	Community	Community
Management	Community	TDF	Community	Community	Community	Community	Community	Community	Community	Community
Water Tariff (T\$/20L)	20, 15,000 for house connection per month	20	20	-	20	20	20	20, house connection 20,000 per month	20	20
Pump (Power)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)
Operation time (hr./day)	automatic	automatic	6am to 12noon and 3pm to 6pm (9 hours), manual	6am to 10am, 1pm to 3pm, 6pm to 10pm (12 hours), manual	4am to 10am (6 hours) manual	from 6pm. It was not uniform it reaches up to 5am, sometimes 8am automatic	from 6pm. It was not uniform it reaches up to 5am, sometimes 8am automatic	1 hour to fill tank automatic	6am to 9am, 4pm to 7pm (6hrs./day) manual	6am to 9am, 4pm to 7pm (6hrs./day) manual
Storage Tank ( m <sup>3</sup> )	5 m <sup>3</sup>	5 m <sup>3</sup>	2 tanks each 5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup> for community, 10 m <sup>3</sup> for hospital
Material of S. Tank	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene
No. of Public Water Point (PWP)	1 tap	1 tap	13 taps (4 taps were not working due to low pressure)	3 taps	6 taps	2 taps	2 taps	4 taps	4 taps	4 taps
Remarks (Reasons of malfunction and others)	Request: New distribution system	Request: Extension of more public water points and additional of storage tanks and high capacity pump. Repairing of 4 public water points which are not working.	Request: New distribution system	Request: New distribution system	Request: additional public water point	Reason of Suspension: water relay was damaged. Request: New water source requested due to the low yield at the existing well and also extension of the distribution system.	Reason of Suspension: water relay was damaged. Request: New water source requested due to the low yield at the existing well and also extension of the distribution system.	Request: large storage tank and extension of distribution system	Request: Other water source	Request: Other water source

**Table D.1 Results of Existing Water Supply Scheme Survey (6/13)**

District / Municipal	Itala	Itala	Itala	Itala	Itala	Itala	Itala	Itala	Itala	Itala	Itala	Itala
Name of Water Supply Scheme	-	-	-	-	-	-	-	-	-	-	-	-
Name of Ward	Vingunguti	Kiunda	Kiunda	Kiunda	Kiunda	Kiunda	Kiunda	Segerea	Segerea	Segerea	Segerea	Segerea
Name of MTAAs or Village	Yombo	Kiunda Kati (1)	Kiunda Kati (2)	Kiunda Kati (2)	Kiungani Machimbo	Migombani (1)	Migombani (2)	Migombani (2)	Migombani (2)	Migombani (2)	Migombani (2)	Migombani (2)
Name of sub-Village	Mwomboni-Kwakombo	Kiunda Kati-Zahanani	Nyanira	Nyanira	Machimbo	Seminary	Penugon	Penugon	Penugon	Penugon	Penugon	Penugon
Water Sources	Deep well (62 m)	Deep well (60 m)	Deep well (60 m)	Deep well (60 m)	Deep well (57 m)	Deep well	Deep well	Deep well	Deep well	Deep well	Deep well (48 m)	Dispensary Nbc
Population served (2002)	100% of population	100% of population	100% of population	100% of population	100% of population	100% of population	100% of population	100% of population	100% of population	100% of population	100% of population	100% of population
Operation Condition (suspension year)	working	working	working	working	working	working	working	working	working	working	working	working
Annual Operation Period	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year
Water Quality	good	good	good	good	good	slightly salt	good	good	good	good	good	good
Year of Construction	2002	2002	2004	2004	2003	2000	2002	2002	2004	2004	2003	2003
Organization	Plan International	Municipality	Municipality	Municipality	Municipality	Municipality	Municipality	Municipality	World Bank	World Bank	Municipality	Municipality
Ownership	Community	Community	Community	Community	Community	Community	Community	Community	Community	Community	Community	Community
Management	Community	Community	Community	Community	Community	Community	Community	Community	Community	Community	Community	Community
Water Tariff (Ts/20L)	20	20	20	20	20	20	20	20	20	20	20	20
Pump (Power)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)
Operation time (hr/day)	automatic	6am to 10am (4 hours) automatic	6am to 10am (4 hours) manual	6am to 10am (4 hours) manual	6am to 10 am-Rain season, 6am to 2pm-Dry season (8 hours for dry season, 4 hours for rain season) manual	automatic	automatic	automatic	automatic	automatic	automatic	automatic
Storage Tank ( m3 )	5 m <sup>3</sup>	5 m <sup>3</sup>	2 tanks each 5 m <sup>3</sup>	2 tanks each 5 m <sup>3</sup>	2 tanks each 5 m <sup>3</sup>	3 tanks each 5 m <sup>3</sup>	3 tanks each 5 m <sup>3</sup>	3 tanks each 5 m <sup>3</sup>	10 m <sup>3</sup>	10 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>
Material of S. Tank	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene
No. of Public Water Point (PWP)	19 taps	4 taps	4 taps	4 taps	5 taps (3 taps were not complete, 2 are working)	2 taps	3 taps	3 taps	2 taps	2 taps	2 taps	2 taps
Remarks (Reasons of malfunction and others)	Request: Extension of distribution system	Request: New distribution system, large tanks and additional of more public water points. Sometimes pump did not operate by reason of low voltage electric power.	Request: Extension of distribution system	Request: Extension of distribution system	Request: New distribution system and new water source.	Request: Addition of storage tank, powerful pump and public water point	Request: Addition of storage tank, powerful pump and public water point	Request: Addition of storage tank, powerful pump and public water point	Request: Addition of storage tank, powerful pump and public water point	Request: Addition of storage tank, powerful pump and public water point	Request: Addition of storage tank, powerful pump and public water point	Request: Addition of storage tank, powerful pump and public water point

**Table D.1 Results of Existing Water Supply Scheme Survey (7/13)**

District / Municipal	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala
Name of Water Supply Scheme	-	-	-	-	-	-	-	-	-	-	-
Name of Ward	Segerea	Segerea	Kinyerezi	Kinyerezi	Kinyerezi	Kinyerezi	Pugu	Pugu	Chanika	Chanika	Chanika
Name of MTA or Village	Kimanga (1)	Kimanga (2)	Kimanga (1)	Kimanga (2)	Kimanga (1)	Kimanga (2)	Pugu Kajungani (1)	Pugu Kajungani (2)	Chanika (1)	Chanika (2)	Chanika (2)
Name of sub-Village	Kimanga Wazazi	Kimanga Darajani	Kimanga-Zimbali	Kimanga-Shule	Kimanga-Zimbali	Kimanga-Shule	Bombani	Sheshani	Kimwani	Tungini	Tungini
Water Sources	Deep well (60 m)	Deep well (60 m)	Deep well (60 m)	Deep well (60 m)	Deep well (60 m)	Deep well (60 m)	Deep well (80 m)	Deep well (50 m)	Deep well	Deep well (62 m)	Deep well (62 m)
Population served (2002)	25% of population	5% of population	25% of population	25% of population	25% of population	25% of population	25% of population	80% of population	Primary School	60% of population	60% of population
Operation Condition (suspension year)	not working	not good water yield is low even in dry season	not good water yield is very low in dry season	throughout the year	throughout the year	throughout the year	Electric problem, very low voltage	good	good	good	good
Annual Operation Period	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year
Water Quality	salty	good	salty water especially during dry season	dry seasons-salty	dry seasons-salty	dry seasons-salty	slightly salty	good	good	good	good
Year of Construction	2001	1999	2002	2002	2002	2002	2002	2003	2003	2002	2002
Organization	Municipality	Municipality	Municipality	Care International	Municipality	Municipality	Municipality	Municipality	Municipality	Municipality	Municipality
Ownership	Community	Community	Community	Community	Community	Community	Community	Community and MOWLD	Community	Community	Community
Management	Community	Community	Community	Community	Community	Community	Community	Community and MOWLD	Community	Community	Community
Water Tariff (T\$/20L)	20	20	20	20	20	20	20	50 for Livestock market, 20 for public	20	20	20
Pump (Power)	Electricity (Submersible pump)	Electricity (Submersible pump)	Diesel generator	Diesel generator	Diesel generator	Diesel generator	Electricity (Submersible pump)	Electricity (Submersible pump)	Diesel generator (Submersible pump)	Diesel generator (Submersible pump)	Diesel generator (Submersible pump)
Operation time (hr./day)	automatic	automatic	6am to 8am (During dry season 30min then wait 5hours, Rain season 2 hrs/day) manual	6am to 8am (2hrs/day) manual	6am to 8am (2hrs/day) manual	6am to 8am (2hrs/day) manual	6am to 9am and 4pm to 7pm (6 hrs/day) automatic	10 hrs/day manual	6am to 10am (4 hrs/day) manual	6am to 10am (4 hrs/day) manual	6am to 10am (4 hrs/day) manual
Storage Tank ( m <sup>3</sup> )	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>
Material of S. Tank	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene
No. of Public Water Point (PWP)	3 taps	1 tap	2 taps (1 tap was not working due to low pressure)	2 taps	2 taps	2 taps	1 tap and 2 taps for dispensary and school	6 taps and one H/ Connection	2taps (1 tap was not working)	2 taps	2 taps
Remarks (Reasons of malfunction and others)	Reason of Suspension: Pump was damaged. Request: New water source and new pump and extension of distribution system	Request: New distribution system and water source	Request: New distribution system, request of solar power due to the raising of diesel price.	Request: Replacement of pump which has been stolen. Connection of electric power Extension of public water point	Request: New distribution system	Request: New distribution system	Request: New distribution system	Request: New distribution system	Request: New distribution system	Request: New distribution system	Request: New distribution system



**Table D.1 Results of Existing Water Supply Scheme Survey (8/13)**

District / Municipal	Itala	Itala	Itala	Itala	Itala	Itala	Itala	Itala	Itala
Name of Water Supply Scheme	-	-	-	-	-	-	-	-	Itala
Name of Ward	Chanka	Kipawa	Kipawa	Kipawa	Kipawa	Kipawa	Kipawa	Kipawa	Kipawa
Name of MTAA or Village	Chanka (3)	Kipunguni (1)	Kipunguni (2)	Kipunguni (3)	Karakata (1)	Karakata (2)	Karakata (3)	Kipawa	Kipawa
Name of sub-Village	Kichangani	Hali Ya Hewa	Kwa Kinenteko	Kwa Chuma	Majani Ya Chai	Karakata-Shuleni	Kwa Kapinga	Kipawa-Shuleni	Kipawa-Shuleni
Water Sources	Deep well (100 m)	Deep well (51 m)	Deep well (60 m)	Deep well	Deep well	Deep well	Deep well	Deep well	Deep well
Population served (2002)	100% of population	100% of population	100% of population	100% of population	5% of population	80% of population	20% of population	100% of population	100% of population
Operation Condition (suspension year)	good	good	good	good	water yield is small	good	good	good	good
Annual Operation Period	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year
Water Quality	good	good	good	slightly salt	good	good	good	good	good
Year of Construction	2002	2002	2001	2001	2000	2000	2004	1998	1998
Organization	Municipality	Municipality	World bank	World Bank	AEE (Mission Agency)	Municipal	World Bank	MSF	MSF
Ownership	Community	Community	Community	Community	Community	Community	Community	Community	Community
Management	Community	Community	Community	Community	Community	Community	Community	Community	Community
Water Tariff (Ts/20L)	20	20	20	20	20	house connection: 10,000 per month	20	20	20
Pump (Power)	Electricity	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)
Operation time (hr/day)	automatic	automatic	manual	manual	2 hours automatic	8 hrs/day automatic	2 hrs/day manual	8.30pm to 10.30pm (2 hrs/day) manual	8.30pm to 10.30pm (2 hrs/day) manual
Storage Tank ( m3 )	5 m <sup>3</sup>	2 tanks each 5 m <sup>3</sup>	10 m <sup>3</sup>	10 m <sup>3</sup>	5 m <sup>3</sup>	3 tanks each 5 m <sup>3</sup>	5 m <sup>3</sup>	2 tanks each 5 m <sup>3</sup>	2 tanks each 5 m <sup>3</sup>
Material of S. Tank	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene
No. of Public Water Point (PWP)	-	2 taps	1 tap	1 tap	3 taps	16 taps	1 tap	6 taps	6 taps
Remarks (Reasons of malfunction and others)		Request: New water source	Request: New distribution system	Request to extend public water points and new distribution system	Request: New water source				Request: large storage tank and public water point

**Table D.1 Results of Existing Water Supply Scheme Survey (9/13)**

District / Municipal	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala
Name of Water Supply Scheme	-	-	-	-	-	-	-	-	-
Name of Ward	Kiwilani	Kiwilani	Kiwilani	Kiwilani	Kiwilani	Kiwilani	Kiwilani	Buguruni	Buguruni
Name of MTAA or Village	Yombo (1)	Yombo (2)	Kiwilani	Kiwilani	Mimazi Mirefu (1)	Mimazi Mirefu (2)	Miyamuni	Madenge	Kisiwani
Name of sub-Village	Manangani	Kwadingu	Kiwahede	Daimasoko	Binti Musa	Mfenesini	Kasanova	Zizini	Zizini
Water Sources	Deep well	Deep well	Deep well (50 m)	Deep well (52 m)	Deep well (50 m)	Deep well (51 m)	Deep well	Deep well	Deep well
Population served (2002)	97% of population	3% of population	25% of population, Market, Hospital, Mosque.	25% of population	15% of population	45% of population	50% of population	30% of population	
Operation Condition (suspension year)	good	good	good	good	good	good	good	good	good
Annual Operation Period	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year
Water Quality	good	good	good	slightly salt	good	good	good	good	good
Year of Construction	2002	1999	2002	2002	2002	2002	2002	2004	2004
Organization	World Bank	MSF	KIWOHEDE (NGO)	Municipality	MSF	Municipality	Plan International	Municipality	Municipality
Ownership	Community	Community	Community	Community	Community	Community	Community	Community	Community
Management	Community	Community	Community	Community	Community	Community	Community	Community	Community
Water Tariff (Tsh/20L)	20,	20	20	20,	20	20	20	20	20
Pump (Power)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump) 1.5 HP	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)
Operation time (hr./day)	6am to 12:30am :5pm to 3:30 pm- small tank, 5am to 9am, 12noon to 4pm (1 hr./day-small tank, 8hrs./day-big tanks) manual	two times a day (6 hours) manual	7am to 12:30pm-Community, 12:30pm to 5pm-Hospital, 5pm to 8pm Community (13 hours) manual	6am to 9am, 10am to 1pm, 9pm to 7pm (9 hours) automatic	4 hours manual	automatic	automatic	manual	automatic
Storage Tank ( m3)	2 tanks each 45 m <sup>3</sup> and one tank of 10 m <sup>3</sup>	5 m <sup>3</sup>	12 m <sup>3</sup> for Hospital, 5 m <sup>3</sup> for Community	45 m <sup>3</sup>	5 m <sup>3</sup>	1 m <sup>3</sup> and 5 m <sup>3</sup>	5 m <sup>3</sup> and 10 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>
Material of S. Tank	big tanks-concrete, small-polyethylene	polyethylene	polyethylene	concrete	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene
No. of Public Water Point (PWP)	16 taps (4 taps were not working due to low water pressure)	1 tap	7 taps	22 taps (9 taps were not working)	-	4 taps	8 taps	2 taps	2 taps
Remarks (Reasons of malfunction and others)	Request: Automatic operation system, generator and new storage tank	Request: New water source	Request: New water source	Request: Rehabilitation of storage tank because there is leakage. New water source due to rapid population increase	Request: New water source	Request: New water source	Request: Extension of distribution system		

**Table D.1 Results of Existing Water Supply Scheme Survey (10/13)**

District / Municipal	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Temeke	
Name of Water Supply Scheme	-	-	-	-	-	-	-	-	-	-	-	-	
Name of Ward	Buguruni	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Ilala	Kisarawe 11	
MTAA or Village	Milapa	Kasulu	Bungoni Mafuriko	Sharif Shamba	Msongola	Msongola	Msongola	Msongola	Mvuti (1)	Mvuti (2)	Mvuti (2)	Chekani	
Name of sub-Village	Kwadhvani	Ccm	Ccm	Basata	Kitonga/Mvuleni	Kitonga/Mvuleni	Kitonga/Mvuleni	Kitonga/Mvuleni	Deep well (62 m)	Deep well (62 m)	Mkera	Borehole (16 m)	
Water Sources	Deep well (51 m)	Deep well	Deep well	Deep well	Deep well (62 m)	Deep well (62 m)	Deep well (62 m)	Deep well (62 m)	Deep well (62 m)	Spring	Spring	50% of population	
Population served (2002)	75% of population	10% of population	50% of population	30% of population	100% of population	100% of population	100% of population	100% of population	60% of population	60% of population	100% of population	generator was stolen, then pipes were damaged	
Operation Condition (suspension year)	good	good	good	good	good	good	good	good	good	good	good	Not sure because it did not work even for the week	
Annual Operation Period	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	Not sure because it did not work even for the week	
Water Quality	good	good	good	good	good	good	good	good	good	good	good	good	
Year of Construction	2004	2002	2003	2002	2003	2002	2002	2002	2002	2002	2002	1986	
Organization	Municipality	Municipality	Municipality	Municipality	Municipality	Municipality	Municipality	Municipality	Municipality	Municipality	Municipality	TAMOFIA (Tanzania/Mozambique relationship)	
Ownership	Community	Community	Community	Community	Community	Community	Community	Community	Community	Community	Community	Central Government	
Management	Community	Community	Community	Community	Community	Community	Community	Community	Community	Community	Community	Community	
Water Tariff (Ts/20L)	20	20	20	20	20	20	20	20	20	20	20	20	
Pump (Power)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)	Generator (ROBIN RGD 3300)	Generator (Submersible pump) Brushless	Generator (Diesel) 44 m	
Operation time (hr./day)	manual	automatic	8am to 9pm, (8 times a day) (8 hours) manual	4 hours to fill up the tanks automatic	6am to 9,15am (3.15 hours) manual	6am to 10am (4 hours) manual	6am to 10am (4 hours) manual	6am to 10am (4 hours) manual	6am to 10am (4 hours) manual	6am to 10am (4 hours) manual	6.00am to 7.00 am, 4.00pm to 5.00pm two times per day (2 hours), manual	6.00am to 7.00 am, 4.00pm to 5.00pm two times per day (2 hours), manual	
Storage Tank ( m3 )	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	2 tanks each 5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	22.5 m <sup>3</sup>	
Material of S. Tank	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	polyethylene	concrete	
No. of Public Water Point (PWP)	3 taps	3 taps	3 taps	4 taps	3 taps	3 taps	3 taps	3 taps	2 taps	2 taps	4 taps	9 taps	
Remarks (Reasons of malfunction and others)	Request: Change operation from manual to automatic because storage tank located 500m from the well	Request: New water source	Extension of distribution system, new large tank and new water source	Request: New distribution system	Request another water source for Mbondole sub village, and storage tank, pump and distribution for Yangwayage Sub Village, Kitonga need water source.	Request: Request extension of public water point	Request: Request extension of public water point	Request: Request extension of public water point	Request: Request extension of public water point	Request: Request extension of public water point	Request: Request extension of public water point	Request: Request extension of public water point	Request: Tank need maintenance, extend the distribution system, need large elevated tank because existing tank is underground. Rehabilitation plan: 2004 (on progress)

**Table D.1 Results of Existing Water Supply Scheme Survey (1/1/13)**

District / Municipal	Temeke	Temeke	Temeke	Temeke	Temeke	Temeke	Temeke	Temeke	Temeke
Name of Water Supply Scheme	-	-	-	-	-	-	-	-	-
Name of Ward	Sonangula	Makangarawe	Makangarawe	Kibada	Kibada	Kimbisi	Kimbisi	Kimbisi	Kigamboni
Name of MTA or Village	Amani Gomvu	Ungindoni	Ungindoni	Uvumba	Uvumba	Kizito Hoojiwa	Kizito Hoojiwa	Kizito Hoojiwa	Fery
Name of sub-Village	Borehole (33 m)	Borehole (21 m)	Dispensary	Hospital	Hospital				
Water Sources	100% of population	50% of population	Borehole (42 m)	Borehole (46 m)	Borehole (50 m)	Spring	Spring	Spring	Borehole
Population served (2002)	not Good, generator stolen (2004)	not good-pump was damaged due to high voltage (Nov 2004)	Dispensary and 2% of Buza population	40% of population	100% of population	100% of population	100% of population	100% of population	100% of population
Operation Condition (suspension year)	throughout the year	throughout the year	good	not good because solar panel was stolen (2004)	good	good	good	stop 1986, Generator was broken, and pipes were damaged due to overage	good
Annual Operation Period	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year
Water Quality	good	slightly salty	good	not good, water has brown color.	slightly salt	slightly salty	slightly salty	slightly salty	slightly salt
Year of Construction	1970's	2000	1998	1997	1997	2003	1977	1977	1997
Organization	Central Government	Central Government	Central Government	Central Government	Central Government	Municipality	Central Government	Central Government	Central Government
Ownership	Community	Community	Community	Community	Institution	Community	Community	Community	Community
Management	Community	Community	Community	Community	Institution	Community	Community	Community	Community
Water Tariff (Ts/20L)	20	10, Horse connection 3,000 per month	20	20, H/connection 6000 per month	Before it was 20 Tsh	20	free of charge	free of charge	10
Pump (Power)	Diesel Generator (Submersible pump)	Electricity (submersible pump)	Electricity (submersible pump)	It was solar Power 4 liter/min.	Petrol Generator	Diesel Engine (submersible pump)	diesel generator	diesel generator	Electricity (submersible pump)
Operation time (hr./day)	6am to 10am (start again after 4days) manual	5am to 10 am and 3pm to 8pm (10hr/day) manual	automatic	automatic	6am to 9am (3 hrs/day) manual	4hrs/day manual	7am to 9am, 1 am to 1pm manual	7am to 9am, 1 am to 1pm manual	manual
Storage Tank ( m3)	10 m <sup>3</sup> and 15 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup>	2 tanks each 10 m <sup>3</sup>	5 m <sup>3</sup>	10 m <sup>3</sup>	45 m <sup>3</sup>	45 m <sup>3</sup>	20 m <sup>3</sup>
Material of S. Tank	concrete	polyethylene	polyethylene	polyethylene	polyethylene	concrete	concrete	concrete	Concrete
No. of Public Water Point (PWP)	8 taps	8 taps	1 tap	no Community PWP's, All goes to the house connection (400 connections)	1 tap	37 taps	About 30 taps	About 30 taps	12 taps
Remarks (Reasons of malfunction and others)	Request: Two tanks needs maintenance and replacement of generator (stolen)	Request: Request the large tank, extension of the distribution system to other side of the road.	Request the distribution system to be extended to the community	Request: Extension of the distribution system and large storage tank	Request to replace the pump (pump was stolen)	The big tank requested since water yield is high	New generator and pump. Rehabilitation of all distribution system, and request of new generator and pump	New generator and pump. Rehabilitation of all distribution system, and request of new generator and pump	Request: Extension of the distribution network

**Table D.1 Results of Existing Water Supply Scheme Survey (12/13)**

District/Municipal	Temeke	Temeke	Temeke	Temeke	Temeke	Temeke	Temeke	Temeke	Temeke	Temeke
Name of Water Supply Scheme	-	-	-	-	-	-	-	-	-	-
Name of Ward	Kigamboni	Mbagala	Kigamboni	Kigamboni	Kigamboni	Kigamboni	Kigamboni	Mjiwena	Kusini	Kusini
Name of MTAA or Village	Tuanoyo	Kichenchen	Kigamboni	Mtoni Kijichi	Mtoni Kijichi	Kibonde Maji B	Mtoni Kijichi	Mjiwena	Kusini	Kusini
Name of sub-Village										
Water Sources	Borehole	Borehole (56 m)	Borehole (18 m)	Borehole (32 m)	Borehole (50 m)	Borehole (32 m)	Borehole (50 m)	Borehole (18 m)	Borehole (40.5 m)	Borehole (36 m)
Population served (2002)	25% of population	2% of population	50% of population	60% of population	25% of population	60% of population	25% of population	35% of population	70% of population	40% of population
Operation Condition (suspension year)	good	good	Not good - pump was damaged due to high electricity voltage.	good	good	good	good	good	good	good
Annual Operation Period	throughout the year	dry up during dry season	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year	throughout the year
Water Quality	good	good	slightly salty	good	good	good	good	good	good	good
Year of Construction	1997	1997	1999	1999	1999	11/5/1999	1999	1997	1997	1997
Organization	Central Government	Central Government	Central Government	World Bank	CBO	World Bank	CBO	Central Government	Central government	World bank
Ownership	Community	Community	Community	Community	CBO	Community	CBO	Community	Community	Community
Management	Community	Community	Community	Community	CBO	Community	CBO	Community	Community	Community
Water Tariff (Tz/20L)	10	20	10, H/connection 10,000 per month	20	20	20	20	20, H/connection 3,000 per month	20, H/Connection/Billing system	10
Pump (Power)	Electricity (submersible pump)	Diesel Generator	Electricity (submersible pump)	Electricity (submersible pump)	Electricity 36-4m <sup>3</sup> /hr	Electricity (submersible pump)	Electricity 36-4m <sup>3</sup> /hr	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)
Operation time (hr./day)	manual	manual	5am to 10am (5hrs/day) manual	6am to 12noon (8.30 hrs./day), manual	9hrs per day manual	6am to 12noon (8.30 hrs./day), manual	9hrs per day manual	06.00 am to 07.00pm (7hrs) automatic	6am to 8am and 2pm to 4pm (4hrs/day) manual	5am to 1pm and 4pm to 10 pm, manual
Storage Tank ( m <sup>3</sup> )	20 m <sup>3</sup>	5 m <sup>3</sup>	5 m <sup>3</sup> and 20 m <sup>3</sup>	10 m <sup>3</sup>	20 m <sup>3</sup>	10 m <sup>3</sup>	20 m <sup>3</sup>	5 m <sup>3</sup> and 20 m <sup>3</sup>	5 m <sup>3</sup> and 20 m <sup>3</sup>	5 m <sup>3</sup> and 20 m <sup>3</sup>
Material of S. Tank	concrete	polyethylene	concrete	polyethylene	concrete	polyethylene	concrete	concrete and 5m <sup>3</sup> is poly	concrete and polyethylene	concrete and polyethylene
No. of Public Water Point (PWP)	6 taps	4 taps	9 taps	6 taps	7 taps (4 taps were working, 3 taps were under construction)	6 taps	7 taps (4 taps were working, 3 taps were under construction)	1 tap for community 151 Private connections	6 taps	4 taps
Remarks (Reasons of malfunction and others)	Request: Extension for the distribution network and new water source	Request: New water source and extension of distribution system	Request: New water source and extension of distribution system	Request: New water source because the existing borehole water yield decreases. Two new tanks and extend the distribution network	Request: New water source because the existing borehole water yield decreases. Two new tanks and extend the distribution network	Request: New water source because the existing borehole water yield decreases. Two new tanks and extend the distribution network	Request: New water source because the existing borehole water yield decreases. Two new tanks and extend the distribution network	Request: large capacity of pump and storage tank because there is no tank	Request: Extension of the distribution system	Request: Extension of the public water point

**Table D.1 Results of Existing Water Supply Scheme Survey (13/13)**

District / Municipal	Temeke	Temeke	Temeke
Name of Water Supply Scheme	-	-	-
Name of Ward	Yombo Vituka	Monti	Yombo Vituka
Name of MTAA or Village	Vituka	Sabosiba	Machimbo
Name of sub-Village	Kwa Mgaji	Chauembo	Mfuga Ndege
Water Sources	Borehole (50 m) Primary school and 20% of population	Borehole (52 m)	Borehole (52 m)
Population served (2002)	good	60% of population	30% of population
Operation Condition (suspension year)	good	good	good
Annual Operation Period	throughout the year	throughout the year	throughout the year
Water Quality	good	good	good
Year of Construction	2004	1997	1/6/1997
Organization	TASAF	Central Government	Central Government
Ownership	Community	Community	Community
Management	Community	Community	Juhudi women group
Water Tariff (Ts/20L)	10	20	10
Pump (Power)	Electricity (Submersible pump)	Electricity (Submersible pump)	Electricity (Submersible pump)
Operation time (hr./day)	6.30am to 7.30pm (14hrs/day) automatic	6.45am to 1.00pm and 4.00pm to 8.00pm (11 hrs./day) automatic	automatic
Storage Tank ( m <sup>3</sup> )	10 m <sup>3</sup>	5 m <sup>3</sup>	10 m <sup>3</sup>
Material of S. Tank	polyethylene	polyethylene	polyethylene
No. of Public Water Point (PWP)	2 taps	1 tap	4 taps (3 taps were not completed under construction, 1 tap was working)
Remarks (Reasons of malfunction and others)	Request: Extension of the distribution network	Request: Extension of the distribution network and new water source	Request: Extension of the distribution network

***Data Book E***

**Hydraulic Calculation of Transmission and Distribution  
Lines**

## **HYDRAULIC CALCULATION OF TRANSMISSION AND DISTRIBUTION LINE**

In hydraulic calculation of transmission and distribution line, Hazen-Williams formula shown below is adopted:

$$HL = 10.666 \times C^{-1.85} \times D^{-4.87} \times Q^{1.85} \times L$$

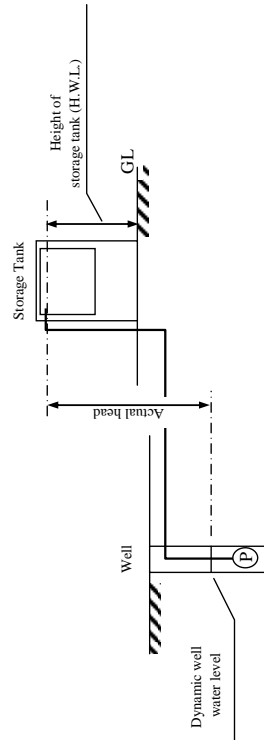
- Where, HL: Friction loss of pipe (m)  
C: Coefficient related to the pipe condition (C=110)  
D: Inside diameter of pipe (m)  
Q: Flow rate (m<sup>3</sup>/sec.)  
L: Pipe length (m)

Results of hydraulic calculation of transmission and distribution line are shown in *Table E.1* and *E.2*. Planned location of public water point and longitudinal section are shown *Table E.3* and *Figure E.1*, respectively.



**Table E.1 Results of Hydraulic Calculation (Required Pump Head and Transmission Pipeline)**

Village /Mtaa	Water Demand (m <sup>3</sup> /day)	Daily max. flow (m <sup>3</sup> /day)	Pump		Transmission Line		Pump head (m)					Required Pump Head (m)		
			No. of pump	Capacity (m <sup>3</sup> /min.) Op=10 hr	Length (m)	Diameter (mm)	A	B	C	D	E		F	G
Kibindu	165	198.0	2	0.165	1,130	75	100	376.0	396.0	431.0	9.05	64.05	17.18	81.23
Kwanduma	84	100.8	2	0.084	850	50	100	394.0	424.0	450.0	3.0	59.00	27.08	86.08
Matipwili	67	80.4	-	0.134	510	63	Wami river	-	16.0	25.0	9.05	18.05	12.38	30.43
Minazi Mikinda	66	79.2	1	0.132	100	50	50	29.0	49.0	49.0	9.05	29.05	7.43	36.48
Kitomondo/Minazi Mikinda	65	78.0	1	0.130	100	50	50	26.0	46.0	46.0	9.05	29.05	7.23	36.28
Msimbu	73	87.6	2	0.073	2,450	90	120	92.0	137.0	193.0	9.05	110.05	3.41	113.46
Chole	100	120.0	2	0.100	1,980	110	80	298.0	348.0	402.0	9.05	113.05	1.71	114.76
Mwandege/Kipala	83	99.6	1	0.166	300	63	80	60.0	80.0	80.0	9.05	29.05	3.65	32.70
Kisemvule	86	103.2	2	0.086	570	63	80	55.0	85.0	107.0	9.05	61.05	3.96	65.01
Morogoro/Mfuru Mwambao	66	79.2	1	0.132	100	50	50	15.0	40.0	40.0	11.95	36.95	7.43	44.38
Vianzi	76	91.2	1	0.152	100	75	100	95.0	140.0	140.0	9.05	54.05	1.33	55.38
Njopeka	132	158.4	1	0.264	2,480	110	Spring	-	45.0	101.0	3.0	59.00	12.90	71.90
Kitunda-1	124	148.8	2	0.124	300	50	80	3.0	63.0	63.0	9.05	69.05	6.62	75.67
Kitunda-2	82	98.4	1	0.164	100	63	80	-20.0	40.0	40.0	9.05	69.05	3.57	72.62
Kitunda	194	232.8	2	0.194	300	63	80	-30.0	30.0	30.0	9.05	69.05	14.47	83.52
Msongala	67	80.4	1	0.134	100	75	80	13.0	63.0	63.0	9.05	59.05	1.05	60.10
Pugu Station	72	86.4	1	0.144	1,420	75	90	55.0	85.0	127.0	9.05	81.05	16.78	97.83
Matosa	72	86.4	1	0.144	2,180	75	120	108.0	133.0	177.0	9.05	78.05	25.75	103.80
Yaleale Puna	143	171.6	1	0.286	4,430	125	80	-6.0	19.0	53.0	9.05	68.05	14.30	82.35
Tundwi Songani	66	79.2	2	0.066	2,060	63	80	-1.0	29.0	47.0	9.05	57.05	12.15	69.20
Mjimwema	90	108.0	1	0.180	100	50	50	-6.0	14.0	14.0	11.95	31.95	13.20	45.15
Kibugumo	84	100.8	1	0.168	100	75	50	-10.0	10.0	10.0	11.95	31.95	1.60	33.55



- 1) Height of storage tank  
 Ground tank 3.0 m  
 Elevated tank (L.W.L.=6.05 m) 9.05 m  
 Elevated tank (L.W.L.=8.95 m) 11.95 m
- 2) Actual head (F) = (D + E) - B
- 3) Required pump head = F + G

Hazen-Williams Formula shown below is adopted.

$$HL = 10.666 \times C^{-1.85} \times D^{4.87} \times Q^{1.85} \times L$$

where, HL: friction head loss of pipe (m)

C: Coefficient of flow (C=110)

D: Inside diameter of pipe (m)

Q: Flow rate (m<sup>3</sup>/sec.)

L: Pipe length (m)

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Kibindu: 1/22)**

Line No.	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)		(B) Required Pressure (m)	(A-B) (m)
	connection from	No. of Connection							connected to	Starting of Line		
1	Storage tank	1	2	-	23	280	0.550	160	431.200	0.908	430.292	8.292
2	1	1	3	-	21	110	0.502	160	430.292	0.301	429.991	12.991
3	2	2	4	20	19	310	0.454	160	429.991	0.706	429.285	35.285
4	3	2	5	13	14	320	0.335	160	429.285	0.414	428.871	9.871
5	4	1	6	-	7	260	0.167	110	428.871	0.582	428.289	26.289
6	5	1	7	-	7	110	0.167	90	428.289	0.711	427.578	22.578
7	6	1	8	-	6	360	0.143	75	427.578	4.220	423.358	3.358
8	7	1	9	-	4	360	0.096	63	423.358	4.668	418.690	20.690
9	8	1	10	-	3	410	0.072	63	418.690	3.123	415.567	13.567
10	9	2	11	12	2	800	0.048	50	415.567	8.978	406.589	13.589
11	10	0	End	-	1	260	0.024	32	406.589	7.335	399.254	0.254
12	10	0	End	-	1	730	0.024	40	406.589	6.809	399.780	2.780
13	4	1	14	-	5	310	0.120	110	428.871	0.372	428.499	6.499
14	13	1	15	-	5	40	0.120	90	428.499	0.139	428.360	6.360
15	14	1	16	-	4	140	0.096	75	428.360	0.775	427.585	2.585
16	15	1	17	-	4	60	0.096	75	427.585	0.332	427.253	0.253
17	16	2	18	19	3	340	0.072	75	427.253	1.106	426.147	1.147
18	17	0	End	-	1	380	0.024	32	426.147	10.721	415.426	7.426
19	17	0	End	-	1	190	0.024	32	426.147	5.360	420.787	0.787
20	3	2	21	22	3	440	0.072	63	429.285	3.351	425.934	24.934
21	20	0	End	-	1	400	0.024	40	425.934	3.731	422.203	1.203
22	20	0	End	-	1	210	0.024	32	425.934	5.925	420.009	13.009

Hazen-Williams Formula shown below is adopted.

$$HL = 10.666 \times C^{1.85} \times D^{-4.87} \times Q^{1.85} \times L$$

where, HL:

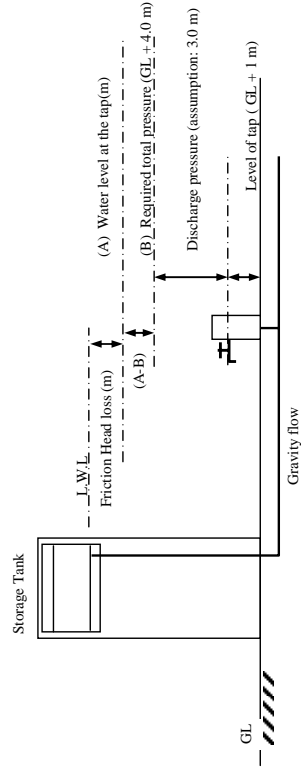
C: friction head loss of pipe (m)

D: Coefficient of flow (C=110)

Q: Inside diameter of pipe (m)

L: Flow rate (m<sup>3</sup>/sec.)

L: Pipe length (m)



**Table E.2 Results of Hydraulic Calculation (Distribution Line in Kwanduma: 2/22)**

Line No.	connection from	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(A-B) (m)	
		No. of Connection	connected to							Starting of Line	Friction Head Loss (m)	(A) End of Line		(B) Required Pressure (m)
1	Storage tank	1	-	444	1	12	110	0.233	90	450.200	1.314	448.886	448.0	0.886
2	1	2	8	434	2	11	240	0.214	90	448.886	2.441	446.445	438.0	8.445
3	2	1	4	424	0	8	300	0.156	90	446.445	1.693	444.752	428.0	16.752
4	3	2	9	437	0	8	150	0.156	75	444.752	2.042	442.710	441.0	1.710
5	4	1	6	426	2	6	910	0.117	75	442.710	7.275	435.435	430.0	5.435
6	5	1	7	426	2	4	170	0.078	50	435.435	4.690	430.745	430.0	0.745
7	6	0	End	418	2	2	200	0.039	40	430.745	4.587	426.158	422.0	4.158
8	2	0	End	429	1	1	310	0.019	32	446.445	5.965	440.480	433.0	7.480
9	4	0	End	428	2	2	200	0.039	40	442.710	4.587	438.123	432.0	6.123

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Matipwili: 3/22)**

Line No.	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)		
	connection from	No. of Connection							connected to	Starting of Line	Friction Head Loss (m)			(A) End of Line	
1	Storage tank	3	2	8	11	20	0	20	0	0	31.050	0.650	30.400	24.0	6.400
2	1	1	3	-	-	25	1	25	1	3	30.400	1.195	29.205	29.0	0.205
3	2	1	4	-	-	23	1	23	1	2	29.205	2.115	27.090	27.0	0.090
4	3	0	End	-	-	20	1	20	1	1	27.090	1.952	25.138	24.0	1.138
5	Storage tank	1	6	-	-	20	1	20	1	2	31.050	0.423	30.627	24.0	6.627
6	5	0	End	-	-	23	1	23	1	1	30.627	2.662	27.965	27.0	0.965
7	Storage tank	0	End	-	-	20	1	20	1	1	31.050	1.774	29.276	24.0	5.276
8	1	1	9	-	-	25	1	25	1	2	30.400	0.494	29.906	29.0	0.906
9	8	1	10	-	-	25	0	25	0	1	29.906	0.117	29.789	29.0	0.789
10	9	0	End	-	-	25	1	25	1	1	29.789	0.293	29.496	29.0	0.496
11	1	1	12	-	-	25	1	25	1	2	30.400	0.918	29.482	29.0	0.482
12	11	0	End	-	-	21	1	21	1	1	29.482	1.760	27.722	25.0	2.722

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Minazi Mikinda: 4/22)**

Line No.	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)
	connection from	No. of Connection							connected to	Starting of Line	Friction Head Loss (m)		
1	Storage tank	1	2	-	49	2	0.183	90	55.050	0.765	54.285	53.0	1.285
2	1	2	3	9	45	0	0.147	75	54.285	0.366	53.919	49.0	4.919
3	2	1	4	-	46	0	0.110	75	53.919	0.215	53.704	50.0	3.704
4	3	2	5	7	42	0	0.110	63	53.704	2.015	51.689	46.0	5.689
5	4	2	6	8	45	0	0.073	63	51.689	1.904	49.785	49.0	0.785
6	5	0	End	-	40	2	0.037	50	49.785	2.814	46.971	44.0	2.971
7	4	0	End	-	40	2	0.037	32	51.689	7.465	44.224	44.0	0.224
8	5	0	End	-	42	2	0.037	32	49.785	1.244	48.541	46.0	2.541
9	2	1	10	-	42	0	0.037	40	53.919	2.879	51.040	46.0	5.040
10	9	0	End	-	43	2	0.037	40	51.040	1.440	49.600	47.0	2.600

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Minazi Mikinda/ Kitomondo: 5/22)**

Line No.	connection from	Connection			GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)
		No. of Connection	connected to								Starting of Line	Friction Head Loss (m)	(A) End of Line		
1	Storage tank	3	2	11	12	46	0	9	100	110	52.050	0.257	51.793	50.0	1.793
2	1	2	3	4	-	45	0	6	1,750	110	51.793	2.127	49.666	49.0	0.666
3	2	0	End	-	-	45	1	1	30	40	49.666	0.202	49.464	49.0	0.464
4	2	1	5	-	-	42	0	5	270	110	49.666	0.234	49.432	46.0	3.432
5	4	1	6	-	-	31	1	5	1,520	110	49.432	1.319	48.113	35.0	13.113
6	5	1	7	-	-	29	1	4	500	90	48.113	0.829	47.284	33.0	14.284
7	6	1	8	-	-	32	1	3	230	75	47.284	0.540	46.744	36.0	10.744
8	7	1	9	-	-	36	0	2	300	50	46.744	2.433	44.311	40.0	4.311
9	8	1	10	-	-	36	1	1	30	32	44.311	0.612	43.699	40.0	3.699
10	9	0	End	-	-	37	1	1	320	40	43.699	2.157	41.542	41.0	0.542
11	1	0	End	-	-	44	1	1	50	40	51.793	0.337	51.456	48.0	3.456
12	1	2	13	14	-	34	0	2	750	63	51.793	1.950	49.843	38.0	11.843
13	12	0	End	-	-	39	1	1	60	32	49.843	1.223	48.620	43.0	5.620
14	12	1	15	-	-	44	0	1	480	63	49.843	0.346	49.497	48.0	1.497
15	14	0	End	-	-	42	1	1	510	40	49.497	3.437	46.060	46.0	0.060

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Msimbu: 6/22)**

Line No.	Connection			GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)
	connection from	No. of Connection	connected to							Starting of Line	Friction Head Loss (m)	(A) End of Line		
1	Storage tank	2	2	16	-	193	0	0	110	193,200	0.328	192,872	197.0	-
2	1	2	3	9	-	149	0	0	110	192,872	3.550	189,322	153.0	36,322
3	2	2	4	5	-	141	0	4	63	189,322	14,916	174,406	145.0	29,406
4	3	0	End	-	-	141	1	1	32	174,406	17,444	156,962	145.0	11,962
5	3	1	6	-	-	147	1	3	50	174,406	1,044	173,362	151.0	22,362
6	5	2	7	8	-	143	0	2	50	173,362	12,489	160,873	147.0	13,873
7	6	0	End	-	-	143	1	1	40	160,873	5,768	155,105	147.0	8,105
8	6	0	End	-	-	149	1	1	40	160,873	5,879	154,994	153.0	1,994
9	2	2	10	14	-	146	1	6	63	189,322	3,902	185,420	150.0	35,420
10	9	2	11	13	-	133	0	3	50	185,420	24,959	160,461	137.0	23,461
11	10	1	12	-	-	123	1	3	50	160,461	13,360	147,101	127.0	20,101
12	11	0	End	-	-	113	1	1	32	147,101	24,232	122,869	117.0	5,869
13	10	0	End	-	-	100	1	1	32	160,461	49,859	110,602	104.0	6,602
14	9	1	15	-	-	137	1	2	40	185,420	38,023	147,397	141.0	6,397
15	14	0	End	-	-	135	1	1	40	147,397	7,781	139,616	139.0	0,616
16	1	0	End	-	-	193	1	1	50	192,872	0,327	192,545	197.0	-4,455

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Chole: 7/22)**

Line No.	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)
	connection from	No. of Connection							connected to	Starting of Line	Friction Head Loss (m)		
1													
2	Storage tank	1	2	1	18	100	0.278	110	402.200	0.587	401.613	406.0	-
3	1	1	3	0	17	560	0.262	110	401.613	2.891	398.722	394.0	4.722
4	2	2	4	0	16	80	0.247	110	398.722	0.380	398.342	388.0	10.342
5	3	1	5	0	14	530	0.216	110	398.342	1.911	396.431	390.0	6.431
6	4	1	6	0	13	420	0.201	110	396.431	1.322	395.109	381.0	14.109
7	5	3	7	0	12	1,000	0.185	110	395.109	2.704	392.405	376.0	16.405
8	6	0	999	1	1	380	0.015	32	392.405	4.776	387.629	384.0	3.629
9	6	0	999	1	1	760	0.015	40	392.405	3.156	389.249	386.0	3.249
10	6	2	10	13	10	590	0.154	90	392.405	3.292	389.113	372.0	17.113
11	9	1	11	1	3	150	0.046	63	389.113	0.513	388.600	375.0	13.600
12	10	1	12	1	2	480	0.031	50	388.600	2.396	386.204	382.0	4.204
13	11	0	999	1	1	340	0.015	32	386.204	4.266	381.938	369.0	12.938
14	9	2	14	15	6	270	0.093	63	389.113	3.297	385.816	365.0	20.816
15	13	0	999	1	1	160	0.015	32	385.816	2.008	383.808	365.0	18.808
16	13	2	16	19	5	560	0.077	63	385.816	4.880	380.936	359.0	21.936
17	15	1	17	1	3	470	0.046	50	380.936	4.966	375.970	364.0	11.970
18	16	1	18	1	2	1,040	0.031	40	375.970	15.553	360.417	359.0	1.417
19	17	0	999	1	1	510	0.015	40	360.417	2.116	358.301	358.0	0.301
20	15	0	999	1	1	1,350	0.015	40	380.936	5.600	375.336	372.0	3.336
21	3	2	21	22	2	400	0.031	50	398.342	1.996	396.346	393.0	3.346
22	20	0	999	1	1	250	0.015	40	396.346	1.037	395.309	395.0	0.309
22	20	0	999	1	1	150	0.015	32	396.346	1.882	394.464	394.0	0.464



**Table E.2 Results of Hydraulic Calculation (Distribution Line in Mwadege /Kipala: 8/22)**

Line No.	connection from	Connection			GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)	
		No. of Connection	connected to	connected to							Starting of Line	Friction Head Loss (m)	(A) End of Line			
1	Storage tank	2	2	17	-	75	0	22	100	0.219	110	86.050	0.369	85.681	79.0	6.681
2	1	2	3	4	-	70	0	16	260	0.160	110	85.681	0.533	85.148	74.0	11.148
3	2	0	999	-	-	70	1	1	80	0.010	32	85.148	0.448	84.700	74.0	10.700
4	2	3	5	6	25	70	0	15	140	0.150	90	85.148	0.735	84.413	74.0	10.413
5	4	0	999	-	-	75	1	1	40	0.010	32	84.413	0.224	84.189	79.0	5.189
6	4	2	7	8	-	70	0	8	110	0.080	75	84.413	0.436	83.977	74.0	9.977
7	6	0	999	-	-	30	1	1	90	0.010	32	83.977	0.504	83.473	34.0	49.473
8	6	2	9	10	-	70	0	7	140	0.070	75	83.977	0.433	83.544	74.0	9.544
9	8	0	999	-	-	70	1	1	40	0.010	32	83.544	0.224	83.320	74.0	9.320
10	8	2	11	14	-	70	0	6	710	0.060	75	83.544	1.651	81.893	74.0	7.893
11	10	1	12	-	-	70	1	3	260	0.030	40	81.893	3.672	78.221	74.0	4.221
12	11	1	13	-	-	70	1	2	370	0.020	40	78.221	2.468	75.753	74.0	1.753
13	12	0	999	-	-	70	1	1	450	0.010	40	75.753	0.833	74.920	74.0	0.920
14	10	1	15	-	-	75	1	3	290	0.030	50	81.893	1.367	80.526	79.0	1.526
15	14	1	16	-	-	50	1	2	1,770	0.020	40	80.526	11.807	68.719	54.0	14.719
16	15	0	999	-	-	60	1	1	560	0.010	32	68.719	3.134	65.585	64.0	1.585
17	1	3	18	19	20	70	0	6	330	0.060	50	85.681	5.607	80.074	74.0	6.074
18	17	0	999	-	-	70	1	1	20	0.010	32	80.074	0.112	79.962	74.0	5.962
19	17	0	999	-	-	70	1	1	270	0.010	32	80.074	1.511	78.563	74.0	4.563
20	17	1	21	-	-	50	1	4	480	0.040	40	80.074	11.543	68.531	54.0	14.531
21	20	2	22	24	-	40	0	3	860	0.030	40	68.531	12.146	56.385	44.0	12.385
22	21	1	23	-	-	40	1	2	80	0.020	32	56.385	1.614	54.771	44.0	10.771
23	22	0	999	-	-	40	1	1	530	0.010	32	54.771	2.966	51.805	44.0	7.805
24	21	0	999	-	-	40	1	1	200	0.010	32	56.385	1.119	55.266	44.0	11.266
25	4	1	26	-	-	65	1	6	210	0.060	75	84.413	0.488	83.925	69.0	14.925
26	25	1	27	-	-	60	1	5	280	0.050	50	83.925	3.396	80.529	64.0	16.529
27	26	1	28	-	-	60	1	4	340	0.040	50	80.529	2.729	77.800	64.0	13.800
28	27	2	29	30	-	60	0	3	500	0.030	40	77.800	7.061	70.739	64.0	6.739
29	28	0	999	-	-	60	1	1	50	0.010	32	70.739	0.280	70.459	64.0	6.459
30	28	2	31	32	-	60	0	2	500	0.020	40	70.739	3.335	67.404	64.0	3.404
31	30	0	999	-	-	60	1	1	50	0.010	32	67.404	0.280	67.124	64.0	3.124
32	30	0	999	-	-	60	1	1	550	0.010	32	67.404	3.078	64.326	64.0	0.326

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Morogoro /Mfuru Mwanbao: 9/22)**

Line No.	connection from	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(A-B) (m)	
		No. of Connection	connected to							Starting of Line	Friction Head Loss (m)	(A) End of Line		Required Pressure (m)
1	Storage tank	3	2	17	26	39	100	0.183	110	48.950	0.265	48.685	43.0	5.685
2	1	2	3	4	-	37	400	0.105	110	48.685	0.376	48.309	41.0	7.309
3	2	0	End	-	-	28	130	0.013	32	48.309	1.204	47.105	32.0	15.105
4	2	2	5	6	-	39	200	0.092	90	48.309	0.424	47.885	43.0	4.885
5	4	0	End	-	-	31	30	0.013	32	47.885	0.278	47.607	35.0	12.607
6	4	2	7	8	-	37	330	0.079	90	47.885	0.526	47.359	41.0	6.359
7	6	0	End	-	-	43	150	0.013	50	47.359	0.153	47.206	47.0	0.206
8	6	2	9	10	-	29	380	0.065	75	47.359	1.043	46.316	33.0	13.316
9	8	0	End	-	-	34	40	0.013	32	46.316	0.370	45.946	38.0	7.946
10	8	2	11	14	-	20	2,360	0.052	75	46.316	4.289	42.027	24.0	18.027
11	10	2	12	13	-	20	820	0.026	40	42.027	9.050	32.977	24.0	8.977
12	11	0	End	-	-	23	540	0.013	32	32.977	5.001	27.976	27.0	0.976
13	11	0	End	-	-	26	420	0.013	40	32.977	1.286	31.691	30.0	1.691
14	10	2	15	16	-	25	840	0.026	40	42.027	9.271	32.756	29.0	3.756
15	14	0	End	-	-	24	40	0.013	32	32.756	0.370	32.386	28.0	4.386
16	14	0	End	-	-	25	350	0.013	32	32.756	3.241	29.515	29.0	0.515
17	1	2	18	19	-	35	160	0.065	90	48.685	0.182	48.503	39.0	9.503
18	17	0	End	-	-	36	140	0.013	32	48.503	1.296	47.207	40.0	7.207
19	17	2	20	21	-	37	490	0.052	75	48.503	0.890	47.613	41.0	6.613
20	19	0	End	-	-	36	550	0.013	32	47.613	5.093	42.520	40.0	2.520
21	19	2	22	23	-	39	330	0.039	63	47.613	0.825	46.788	43.0	3.788
22	21	0	End	-	-	39	500	0.013	40	46.788	1.531	45.257	43.0	2.257
23	21	2	24	25	-	42	380	0.026	63	46.788	0.449	46.339	46.0	0.339
24	23	0	End	-	-	42	20	0.013	40	46.339	0.061	46.278	46.0	0.278
25	23	0	End	-	-	34	1,640	0.013	40	46.339	5.021	41.318	38.0	3.318
26	1	0	End	-	-	40	30	0.013	32	48.685	0.278	48.407	44.0	4.407

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Kisenvule: 10/22)**

Line No.	Connection			GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)
	connection from	No. of Connection	connected to							Starting of Line	Friction Head Loss (m)	(A) End of Line		
1	Storage tank	3	2	45	16	107	0	0	110	107.200	0.432	106.768	111.0	-
2	1	1	3	-	-	86	1	10	110	106.768	4.594	102.174	90.0	12.174
3	2	1	4	-	-	76	1	9	90	102.174	2.052	100.122	80.0	20.122
4	3	2	5	6	-	83	0	8	90	100.122	0.943	99.179	87.0	12.179
5	4	0	End	-	-	79	1	1	32	99.179	5.828	93.351	83.0	10.351
6	4	2	7	12	-	68	0	7	90	99.179	0.460	98.719	72.0	26.719
7	6	1	8	-	-	68	1	4	75	98.719	0.552	98.167	72.0	26.167
8	7	1	9	-	-	68	1	3	63	98.167	2.821	95.346	72.0	23.346
9	8	2	10	11	-	85	0	2	63	95.346	1.819	93.527	89.0	4.527
10	9	0	End	-	-	89	1	1	50	93.527	0.421	93.106	93.0	0.106
11	9	0	End	-	-	80	1	1	32	93.527	6.833	86.694	84.0	2.694
12	6	2	13	14	-	82	1	3	75	98.719	3.521	95.198	86.0	9.198
13	12	0	End	-	-	88	1	1	63	95.198	1.088	94.110	92.0	2.110
14	12	0	End	-	-	84	1	1	40	95.198	6.312	88.886	88.0	0.886
15	1	0	End	-	-	102	1	1	63	106.768	0.398	106.370	106.0	0.370
16	1	0	End	-	-	102	1	1	63	106.768	0.483	106.285	106.0	0.285

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Vianzi: 11/22)**

Line No.	connection from	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)
		No. of Connection	connected to							Starting of Line	Friction Head Loss (m)	(A) End of Line		
1	Storage tank	2	2	140	0	13	100	0.211	90	146.050	0.993	145.057	144.0	1.057
2	1	2	3	100	1	11	510	0.179	75	145.057	8.967	136.090	104.0	32.090
3	2	2	4	99	0	8	600	0.130	63	136.090	13.709	122.381	103.0	19.381
4	3	1	5	91	1	5	100	0.081	50	122.381	2.988	119.393	95.0	24.393
5	4	3	6	103	1	4	350	0.065	50	119.393	6.920	112.473	107.0	5.473
6	5	0	End	105	1	1	150	0.016	32	112.473	2.068	110.405	109.0	1.405
7	5	0	End	92	1	1	280	0.016	32	112.473	3.861	108.612	96.0	12.612
8	5	0	End	92	1	1	880	0.016	32	112.473	12.134	100.339	96.0	4.339
9	3	2	10	99	0	3	80	0.049	32	122.381	8.419	113.962	103.0	10.962
10	9	0	End	91	1	1	950	0.016	32	113.962	13.099	100.863	95.0	5.863
11	9	1	23	99	1	1	40	0.016	32	113.962	0.552	113.410	103.0	10.410
12	9	0	End	104	1	1	210	0.016	32	113.410	2.896	110.514	108.0	2.514
13	2	1	14	116	1	2	610	0.032	40	136.090	10.025	126.065	120.0	6.065
14	13	0	End	95	1	1	710	0.016	32	126.065	9.790	116.275	99.0	17.275
15	1	2	16	113	0	2	310	0.032	40	145.057	5.094	139.963	117.0	22.963
16	15	0	End	113	1	1	950	0.016	32	139.963	13.099	126.864	117.0	9.864
17	15	0	End	108	1	1	590	0.016	32	139.963	8.135	131.828	112.0	19.828

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Njopeka: 12/22)**

Line No.	connection from	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)
		No. of Connection	connected to							Starting of Line	Friction Head Loss (m)	(A) End of Line		
1	Storage tank	2	2	91	0	18	1,610	0.367	160	101.200	2.466	98.734	95.0	3.734
2	1	2	3	78	0	5	600	0.102	75	98.734	3.731	95.003	82.0	13.003
3	2	0	End	71	1	1	80	0.020	32	95.003	1.678	93.325	75.0	18.325
4	2	2	5	58	0	4	1,600	0.081	63	95.003	15.423	79.580	62.0	17.580
5	4	0	End	49	1	1	40	0.020	32	79.580	0.839	78.741	53.0	25.741
6	4	2	7	50	0	3	730	0.061	50	79.580	12.892	66.688	54.0	12.688
7	6	0	End	58	1	1	60	0.020	32	66.688	1.258	65.430	62.0	3.430
8	6	0	End	51	2	2	80	0.041	32	66.688	6.048	60.640	55.0	5.640
9	1	3	10	77	0	13	110	0.265	140	98.734	0.177	98.557	81.0	17.557
10	9	0	End	94	1	1	170	0.020	110	98.557	0.008	98.549	98.0	0.549
11	9	2	12	80	0	7	350	0.143	125	98.557	0.311	98.246	84.0	14.246
12	11	0	End	81	1	1	140	0.020	32	98.246	2.936	95.310	85.0	10.310
13	11	2	14	81	0	6	190	0.122	125	98.246	0.127	98.119	85.0	13.119
14	13	0	End	76	1	1	280	0.020	32	98.119	5.872	92.247	80.0	12.247
15	13	2	16	80	0	5	160	0.102	125	98.119	0.076	98.043	84.0	14.043
16	15	0	End	81	2	2	70	0.041	32	98.043	5.292	92.751	85.0	7.751
17	15	2	18	79	0	3	100	0.061	110	98.043	0.035	98.008	83.0	15.008
18	17	0	End	77	2	2	60	0.041	32	98.008	4.536	93.472	81.0	12.472
19	17	0	End	93	1	1	270	0.020	110	98.008	0.012	97.996	97.0	0.996
20	9	1	21	82	1	5	40	0.102	75	98.557	0.249	98.308	86.0	12.308
21	20	2	22	69	0	4	870	0.081	75	98.308	3.580	94.728	73.0	21.728
22	21	2	23	85	0	2	1,380	0.041	75	94.728	1.575	93.153	89.0	4.153
23	22	0	End	77	1	1	610	0.020	40	93.153	4.229	88.924	81.0	7.924
24	22	0	End	82	1	1	630	0.020	40	93.153	4.368	88.785	86.0	2.785
25	21	2	26	61	0	2	1,930	0.041	50	94.728	16.099	78.629	65.0	13.629
26	25	0	End	59	1	1	970	0.020	40	78.629	6.725	71.904	63.0	8.904
27	25	0	End	71	1	1	700	0.020	50	78.629	1.620	77.009	75.0	2.009

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Kitunda Kivule-1: 13/22)**

Line No.	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(A-B) (m)	
	connection from	No. of Connection							connected to	Starting of Line	Friction Head Loss (m)		(A) End of Line
1	0	1	63	2	16	100	0.344	140	69.050	0.261	68.789	67.0	1.789
2	1	2	60	0	14	220	0.301	125	68.789	0.782	68.007	64.0	4.007
3	2	3	34	0	10	400	0.215	110	68.007	1.425	66.582	38.0	28.582
4	3	4	40	0	6	440	0.129	110	66.582	0.609	65.973	44.0	21.973
5	4	5	40	2	2	790	0.043	40	65.973	21.871	44.102	44.0	0.102
6	4	6	40	0	4	280	0.086	50	65.973	9.326	56.647	44.0	12.647
7	6	7	41	2	2	390	0.043	40	56.647	10.797	45.850	45.0	0.850
8	6	8	36	2	2	360	0.043	40	56.647	9.966	46.681	40.0	6.681
9	3	9	50	0	4	340	0.086	63	66.582	3.630	62.952	54.0	8.952
10	9	10	55	2	2	570	0.043	63	62.952	1.688	61.264	59.0	2.264
11	9	11	45	2	2	680	0.043	50	62.952	6.283	56.669	49.0	7.669
12	2	12	36	2	4	900	0.086	75	68.007	4.103	63.904	40.0	23.904
13	12	13	55	2	2	2,460	0.043	75	63.904	3.111	60.793	59.0	1.793

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Kitunda Kivule-2: 14/22)**

Line No.	connection from	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)
		No. of Connection	connected to							Starting of Line	Friction Head Loss (m)	(A) End of Line		
1	0	1	2	40	2	10	100	0.228	110	46.050	0.396	45.654	44.0	1.654
2	1	2	3	30	0	8	360	0.182	110	45.654	0.942	44.712	34.0	10.712
3	2	4	5	30	0	6	560	0.137	90	44.712	2.486	42.226	34.0	8.226
4	3	0	End	30	2	2	280	0.046	50	42.226	2.872	39.354	34.0	5.354
5	3	1	6	30	0	4	510	0.091	75	42.226	2.581	39.645	34.0	5.645
6	5	2	7	30	0	4	140	0.091	75	39.645	0.708	38.937	34.0	4.937
7	6	0	End	30	2	2	310	0.046	50	38.937	3.179	35.758	34.0	1.758
8	6	0	End	30	2	2	3,060	0.046	75	38.937	4.295	34.642	34.0	0.642
9	2	0	End	35	2	2	3,580	0.046	75	44.712	5.025	39.687	39.0	0.687

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Kitunda, Mzingo: 15/22)**

Line No.	Connection			GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)
	connection from	No. of Connection	connected to							Starting of Line	Friction Head Loss (m)	(A) End of Line		
1	0	1	2	30	2	24	100	0.539	200	36.050	0.105	35.945	34.0	1.945
2	1	2	3	30	2	22	340	0.494	200	35.945	0.305	35.640	34.0	1.640
3	2	3	4	30	0	12	650	0.269	160	35.640	0.563	35.077	34.0	1.077
4	3	0	End	30	2	2	120	0.045	75	35.077	0.164	34.913	34.0	0.913
5	3	0	End	30	2	2	210	0.045	75	35.077	0.287	34.790	34.0	0.790
6	3	2	7	30	0	8	590	0.180	140	35.077	0.463	34.614	34.0	0.614
7	6	0	End	20	2	2	290	0.045	40	34.614	8.679	25.935	24.0	1.935
8	6	2	9	30	0	6	190	0.135	110	34.614	0.284	34.330	34.0	0.330
9	8	0	End	10	2	2	560	0.045	40	34.330	16.759	17.571	14.0	3.571
10	8	1	11	20	2	2	1,650	0.045	63	34.330	5.283	29.047	24.0	5.047
11	10	0	End	5	2	2	980	0.045	50	29.047	9.788	19.259	9.0	10.259
12	2	2	13	30	2	6	220	0.135	110	35.640	0.329	35.311	34.0	1.311
13	12	0	End	30	2	2	330	0.045	75	35.311	0.451	34.860	34.0	0.860
14	12	1	15	30	2	4	950	0.090	110	35.311	0.672	34.639	34.0	0.639
15	14	0	End	30	2	2	1,260	0.045	110	34.639	0.247	34.392	34.0	0.392



**Table E.2 Results of Hydraulic Calculation (Distribution Line in Msongola: 16/22)**

Line No.	Connection			GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)
	connection from	No. of Connection	connected to							Starting of Line	Friction Head Loss (m)	(A) End of Line		
1	0	3	2	63	0	9	100	0.186	200	69.050	0.015	69.035	67.0	2.035
2	1	2	3	53	1	6	1,220	0.124	125	69.035	0.839	68.196	57.0	11.196
3	2	0	End	53	1	1	240	0.021	40	68.196	1.711	66.485	57.0	9.485
4	2	2	5	57	0	4	220	0.083	90	68.196	0.386	67.810	61.0	6.810
5	4	0	End	62	1	1	690	0.021	63	67.810	0.526	67.284	66.0	1.284
6	4	0	End	60	1	3	130	0.062	75	67.810	0.323	67.487	64.0	3.487
7	6	1	8	63	0	2	120	0.041	75	67.487	0.141	67.346	67.0	0.346
8	7	2	9	59	0	2	340	0.041	50	67.346	2.916	64.430	63.0	1.430
9	8	0	End	56	1	1	940	0.021	50	64.430	2.236	62.194	60.0	2.194
10	8	0	End	54	1	1	870	0.021	40	64.430	6.202	58.228	58.0	0.228
11	1	1	12	63	1	2	20	0.041	110	69.035	0.003	69.032	67.0	2.032
12	11	0	End	64	1	1	850	0.021	110	69.032	0.040	68.992	68.0	0.992
13	1	0	End	65	1	1	880	0.021	125	69.035	0.022	69.013	69.0	0.013

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Pugu Station: 17/22)**

Line No.	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)			
	connection from	No. of Connection							connected to	Starting of Line	Friction Head Loss (m)			(A) End of Line		
1	0	1	2	-	-	127	2	10	100	0.200	110	127.200	0.311	126.889	131.0	-4.111
2	1	2	3	5	-	91	0	8	270	0.160	90	126.889	1.605	125.284	95.0	30.284
3	2	1	4	-	-	91	2	6	180	0.120	75	125.284	1.516	123.768	95.0	28.768
4	3	1	5	-	-	103	2	4	580	0.080	75	123.768	2.307	121.461	107.0	14.461
5	4	0	End	-	-	114	2	2	320	0.040	50	121.461	2.580	118.881	118.0	0.881
6	2	0	End	-	-	98	2	2	780	0.040	40	125.284	18.845	106.439	102.0	4.439

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Matosa: 18/22)**

Line No.	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)
	connection from	No. of Connection							connected to	Starting of Line	Friction Head Loss (m)		
1	0	1	177	2	10	100	0.143	75	183.050	1.163	181.887	181.0	0.887
2	1	2	169	0	8	800	0.114	75	181.887	6.156	175.731	173.0	2.731
3	2	2	163	0	4	610	0.057	63	175.731	3.050	172.681	167.0	5.681
4	3	0	165	2	2	10	0.029	32	172.681	0.392	172.289	169.0	3.289
5	3	2	154	0	2	1,210	0.029	50	172.681	5.235	167.446	158.0	9.446
6	5	0	154	1	1	20	0.014	32	167.446	0.218	167.228	158.0	9.228
7	5	0	153	1	1	740	0.014	32	167.446	8.049	159.397	157.0	2.397
8	2	1	166	2	4	190	0.057	63	175.731	0.950	174.781	170.0	4.781
9	8	2	167	0	2	620	0.029	50	174.781	2.683	172.098	171.0	1.098
10	9	0	167	1	1	40	0.014	40	172.098	0.144	171.954	171.0	0.954
11	9	0	129	1	1	730	0.014	32	172.098	7.941	164.157	133.0	31.157

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Yale Yale Puna: 19/22)**

Line No.	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)
	connection from	No. of Connection							connected to	Starting of Line	Friction Head Loss (m)		
1	0	1	2	-	53	1	0.397	140	59.050	0.340	58.710	57.0	1.710
2	1	3	3	13	14	0	0.375	140	58.710	1.898	56.812	17.0	39.812
3	2	2	4	5	-	0	0.177	110	56.812	1.259	55.553	17.0	38.553
4	3	0	End	-	13	1	0.022	32	55.553	14.591	40.962	17.0	23.962
5	3	1	6	-	33	2	0.154	90	55.553	1.448	54.105	37.0	17.105
6	5	1	7	-	20	2	0.110	75	54.105	4.904	49.201	24.0	25.201
7	6	1	8	-	13	0	0.066	63	49.201	3.611	45.590	17.0	28.590
8	7	1	9	-	13	0	0.066	63	45.590	0.131	45.459	17.0	28.459
9	8	1	10	-	21	1	0.066	63	45.459	3.939	41.520	25.0	16.520
10	9	2	11	12	25	0	0.044	40	41.520	10.724	30.796	29.0	1.796
11	10	0	End	-	13	1	0.022	40	30.796	6.351	24.445	17.0	7.445
12	10	0	End	-	17	1	0.022	40	30.796	8.281	22.515	21.0	1.515
13	2	0	End	-	13	2	0.044	32	56.812	14.027	42.785	17.0	25.785
14	2	2	15	16	40	2	0.154	90	56.812	6.182	50.630	44.0	6.630
15	14	0	End	-	27	1	0.022	32	50.630	13.132	37.498	31.0	6.498
16	14	1	17	-	34	2	0.088	75	50.630	7.254	43.376	38.0	5.376
17	16	0	End	-	34	2	0.044	50	43.376	5.127	38.249	38.0	0.249

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Tundwi: 20/22)**

Line No.	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)			
	connection from	No. of Connection							connected to	Starting of Line	Friction Head Loss (m)			(A) End of Line		
1	0	2	2	5	-	47	1	16	100	0.183	90	53.050	0.765	52.285	51.0	1.285
2	1	1	3	-	-	46	1	3	330	0.034	50	52.285	2.010	50.275	50.0	0.275
3	2	1	4	-	-	30	1	2	390	0.023	40	50.275	3.362	46.913	34.0	12.913
4	3	0	999	-	-	29	1	1	1,380	0.011	32	46.913	9.982	36.931	33.0	3.931
5	1	2	6	16	-	27	0	12	170	0.138	90	52.285	0.763	51.522	31.0	20.522
6	5	2	7	9	-	34	0	7	70	0.080	50	51.522	2.045	49.477	38.0	11.477
7	6	1	8	-	-	25	1	2	270	0.023	32	49.477	7.041	42.436	29.0	13.436
8	7	0	999	-	-	25	1	1	100	0.011	32	42.436	0.723	41.713	29.0	12.713
9	6	3	10	11	13	30	0	5	90	0.057	40	49.477	4.227	45.250	34.0	11.250
10	9	0	999	-	-	39	1	1	250	0.011	32	45.250	1.808	43.442	43.0	0.442
11	9	1	12	-	-	33	1	2	120	0.023	40	45.250	1.035	44.215	37.0	7.215
12	11	0	999	-	-	34	1	1	210	0.011	32	44.215	1.519	42.696	38.0	4.696
13	9	2	14	15	-	36	0	2	160	0.023	40	45.250	1.379	43.871	40.0	3.871
14	13	0	999	-	-	32	1	1	50	0.011	32	43.871	0.362	43.509	36.0	7.509
15	13	0	999	-	-	36	1	1	420	0.011	40	43.871	1.004	42.867	40.0	2.867
16	5	1	17	-	-	40	1	5	140	0.057	63	51.522	0.703	50.819	44.0	6.819
17	16	1	18	-	-	29	1	4	1,250	0.046	63	50.819	4.156	46.663	33.0	13.663
18	17	2	19	21	-	29	0	3	100	0.034	40	46.663	1.825	44.838	33.0	11.838
19	18	1	20	-	-	26	1	2	1,060	0.023	40	44.838	9.138	35.700	30.0	5.700
20	19	0	999	-	-	26	1	1	530	0.011	32	35.700	3.834	31.866	30.0	1.866
21	18	0	999	-	-	30	1	1	1,360	0.011	32	44.838	9.837	35.001	34.0	1.001

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Mjiwema: 21/22)**

Line No.	Connection			GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)
	connection from	No. of Connection	connected to							Starting of Line	Friction Head Loss (m)	(A) End of Line		
1	0	1	2	-	14	1	100	0.250	160	22.950	0.075	22.875	18.0	4.875
2	1	2	3	4	14	0	230	0.229	160	22.875	0.148	22.727	18.0	4.727
3	2	0	End	-	14	1	100	0.021	32	22.727	2.186	20.541	18.0	2.541
4	2	1	5	-	14	0	200	0.208	140	22.727	0.206	22.521	18.0	4.521
5	4	2	6	12	16	0	740	0.208	140	22.521	0.763	21.758	20.0	1.758
6	5	1	7	-	16	1	490	0.146	125	21.758	0.455	21.303	20.0	1.303
7	6	2	8	9	16	0	570	0.125	110	21.303	0.743	20.560	20.0	0.560
8	7	0	End	-	16	2	140	0.042	75	20.560	0.167	20.393	20.0	0.393
9	7	2	10	11	11	0	280	0.083	75	20.560	1.201	19.359	15.0	4.359
10	9	0	End	-	11	2	100	0.042	40	19.359	2.605	16.754	15.0	1.754
11	9	0	End	-	9	2	510	0.042	50	19.359	4.435	14.924	13.0	1.924
12	5	1	13	-	14	1	740	0.063	75	21.758	1.864	19.894	18.0	1.894
13	12	2	14	15	14	0	180	0.042	50	19.894	1.565	18.329	18.0	0.329
14	13	0	End	-	9	1	230	0.021	32	18.329	5.028	13.301	13.0	0.301
15	13	0	End	-	4	1	370	0.021	32	18.329	8.089	10.240	8.0	2.240

**Table E.2 Results of Hydraulic Calculation (Distribution Line in Kibugumo: 22/22)**

Line No.	Connection		GL (m) at end of line	No. of Taps	Accumulated No. of Assigned Taps	Length (m)	Flow (m <sup>3</sup> /min.)	Diameter (mm)	Water level (m)			(B) Required Pressure (m)	(A-B) (m)
	connection from	No. of Connection							connected to	Starting of Line	Friction Head Loss (m)		
1	0	1	2	-	10	2	0.233	160	18.950	0.146	18.804	14.0	4.804
2	1	2	3	4	10	0	0.191	140	18.804	0.053	18.751	14.0	4.751
3	2	0	End	-	13	1	0.021	50	18.751	1.122	17.629	17.0	0.629
4	3	3	5	6	7	0	0.170	140	18.751	0.303	18.448	10.0	8.448
5	4	0	End	-	6	1	0.021	32	18.448	3.842	14.606	10.0	4.606
6	4	0	End	-	6	2	0.042	32	18.448	1.630	16.818	10.0	6.818
7	4	1	8	-	13	1	0.106	140	18.448	0.145	18.303	17.0	1.303
8	7	2	9	10	13	0	0.085	125	18.303	0.075	18.228	17.0	1.228
9	8	0	End	-	13	1	0.021	50	18.228	0.474	17.754	17.0	0.754
10	8	2	11	12	12	0	0.064	110	18.228	0.112	18.116	16.0	2.116
11	10	0	End	-	12	1	0.021	50	18.116	0.973	17.143	16.0	1.143
12	10	1	13	-	14	1	0.042	110	18.116	0.048	18.068	18.0	0.068
13	12	0	End	-	14	1	0.021	110	18.068	0.019	18.049	18.0	0.049

**Table E.3 Planned Location of Public Water Points (1/2)**

Village /Mitaa	No. of PWP	Latitude	Longitude	Village /Mitaa	No. of PWP	Latitude	Longitude
Kibindu	PW- 1	5°59'33.9'	37°55'21.9'	Chole	PW- 1	7°21'15.0'	38°40'24.3'
	PW- 2	5°59'36.8'	37°55'22.9'		PW- 2	7°21'06.6'	38°40'11.1'
	PW- 3	5°59'45.0'	37°55'25.9'		PW- 3	7°20'53.2'	38°40'18.8'
	PW- 4	5°59'43.2'	37°55'13.8'		PW- 4	7°20'55.1'	38°40'09.8'
	PW- 5	5°59'38.5'	37°55'17.5'		PW- 5	7°21'16.5'	38°39'59.9'
	PW- 6	5°59'41.5'	37°55'02.8'		PW- 6	7°21'26.2'	38°39'53.3'
	PW- 7	5°59'52.4'	37°55'30.9'		PW- 7	7°21'57.3'	38°39'32.5'
	PW- 8	5°59'45.3'	37°55'37.3'		PW- 8	7°21'47.1'	38°39'25.6'
	PW- 9	5°59'44.3'	37°55'42.2'		PW- 9	7°21'58.3'	38°39'22.9'
	PW- 10	5°59'37.3'	37°55'48.7'		PW- 10	7°21'55.7'	38°39'19.7'
	PW- 11	5°59'29.1'	37°55'52.5'		PW- 11	7°21'44.3'	38°39'12.5'
	PW- 12	5°59'34.4'	37°55'44.2'		PW- 12	7°21'37.9'	38°39'05.7'
	PW- 13	6°00'02.6'	37°55'31.6'		PW- 13	7°22'05.9'	38°39'20.7'
	PW- 14	6°00'12.6'	37°55'33.3'		PW- 14	7°22'13.7'	38°39'06.2'
	PW- 15	6°00'22.5'	37°55'34.2'		PW- 15	7°22'06.4'	38°38'55.0'
	PW- 16	6°00'33.8'	37°55'35.9'		PW- 16	7°21'46.9'	38°38'33.6'
	PW- 17	6°01'03.0'	37°55'31.8'		PW- 17	7°22'00.4'	38°38'29.5'
	PW- 18	6°00'44.2'	37°55'48.8'		PW- 18	7°22'31.0'	38°38'34.8'
Kwanduma	PW- 1	6°0'27.0'	38°4'42.7'	Mwandege /Kipala	PW- 1	6°58'31.9'	39°17'22.6'
	PW- 2	6°0'31.1'	38°4'48.0'		PW- 2	6°58'34.1'	39°17'18.5'
	PW- 3	6°0'35.6'	38°4'55.5'		PW- 3	6°58'38.9'	39°17'17.2'
	PW- 4	6°0'43.3'	38°4'42.8'		PW- 4	6°58'38.7'	39°17'23.4'
	PW- 5	6°1'02.6'	38°4'27.8'		PW- 5	6°58'48.0'	39°17'36.0'
	PW- 6	6°1'03.7'	38°4'32.3'		PW- 6	6°58'41.9'	39°17'43.4'
	PW- 7	6°1'08.1'	38°4'28.8'		PW- 7	6°58'45.9'	39°17'49.7'
	PW- 8	6°0'24.7'	38°4'40.9'		PW- 8	6°58'57.7'	39°17'36.2'
Matipwili	PW- 1	6°13'53.1'	38°42'42.7'		PW- 9	6°59'15.3'	39°18'21.8'
	PW- 2	6°13'52.2'	38°42'38.7'		PW- 10	6°59'00.8'	39°18'27.1'
	PW- 3	6°13'53.4'	38°42'46.0'		PW- 11	6°58'29.6'	39°17'14.5'
	PW- 4	6°13'57.3'	38°42'41.0'		PW- 12	6°58'22.6'	39°17'11.1'
	PW- 5	6°13'56.4'	38°42'38.2'		PW- 13	6°58'13.2'	39°17'09.5'
	PW- 6	6°13'57.9'	38°42'46.5'		PW- 14	6°58'19.4'	39°17'26.8'
	PW- 7	6°13'57.2'	38°42'54.7'	PW- 15	6°58'15.0'	39°17'20.1'	
	PW- 8	6°13'59.7'	38°42'42.5'	PW- 16	6°58'08.2'	39°17'34.7'	
	PW- 9	6°13'59.4'	38°42'40.0'	PW- 17	6°57'41.3'	39°17'37.1'	
	PW- 10	6°13'59.3'	38°42'36.9'	PW- 18	6°57'45.5'	39°17'31.8'	
Mnaji Mikinda	PW- 1	6°48'37.1'	38°39'13.7'	PW- 19	6°57'31.3'	39°17'28.1'	
	PW- 2	6°48'39.6'	38°39'17.8'	PW- 1	7°2'00.2'	39°16'35.6'	
	PW- 3	6°48'42.7'	38°39'09.8'	PW- 2	7°1'58.4'	39°16'43.2'	
	PW- 4	6°48'39.9'	38°39'02.9'	PW- 3	7°1'51.1'	39°16'48.8'	
	PW- 5	6°48'47.6'	38°38'56.5'	PW- 4	7°1'59.9'	39°16'54.3'	
Kitomondo /Minaji Mikinda	PW- 1	6°50'47.3'	38°38'00.3'	PW- 5	7°1'58.5'	39°17'08.6'	
	PW- 2	6°51'24.3'	38°37'33.9'	PW- 6	7°2'02.1'	39°17'27.5'	
	PW- 3	6°51'55.9'	38°36'55.6'	PW- 7	7°1'51.4'	39°17'35.8'	
	PW- 4	6°52'01.9'	38°36'43.0'	PW- 8	7°2'39.8'	39°16'37.0'	
	PW- 5	6°52'04.9'	38°36'37.3'	PW- 9	7°3'22.0'	39°16'40.8'	
	PW- 6	6°52'10.1'	38°36'30.2'	PW- 10	7°2'34.9'	39°17'02.9'	
	PW- 7	6°52'15.9'	38°36'24.4'	PW- 11	7°2'24.8'	39°16'02.5'	
	PW- 8	6°50'30.3'	38°38'12.8'	PW- 12	7°2'06.0'	39°15'39.7'	
	PW- 9	6°50'03.2'	38°38'21.2'	PW- 1	7°5'17.4'	39°22'32.6'	
Msimbu	PW- 1	7°6'42.9'	39°0'56.2'	PW- 2	7°5'29.9'	39°22'29.4'	
	PW- 2	7°6'31.5'	39°1'35.0'	PW- 3	7°5'33.9'	39°22'34.3'	
	PW- 3	7°7'24.9'	39°1'08.8'	PW- 4	7°5'42.1'	39°22'35.3'	
	PW- 4	7°8'14.7'	39°0'13.3'	PW- 5	7°5'51.4'	39°22'45.3'	
	PW- 5	7°7'03.0'	39°2'36.4'	PW- 6	7°6'15.0'	39°24'06.0'	
	PW- 6	7°7'32.6'	39°2'36.1'	PW- 7	7°6'23.1'	39°24'10.9'	
	PW- 7	7°6'20.1'	39°3'10.6'	PW- 8	7°6'29.5'	39°23'35.8'	
	PW- 8	7°5'48.6'	39°2'02.2'	PW- 9	7°6'32.4'	39°23'46.1'	
	PW- 9	7°5'36.5'	39°2'22.5'	PW- 10	7°5'16.7'	39°22'38.7'	
Marogoro /Mfuru Mwambao				PW- 11	7°4'56.8'	39°22'56.7'	
				PW- 12	7°4'53.4'	39°22'56.7'	
				PW- 13	7°4'44.2'	39°22'37.8'	
				PW- 14	7°4'13.0'	39°22'06.1'	



**Table E.3 Planned Location of Public Water Points (2/2)**

Village /Mitaa	No. of PWP	Latitude	Longitude	Village /Mitaa	No. of PWP	Latitude	Longitude	
Vianzi	PW- 1	7°2'48.5'	39°19'57.0'	Pugu Station	PW- 1	6°53'09.9'	39°7'21.4'	
	PW- 2	7°2'38.2'	39°19'43.1'		PW- 2	6°53'06.5'	39°7'14.0'	
	PW- 3	7°2'30.2'	39°19'48.3'		PW- 3	6°53'04.9'	39°7'34.3'	
	PW- 4	7°2'30.4'	39°19'52.4'		PW- 4	6°53'22.3'	39°7'26.6'	
	PW- 5	7°2'22.7'	39°19'46.0'		PW- 5	6°53'25.7'	39°7'18.4'	
	PW- 6	7°2'12.8'	39°19'31.3'	Matosa	PW- 1	6°44'07.2'	39°7'21.1'	
	PW- 7	7°2'42.3'	39°19'40.3'		PW- 2	6°44'23.8'	39°7'44.3'	
	PW- 8	7°2'47.3'	39°19'43.1'		PW- 3	6°44'52.4'	39°8'01.4'	
	PW- 9	7°2'39.1'	39°19'14.4'		PW- 4	6°45'06.0'	39°7'51.4'	
	PW- 10	7°2'47.9'	39°20'13.9'		PW- 5	6°44'07.1'	39°7'47.9'	
	PW- 11	7°2'48.9'	39°20'32.2'		PW- 6	6°44'07.3'	39°8'04.7'	
	PW- 12	7°3'23.1'	39°19'46.0'		PW- 7	6°44'15.3'	39°8'22.4'	
	PW- 13	7°3'36.9'	39°20'03.9'		PW- 1	7°4'21.6'	39°32'05.0'	
Njopeka	PW- 1	7°29'46.9'	39°08'37.9'	Yaleyale Puna	PW- 2	7°3'59.7'	39°32'15.6'	
	PW- 2	7°29'57.6'	39°08'35.2'		PW- 3	7°4'24.5'	39°32'26.8'	
	PW- 3	7°30'04.2'	39°08'41.1'		PW- 4	7°4'31.1'	39°32'01.0'	
	PW- 4	7°30'03.2'	39°08'29.8'		PW- 5	7°4'48.5'	39°31'53.8'	
	PW- 5	7°30'07.8'	39°08'30.8'		PW- 6	7°5'17.3'	39°31'48.0'	
	PW- 6	7°30'08.7'	39°08'23.4'		PW- 7	7°5'25.9'	39°32'10.1'	
	PW- 7	7°29'31.2'	39°08'52.5'		PW- 8	7°5'54.7'	39°31'58.2'	
	PW- 8	7°28'46.3'	39°08'49.0'		PW- 9	7°3'39.9'	39°31'58.3'	
	PW- 9	7°28'26.5'	39°08'50.5'		PW- 10	7°3'36.3'	39°32'11.6'	
	PW- 10	7°28'24.8'	39°08'53.8'		PW- 11	7°2'56.0'	39°31'56.6'	
	PW- 11	7°29'49.3'	39°08'43.1'		PW- 12	7°2'43.1'	39°31'56.5'	
	PW- 12	7°30'33.5'	39°09'22.8'		PW- 1	7°6'06.8'	39°25'54.2'	
	PW- 13	7°30'58.8'	39°09'17.1'		PW- 2	7°6'14.6'	39°25'49.3'	
	PW- 14	7°30'24.6'	39°09'52.1'		PW- 3	7°6'10.7'	39°25'56.1'	
	PW- 15	7°30'19.9'	39°10'16.6'		PW- 4	7°6'10.7'	39°25'57.8'	
Kitunda-1	PW- 1	6°54'58.9'	39°10'59.6'	Tundwi Songani	PW- 5	7°6'05.7'	39°26'06.7'	
	PW- 2	6°55'01.2'	39°11'41.3'		PW- 6	7°6'01.8'	39°25'58.0'	
	PW- 3	6°54'46.0'	39°11'34.6'		PW- 7	7°5'55.9'	39°25'57.9'	
	PW- 4	6°54'38.7'	39°11'28.2'		PW- 8	7°5'59.8'	39°26'05.6'	
	PW- 5	6°55'22.7'	39°11'02.8'		PW- 9	7°5'49.5'	39°26'10.5'	
	PW- 6	6°55'26.8'	39°11'20.1'		PW- 10	7°6'02.2'	39°25'53.5'	
	PW- 7	6°55'17.8'	39°10'41.4'		PW- 11	7°5'59.7'	39°25'03.3'	
	PW- 8	6°55'42.5'	39°09'56.9'		PW- 12	7°6'24.8'	39°25'00.7'	
Kitunda-2	PW- 1	6°56'25.0'	39°10'35.0'		PW- 13	7°6'33.7'	39°24'48.9'	
	PW- 2	6°56'08.5'	39°10'47.5'		PW- 14	7°6'12.1'	39°24'40.6'	
	PW- 3	6°56'09.6'	39°11'10.2'		PW- 15	7°6'22.8'	39°25'42.3'	
	PW- 4	6°56'51.9'	39°11'33.0'		PW- 16	7°6'46.6'	39°25'12.1'	
	PW- 5	6°57'59.9'	39°10'29.0'		PW- 1	6°51'20.8'	39°21'12.5'	
Mzinga	PW- 1	6°54'34.9'	39°12'08.0'		Mjimwema	PW- 2	6°51'24.2'	39°21'06.2'
	PW- 2	6°54'27.1'	39°12'02.5'			PW- 3	6°51'26.2'	39°20'36.7'
	PW- 3	6°54'32.9'	39°12'01.0'			PW- 4	6°51'13.3'	39°20'37.1'
	PW- 4	6°54'36.4'	39°11'52.5'	PW- 5		6°51'05.8'	39°20'36.6'	
	PW- 5	6°54'58.5'	39°12'07.0'	PW- 6		6°50'55.8'	39°20'38.8'	
	PW- 6	6°55'29.7'	39°12'22.7'	PW- 7		6°51'09.9'	39°21'06.5'	
	PW- 7	6°54'33.2'	39°12'16.0'	PW- 8		6°51'03.0'	39°21'03.8'	
	PW- 8	6°54'37.4'	39°12'23.7'	PW- 9		6°50'55.8'	39°21'09.2'	
	PW- 9	6°54'29.7'	39°12'33.7'	PW- 1		6°52'08.6'	39°22'35.0'	
	PW- 10	6°54'34.2'	39°12'55.6'	PW- 2		6°52'18.5'	39°22'29.8'	
	PW- 11	6°55'07.0'	39°13'15.5'	PW- 3		6°52'02.5'	39°22'23.6'	
	PW- 12	6°54'55.7'	39°13'40.3'	PW- 4		6°52'06.4'	39°22'20.2'	
Msongala	PW- 1	6°57'55.6'	39°10'29.7'	Kibugumo	PW- 5	6°51'58.1'	39°22'10.8'	
	PW- 2	6°58'21.6'	39°10'42.6'		PW- 6	6°52'03.3'	39°22'04.1'	
	PW- 3	6°58'11.9'	39°10'55.9'		PW- 7	6°52'08.3'	39°21'52.0'	
	PW- 4	6°58'23.7'	39°10'33.3'		PW- 8	6°51'55.0'	39°21'50.0'	
	PW- 5	6°58'30.9'	39°10'45.7'		PW- 9	6°51'49.7'	39°21'40.9'	
	PW- 6	6°58'34.6'	39°11'21.8'					
	PW- 7	6°58'47.6'	39°11'16.3'					
	PW- 8	6°57'48.7'	39°10'07.1'					
	PW- 9	6°57'32.7'	39°10'37.9'					

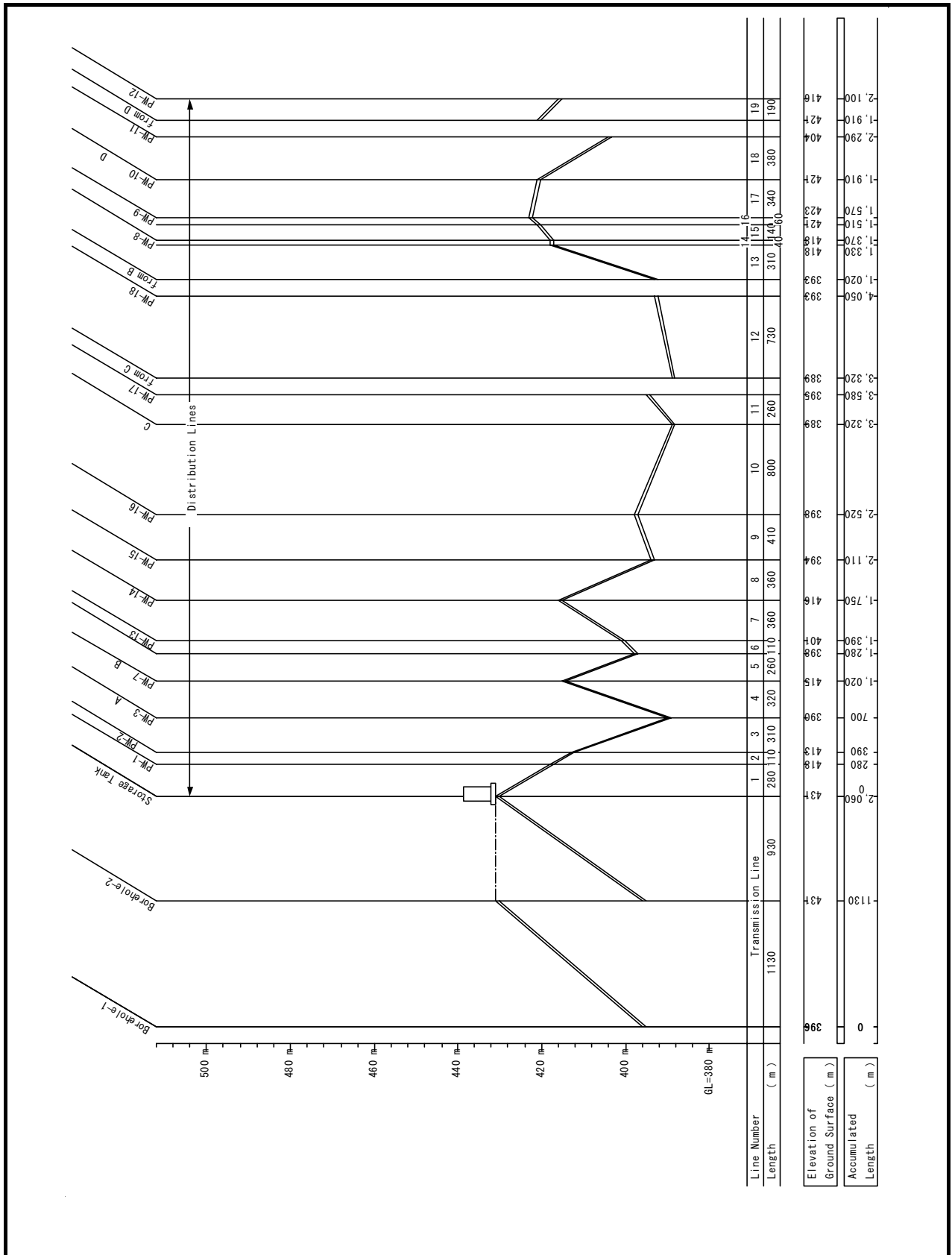
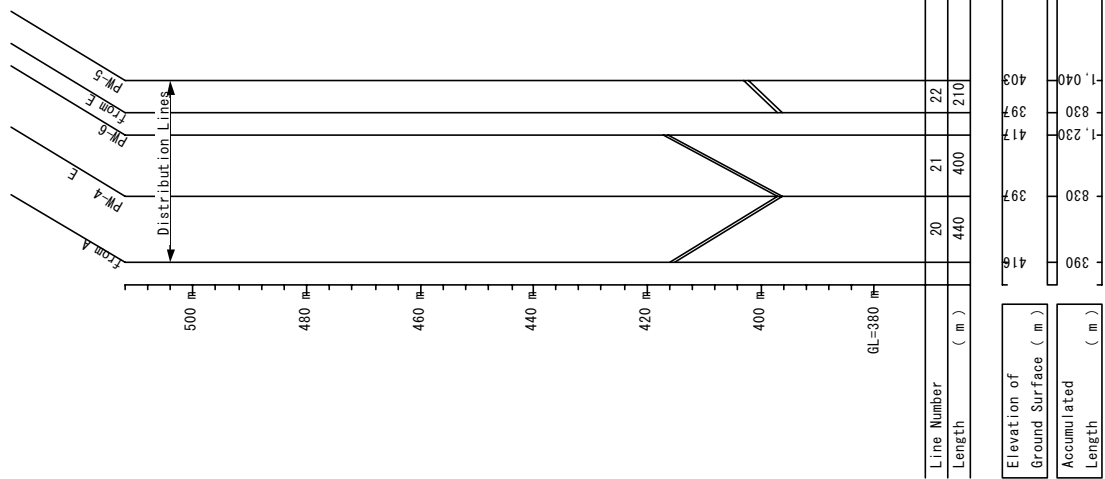


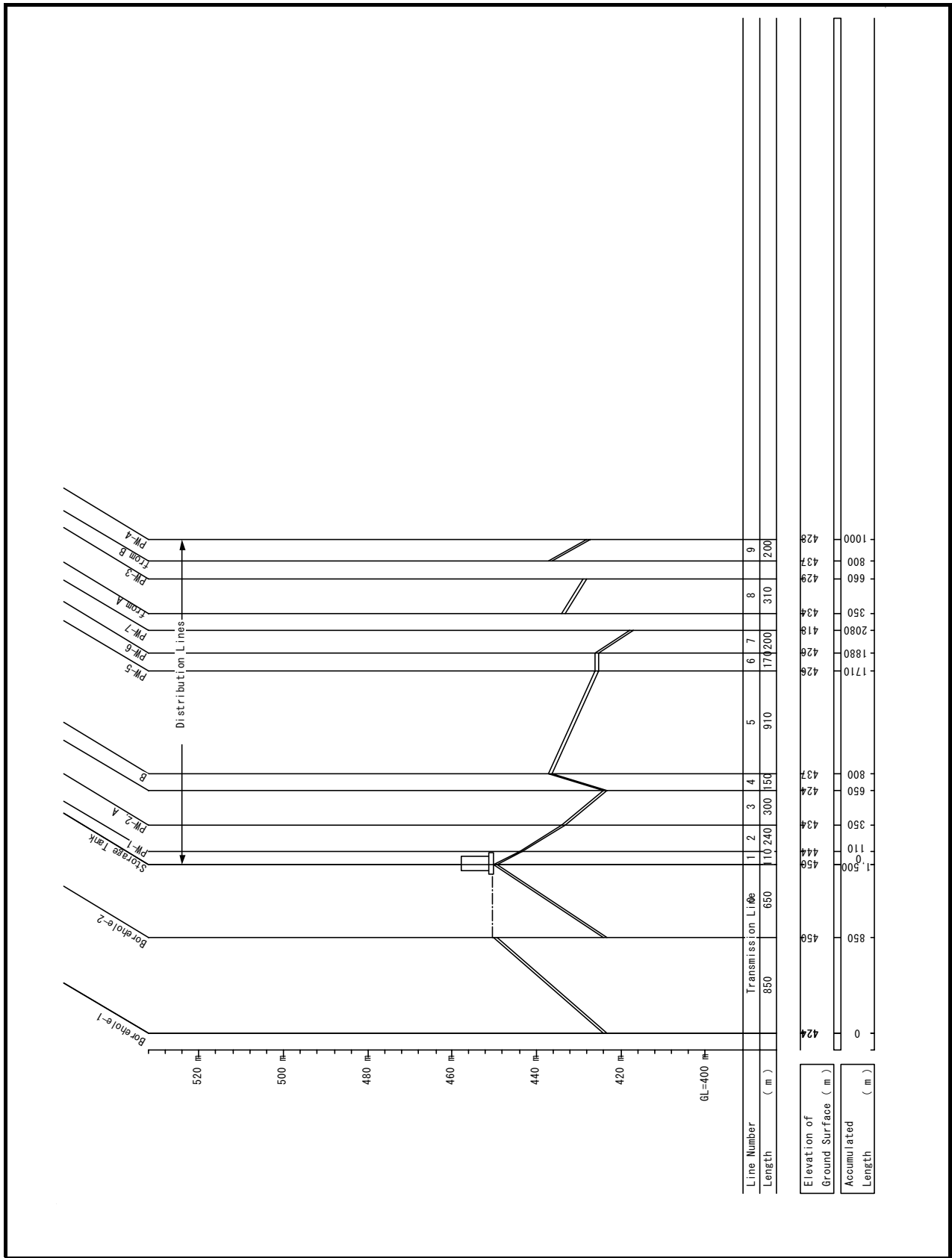
FIGURE E.1 LONGITUDINAL SECTION (KIBINDU: 1/22(1))

THE STUDY ON WATER SUPPLY IMPROVEMENT IN COAST & DAR ES SALAAM

JICA



**FIGURE E.1 LONGITUDINAL SECTION (KIBINDU: 1/22(2))**



**FIGURE E.1 LONGITUDINAL SECTION (KWANDUMA: 2/22)**

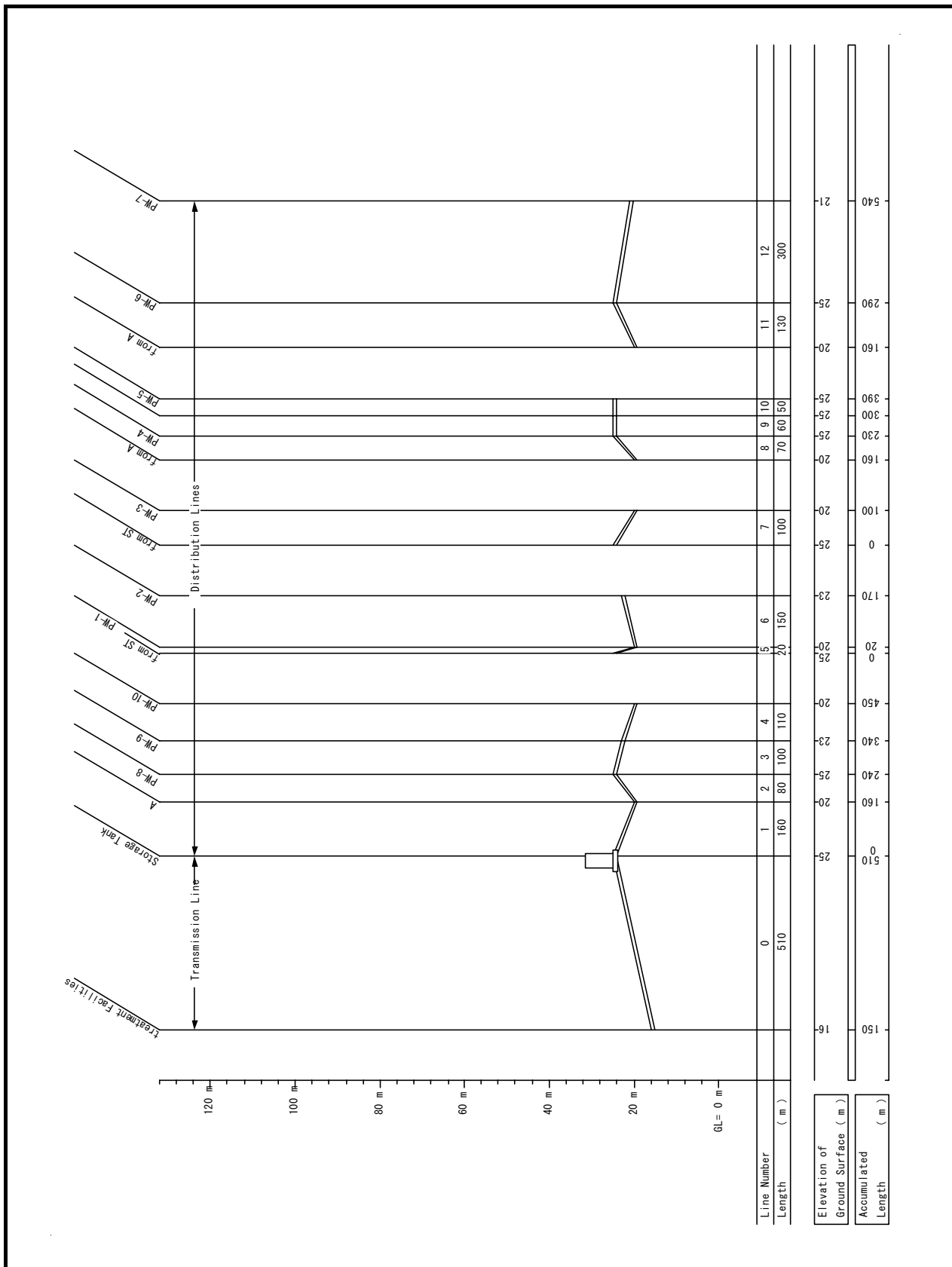
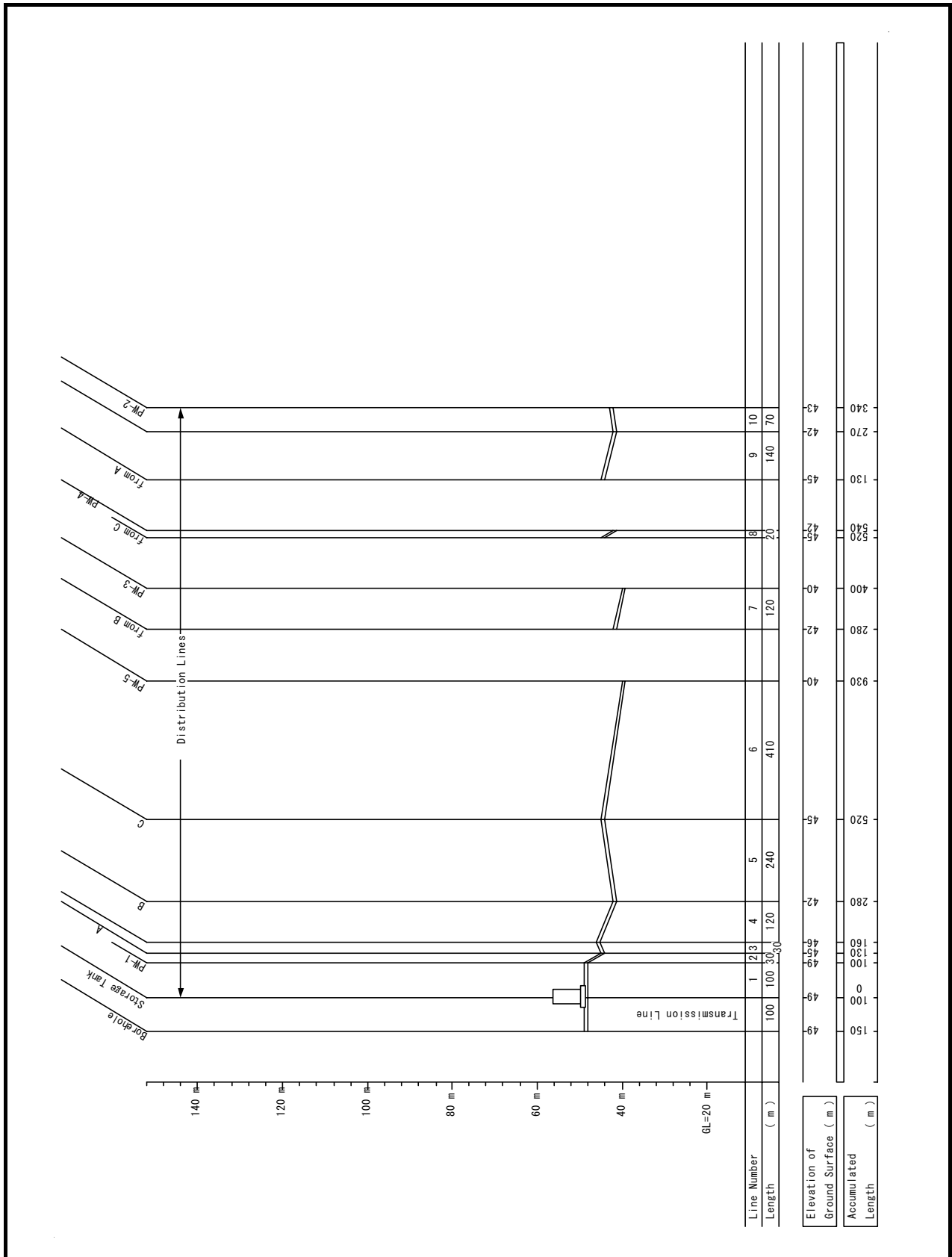
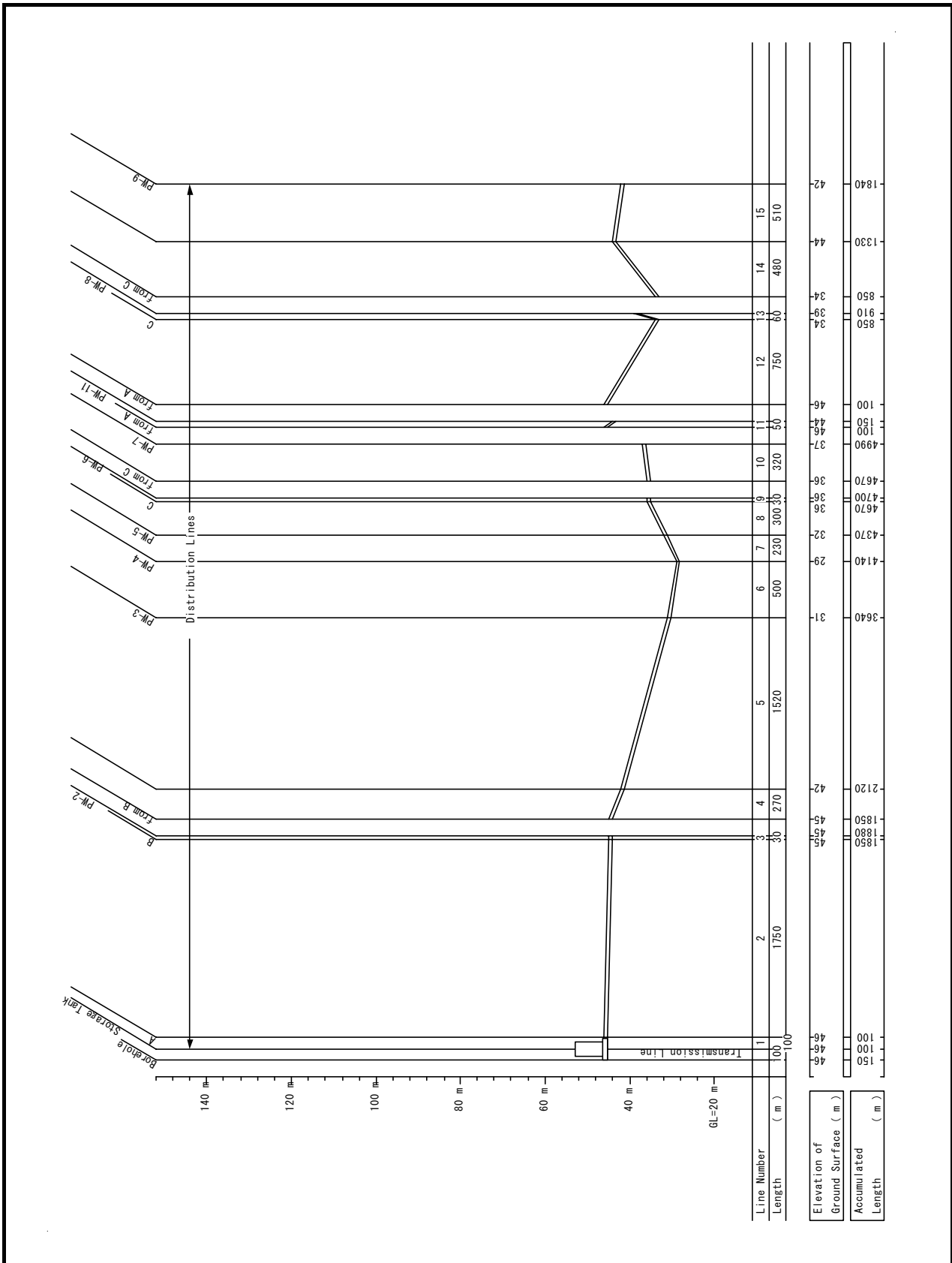


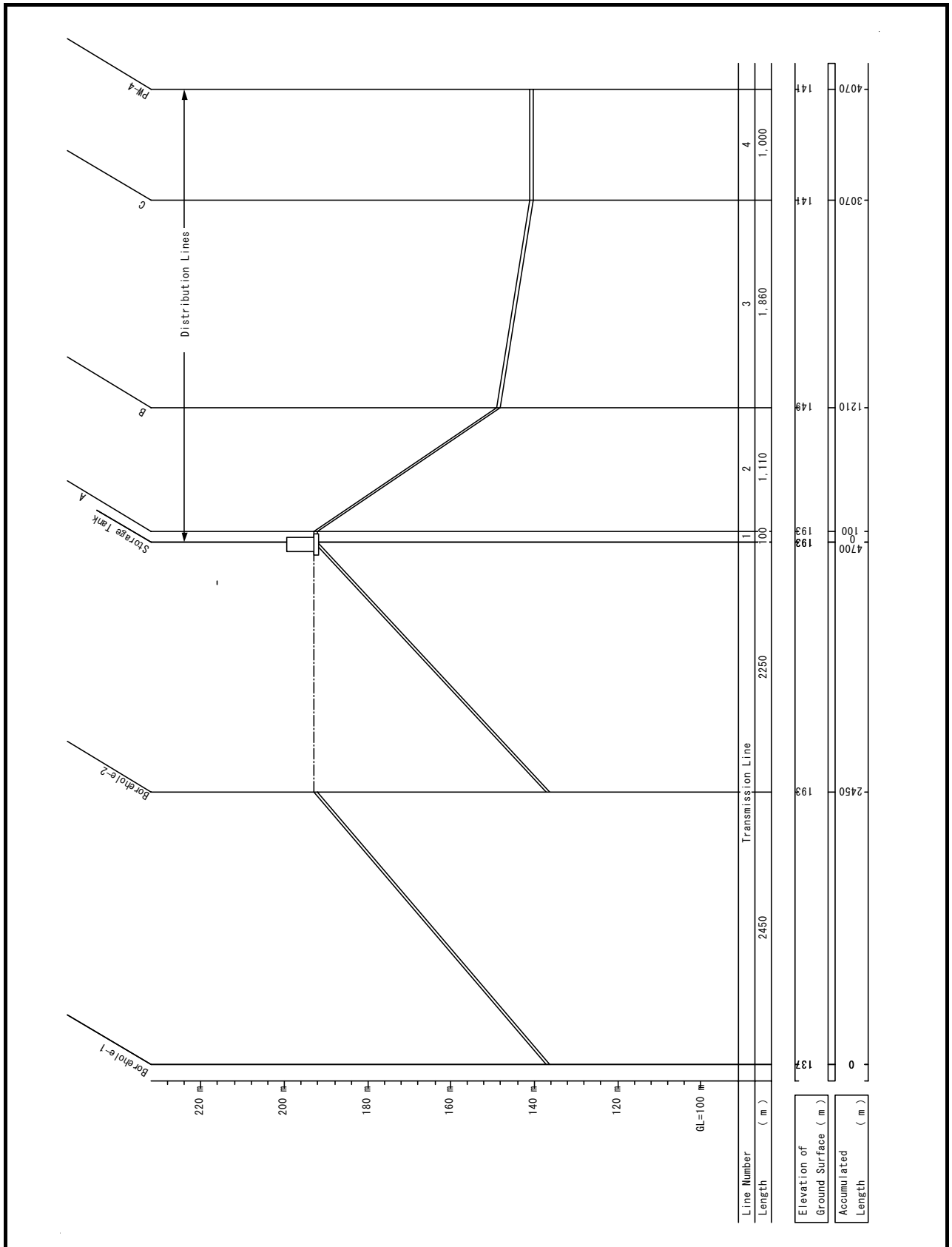
FIGURE E.1 LONGITUDINAL SECTION (MATIPWILI: 3/22)



**FIGURE E.1 LONGITUDINAL SECTION (MINAZI MIKINDA: 4/22)**

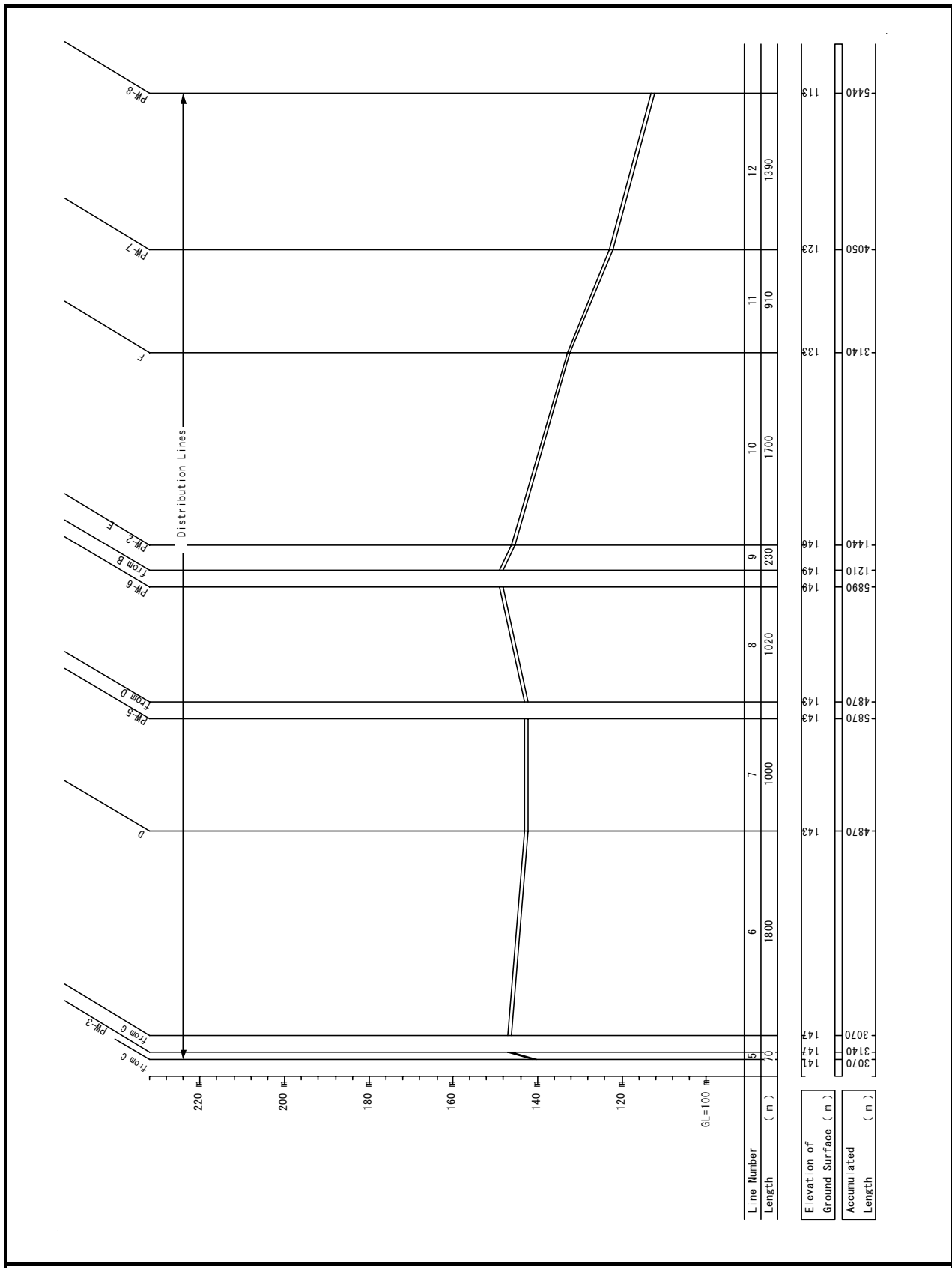


**FIGURE E.1 LONGITUDINAL SECTION (KITOMONDO / MINAZI MKINDA: 5/22)**

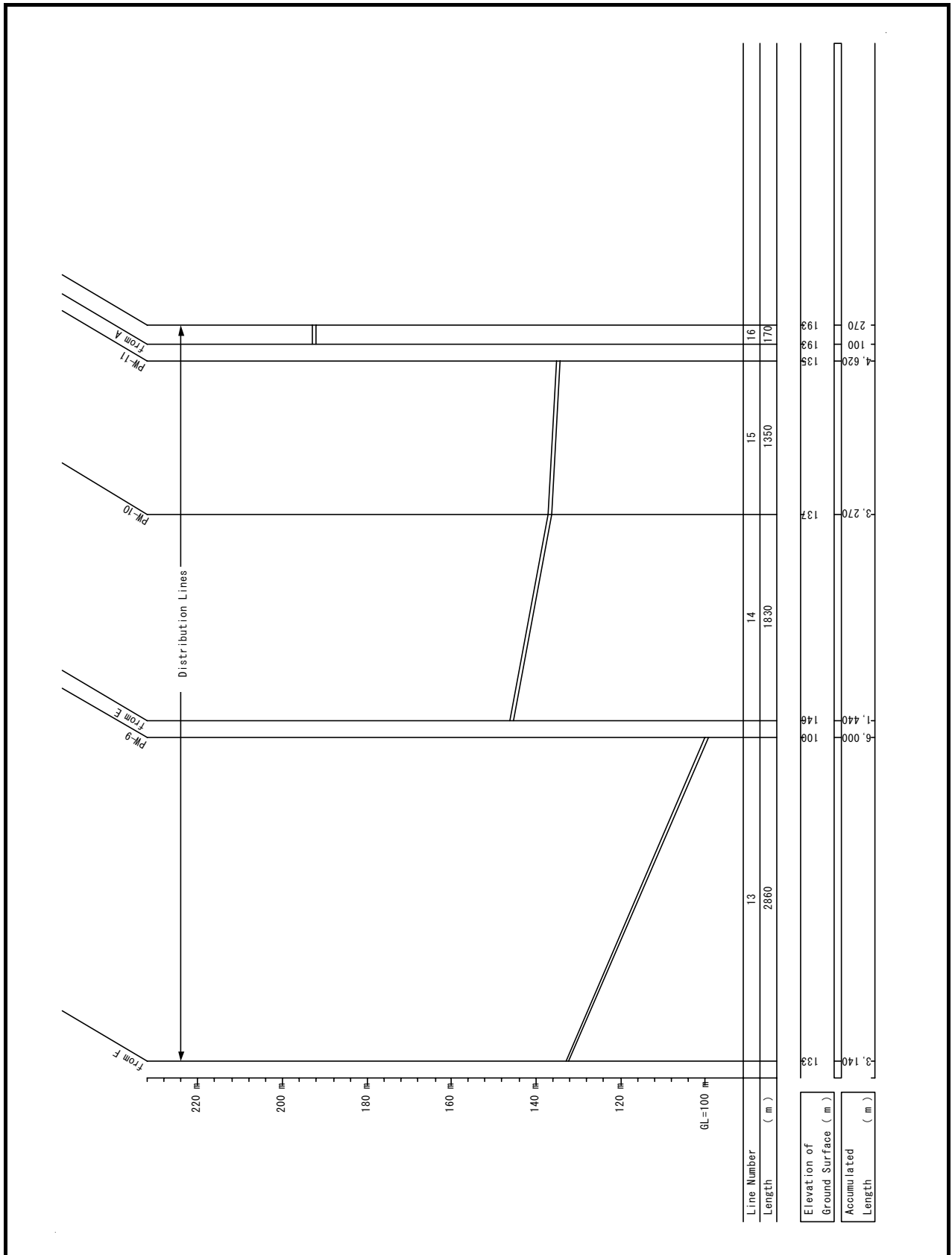


**FIGURE E.1 LONGITUDINAL SECTION (MSINBU: 6/22(1))**





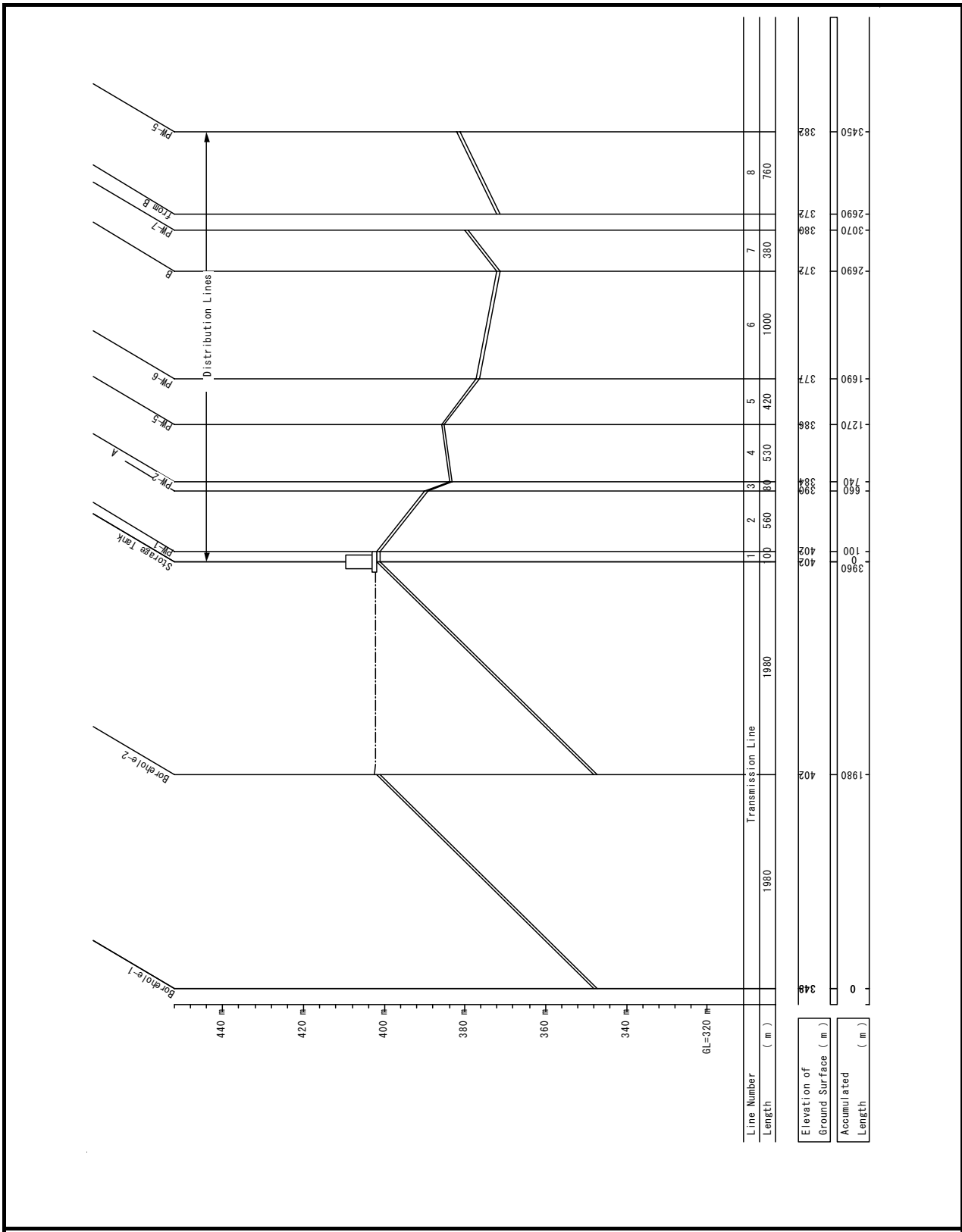
**FIGURE E.1 LONGITUDINAL SECTION (MSINBU: 6/22 (2))**



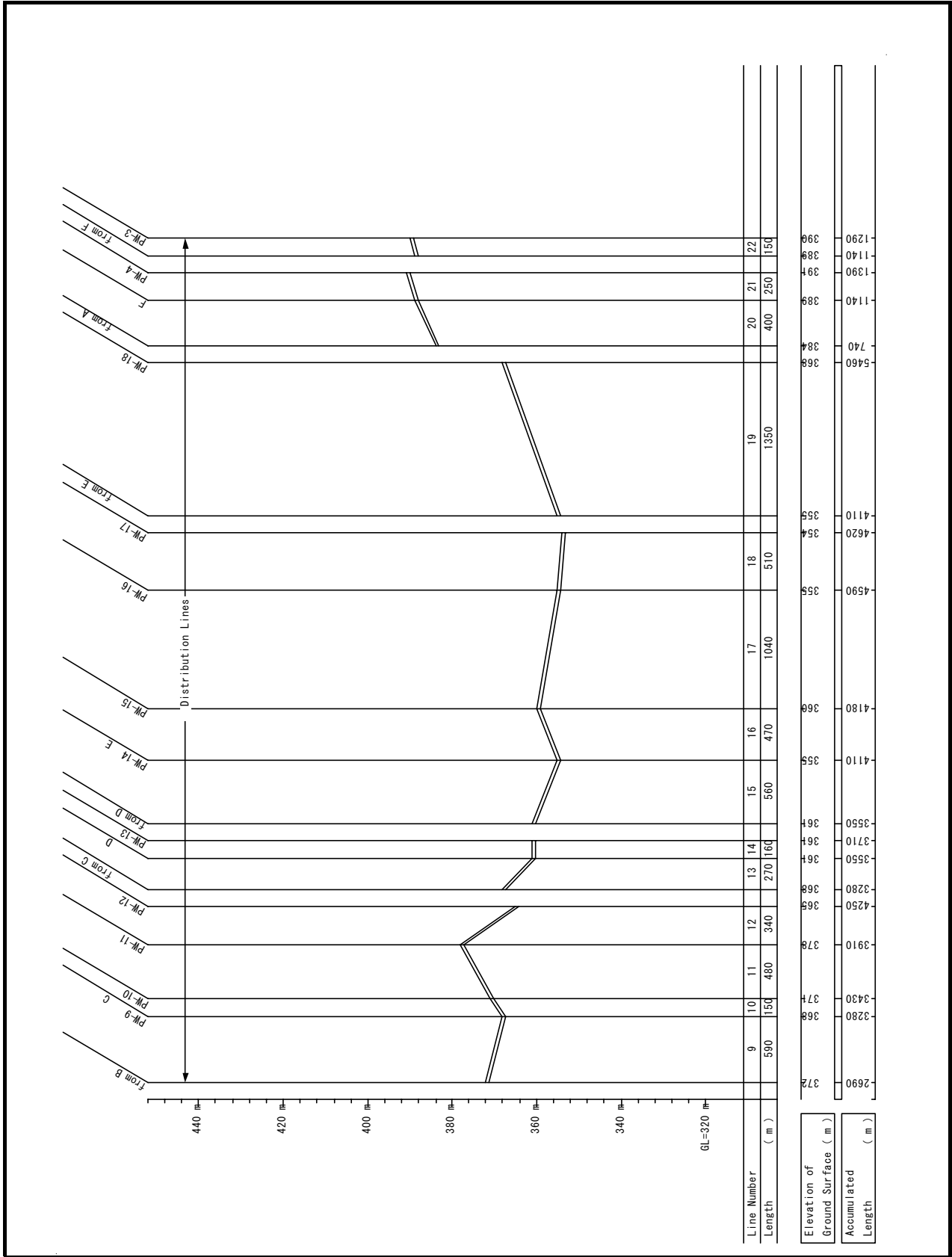
**FIGURE E.1 LONGITUDINAL SECTION (MSINBU: 6/22(3))**

**THE STUDY ON WATER SUPPLY IMPROVEMENT IN COAST & DAR ES SALAAM**

**JICA**



**FIGURE E.1 LONGITUDINAL SECTION ( CHOLE: 7/22(1))**



**FIGURE E.1 LONGITUDINAL SECTION (CHOLE: 7/22(2))**

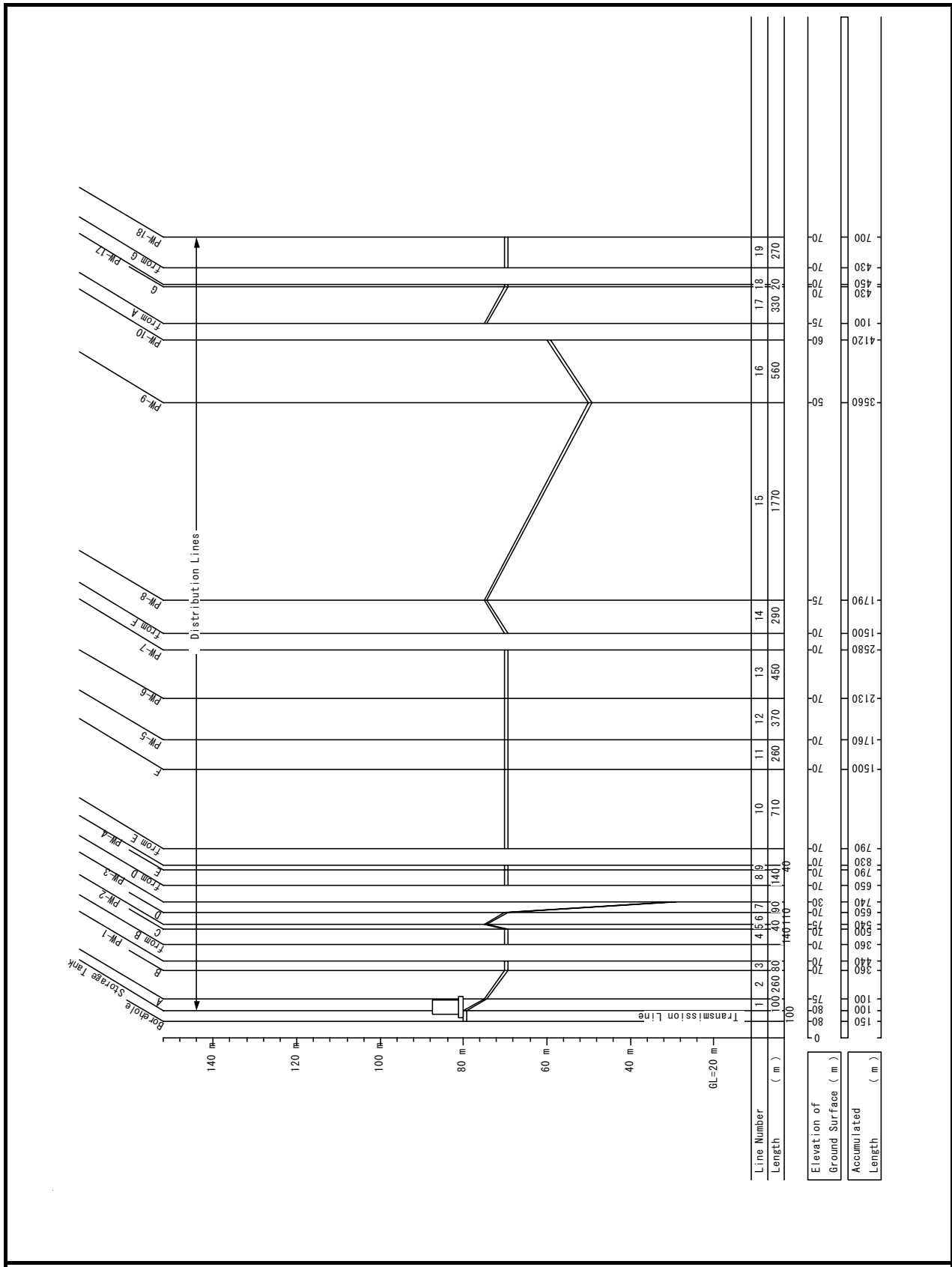
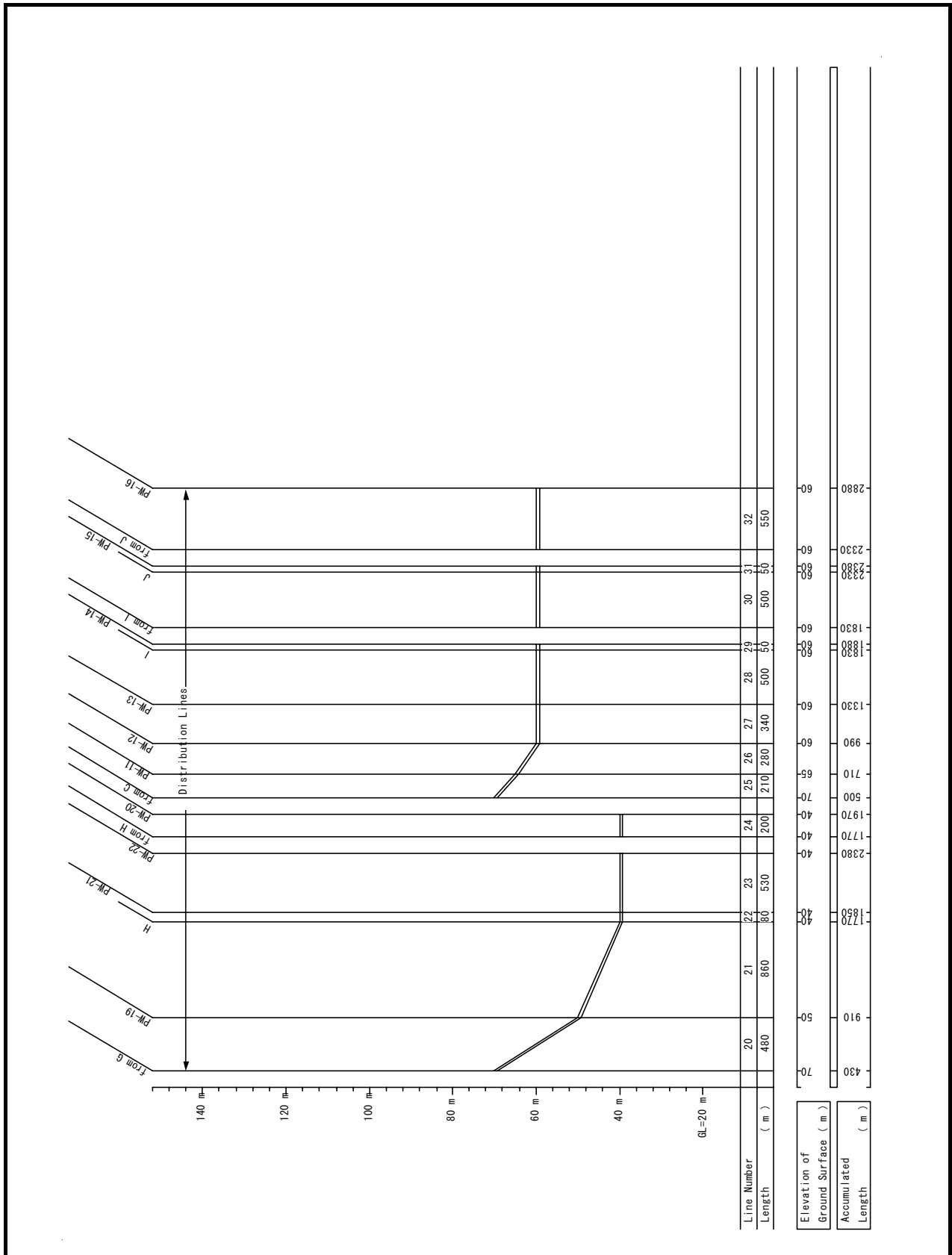


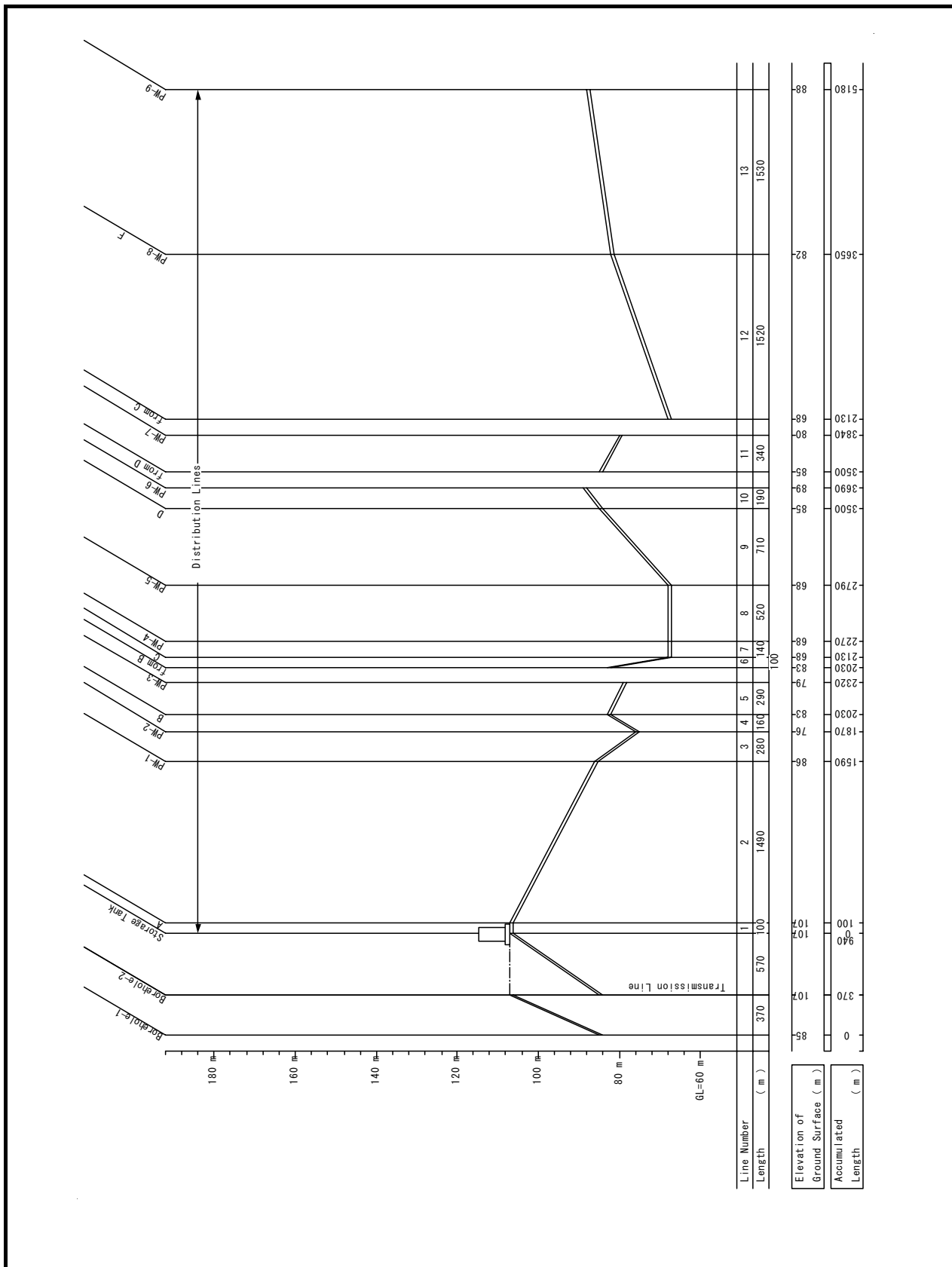
FIGURE E.1 LONGITUDINAL SECTION (MWANDEGE: 8/22(1))



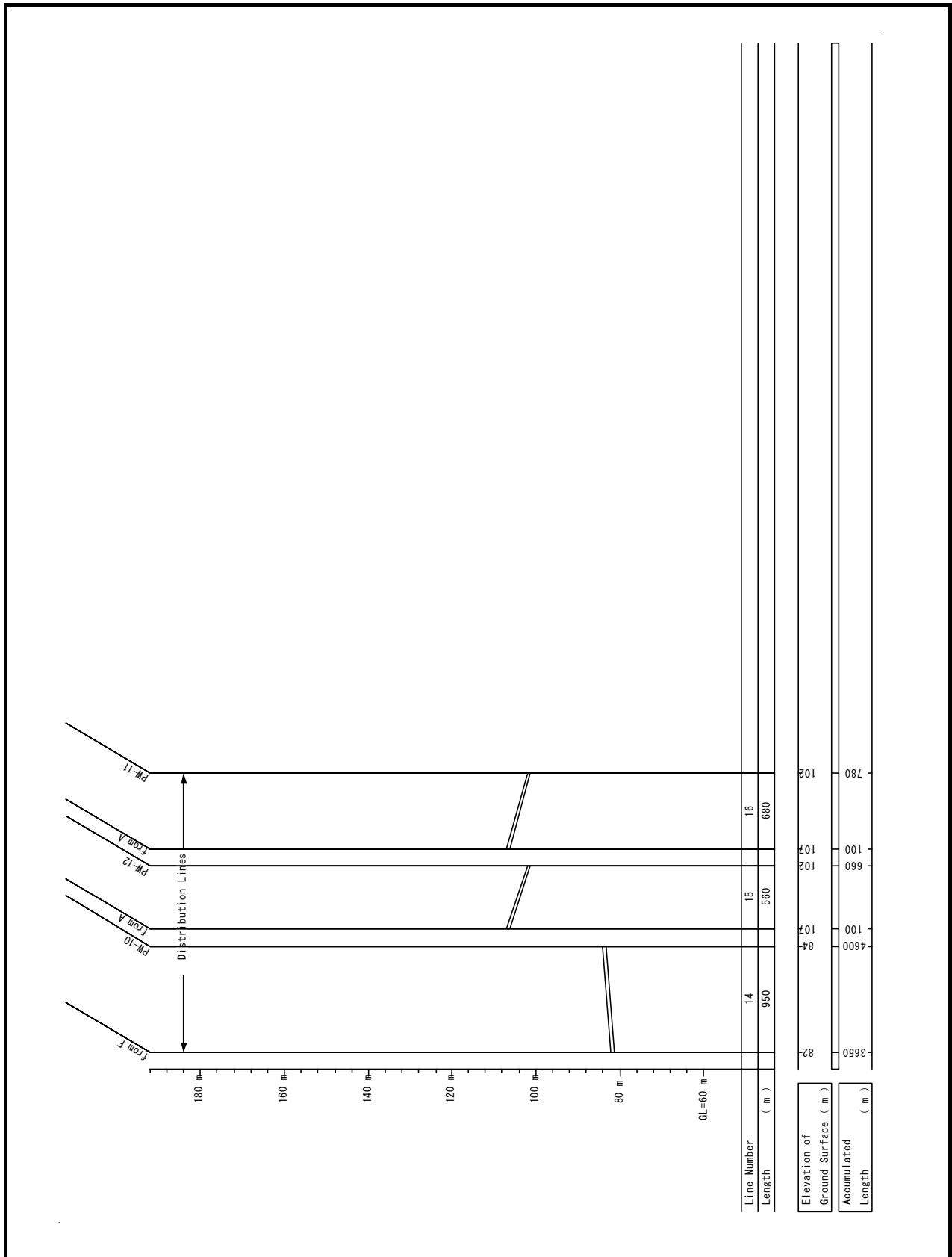
**FIGURE E.1 LONGITUDINAL SECTION (MWANDEGE: 8/22(2))**

**THE STUDY ON WATER SUPPLY IMPROVEMENT IN COAST & DAR ES SALAAM**

**JICA**

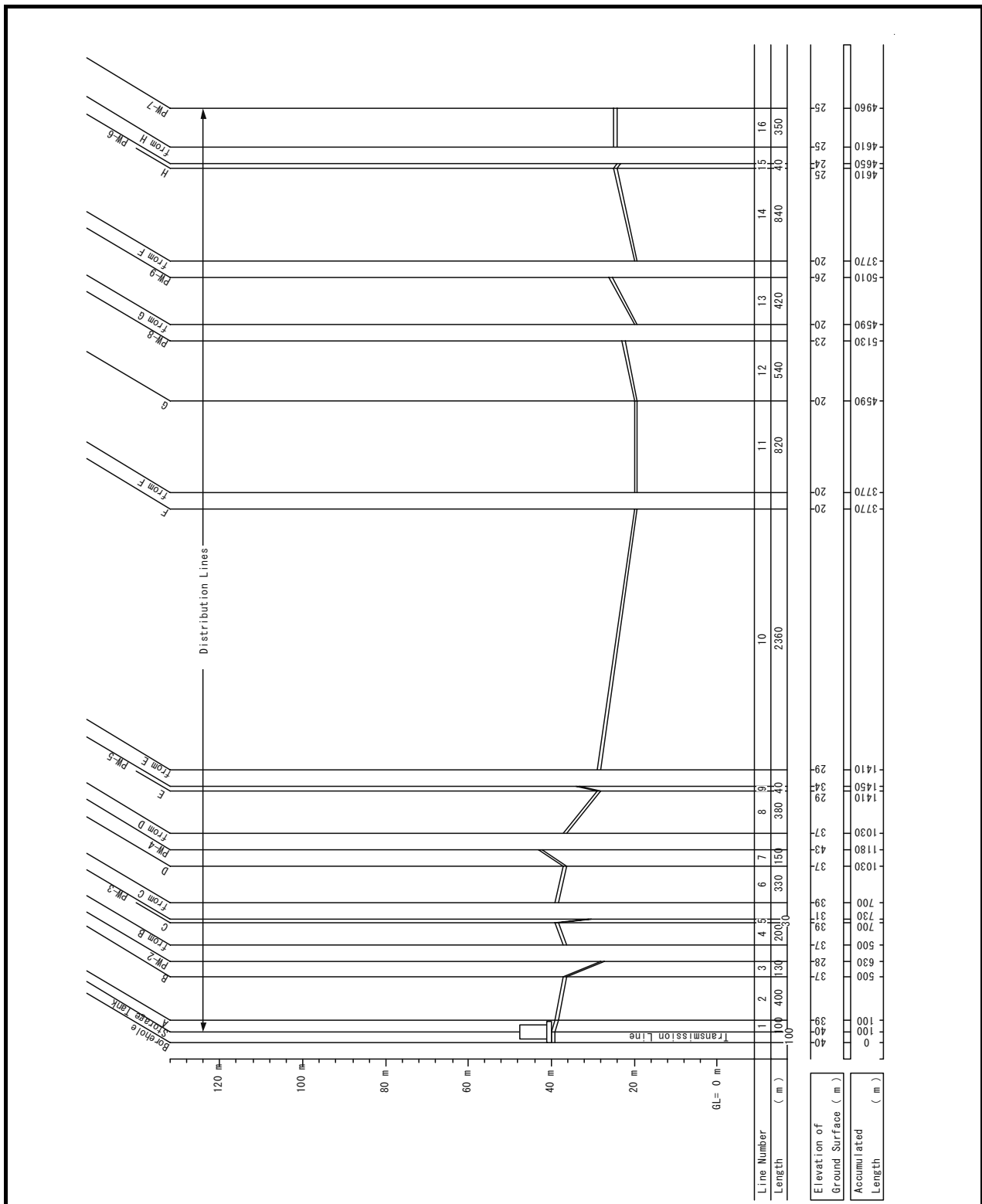


**FIGURE 7.6 E.1 LONGITUDINAL SECTION (KISENVULE: 9/22(1))**



**FIGURE E.1 LONGITUDINAL SECTION (KISENVULE: 9/22(2))**





**FIGURE E.1 LONGITUDINAL SECTION (MOROGORO: 10/22(1))**

**THE STUDY ON WATER SUPPLY IMPROVEMENT IN COAST & DAR ES SALAAM**

**JICA**

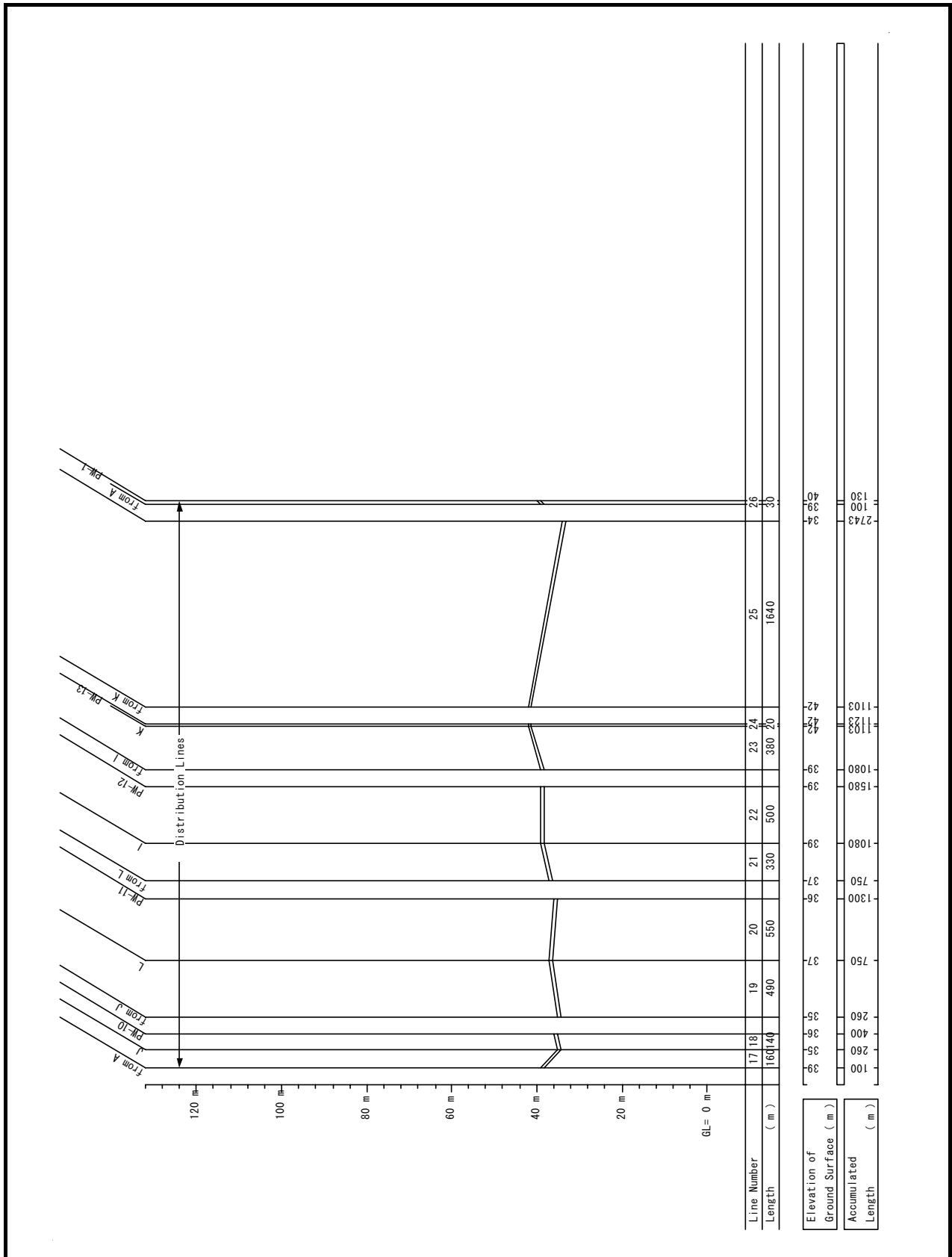


FIGURE E.1 LONGITUDINAL SECTION (MOROGORO: 10/22(2))

THE STUDY ON WATER SUPPLY IMPROVEMENT IN COAST & DAR ES SALAAM

JICA

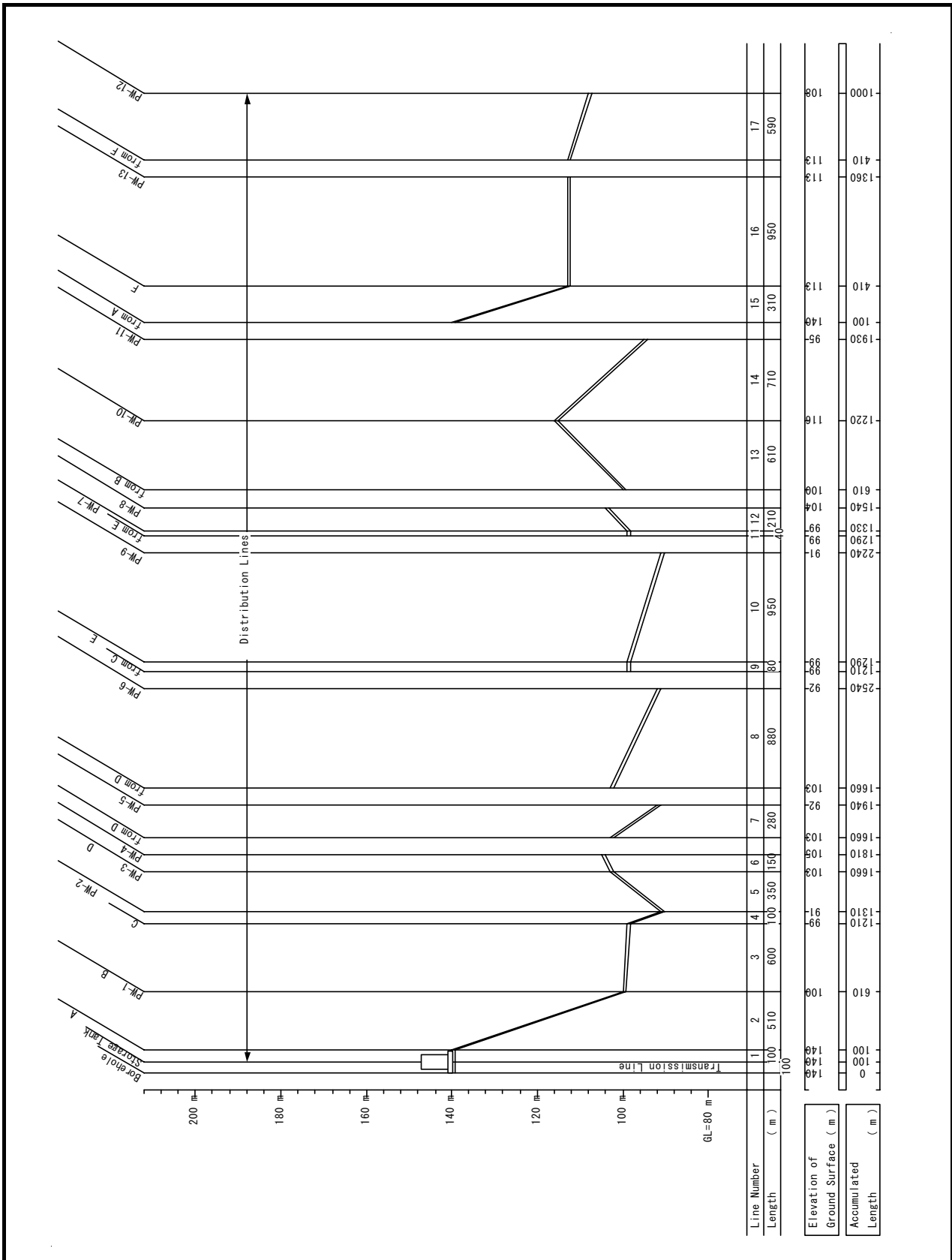
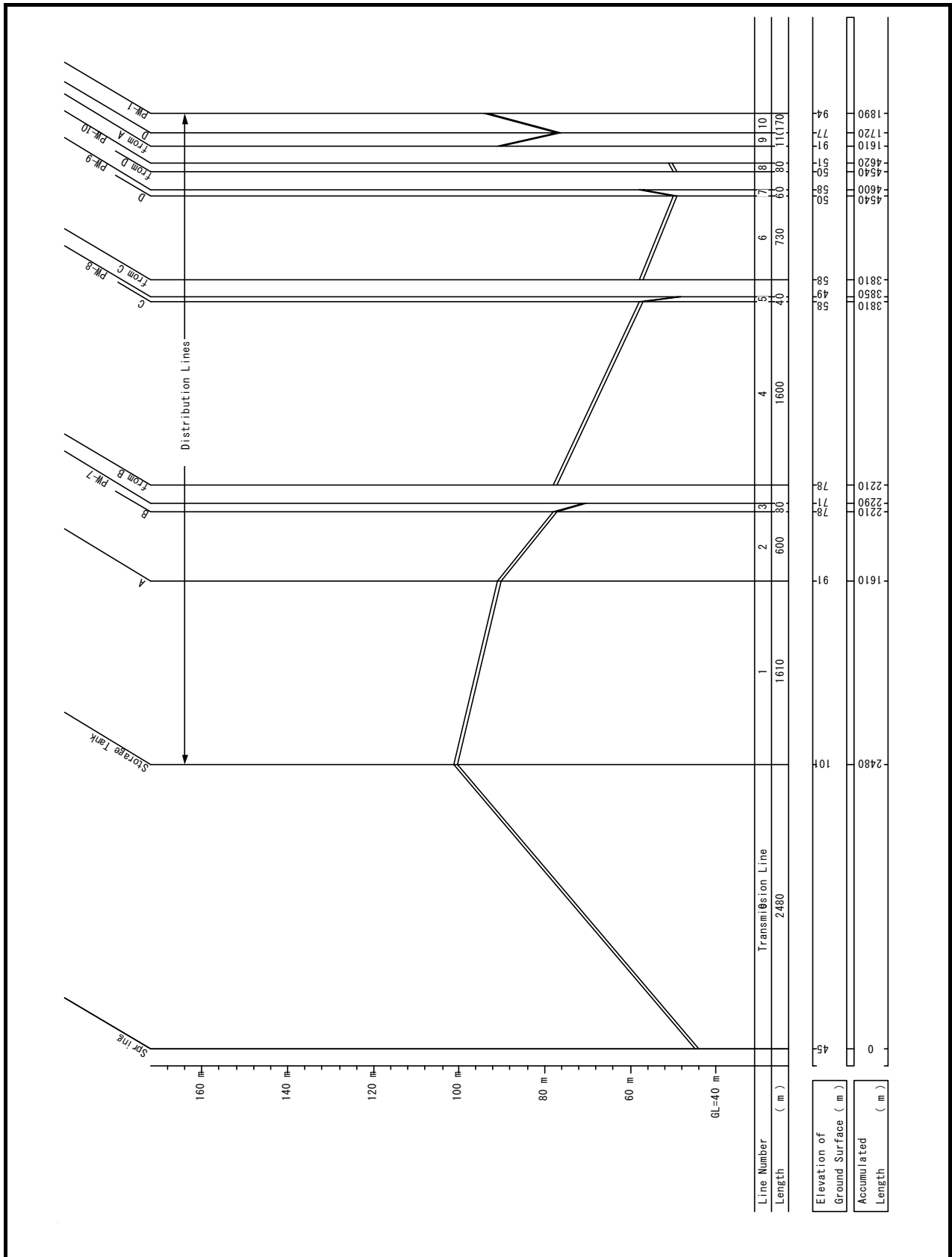
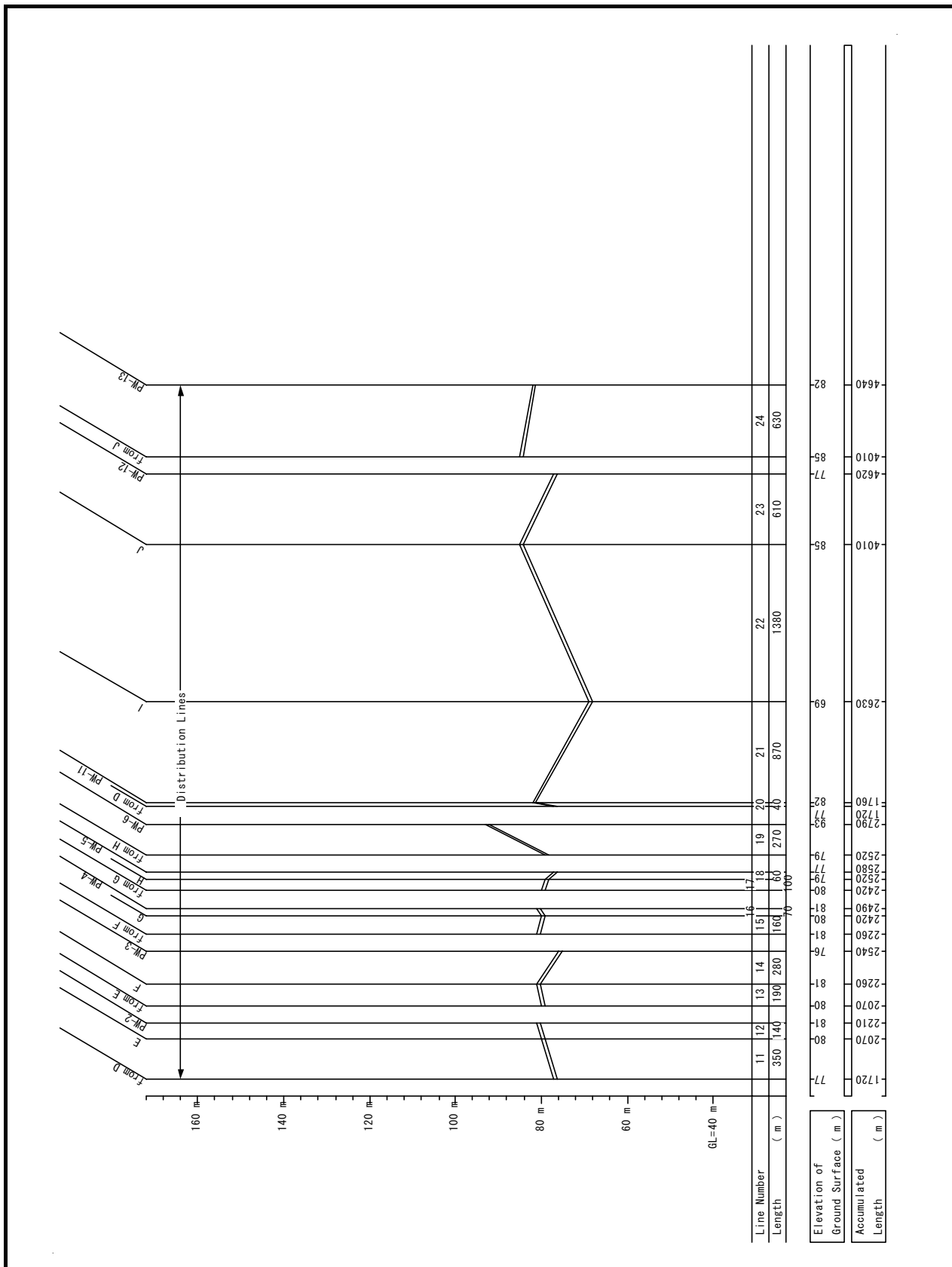


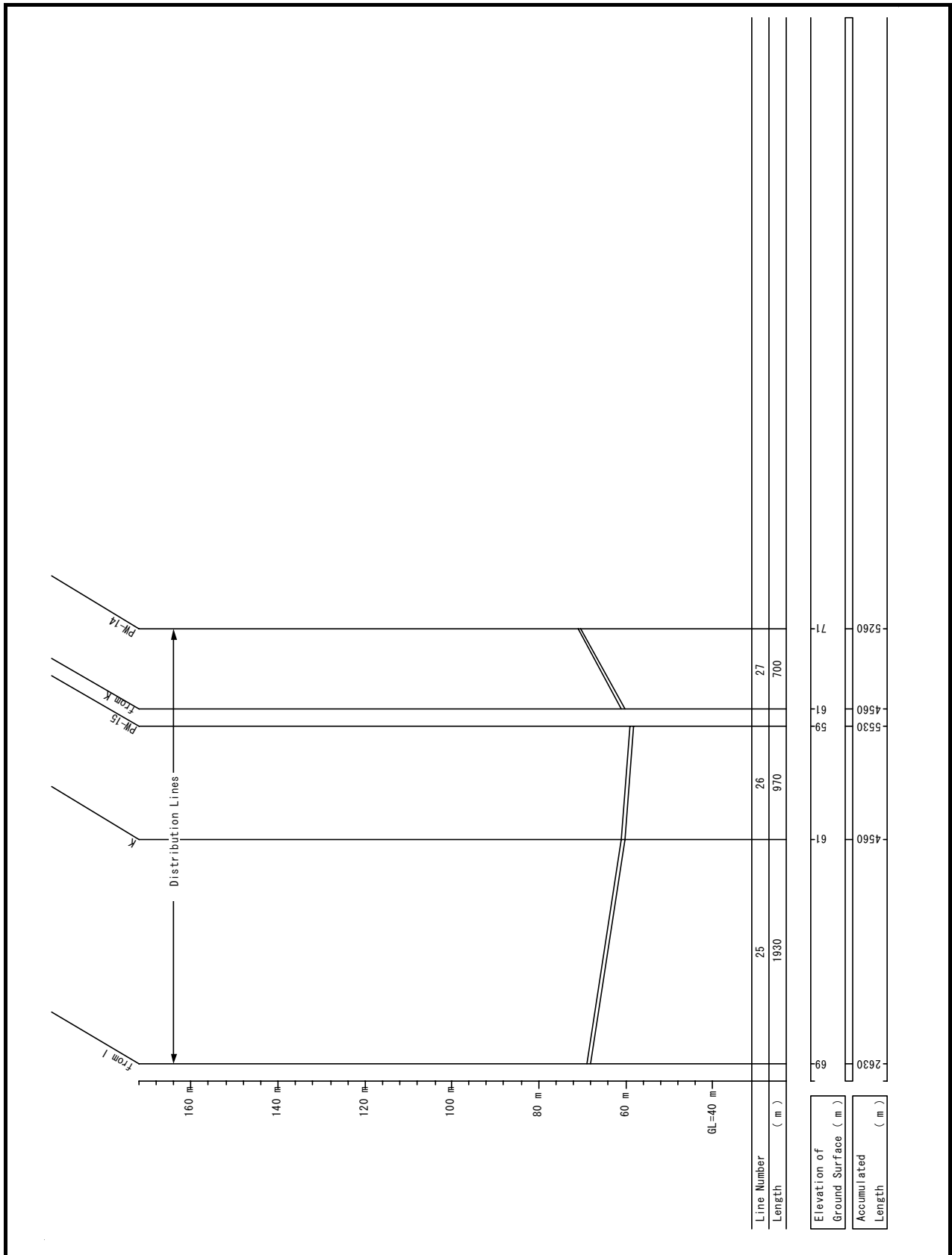
FIGURE E.1 LONGITUDINAL SECTION (VIANZI: 11/22)



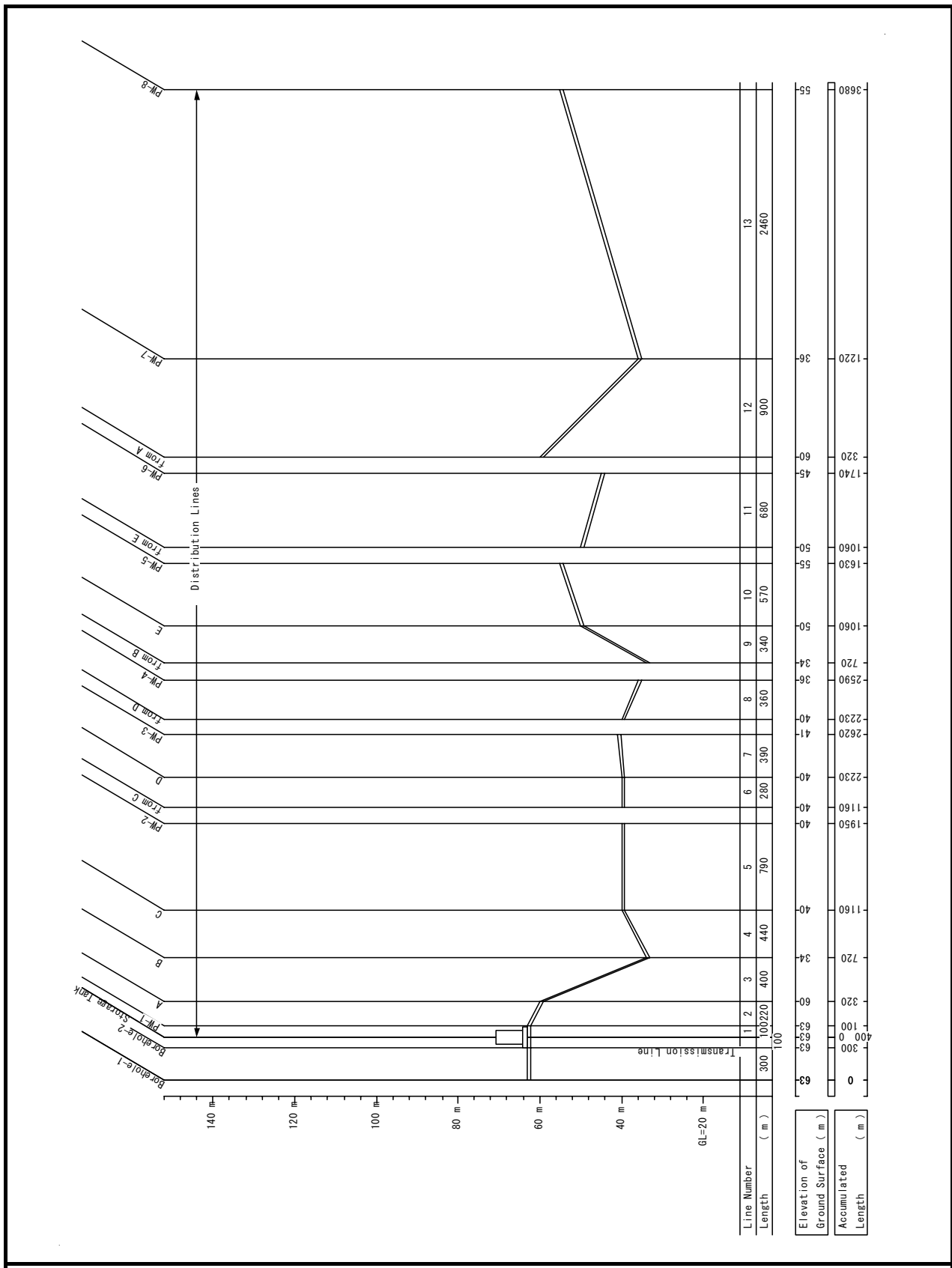
**FIGURE E.1 LONGITUDINAL SECTION ( NJOPEKA: 12/22(1))**



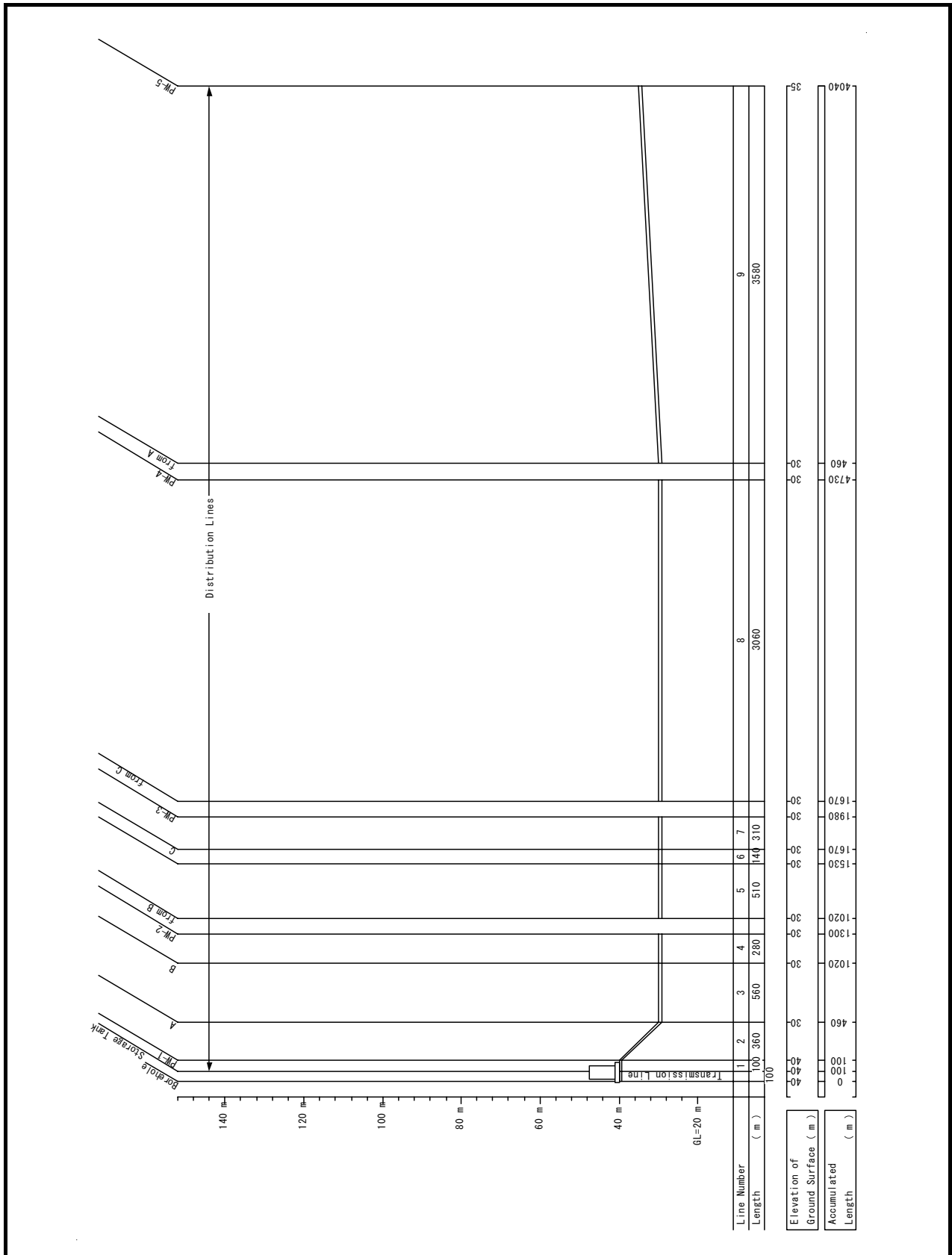
**FIGURE E.1 LONGITUDINAL SECTION ( NJOPEKA: 12/22(2))**



**FIGURE E.1 LONGITUDINAL SECTION ( NJOPEKA: 12/22(3))**

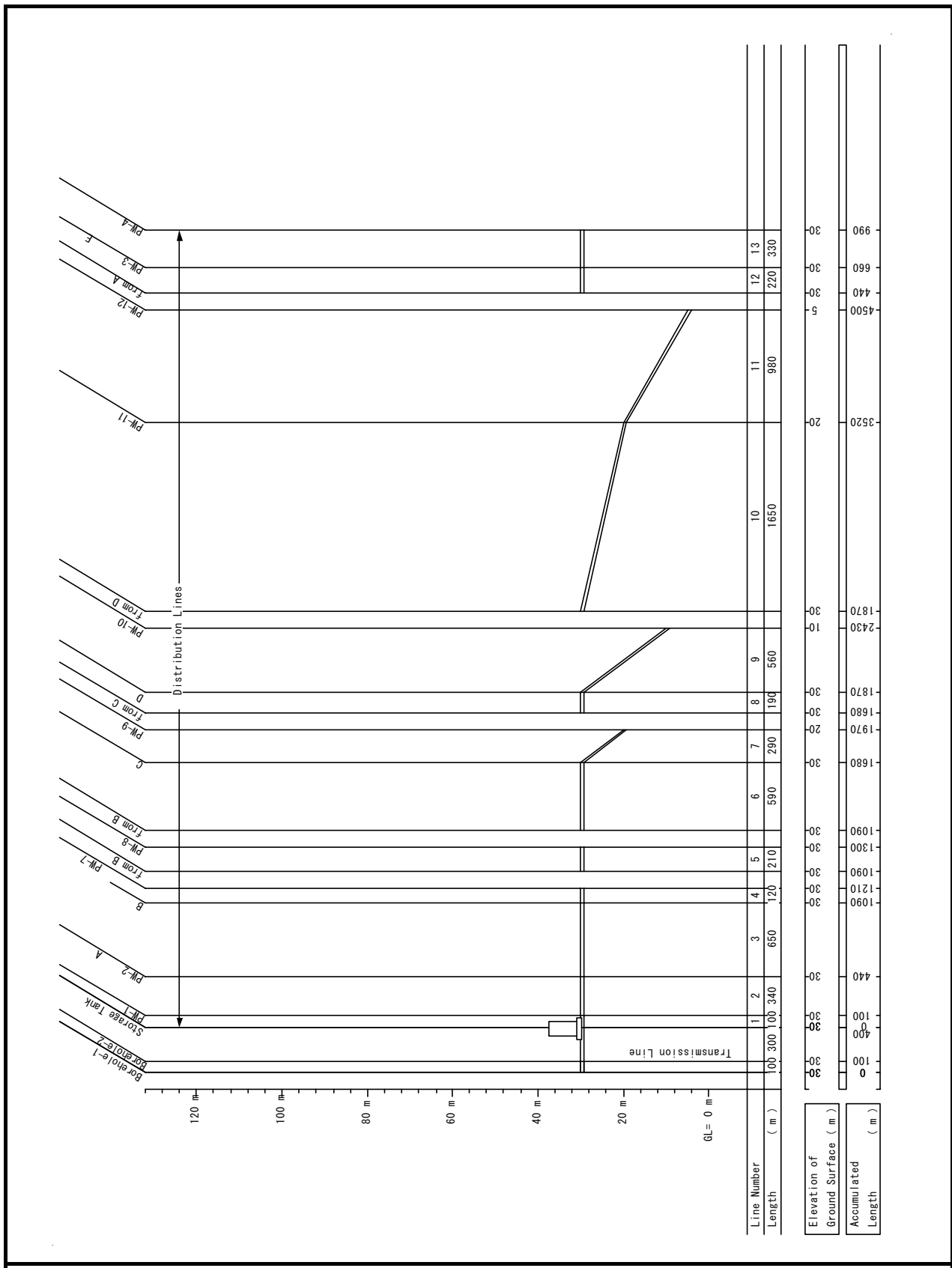


**FIGURE E.1 LONGITUDINAL SECTION (KITUNDA-KIVULE-1: 13/22)**

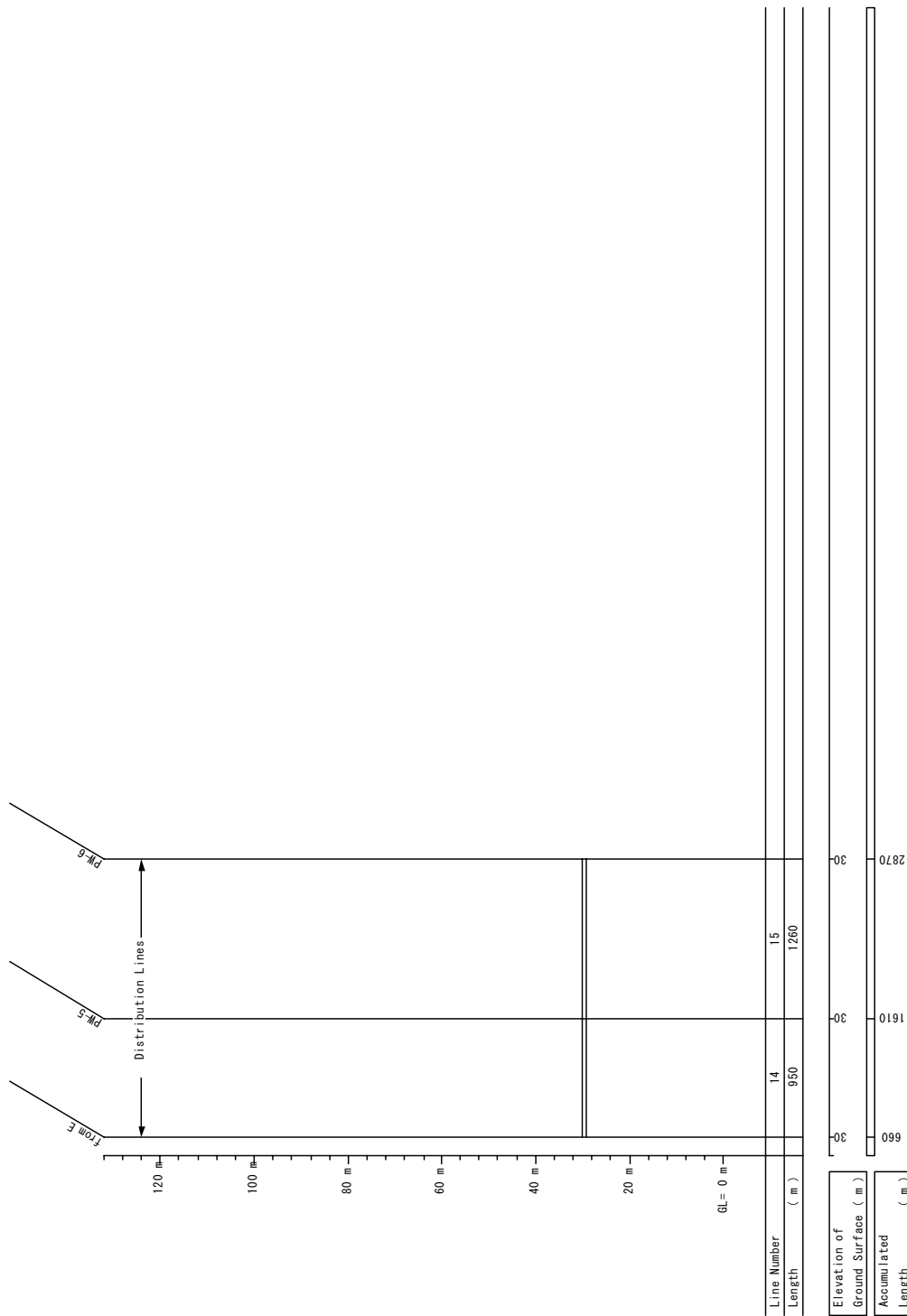


**FIGURE E.1 LONGITUDINAL SECTION ( KITUNDA-KIVULE-2: 14/22)**





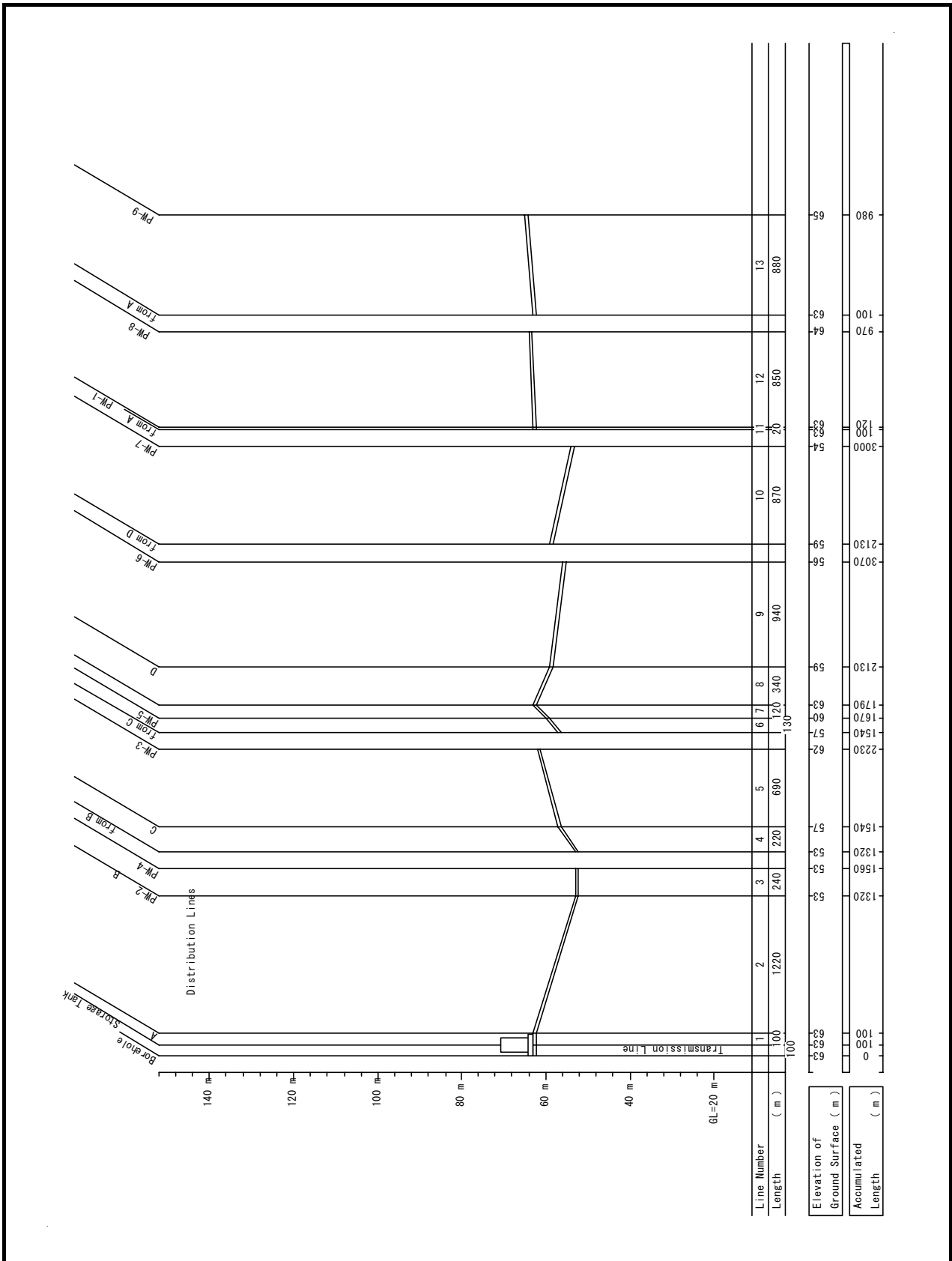
**FIGURE E.1 LONGITUDINAL SECTION (MZINGA: 15/22(1))**



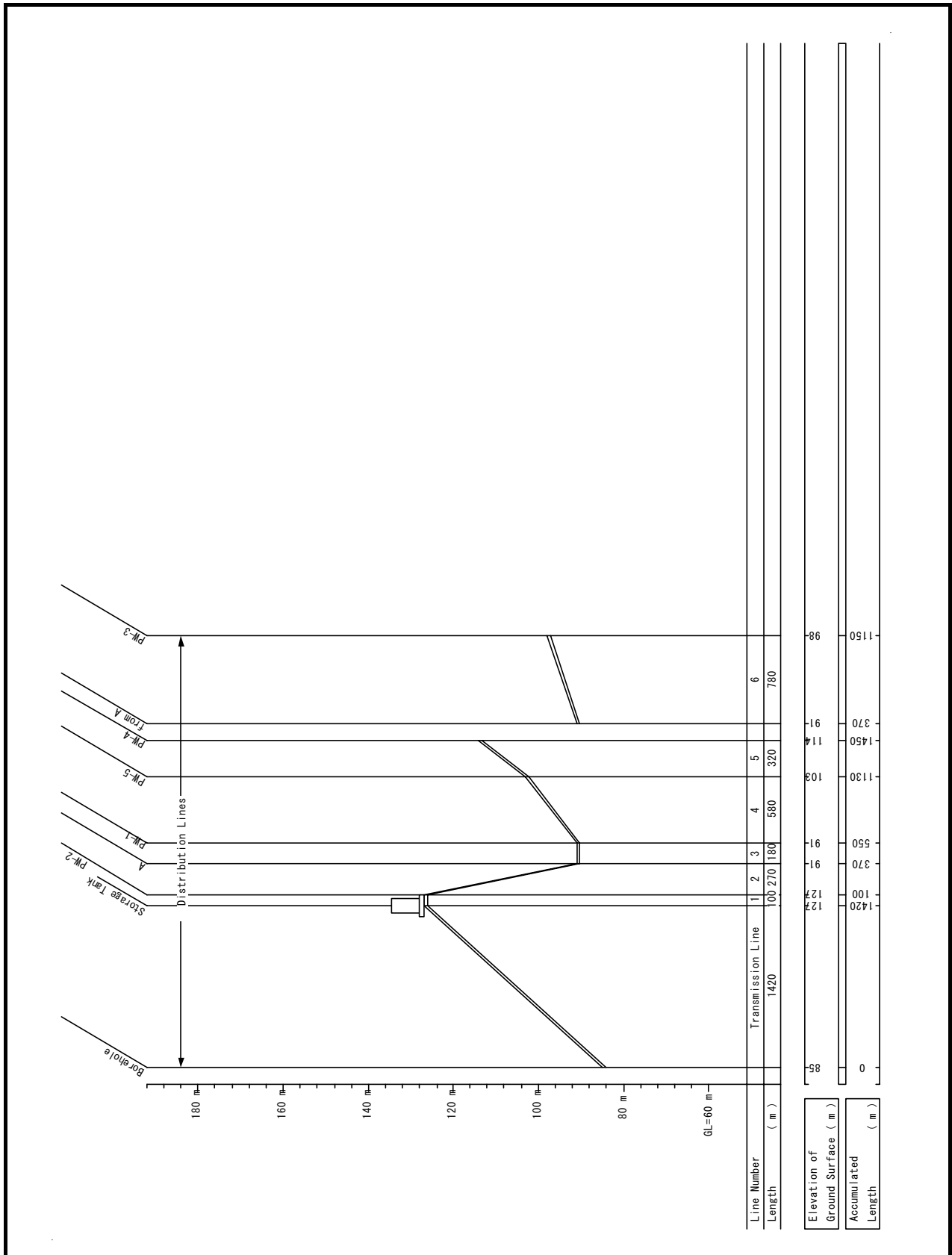
**FIGURE E.1 LONGITUDINAL SECTION( MZINGA: 15/22(2))**

**THE STUDY ON WATER SUPPLY IMPROVEMENT IN COAST & DAR ES SALAAM**

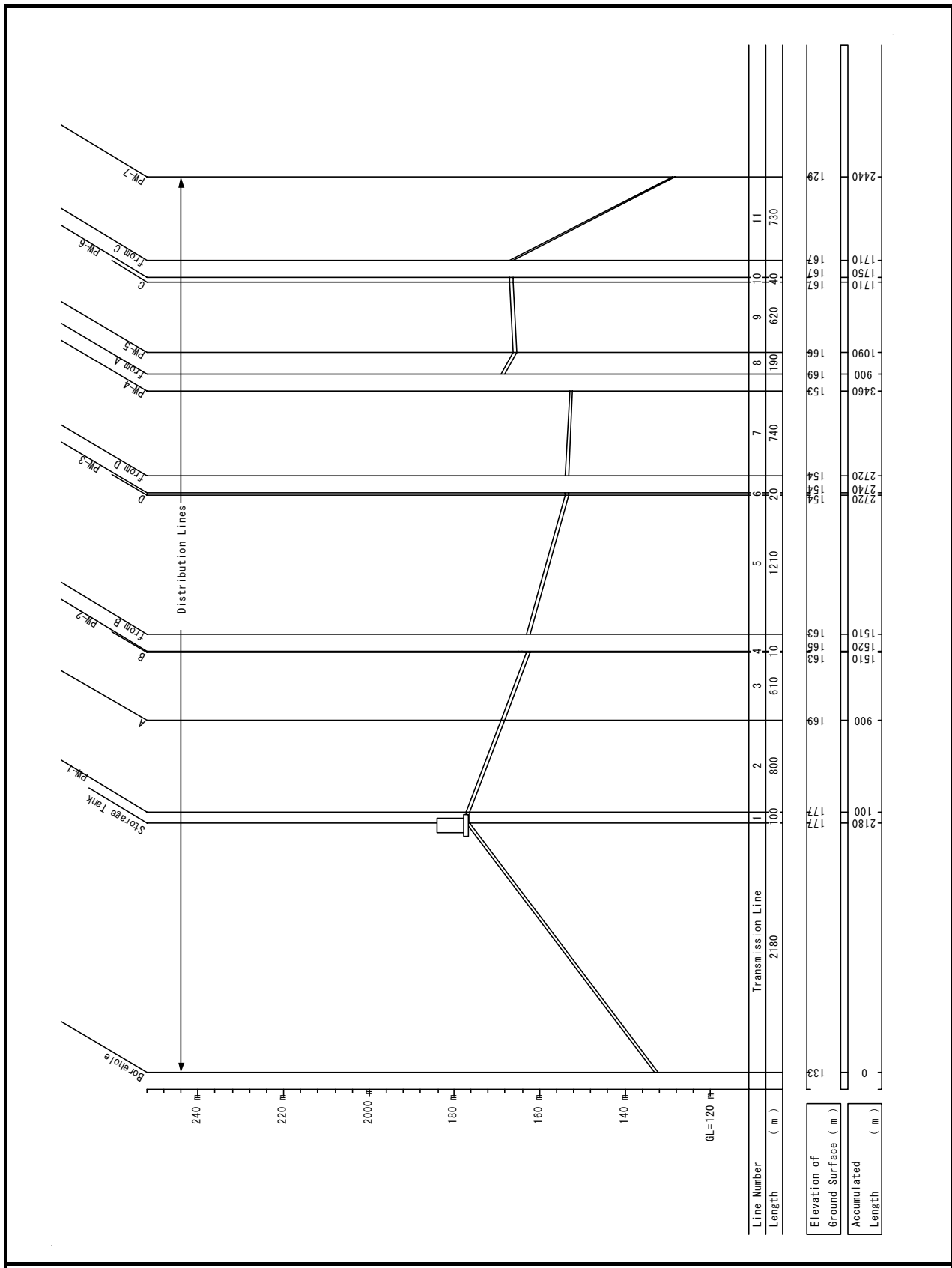
**JICA**



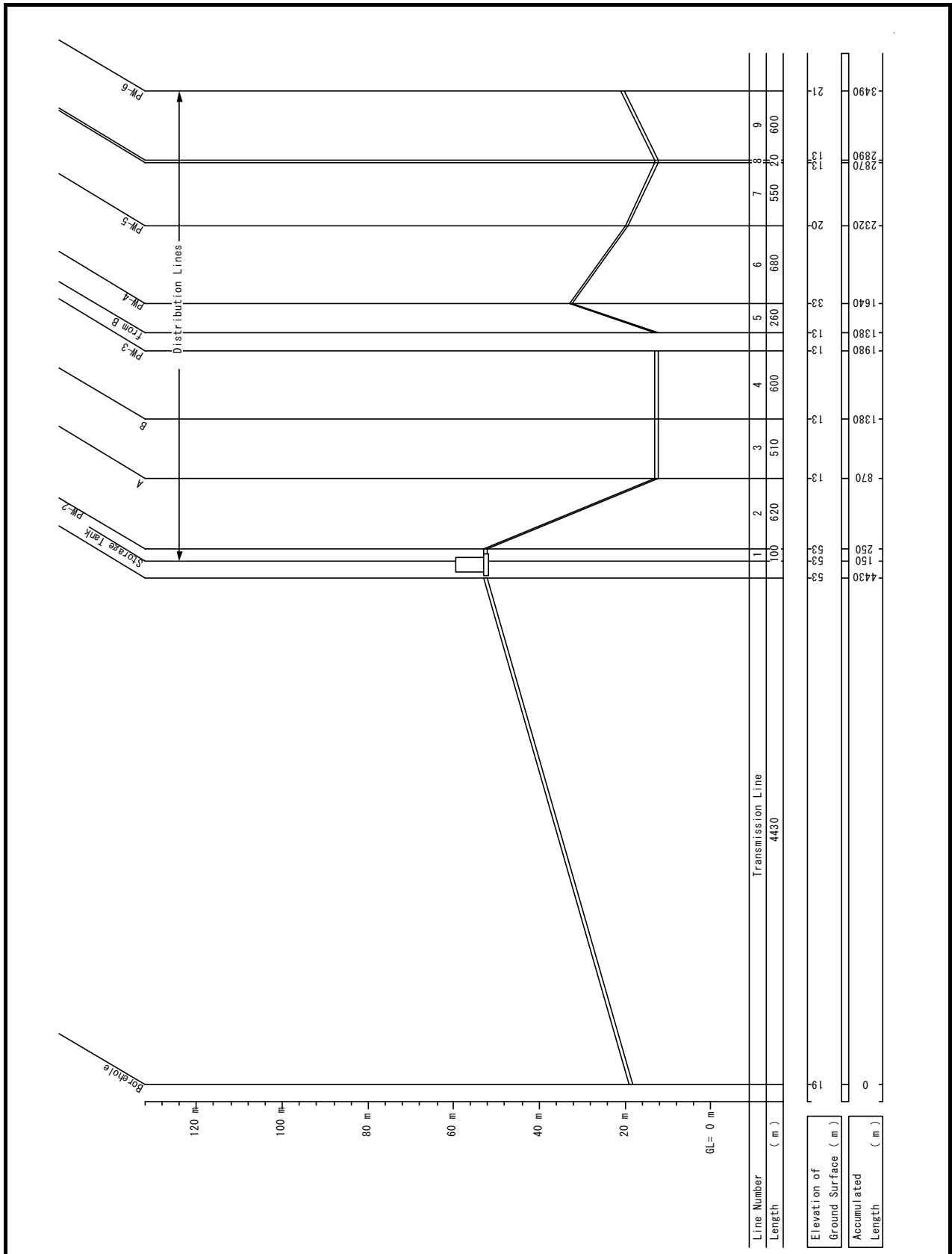
**FIGURE E.1 LONGITUDINAL SECTION (MSONGOLA: 16/22)**



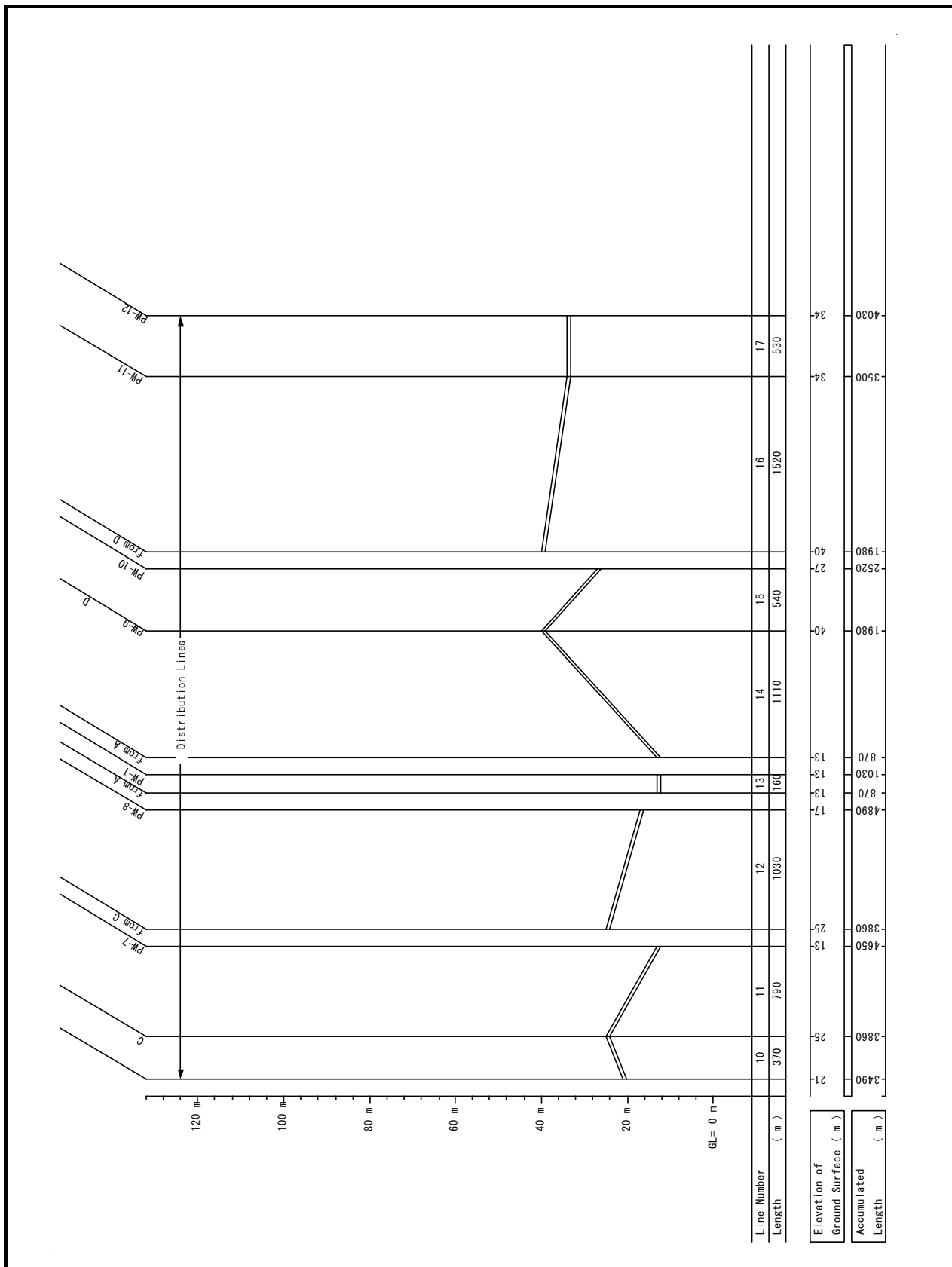
**FIGURE E.1 LONGITUDINAL SECTION ( PUGU STATION: 17/22)**



**FIGURE E.1 LONGITUDINAL SECTION ( MATOSA: 18/22)**



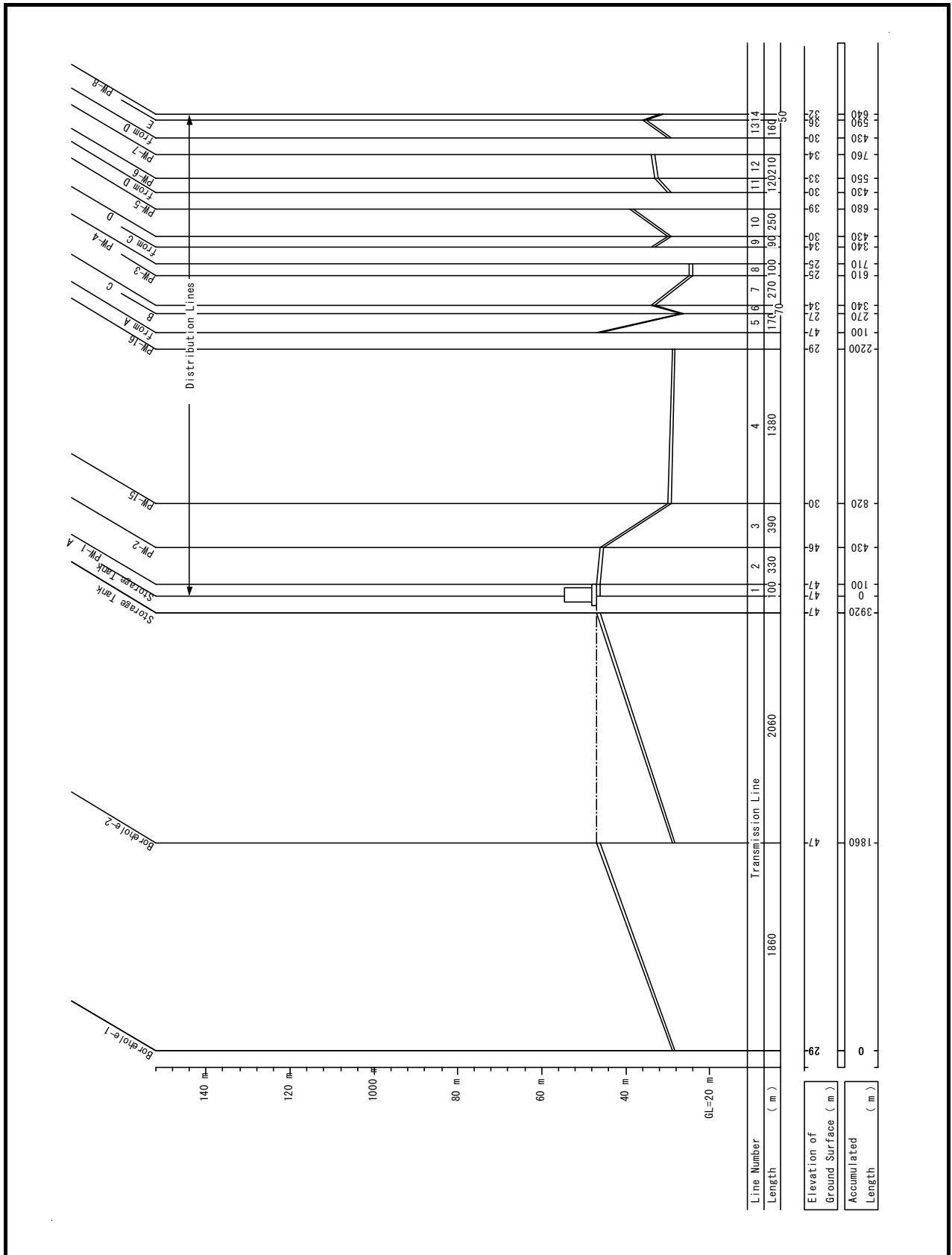
**FIGURE E.1 LONGITUDINAL SECTION ( YALE YALE PUNA: 19/22(1))**



**FIGURE E.1 LONGITUDINAL SECTION (YALE YALE PUNA: 19/22(2))**

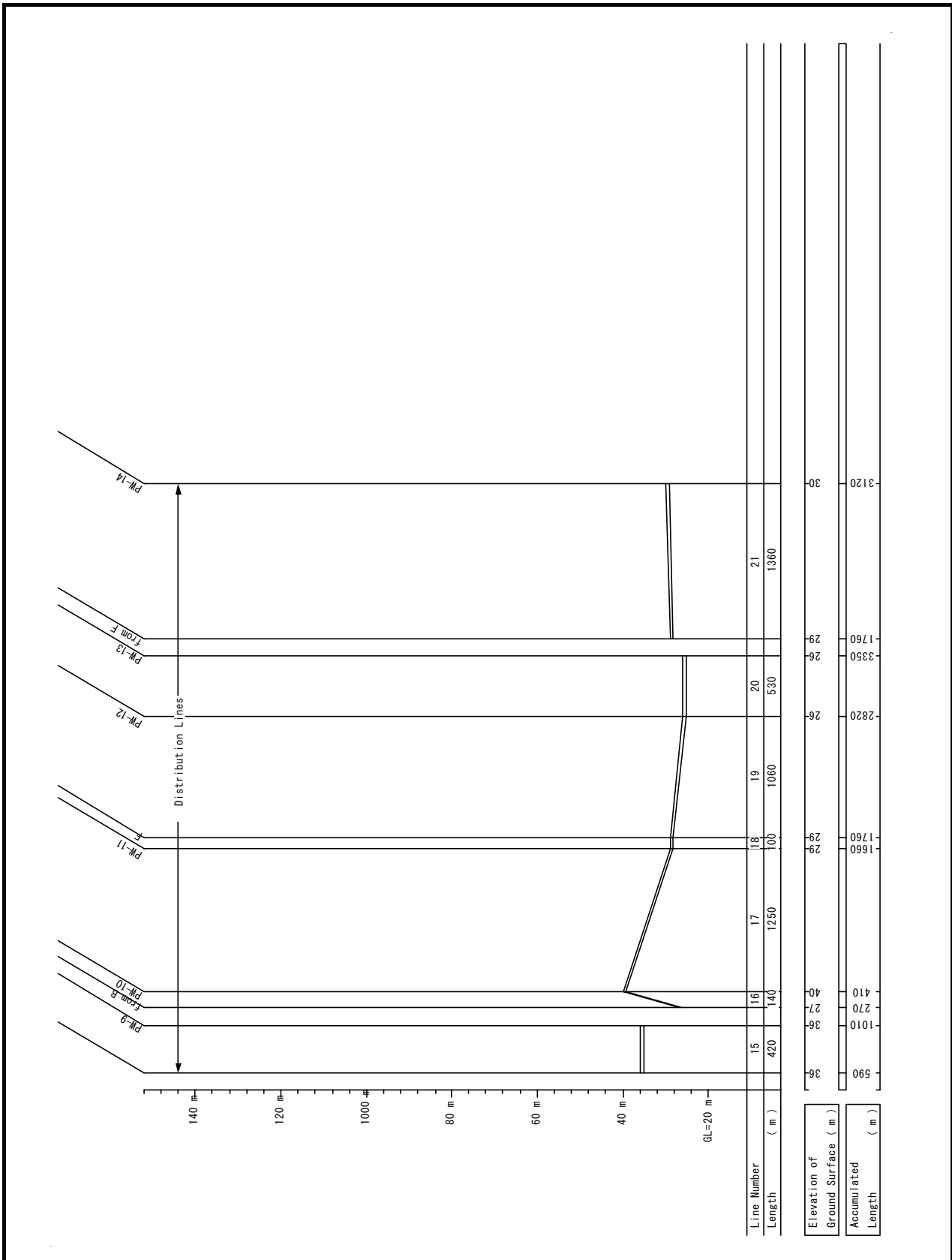
**THE STUDY ON WATER SUPPLY IMPROVEMENT IN COAST & DAR ES SALAAM**

**JICA**

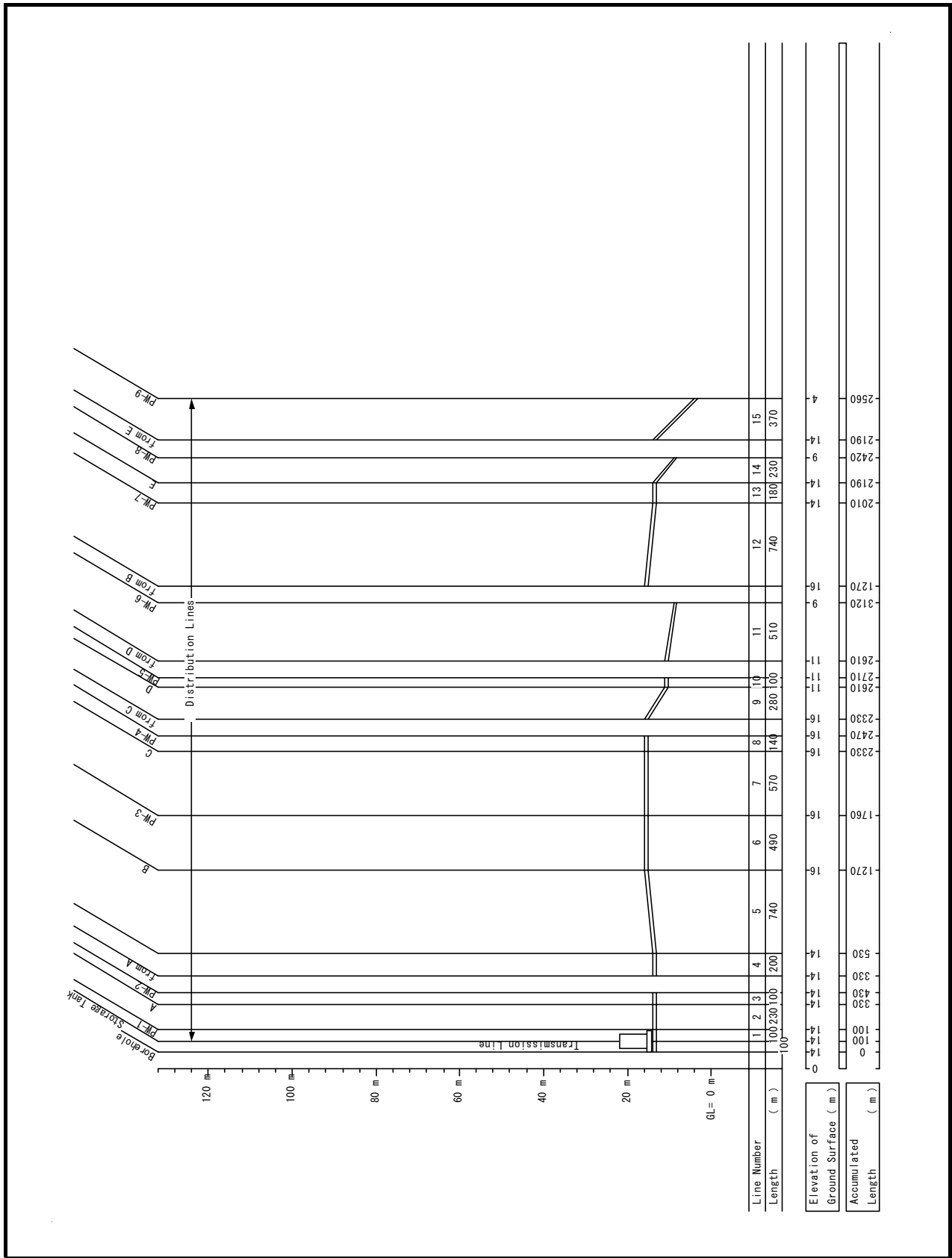


**FIGURE E.1 LONGITUDINAL SECTION ( TUNDWI: 20/22(1))**





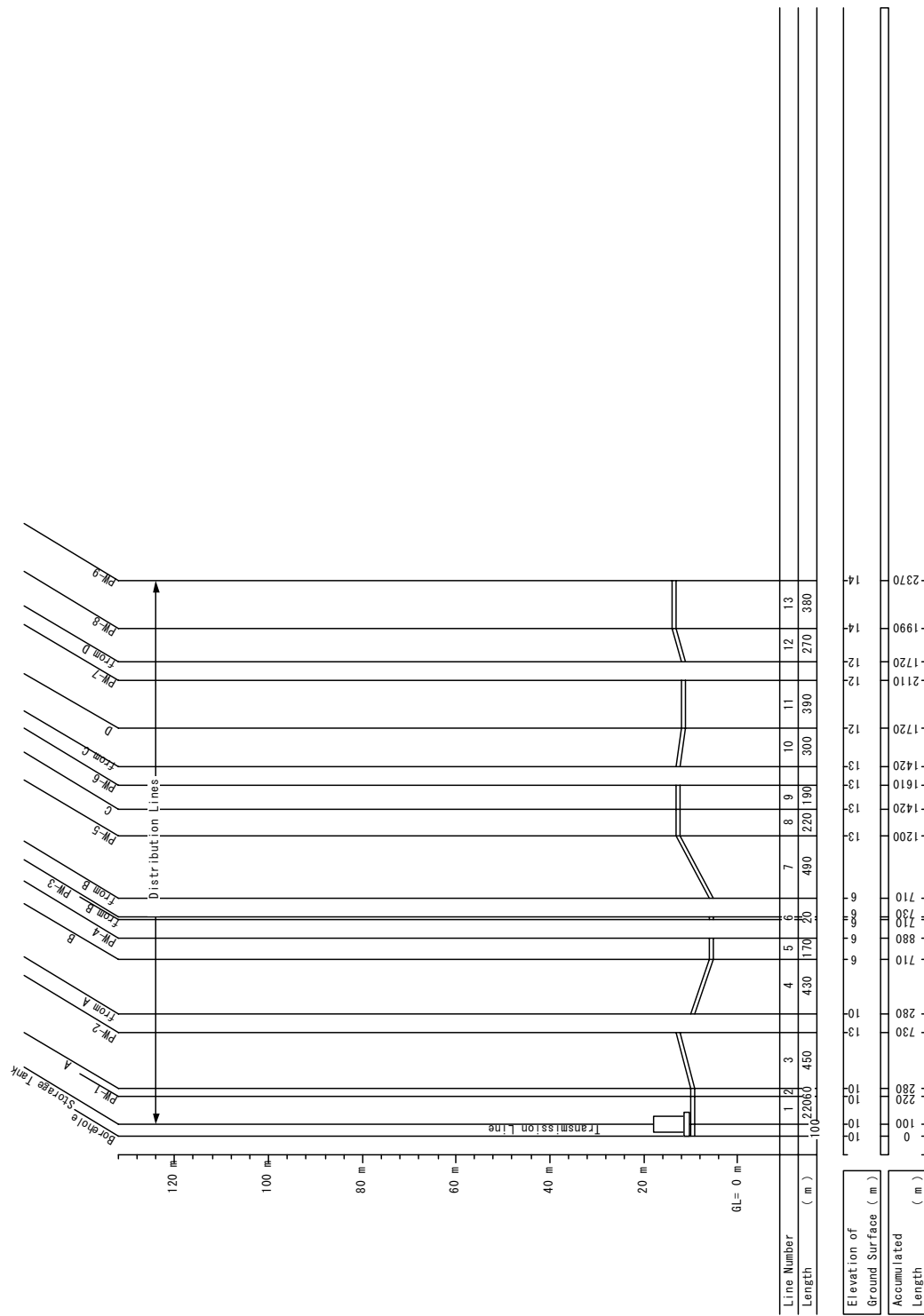
**FIGURE E.1 LONGITUDINAL SECTION (TUNDWI: 20/22(2))**



**FIGURE E.1 LONGITUDINAL SECTION ( MJIWEMA: 21/22)**

**THE STUDY ON WATER SUPPLY IMPROVEMENT IN COAST & DAR ES SALAAM**

**JICA**



**FIGURE E.1 LONGITUDINAL SECTION ( KIBUGUMO: 22/22)**

**THE STUDY ON WATER SUPPLY IMPROVEMENT IN COAST & DAR ES SALAAM**

**JICA**

***Data Book F***

**Check List of the Environmental and Social  
Consideration for the Priority Projects**

## Check List of Priority Projects in terms of E&S consideration

Date June 6, 2005 District Bagamoyo : Bagamoyo  
 Sheet No. 1 Ward Name Kibindu : Kibindu Location in Map No: \_\_\_\_\_ Impression of Location \_\_\_\_\_  
 Village Name Kibindu : Kibindu  
 Sub Village Name Chapulu, Kikomba, Msete, (Kwaikonje, Perai)  
 Numbers of Scheme : 1

(Kibindu 1/3)

The Full- Scale Study		
Environmental and Social Indicators	Questions	Check Items Response
1	Current Water Source Condition (Key Informant) 1-1 What type of water do you have in your village ?	Water from traditional wells
2	Socio-Economic activities (Key Informant) 2-1 How many water venders IN your village?	No
	2-2 How much dose it cost in one Tank cost?	Rainy Season : - Tsh Dry Season : - Tsh
	2-3 What are their social status, education level etc. ?	-
	2-4 Are there any Venders who come from OUTSIDE of your Village?	No
3	Water users - General (Women) 3-1 How long dose it take to get to water ?	60 minutes
	3-2 How long do you need to wait for getting water in water intake ?	60 minutes
	3-3 What is the most problem in water for you ?	Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others
Children on Water Fetching (Women or Chairman etc)	3-4 Is there children who didn't go to school because of fetching water ?	Yes, <u>No</u>
	<b>Memo</b>	
4	Split of community 4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with community in order to determine of facilities and water source.	<u>Yes</u> No
5	Cultural and Community Property 5-1 What kind of community property for cultural or religious aspects are existing in the village?	1. <u>Mosque</u> 2. <u>Church</u>
	<b>Memo</b>	1. <u>Public Primary School</u>

(Kibindu 2/3)

		<b>Check Items</b>			
6	Road Condition to Village	<b>Main :</b> Dar to Mbwewe, <b>Second :</b> Mbwewe to Kibindu <b>Third :</b> within the village	Pave road <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Pave road <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Pave road <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Road Width 10 m Road Width 4 m Road Width 3 m	<b>Density-</b> High, Medium, <b>Density-</b> High, Medium, <b>Density-</b> High, Medium,
	<b>Water source 1</b>	Generally, roads are in good condition but narrow. <b>Location :</b> at the Valley - borehole - <i>Attentions to Operation and Construction :</i> Not specifically	<b>Pave road :</b> <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<b>Width of the path :</b> 2.5-3 m	<b>Density-</b> High, Medium, LOW
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to ask permission from the land owner and try to do it without any payment.		<b>Public:</b> Village Mitta / Ward / District <b>Informal</b> Municipality	<b>Private:</b> Land use: Agriculture <b>Type of Crops:</b> Cassava
7	<b>Water source 2</b>	<b>Location :</b> <i>Attentions to Operation and Construction :</i>	<b>Pave road :</b> <input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Width of the path ___m	<b>Density-</b> High, Medium, LOW
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>		<b>Public:</b> Village Mitta / Ward / District <b>Informal</b> Municipality	<b>Private:</b> Land use: <b>Type of Crops:</b>
	<b>Water source 3</b>	<b>Location :</b> <i>Attentions to Operation and Construction :</i>	<b>Pave road :</b> <input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Width of the path ___m	<b>Density-</b> High, Medium, LOW
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>		<b>Public:</b> Village Mitta / Ward / District <b>Informal</b> Municipality	<b>Private:</b> Land use: <b>Type of Crops:</b>
	<b>Storage Tank Location</b>	<b>Location :</b> Near by Khouse <i>Attentions to Operation and Construction :</i> Not specifically	<b>Pave road :</b> <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<b>Width of the path :</b> 8 m	<b>Density-</b> High, Medium, LOW
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to negotiate with the owner.		<b>Public:</b> Village Mitta / Ward / District <b>Informal</b> Municipality	<b>Private:</b> Land use: Agriculture, <b>Type of Crops :</b> Coconuts
	<b>Transmission routes</b>	<i>Is there any Transmission routes whose above on the ground is something important? Not specifically</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No no need newly to disturb land and existing road		
	<b>Memo</b>				

(Kibindu 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?		Yes
	In which point, we should be careful ?		
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?		Yes
	In which point, we should be careful ?		
10 Topography and geology	Dose Water source Location change Topography and Geology ?		Yes: Why
	Dose Storage Tank Location change Topography and Geology ?		Yes: Why
	Dose Transmission change Topography and Geology ?		Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>		Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	Pit Latrines are commonly used.	
	Are there any wells Latrine 10 m of the <b>planning water source?</b>		Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?		Yes: Which kinds of species ?
	Dose Storage Tank Condition damage any special Fauna and Flora ?		Yes: Which kinds of species ?
	Dose Transmission Main will cross national parks or game reserves and affect ?		Yes: Name of reserves
14 Noise and vibration			
	Drilling Water source Location : Is there houses / school with 30 m ?		Yes: How far m
	Construction of Water tank and Transmissions Water tank Location: Is there houses/ school with 30 m ?		Yes: How far 5-10 m
	Transmission construction might cause any noise problem ?		Yes :

Note :

## Check List of Priority Projects in terms of E&S consideration

Date June 4, 2005 District : Bagamoyo : Bagamoyo  
 Sheet No. 2 Ward Name : Kwanduma : Kwanduma  
 Village Name : Kwanduma  
 Sub Village Name : Kwakilumbi, Kwadi Yule. (Gole, Kwavuli, Member)  
 Numbers of Scheme : 1

Location in Map No: \_\_\_\_\_ Impression of Location \_\_\_\_\_

(Kwanduma 1/3)

		The Full- Scale Study	
Environmental and Social Indicators	Questions	Check Items	Response
1	Current Water Source Condition (Key Informant) 1-1 What type of water do you have in your village ?	Water from traditional wells freely	
2	Socio-Economic activities (Key Informant) 2-1 How many water vendors IN your village? 2-2 How much dose it cost in one Tank cost? 2-3 What are their social status, education level etc. ? 2-4 Are there any Vendors who come from OUTSIDE of your Village?	No Rainy Season : - Tsh Dry Season : - Tsh No	
3	Water users - General (Women) 3-1 How long dose it take to get to water ? 3-2 How long do you need to wait for getting water in water intake ? 3-3 What is the most problem in water for you ?	Dry Season : 60 minutes Dry Season : 60 minutes	
	Children on Water Fetching (Women or Chairman etc) 3-4 Is there children who didn't go to school because of fetching water ?	Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others Yes, (No)	
4	Memo Split of community 2 km walk to the traditional wells and its water is basically saline. 4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source.		(Yes) No
5	Cultural and Community Property 5-1 What kind of community property for cultural or religious aspects are existing in the village? Memo	7 Mosque 0 Church	2 Public Primary School



## (Kwanduma 2/3)

		Check Items	
6	Road Condition to Village	<p><b>Main :</b> Good condition, from Dar es Salaam to Mbewe</p> <p><b>Second : Kwanduma to Mjembe</b></p> <p><b>Third : Sub village road</b></p> <p>Mjembe village road is very narrow 2.5 m with a lots of grass. Elevation is high comparing with water source</p>	<p>Pave road <input checked="" type="checkbox"/> <b>Y</b> <input type="checkbox"/> <b>N</b></p> <p>Pave road <input checked="" type="checkbox"/> <b>Y</b> <input type="checkbox"/> <b>N</b></p> <p>Pave road <input checked="" type="checkbox"/> <b>Y</b> <input type="checkbox"/> <b>N</b></p> <p>Road Width 10 m</p> <p>Road Width 8 m</p> <p>Road Width 3 m</p> <p><b>Density-</b> High, Medium, Low</p> <p><b>Density-</b> High, Medium, Low</p> <p><b>Density-</b> High, Medium, Low</p>
7	<b>Water source 1</b>	<p><b>Location:</b> No description</p> <p>Road Condition <u>Attentions to Operation and Construction :</u> Not specifically</p> <p>Land Owner <u>How should we negotiate and take procedure to acquire the load for this project ?</u> It is necessary to ask permission from the land owner and try to do it without any payment.</p>	<p><b>Pave road :</b> <input checked="" type="checkbox"/> <b>Y</b> <input type="checkbox"/> <b>N</b></p> <p><b>Width of the path :</b> 4 m</p> <p><b>Public:</b> Village Mitta / Ward /District •Municipality <b>Informal :</b></p> <p><b>Private:</b> Land use: Agriculture <b>Type of Crops:</b> Cassava</p> <p><b>Density-</b> High, Medium, Low</p>
	<b>Water source 2</b>	<p><b>Location :</b></p> <p>Road Condition <u>Attentions to Operation and Construction :</u></p> <p>Land Owner <u>How should we negotiate and take procedure to acquire the load for this project?</u></p>	<p><b>Pave road :</b> <input type="checkbox"/> <b>Y</b> <input checked="" type="checkbox"/> <b>N</b></p> <p>Width of the path ___m</p> <p><b>Public:</b> Village Mitta / Ward /District •Municipality <b>Informal :</b></p> <p><b>Private:</b> Land use: <b>Type of Crops:</b></p> <p><b>Density-</b> High, Medium, Low</p>
	<b>Water source 3</b>	<p><b>Location :</b></p> <p>Road Condition <u>Attentions to Operation and Construction :</u></p> <p>Land Owner <u>How should we negotiate and take procedure to acquire the load for this project?</u></p>	<p><b>Pave road :</b> <input type="checkbox"/> <b>Y</b> <input checked="" type="checkbox"/> <b>N</b></p> <p>Width of the path ___m</p> <p><b>Public:</b> Village Mitta / Ward /District •Municipality <b>Informal :</b></p> <p><b>Private:</b> Land use: <b>Type of Crops:</b></p> <p><b>Density-</b> High, Medium, Low</p>
	<b>Storage Tank Location</b>	<p><b>Location: No description</b></p> <p>Road Condition <u>Attentions to Operation and Construction :</u> Not specifically</p> <p>Land Owner <u>How should we negotiate and take procedure to acquire the load for this project?</u></p>	<p><b>Pave road :</b> <input checked="" type="checkbox"/> <b>Y</b> <input type="checkbox"/> <b>N</b></p> <p><b>Width of the path :</b> 3.5 m</p> <p><b>Public:</b> Village Mitta / Ward /District •Municipality <b>Informal :</b></p> <p><b>Private:</b> Land use: <b>Type of Crops :</b>Coconuts</p> <p><b>Density-</b> High, Medium, Low</p>
	<b>Transmission routes</b>	<p><u>Is there any Transmission routes whose above on the ground is something important? Not specifically</u></p>	<p>Yes <input checked="" type="checkbox"/> <b>N</b> <input type="checkbox"/> <b>Y</b> no need newly to disturb land and existing road</p>
	<b>Memo</b>		

(Kwanduma 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?		Yes
	In which point, we should be careful ?		
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?		Yes
	In which point, we should be careful ?		
10 Topography and geology	Dose Water source Location change Topography and Geology ?		Yes: Why
	Dose Storage Tank Location change Topography and Geology ?		Yes: Why
	Dose Transmission change Topography and Geology ?		Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>		Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.		
	Are there any wells Latrine 10 m of the <b>planning water source?</b>		Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?		Yes: Which kinds of species ?
	Dose Storage Tank Condition damage any special Fauna and Flora ?		Yes: Which kinds of species ?
	Dose Transmission Main will cross national parks or game reserves and affect ?		Yes: Name of reserves
14 Noise and vibration			
	Drilling Water source Location : Is there houses / school with 30 m ?		Yes: How far m
	Construction of Water tank and Transmissions Water tank Location: Is there houses/ school with 30 m ?		Yes: How far m
	Transmission construction might cause any noise problem ?		Yes :

**Note :**

## Check List of Priority Projects in terms of E&S consideration

Date June 5, 2005 District : Bagamoyo  
 Sheet No. 3 Ward Name : Mkongwe  
 Village Name : Matipwili Location in Map No: \_\_\_\_\_ Impression of Location \_\_\_\_\_  
 Sub Village Name : Mkunguni, Msikitini, Mzabarauni, (Biga, Gonggo, Kisauke, Tumblini)  
 Numbers of Scheme : 1

		The Full- Scale Study	
Environmental and Social Indicators	Questions	Check Items	Response
1	Current Water Source Condition (Key Informant) 1-1 What type of water do you have in your village ?	Water from Wami river, pipeline of Wami river, and from traditional well	
2	Socio-Economic activities (Key Informant) 2-1 How many water venders IN your village? 2-2 How much dose it cost in one Tank cost? 2-3 What are their social status, education level etc. ? 2-4 Are there any Venders who come from OUTSIDE of your Village?	8 persons Rainy Season : 20 Tsh      Dry Season : 80 Tsh Completed primary school No	
3	Water users - General (Women) 3-1 How long dose it take to get to water ? 3-2 How long do you need to wait for getting water in water intake ? 3-3 What is the most problem in water for you ?	10 minutes No time to wait Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others	
4	Children on Water Fetching (Women or Chairman etc) 3-4 Is there children who didn't go to school because of fetching water ?  <b>Memo</b> 4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source	Yes, <u>No</u> Water from river is not saline, and from existing well is saline <u>Yes</u> No	
5	Cultural and Community Property 5-1 What kind of community property for cultural or religious aspects are existing in the village?  <b>Memo</b>	1. Mosque 3 Church	12. Public Primary School

(Matipwili 2/3)

		Check Items	
6	Road Condition to Village	<p><b>Main :</b> from Dar es Salaam to Mandela</p> <p><b>Second :</b> Mandela / Mono/ Matipwili</p> <p><b>Third :</b> Village to Water source</p> <p>Road in general is good, but except inside of Sadaani forest is in bad condition, but is assessable.</p>	<p>Pave road <u>Y</u> <u>N</u></p> <p>Road Width <u>6</u> m</p> <p>Pave road <u>Y</u> <u>N</u></p> <p>Road Width <u>5</u> m</p> <p>Pave road <u>Y</u> <u>N</u></p> <p>Road Width <u>3</u> m</p> <p><b>Density:</b> High, Medium, Low</p> <p><b>Density:</b> High, Medium, Low</p> <p><b>Density:</b> High, Medium, Low</p>
7	<b>Water source 1</b>	<p>Road Condition</p> <p><b>Location:</b> The water source is from river</p> <p><i>Attentions to Operation and Construction :</i> Not specifically</p> <p>Land Owner: <i>How should we negotiate and take procedure to acquire the land for this project ?</i> It is necessary to ask permission from the land owner and try to do it without any payment.</p>	<p><b>Pave road :</b> <u>Y</u> <u>N</u> Foot path</p> <p><b>Width of the path :</b> <u>2.5</u> m</p> <p><b>Public:</b> Village Mitta / Ward /District •Municipality</p> <p><b>Informal :</b></p> <p><b>Private:</b> Land use: Agriculture</p> <p><b>Type of Crops:</b></p> <p><b>Density:</b> High, Medium, Low</p>
	<b>Water source 2</b>	<p>Road Condition</p> <p><b>Location :</b></p> <p><i>Attentions to Operation and Construction :</i></p> <p>Land Owner: <i>How should we negotiate and take procedure to acquire the land for this project?</i></p>	<p><b>Pave road :</b> <u>Y</u> <u>N</u></p> <p>Width of the path <u>   </u> m</p> <p><b>Public:</b> Village Mitta / Ward /District •Municipality</p> <p><b>Informal :</b></p> <p><b>Private:</b> Land use:</p> <p><b>Type of Crops:</b></p> <p><b>Density:</b> High, Medium, Low</p>
	<b>Water source 3</b>	<p>Road Condition</p> <p><b>Location :</b></p> <p><i>Attentions to Operation and Construction :</i></p> <p>Land Owner: <i>How should we negotiate and take procedure to acquire the land for this project?</i></p>	<p><b>Pave road :</b> <u>Y</u> <u>N</u></p> <p>Width of the path <u>   </u> m</p> <p><b>Public:</b> Village Mitta / Ward /District •Municipality</p> <p><b>Informal :</b></p> <p><b>Private:</b> Land use:</p> <p><b>Type of Crops:</b></p> <p><b>Density:</b> High, Medium, Low</p>
	<b>Storage Tank Location</b>	<p>Road Condition</p> <p><b>Location : Near the dispensary and school</b></p> <p><i>Attentions to Operation and Construction :</i> Not specifically</p> <p>Land Owner: <i>How should we negotiate and take procedure to acquire the land for this project ?</i> It is necessary to negotiate with villagers for development, village committee and chairperson of the village</p> <p><i>Is there any Transmission routes whose above on the ground is something important? Not specifically</i></p>	<p><b>Pave road :</b> <u>Y</u> <u>N</u></p> <p><b>Width of the path :</b> <u>8</u> m</p> <p><b>Public:</b> Village Mitta / Ward /District •Municipality</p> <p><b>Informal :</b></p> <p><b>Private:</b> Land use:</p> <p><b>Type of Crops :</b></p> <p>Yes <u>(No)</u> no need newly to disturb land and existing road</p> <p><b>Density:</b> High, Medium, Low</p>
	<b>Transmission routes</b>		
	<b>Memo</b>		

(Matipwili 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		<input type="radio"/> No Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?		<input type="radio"/> No Yes: Carefully construct facilities in Wami river where many crocodiles are there.
	In which point, we should be careful ?		
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?		<input type="radio"/> No Yes
	In which point, we should be careful ?		
10 Topography and geology	Dose Water source Location change Topography and Geology ?		<input type="radio"/> No Yes: Why
	Dose Storage Tank Location change Topography and Geology ?		<input type="radio"/> No Yes: Why
	Dose Transmission change Topography and Geology ?		<input type="radio"/> No Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source</b> ?		<input type="radio"/> No Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	Pit Latrines exist and villages use it without roof.	
	Are there any wells Latrine 10 m of the <b>planning water source</b> ?		<input type="radio"/> No Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?		<input type="radio"/> No Yes: Which kinds of species ?
	Dose Storage Tank Condition damage any special Fauna and Flora ?		<input type="radio"/> No Yes: Which kinds of species ?
	Dose Transmission Main will cross national parks or game reserves and affect ?		<input type="radio"/> No Yes: Name of reserves
14 Noise and vibration			
	Water source Location : Is there houses / school with 30 m ?		<input type="radio"/> No Yes: How far m
	Water tank Location: Is there houses/ school with 30 m ?		<input type="radio"/> No Yes: How far m
	Transmission construction might cause any noise problem ?		<input type="radio"/> No Yes :

**Note :**

## Check List of Priority Projects in terms of E&S consideration

Date July 8, 2005 District : Kibaha Location in Map No: \_\_\_\_\_ Impression of Location \_\_\_\_\_  
 Sheet No. 4 Ward Name : Rubu  
 Village Name : Minazi Mikinda  
 Sub Village Name : Minazi Mikinda  
 Numbers of Scheme : 1 which is shared with Kitomondo

		The Full- Scale Study	
		Check Items	Response
Environmental and Social Indicators	Questions		
1	Current Water Source Condition (Key Informant)	Water from Ruvu river	
2	Socio-Economic activities (Key Informant)	20 persons Rainy Season : - Tsh Dry Season : - Tsh	
3	Water users - General (Women)	- No 1.5 minutes 0 minutes (river)	
4	Children on Water Fetching (Women or Chairman etc)	Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others Yes, <u>No</u>	
5	Cultural and Community Property	Yes, <u>No</u> 1. Mosque 2. Church	1 Public Primary School 1 Public Secondary School which is under construction
		Memo	
4 Split of community		Crocodiles attached villager during taking water from Ruvu river. And villager drink the river water without boiling.	
5-1 What kind of community property for cultural or religious aspects are existing in the village?		Crocodiles attached villager during taking water from Ruvu river. And villager drink the river water without boiling.	
4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source.		Yes, <u>No</u>	
Memo			

(Minazi Mikinda 2/3)

		Check Items	
6	Road Condition to Village	Main : pretty bumpy road	Pave road <u>Y</u> <u>N</u>
		Second :	Pave road <u>Y</u> <u>N</u>
		Third :	Pave road <u>Y</u> <u>N</u>
7	<b>Water source 1</b>	<b>Location :</b> Near school	
	Road Condition	<i>Attentions to Operation and Construction :</i> Not specifically	<b>Pave road :</b> <u>Y</u> <u>N</u>
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> _____ It is necessary to ask permission from the land owner and try to do it without any payment.	<b>Public :</b> Village Mitta / Ward / District • Municipality <b>Informal :</b>
	<b>Water source 2</b>	<b>Location :</b>	
	Road Condition	<i>Attentions to Operation and Construction :</i>	<b>Pave road :</b> <u>Y</u> <u>N</u>
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public :</b> Village Mitta / Ward / District • Municipality <b>Informal :</b>
	<b>Water source 3</b>	<b>Location :</b>	
	Road Condition	<i>Attentions to Operation and Construction :</i>	<b>Pave road :</b> <u>Y</u> <u>N</u>
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public :</b> Village Mitta / Ward / District • Municipality <b>Informal :</b>
	<b>Storage Tank Location</b>	<b>Location :</b>	
Road Condition	<i>Attentions to Operation and Construction :</i> Not specifically	<b>Pave road :</b> <u>Y</u> <u>N</u>	
Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to ask permission from the land owner and try to do it without any payment.	<b>Public :</b> Village Mitta / Ward / District • Municipality <b>Informal :</b>	
<b>Transmission routes</b>	<i>Is there any Transmission routes whose above on the ground is something important? Not specifically</i>	Yes (No) no need newly to disturb land and existing road	
	<b>Memo</b>		

(Minazi Mikinda 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		No Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ? In which point, we should be careful ? Is there any risk point for <b>Storage Tank Construction or Operation</b> ? In which point, we should be careful ?		No Yes No Yes
10 Topography and geology	Dose Water source Location change Topography and Geology ? Dose Storage Tank Location change Topography and Geology ? Dose Transmission change Topography and Geology ?		No Yes: Why No Yes: Why No Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>		No Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	Pit Latrines are commonly used.	
13 Fauna and flora	Are there any wells Latrine 10 m of the <b>planning water source?</b> Dose Water source Location damage any special Fauna and Flora ? Dose Storage Tank Condition damage any special Fauna and Flora ? Dose Transmission Main will cross national parks or game reserves and affect ?		No Yes: How it looks like ? No Yes: Which kinds of species ? No Yes: Which kinds of species ? No Yes: Name of reserves
14 Noise and vibration	Drilling Water source Location : Is there houses / school with 30 m ? Construction of Water tank and Transmissions Water tank Location: Is there houses/ school with 30 m ? Transmission construction might cause any noise problem ?		No Yes: How far m No Yes: How far m No Yes :

**Note :**



## Check List of Priority Projects in terms of E&S consideration

Date July 9, 2005 District : Kibaha Location in Map No: \_\_\_\_\_ Impression of Location \_\_\_\_\_  
 Sheet No. 5 Ward Name : Ruvu  
 Village Name : Kitomondo  
 Sub Village Name : Gumba, Kitomondo  
 Numbers of Scheme : 1 sharing with Minazi Mikinda

The Full- Scale Study		Check Items	Response
Environmental and Social Indicators	Questions		
1	1-1 What type of water do you have in your village ?	Water from Ruve river and boreholes	
2	2-1 How many water vendors IN your village? 2-2 How much dose it cost in one Tank cost? 2-3 What are their social status, education level etc. ? 2-4 Are there any Vendors who come from OUTSIDE of your Village?	Unknown Rainy Season : - Tsh      Dry Season : - Tsh - No	
3	3-1 How long dose it take to get to water ? 3-2 How long do you need to wait for getting water in water intake ? 3-3 What is the most problem in water for you ?	Rainy Season : 30 minutes      Dry Season : 30 minutes Rainy Season : 0 minutes      Dry Season : 1 hrs Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others	
	3-4 Is there children who didn't go to school because of fetching water ?	Yes, <u>No</u>	
4	<b>Memo</b> It is sometime happened to get attacked by crocodile. 4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and	<u>Yes</u> No	
5	Cultural and Community Property <b>Memo</b>	<u>1</u> Mosque <u>1</u> Church	<u>1</u> Public Primary School

( Kitomondo 2/3)

		Check Items	
6	Road Condition to Village	<p><b>Main :</b> Mlandizi to Kitomondo  <b>Second :</b> Around Kitomondo Village  <b>Third :</b> to Gumbe sub village</p>	<p>Pave road <u>Y</u> <u>N</u>  Pave road <u>Y</u> <u>N</u>  Pave road <u>Y</u> <u>N</u></p>
			<p>Road Width 10 m  Road Width 8 m  Road Width 3 m</p>
7	<b>Water source 1</b>	<p><b>Location :</b> Near back of Ruvu river</p>	
	Road Condition	<p><i>Attentions to Operation and Construction :</i>  During rain season, the road become muddy very much.</p>	<p><b>Width of the path :</b> 3- 4 m</p>
	Land Owner	<p><i>How should we negotiate and take procedure to acquire the load for this project ?</i>  _____ It is necessary to ask permission from the land owner and try to do it without any payment.</p>	<p><b>Public:</b> Village Mitta / Ward  /District· Municipality  <b>Informal :</b></p>
	<b>Water source 2</b>	<p><b>Location :</b></p>	
	Road Condition	<p><i>Attentions to Operation and Construction :</i></p>	<p>Width of the path _____m</p>
	Land Owner	<p><i>How should we negotiate and take procedure to acquire the load for this project?</i></p>	<p><b>Public:</b> Village Mitta / Ward  /District· Municipality  <b>Informal :</b></p>
	<b>Water source 3</b>	<p><b>Location :</b></p>	
	Road Condition	<p><i>Attentions to Operation and Construction :</i></p>	<p>Width of the path _____m</p>
	Land Owner	<p><i>How should we negotiate and take procedure to acquire the load for this project?</i></p>	<p><b>Public:</b> Village Mitta / Ward  /District· Municipality  <b>Informal :</b></p>
	<b>Storage Tank Location</b>	<p><b>Location :</b> Near primary school compound</p>	
	Road Condition	<p><i>Attentions to Operation and Construction :</i>  Special attentions are needed during school time not to give any damage to student.</p>	<p><b>Width of the path :</b> 4-3 m</p>
	Land Owner	<p><i>How should we negotiate and take procedure to acquire the load for this project?</i></p>	<p><b>Public:</b> Village Mitta / Ward  /District· Municipality  <b>Informal :</b></p>
	<b>Transmission routes</b>	<p><i>How should we negotiate and take procedure to acquire the load for this project ?</i>  It is necessary to negotiate with local government and school teacher.</p>	<p><b>Public:</b> Village Mitta / Ward  /District· Municipality  <b>Informal :</b></p>
		<p><i>Is there any Transmission routes whose above on the ground is something important? Not specifically</i></p>	<p>Yes (No) no need newly to disturb land and existing road</p>
	<b>Memo</b>		

( Kitomondo 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		No Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?		No Yes
	In which point, we should be careful ?		
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?	-	No Yes
	In which point, we should be careful ?		
10 Topography and geology	Dose Water source Location change Topography and Geology ?	-	No Yes: Why
	Dose Storage Tank Location change Topography and Geology ?	-	No Yes: Why
	Dose Transmission change Topography and Geology ?	-	No Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>	-	No Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	Pit Latrines are commonly used but covered by grass wall in bad condition.	
	Are there any wells Latrine 10 m of the <b>planning water source?</b>	-	No Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?	-	No Yes: Which kinds of species ?
	Dose Storage Tank Condition damage any special Fauna and Flora ?	-	No Yes: Which kinds of species ?
	Dose Transmission Main will cross national parks or game reserves and affect ?		No Yes: Name of reserves
14 Noise and vibration			
	Drilling Water source Location : Is there houses / school with 30 m ?	-	No Yes: How far m
	Construction of Water tank and Transmissions Water tank Location: Is there houses/ school with 30 m ?		No Yes: How far m
	Transmission construction might cause any noise problem ?	-	No Yes :

**Note :**

## Check List of Priority Projects in terms of E&S consideration

Date June 29, 2005 District : Kibaha      Impression of Location  
 Sheet No. 6 Ward Name : Msimbu      Location in Map No:  
 Village Name : Msimbu      (Mwanzo Mgunu, Vinyawanjwa)  
 Sub Village Name : Kifukumko, Mgoqe, Msimbu, Mjini, Ngwazi, Chambasi  
 Numbers of Scheme : 1

		The Full- Scale Study	
Environmental and Social Indicators	Questions	Check Items	Response
1	Current Water Source Condition (Key Informant) 1-1 What type of water do you have in your village ?	Water from 4 boreholes in which water cost 10 Tsh/ bucket for villager while 20 Tsh/ bucket for outsider.	
2	Socio-Economic activities (Key Informant) 2-1 How many water venders IN your village? 2-2 How much dose it cost in one Tank cost? 2-3 What are their social status, education level etc. ? 2-4 Are there any Venders who come from OUTSIDE of your Village?	No Rainy Season : - Tsh      Dry Season : - Tsh - No	
3	Water users - General (Women) 3-1 How long dose it take to get to water ? 3-2 How long do you need to wait for getting water in water intake ? 3-3 What is the most problem in water for you ?	20- 30 minutes Dry Season : 1 - 3 hrs Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others	
	Children on Water Fetching (Women or Chairman etc) 3-4 Is there children who didn't go to school because of fetching water ?	Yes,      No	
<b>Memo</b>			
4	Split of community 4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source.	Yes,      No	
5	Cultural and Community Property 5-1 What kind of community property for cultural or religious aspects are existing in the village?	6 Mosque 2 Church	2 Public Primary School
<b>Memo</b>			

## (Msimbu 2/3)

		Check Items		
6	Road Condition to Village	Main : Pave road <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	Road Width <u>5</u> m	Density- High, Medium, Low
		Second : Pave road <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	Road Width <u>5</u> m	Density- High, Medium, Low
		Third : Pave road <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	Road Width <u>4</u> m	Density- High, Medium, Low
7	Water source 1	From Mwanzo Mgumu to Vinywya, the road condition is very bad almost no road is widely completed. Location: A side of a temporary river		
	Road Condition	Attentions to Operation and Construction : Not specifically	Pave road : <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	Width of the path : <u>4</u> m Density- High, Medium, Low
	Land Owner	How should we negotiate and take procedure to acquire the load for this project? ? _____ Negotiation with local government and district level is needed.		Public: Village Mitta / Ward /District • Municipality Informal : Private: Land use: Type of Crops:
	Water source 2	Location : in the Valley		
	Road Condition	Attentions to Operation and Construction : Not specifically	Pave road : <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	Width of the path <u>5</u> m Density- High, Medium, Low
	Land Owner	How should we negotiate and take procedure to acquire the load for this project? ? _____ Negotiation with local government and district level is needed.		Public: Village Mitta / Ward /District • Municipality Informal : Private: Land use: Type of Crops:
	Water source 3	Location : in the Valley		
	Road Condition	Attentions to Operation and Construction : To Chmbasi traditional well, attention is needed for for flooding time.	Pave road : <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	Width of the path <u>5</u> m Density- High, Medium, Low
	Land Owner	How should we negotiate and take procedure to acquire the load for this project? project?		Public: Village Mitta / Ward /District • Municipality Informal : Private: Land use: Type of Crops:
	Storage Tank Location	Location : School		
Road Condition	Attentions to Operation and Construction : Not specifically	Pave road : <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	Width of the path : <u>4</u> m Density- High, Medium, Low	
Land Owner	How should we negotiate and take procedure to acquire the load for this project? ? It is necessary to negotiate with villager chairman and school teacher.		Public: Village Mitta / Ward /District • Municipality Informal : Private: Land use: Agriculture, Type of Crops :Coconuts	
Transmission routes	Is there any Transmission routes whose above on the ground is something important? No but for transmission construction, it may need to contact with villager chairman		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> no need newly to disturb land and existing road	
	Memo			

(Msimbu 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		No Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?		No Yes
	In which point, we should be careful ?		
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?		No Yes
	In which point, we should be careful ?		
10 Topography and geology	Dose Water source Location change Topography and Geology ?	Flood area need to be careful.	No Yes: Why
	Dose Storage Tank Location change Topography and Geology ?	-	No Yes: Why
	Dose Transmission change Topography and Geology ?	-	No Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source</b> ?		No Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	Temporary, Pit Latrines are commonly used.	
	Are there any wells Latrine 10 m of the <b>planning water source</b> ?		No Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?		No Yes: Which kinds of species ?
	Dose Storage Tank Condition damage any special Fauna and Flora ?		No Yes: Which kinds of species ?
	Dose Transmission Main will cross national parks or game reserves and affect ?		No Yes: Name of reserves
14 Noise and vibration			
	Drilling Water source Location : Is there houses / school with 30 m ?		No Yes: How far m
	Construction of Water tank and Transmissions Water tank Location: Is there houses/ school with 30 m ?		No Yes: How far m
	Transmission construction might cause any noise problem ?		No Yes :

**Note :**

## Check List of Priority Projects in terms of E&S consideration

Date June 30 , 2005 District : Kisarawe      Location in Map No:      Impression of Location  
 Sheet No. 7 Ward Name : Chole  
 Village Name : Chole  
 Sub Village Name : Egea, Mdogoyo, Ponza, Shuleni  
 Numbers of Scheme : 1

(Chole 1/3)

The Full- Scale Study		
Environmental and Social Indicators	Check Items	Response
1	<b>Questions</b> 1-1 What type of water do you have in your village ? 2-1 How many water venders IN your village? 2-2 How much dose it cost in one Tank cost? 2-3 What are their social status, education level etc. ? 2-4 Are there any Venders who come from OUTSIDE of your Village? 3-1 How long dose it take to get to water ? 3-2 How long do you need to wait for getting water in water intake ? 3-3 What is the most problem in water for you ?	Water from traditional wells  1 person Rainy Season : - Tsh      Dry Season : - Tsh - No Rainy Season : 30 minutes      Dry Season : 30 minutes Rainy Season : 0 minutes      Dry Season : 60 minutes Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others Yes,      (No)
2	Children on Water Fetching (Women or Chairman etc) Memo	Yes,      (No)
4	4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source Memo	Yes,      (No)
5	Cultural and Community Property Memo	12 Mosque 3 Church 6 Public Primary School

## (Chole 2/3)

		Check Items	
6	Road Condition to Village	<p><b>Main :</b> Kisarawe Chole</p> <p><b>Second :</b> Chole area</p> <p><b>Third :</b> Access road need to be modified for big truck</p> <p>The road to reach water source is narrow.</p>	<p>Pave road <u>Y</u> <u>N</u></p> <p>Road Width <u>5</u> m</p> <p>Pave road <u>Y</u> <u>N</u></p> <p>Road Width <u>4</u> m</p> <p>Pave road <u>Y</u> <u>N</u></p> <p>Road Width <u>2.5</u> m</p>
7	<b>Water source 1</b>	<p><b>Location :</b> In the Valley 3 km away from center of the village</p> <p><b>Attentions to Operation and Construction :</b> Access road to water source is not enough for big truck.</p>	<p>Width of the path : <u>2.5</u> m</p> <p><b>Pave road :</b> <u>Y</u> <u>N</u></p> <p><b>Density-</b> High, Medium, <u>Low</u></p>
	Road Condition		
	Land Owner	<p><i>How should we negotiate and take procedure to acquire the load for this project?</i> ? _____ It is necessary to negotiate with chairman together with villagers</p>	<p><b>Public:</b> Village Mitta / Ward /District • Municipality</p> <p><b>Informal :</b></p> <p><b>Private:</b> Land use: Agriculture <b>Type of Crops:</b> Cassava, Orange, Maize, Jack fruit and potatoes</p>
	<b>Water source 2</b>	<p><b>Location :</b> In existing boreholes at the valley</p> <p><b>Attentions to Operation and Construction :</b></p>	<p>Width of the path <u>1</u> m</p> <p><b>Pave road :</b> <u>Y</u> <u>N</u></p> <p><b>Density-</b> High, Medium, <u>Low</u></p>
	Road Condition		
	Land Owner	<p><i>How should we negotiate and take procedure to acquire the load for this project?</i></p>	<p><b>Public:</b> Village Mitta / Ward /District • Municipality</p> <p><b>Informal :</b></p> <p><b>Private:</b> Land use:</p> <p><b>Type of Crops:</b></p>
	<b>Water source 3</b>	<p><b>Location :</b></p> <p><b>Attentions to Operation and Construction :</b></p>	<p>Width of the path <u>   </u> m</p> <p><b>Pave road :</b> <u>Y</u> <u>N</u></p> <p><b>Density-</b> High, Medium, <u>Low</u></p>
	Road Condition		
	Land Owner	<p><i>How should we negotiate and take procedure to acquire the load for this project?</i></p>	<p><b>Public:</b> Village Mitta / Ward /District • Municipality</p> <p><b>Informal :</b></p> <p><b>Private:</b> Land use:</p> <p><b>Type of Crops:</b></p>
	<b>Storage Tank Location</b>	<p><b>Location :</b> at the higher place nearby school</p> <p><b>Attentions to Operation and Construction :</b> The road condition is good</p>	<p>Width of the path <u>   </u> m</p> <p><b>Pave road :</b> <u>Y</u> <u>N</u></p> <p><b>Density-</b> High, Medium, <u>Low</u></p>
	Road Condition		
	Land Owner	<p><i>How should we negotiate and take procedure to acquire the load for this project?</i> ? _____ It is necessary to ask permission from the land owner and try to do it without any payment.</p> <p><i>Is there any Transmission routes whose above on the ground is something important? There is a graves year rd so negotiation and careful handling is necessary with villagers</i></p>	<p><b>Public:</b> Village Mitta / Ward /District • Municipality</p> <p><b>Informal :</b></p> <p><b>Private:</b> Land use:</p> <p><b>Type of Crops :</b></p>
	<b>Transmission routes</b>		<p><b>Yes</b> <u>   </u> <b>No</b> <u>   </u> : no need newly to disturb land and existing road</p>
	<b>Memo</b>		



## (Chole 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		No Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ? In which point, we should be careful ? Is there any risk point for <b>Storage Tank Construction or Operation</b> ? In which point, we should be careful ?		No Yes No Yes
10 Topography and geology	Dose Water source Location change Topography and Geology ? Dose Storage Tank Location change Topography and Geology ? Dose Transmission change Topography and Geology ? Are there any wells within <b>100 m of the planning water source</b> ?	Graves need to a careful consideration - - - -	No Yes: Why No Yes: Why No Yes: Why No Yes: How it looks like ?
11 Groundwater	Are there any wells within <b>100 m of the planning water source</b> ?		No Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	Pit Latrines are commonly used.	
13 Fauna and flora	Are there any wells Latrine 10 m of the <b>planning water source</b> ? Dose Water source Location damage any special Fauna and Flora ? Dose Storage Tank Condition damage any special Fauna and Flora ? Dose Transmission Main will cross national parks or game reserves and affect ?	- - - -	No Yes: How it looks like ? No Yes: Which kinds of species ? No Yes: Which kinds of species ? No Yes: Name of reserves
14 Noise and vibration	Drilling Water source Location : Is there houses / school with 30 m ? Construction of Water tank and Transmissions Water tank Location: Is there houses/ school with 30 m ? Transmission construction might cause any noise problem ?	- Small noise -	No Yes: How far m No Yes: How far 30 m No Yes :

**Note :**

## Check List of Priority Projects in terms of E&S consideration

Date July 13, 2005 District : Mkuranga Location in Map No: \_\_\_\_\_ Impression of Location \_\_\_\_\_  
 Sheet No. 8 Ward Name : Vikindu  
 Village Name : Mwandege / Kipala  
 Sub Village Name : Chatembo, Kirungule, Mwandweg, and part of Kipala  
 Numbers of Scheme : 1  
 (Mwandege / Kipala 1/3)

The Full- Scale Study		
Environmental and Social Indicators	Questions	Check Items
1	Current Water Source Condition (Key Informant) <b>1-1</b> What type of water do you have in your village ?	1 Water from private borehole, 2. Mkokozi Kibaha river, 3. <b>Response</b> For borehole water, 20 Tsh/Buket is paid.
2	Socio-Economic activities (Key Informant) <b>2-1</b> How many water venders IN your village? <b>2-2</b> How much dose it cost in one Tank cost? <b>2-3</b> What are their social status, education level etc. ? <b>2-4</b> Are there any Venders who come from OUTSIDE of your Village?	40 persons 100 Tsh - No
3	Water users - General (Women) <b>3-1</b> How long dose it take to get to water ? <b>3-2</b> How long do you need to wait for getting water in water intake ? <b>3-3</b> What is the most problem in water for you ?	30 minutes 10 minutes Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others
	Children on Water Fetching (Women or Chairman etc) <b>3-4</b> Is there children who didn't go to school because of fetching water ?	Yes, <u>No</u>
4	<b>Memo</b> Split of community <b>4-1</b> Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source.	For water from borehole, no treatment is done and no boiling. <u>Yes</u> Village executive officer, Ally. S. Chambymthon
5	Cultural and Community Property <b>5-1</b> What kind of community property for cultural or religious aspects are existing in the village?	<u>3</u> Mosque <u>2</u> Church <u>1</u> Public Primary School
	<b>Memo</b>	

(Mwandege / Kipala 2/3)

		Check Items	
6	Road Condition to Village	Main : to reach village entrance Pave road <u>Y</u> <u>N</u>	Density- High, Medium, Low
		Second : to reach village (foot path) Pave road <u>Y</u> <u>N</u>	Density- High, Medium, Low
		Third : Pave road <u>Y</u> <u>N</u>	Density- High, Medium, Low
7	<b>Water source 1</b>	<b>Location :</b> SAID Mischele	
	Road Condition	<i>Attentions to Operation and Construction :</i> Not specifically	<b>Density-</b> High, Medium, Low
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to ask permission from the land owner.	<b>Private:</b> Land use: Agriculture <b>Type of Crops:</b> Coconut
	<b>Water source 2</b>	<b>Location :</b>	
	Road Condition	<i>Attentions to Operation and Construction :</i>	<b>Density-</b> High, Medium, Low
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Private:</b> Land use: <b>Type of Crops:</b>
	<b>Water source 3</b>	<b>Location :</b>	
	Road Condition	<i>Attentions to Operation and Construction :</i>	<b>Density-</b> High, Medium, Low
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Private:</b> Land use: <b>Type of Crops:</b>
	<b>Storage Tank Location</b>	<b>Location :</b> SAID Mischele	
Road Condition	<i>Attentions to Operation and Construction :</i> Not specifically	<b>Width of the path :</b> 2.5 m	<b>Density-</b> High, Medium, Low
Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to ask permission from the land owner and try to do it without any payment.	<b>Public:</b> Village Mitta / Ward <b>District:</b> Municipality <b>Informal :</b>	<b>Private:</b> Land use: <b>Type of Crops:</b>
<b>Transmission routes</b>	<i>Is there any Transmission routes whose above on the ground is something important? Not specifically</i>	Yes (No) no need newly to disturb land and existing road	<b>Private:</b> Land use: Agriculture, <b>Type of Crops :</b> Coconuts,
	<b>Memo</b>		

(Mwandege / Kipala 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?		Yes
	In which point, we should be careful ?		
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?		Yes
	In which point, we should be careful ?		
10 Topography and geology	Dose Water source Location change Topography and Geology ?		Yes: Why
	Dose Storage Tank Location change Topography and Geology ?		Yes: Why
	Dose Transmission change Topography and Geology ?		Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>		Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	Pit Latrines are commonly used.	
	Are there any wells Latrine 10 m of the <b>planning water source?</b>		Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?		Yes: Which kinds of species ?
	Dose Storage Tank Condition damage any special Fauna and Flora ?		Yes: Which kinds of species ?
	Dose Transmission Main will cross national parks or game reserves and affect ?		Yes: Name of reserves
14 Noise and vibration			
	Drilling Water source Location : Is there houses / school with 30 m ?		Yes: How far m
	Construction of Water tank and Transmissions Water tank Location: Is there houses/ school with 30 m ?		Yes: How far m
	Transmission construction might cause any noise problem ?		Yes :

**Note :**

## Check List of Priority Projects in terms of E&S consideration

Date July 14, 2005 District : Mukuranga Location in Map No: \_\_\_\_\_ Impression of Location \_\_\_\_\_  
 Sheet No. 9 Ward Name : Vikindu  
 Village Name : Kisemvule  
 Sub Village Name : Kisemvule, Kitangwi, Mpela, Vibura (Utunge)  
 Numbers of Scheme : 1

		The Full- Scale Study	
Environmental and Social Indicators	Questions	Check Items	Response
1	Current Water Source Condition (Key Informant) <b>1-1</b> What type of water do you have in your village ?	Water from Ring wells and Spring, which need to be boiled.	
2	Socio-Economic activities (Key Informant) <b>2-1</b> How many water venders IN your village? <b>2-2</b> How much dose it cost in one Tank cost? <b>2-3</b> What are their social status, education level etc. ? <b>2-4</b> Are there any Venders who come from OUTSIDE of your Village?	10 persons 60- 70 Tsh - No	
3	Water users - General (Women) <b>3-1</b> How long dose it take to get to water ? <b>3-2</b> How long do you need to wait for getting water in water intake ? <b>3-3</b> What is the most problem in water for you ? <b>3-4</b> Is there children who didn't go to school because of fetching water ?	1.5 minutes Rainy Season : 10 minutes Dry Season : 3 hrs Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others	Yes, <u>No</u>
4	<b>Memo</b> For fetching water in dry season, caws are used for carrying buckets. <b>4-1</b> Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source.	<u>Yes</u> No	
5	Cultural and Community Property <b>5-1</b> What kind of community property for cultural or religious aspects are existing in the village?	<u>1</u> Mosque <u>2</u> Church	<u>1</u> Public Primary School
	<b>Memo</b>		

(Kisemvule 2/3)

		Check Items	
6	Road Condition to Village	Main : Riwa road	Pave road <u>Y</u> <u>N</u>
		Second :	Pave road <u>Y</u> <u>N</u>
		Third :	Pave road <u>Y</u> <u>N</u>
7	<b>Water source 1</b>	<b>Location</b> : Small valley (Mr. Paul Kimijo Farm)	
	Road Condition	<i>Attentions to Operation and Construction :</i> Not specifically	<b>Pave road</b> : <u>Y</u> <u>N</u>
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to negotiate with land owner through village chairman.	<b>Width of the path</b> : 3 m
			<b>Public</b> : Village Mitta / Ward <b>Informal</b> :
	<b>Water source 2</b>	<b>Location</b> : Small valley (Salim Mmanga Farm)	
	Road Condition	<i>Attentions to Operation and Construction :</i> Not specifically	<b>Pave road</b> : <u>Y</u> <u>N</u>
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to negotiate with land owner through village chairman.	<b>Width of the path</b> : <u>   </u> m
			<b>Public</b> : Village Mitta / Ward <b>Informal</b> :
	<b>Water source 3</b>	<b>Location</b> :	
	Road Condition	<i>Attentions to Operation and Construction :</i>	<b>Pave road</b> : <u>Y</u> <u>N</u>
Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i>	<b>Public</b> : Village Mitta / Ward <b>Informal</b> :	
<b>Storage Tank Location</b>	<b>Location</b> : Near main road (Seleman Mnyota)		
Road Condition	<i>Attentions to Operation and Construction :</i> Not specifically	<b>Pave road</b> : <u>Y</u> <u>N</u>	
Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i>	<b>Width of the path</b> : 8 m	
		<b>Public</b> : Village Mitta / Ward <b>Informal</b> :	
<b>Transmission routes</b>	<i>Is there any Transmission routes whose above on the ground is something important? Not specifically</i>	Yes (No) no need newly to disturb land and existing road	<b>Density</b> - High, Medium, Low
	<b>Memo</b>		

(Kisemvule 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?	No	Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?	No	Yes
	In which point, we should be careful ?		
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?	No	Yes
	In which point, we should be careful ?		
10 Topography and geology	Dose Water source Location change Topography and Geology ?	No	Yes: Why
	Dose Storage Tank Location change Topography and Geology ?	No	Yes: Why
	Dose Transmission change Topography and Geology ?	No	Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>	No	Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	Pit Latrines are commonly used.	
	Are there any wells Latrine 10 m of the <b>planning water source?</b>	No	Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?	No	Yes: Which kinds of species ?
	Dose Storage Tank Condition damage any special Fauna and Flora ?	No	Yes: Which kinds of species ?
	Dose Transmission Main will cross national parks or game reserves and affect ?	No	Yes: Name of reserves : a community reserve along with Kilwa road
14 Noise and vibration	Water source Location : Is there houses / school with 30 m ?	No	Yes: How far m
	Water tank Location: Is there houses/ school with 30 m ?	No	Yes: How far m
	Transmission construction might cause any noise problem ?	No	Yes :

Note :

## Check List of Priority Projects in terms of E&S consideration

Date July 15, 2005 District : Mukuranga Location in Map No: \_\_\_\_\_ Impression of Location \_\_\_\_\_  
 Sheet No. 10 Ward Name : Vikindu \_\_\_\_\_  
 Village Name : Marogoro \_\_\_\_\_  
 Sub Village Name : Marogoro, Sangatini, Mfuru Mwambo (Zingezinge, Kibane, Kigobedi, Kikonga, Songola) \_\_\_\_\_  
 Numbers of Scheme : 1 \_\_\_\_\_  
 (Marogoro 1/3) \_\_\_\_\_

The Full- Scale Study	
Environmental and Social Indicators	Check Items
Questions	Response
1	<p>Current Water Source Condition (Key Informant)</p> <p>1-1 What type of water do you have in your village ?</p> <p>Water from borehole, Spring wells which tend to be dried up during dry season</p>
2	<p>Socio-Economic activities (Key Informant)</p> <p>2-1 How many water venders IN your village?</p> <p>2-2 How much dose it cost in one Tank cost?</p> <p>2-3 What are their social status, education level etc. ?</p> <p>2-4 Are there any Venders who come from OUTSIDE of your Village?</p> <p>3-1 How long dose it take to get to water ?</p> <p>3-2 How long do you need to wait for getting water in water intake ?</p> <p>3-3 What is the most problem in water for you ?</p> <p>3-4 Is there children who didn't go to school because of fetching water ?</p> <p>No</p> <p>Rainy Season : - Tsh Dry Season : - Tsh</p> <p>-</p> <p>No</p> <p>Rainy Season : 25 minutes Dry Season : 60 minutes</p> <p>Dry Season : 30 minutes</p> <p>Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others</p> <p>Yes, (No)</p>
3	<p>Water users - General (Women)</p> <p>Children on Water Fetching (Women or Chairman etc)</p> <p>Memo</p>
4	<p>4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source.</p> <p>5-1 What kind of community property for cultural or religious aspects are existing in the village?</p> <p>Yes, No</p>
5	<p>Cultural and Community Property</p> <p>Memo</p> <p>2 Mosque - Church</p> <p>2 Public Primary School</p>



## (Marogoro 2/3)

		Check Items	
6	Road Condition to Village	Main : Pave road <u>Y</u> <u>N</u>	Density- High, <u>Medium</u> , Low
		Second : Pave road <u>Y</u> <u>N</u>	Density- High, <u>Medium</u> , Low
		Third : Pave road <u>Y</u> <u>N</u>	Density- High, <u>Medium</u> , Low
7	<b>Water source 1</b>	<b>Location :</b> Near Morogoro school	
	Road Condition	<i>Attentions to Operation and Construction :</i> Not specifically	<b>Width of the path :</b> 4 m
	Land Owner		<b>Public :</b> Village Mitta / Ward /District• Municipality <b>Informal :</b>
	<b>Water source 2</b>	<b>Location :</b>	<b>Density-</b> High, Medium, Low
	Road Condition	<i>Attentions to Operation and Construction :</i>	Width of the path <u>  </u> m
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public :</b> Village Mitta / Ward /District• Municipality <b>Informal :</b>
	<b>Water source 3</b>	<b>Location :</b>	<b>Density-</b> High, Medium, Low
	Road Condition	<i>Attentions to Operation and Construction :</i>	Width of the path <u>  </u> m
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public :</b> Village Mitta / Ward /District• Municipality <b>Informal :</b>
	<b>Storage Tank Location</b>	<b>Location :</b>	<b>Density-</b> High, Medium, <u>Low</u>
Road Condition	<i>Attentions to Operation and Construction :</i> Not specifically	<b>Width of the path :</b> 8 m	
Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to ask permission from the land owner and try to do it without any payment.	<b>Public :</b> Village Mitta / Ward /District• Municipality <b>Informal :</b>	
<b>Transmission routes</b>	<i>Is there any Transmission routes whose above on the ground is something important? Not specifically</i>	Yes <u>(No)</u> no need newly to disturb land and existing road	<b>Private :</b> Land use: Agriculture, <b>Type of Crops :</b> Coconuts
	<b>Memo</b>		

(Marogoro 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		Yes <input type="radio"/> No
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?		Yes <input type="radio"/> No
	In which point, we should be careful ?		
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?		Yes <input type="radio"/> No
	In which point, we should be careful ?		
10 Topography and geology	Dose Water source Location change Topography and Geology ?		Yes: Why <input type="radio"/> No
	Dose Storage Tank Location change Topography and Geology ?		Yes: Why <input type="radio"/> No
	Dose Transmission change Topography and Geology ?		Yes: Why <input type="radio"/> No
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>		Yes: How it looks like ? <input type="radio"/> No
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	Pit Latrines are commonly used.	
	Are there any wells Latrine 10 m of the <b>planning water source?</b>		Yes: How it looks like ? <input type="radio"/> No
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?		Yes: Which kinds of species ? <input type="radio"/> No
	Dose Storage Tank Condition damage any special Fauna and Flora ?		Yes: Which kinds of species ? <input type="radio"/> No
	Dose Transmission Main will cross national parks or game reserves and affect ?		Yes: Name of reserves <input type="radio"/> No
14 Noise and vibration			
	Drilling Water source Location : Is there houses / school with 30 m ?		Yes: How far m <input type="radio"/> No
	Construction of Water tank and Transmissions Water tank Location: Is there houses/ school with 30 m ?		Yes: How far m <input type="radio"/> No
	Transmission construction might cause any noise problem ?		Yes : <input type="radio"/> No

**Note :**

## Check List of Priority Projects in terms of E&S consideration

Date July 14, 2005 District : Mukuranga  
 Sheet No. 11 Ward Name : Vikindu  
 Village Name : Vianzi Location in Map No: \_\_\_\_\_ Impression of Location  
 Sub Village Name : Kwajokoo, Mwajasi, Nyamisiki, Vianzi Town, (Chanombe, Honda)  
 Numbers of Scheme : 1

(Vianzi 1/3)

		The Full- Scale Study	
Environmental and Social Indicators	Questions	Check Items	Response
1	Current Water Source Condition (Key Informant) 1-1 What type of water do you have in your village ?	Water from borehole which cost 20 Tsh / bucket, which owned by mosque, water from shallow wells, Ring wells	
2	Socio-Economic activities (Key Informant) 2-1 How many water venders IN your village? 2-2 How much dose it cost in one Tank cost? 2-3 What are their social status, education level etc. ? 2-4 Are there any Venders who come from OUTSIDE of your Village?	Unknown Rainy Season : - Tsh Dry Season : - Tsh - No	
3	Water users - General (Women) 3-1 How long dose it take to get to water ? 3-2 How long do you need to wait for getting water in water intake ? 3-3 What is the most problem in water for you ?	Rainy Season : 30 minutes Dry Season : 30 minutes Rainy Season : 0 minutes Dry Season : 1 hrs	
	Children on Water Fetching (Women or Chairman etc) 3-4 Is there children who didn't go to school because of fetching water ?	Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others Yes, <u>No</u>	
4	Memo 4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source.	<u>Yes</u> No	
5	Cultural and Community Property 5-1 What kind of community property for cultural or religious aspects are existing in the village?	<u>3</u> Mosque <u>7</u> Church	<u>1</u> Public Primary School
	Memo		

(Vianzi 2/3)

		Check Items	
6	Road Condition to Village	Main : good Second : good without paved Third : to the water source	Pave road <u>Y</u> <u>N</u> Pave road <u>Y</u> <u>N</u> Pave road <u>Y</u> <u>N</u>
			Road Width 6 m Road Width 3 m Road Width 3 m
			Density- High, Medium, Low Density- High, Medium, Low Density- High, Medium, Low
7	<b>Water source 1</b>	<b>Location:</b> Near the boundary of Vianzi primary school	
	Road Condition	<i>Attentions to Operation and Construction :</i> Not specifically	<b>Pave road :</b> <u>Y</u> <u>N</u>
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> Negotiation with owner of the land is necessary	<b>Public:</b> Village Mitta / Ward <b>Informal :</b>
	<b>Water source 2</b>	<b>Location :</b>	
	Road Condition	<i>Attentions to Operation and Construction :</i>	<b>Pave road :</b> <u>Y</u> <u>N</u>
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public:</b> Village Mitta / Ward <b>Informal :</b>
	<b>Water source 3</b>	<b>Location :</b>	
	Road Condition	<i>Attentions to Operation and Construction :</i>	<b>Pave road :</b> <u>Y</u> <u>N</u>
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public:</b> Village Mitta / Ward <b>Informal :</b>
	<b>Storage Tank Location</b>	<b>Location:</b> Near the boundary of Vianzi primary school, which is same as water source	
Road Condition	<i>Attentions to Operation and Construction :</i> Not specifically	<b>Pave road :</b> <u>Y</u> <u>N</u>	<b>Width of the path :</b> 6 m
Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to ask permission from the land owner and try to do it without any payment.	<b>Public:</b> Village Mitta / Ward <b>Informal :</b>	<b>Public:</b> Village Mitta / Ward <b>Informal :</b>
<b>Transmission routes</b>	<i>Is there any Transmission routes whose above on the ground is something important? Not specifically</i>	Yes <u>No</u> no need newly to disturb land and existing road	<b>Density- High, Medium, Low</b> <b>Private:</b> Land use: Agriculture, <b>Type of Crops :</b> Coconuts
	<b>Memo</b>		

## (Vianzi 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?	(No)	Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?	(No)	Yes
	In which point, we should be careful ?		
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?	(No)	Yes
	In which point, we should be careful ?		
10 Topography and geology	Dose Water source Location change Topography and Geology ?	(No)	Yes: Why
	Dose Storage Tank Location change Topography and Geology ?	(No)	Yes: Why
	Dose Transmission change Topography and Geology ?	(No)	Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source</b> ?	(No)	Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	Pit Latrines are commonly used.	
	Are there any wells Latrine 10 m of the <b>planning water source</b> ?	(No)	Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?	(No)	Yes: Which kinds of species ?
	Dose Storage Tank Condition damage any special Fauna and Flora ?	(No)	Yes: Which kinds of species ?
	Dose Transmission Main will cross national parks or game reserves and affect ?	(No)	Yes: Name of reserves Community reserves in the village, but no influence on the scheme
14 Noise and vibration			
	Drilling Water source Location : Is there houses / school with 30 m ?	(No)	Yes: How far m
	Construction of Water tank and Transmissions Water tank Location: Is there houses/ school with 30 m ?	(No)	Yes: How far m
	Transmission construction might cause any noise problem ?	(No)	Yes :

Note :

## Check List of Priority Projects in terms of E&S consideration

Date July 13, 2005 District : Mkururaga Location in Map No: \_\_\_\_\_ Impression of Location \_\_\_\_\_  
 Sheet No. 12 Ward Name : Lukanga  
 Village Name : Njopeka  
 Sub Village Name : Mikwasu, Njopeka Mjini, Nyamalonda, (Kingoma Mach, Kingoma Mashariki, Malenda)  
 Numbers of Scheme : 1

(Njopeka 1/3)

The Full- Scale Study		
Environmental and Social Indicators	Questions	Check Items
1	Current Water Source Condition (Key Informant) 1-1 What type of water do you have in your village ?	Water from traditional wells, Hand Dug wells freely  Response
2	Socio-Economic activities (Key Informant) 2-1 How many water vendors IN your village? 2-2 How much dose it cost in one Tank cost? 2-3 What are their social status, education level etc. ? 2-4 Are there any Vendors who come from OUTSIDE of your Village?	No Rainy Season : - Tsh Dry Season : - Tsh - No
3	Water users - General (Women) 3-1 How long dose it take to get to water ? 3-2 How long do you need to wait for getting water in water intake ? 3-3 What is the most problem in water for you ?	Dry Season : 60 - 90 minutes Dry Season : 60 - 90 minutes Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others
4	Children on Water Fetching (Women or Chairman etc) Memo 4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source.	Yes, (No) Water from traditional and dug wells is saline, and amount is not enough. And slope of path is pretty sharp. Yes, No
5	Cultural and Community Property Memo 5-1 What kind of community property for cultural or religious aspects are existing in the village?	2 Mosque 1 Church 1 Public Primary School

(Njopeka 2/3)

		Check Items	
6	Road Condition to Village	<p><b>Main :</b> Good condition</p> <p><b>Second :</b> around village, not bad</p> <p><b>Third :</b> to water source</p>	<p>Pave road <u>Y</u> <u>N</u></p> <p>Pave road <u>Y</u> <u>N</u></p> <p>Pave road <u>Y</u> <u>N</u></p>
7	<b>Water source 1</b>	<p><b>Location :</b> In the valley ( river - annual flow)</p> <p><b>Road Condition</b> <i>Attentions to Operation and Construction :</i> Since road is very narrow within forest, it is very difficult to reach water source.</p> <p><b>Land Owner</b> <i>How should we negotiate and take procedure to acquire the load for this project ?</i> Negotiation is necessary with village chairman, village board, and villagers.</p>	<p>Pave road : <u>Y</u> <u>N</u></p> <p><b>Width of the path :</b> 1 m</p> <p><b>Public:</b> Village Mitta / Ward <b>Informal :</b></p> <p><b>Private:</b> Land use: Agriculture <b>Type of Crops:</b> Cassava</p>
	<b>Water source 2</b>	<p><b>Location :</b></p> <p><b>Road Condition</b> <i>Attentions to Operation and Construction :</i></p> <p><b>Land Owner</b> <i>How should we negotiate and take procedure to acquire the load for this project?</i></p>	<p>Pave road : <u>Y</u> <u>N</u></p> <p>Width of the path ___m</p> <p><b>Public:</b> Village Mitta / Ward <b>Informal :</b></p> <p><b>Private:</b> Land use: <b>Type of Crops:</b></p>
	<b>Water source 3</b>	<p><b>Location :</b></p> <p><b>Road Condition</b> <i>Attentions to Operation and Construction :</i></p> <p><b>Land Owner</b> <i>How should we negotiate and take procedure to acquire the load for this project?</i></p>	<p>Pave road : <u>Y</u> <u>N</u></p> <p>Width of the path ___m</p> <p><b>Public:</b> Village Mitta / Ward <b>Informal :</b></p> <p><b>Private:</b> Land use: <b>Type of Crops:</b></p>
	<b>Storage Tank Location</b>	<p><b>Location :</b> Next to the existing storage tank</p> <p><b>Road Condition</b> <i>Attentions to Operation and Construction :</i> Not specifically</p> <p><b>Land Owner</b> <i>How should we negotiate and take procedure to acquire the load for this project?</i></p>	<p>Pave road : <u>Y</u> <u>N</u></p> <p><b>Width of the path :</b> 5 m</p> <p><b>Public:</b> Village Mitta / Ward <b>Informal :</b></p> <p><b>Private:</b> Land use: <b>Type of Crops:</b></p>
	<b>Transmission routes</b>	<p><i>How should we negotiate and take procedure to acquire the load for this project ?</i> Negotiation is necessary with village chairman, village board, and villagers.</p> <p><i>Is there any Transmission routes whose above on the ground is something important? Not specifically</i></p>	<p><b>Private:</b> Land use: Agriculture, <b>Type of Crops :</b> Coconuts</p> <p>Yes (No) no need newly to disturb land and existing road</p>
	<b>Memo</b>	For transmission route, there is a gas pipe line which can be useful but carefully handle it.	

(Njopeka 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?		Yes
	In which point, we should be careful ?		
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?		Yes
	In which point, we should be careful ?		
10 Topography and geology	Dose Water source Location change Topography and Geology ?		Yes: Why
	Dose Storage Tank Location change Topography and Geology ?		Yes: Why
	Dose Transmission change Topography and Geology ?		Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>		Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	Pit Latrines and dug holes by hand.	
	Are there any wells Latrine 10 m of the <b>planning water source?</b>		Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?		Yes: Which kinds of species ?
	Dose Storage Tank Condition damage any special Fauna and Flora ?		Yes: Which kinds of species ?
	Dose Transmission Main will cross national parks or game reserves and affect ?		Yes: Name of reserves
14 Noise and vibration		Very little vibration	
	Water source Location : Is there houses / school with 30 m ?		Yes: How far m
	Water tank Location: Is there houses/ school with 30 m ?		Yes: How far m
	Transmission construction might cause any noise problem ?		Yes :

**Note :**



## Check List of Priority Projects in terms of E&S consideration

Date June 20, 2005 District : Ilala Location in Map No: \_\_\_\_\_ Impression of Location \_\_\_\_\_  
 Sheet No. 13 Ward Name : Kitunda  
 Village Name : Kitunda  
 Sub Village Name : (Mzinga @Kivule, (Kipunguni Machimbo, Kitunda Kati)  
 Numbers of Scheme : 3

(Kitunda 1/3)

The Full- Scale Study		
Environmental and Social Indicators	Questions	Check Items
		Response
1	Current Water Source Condition (Key Informant) 1-1 What type of water do you have in your village ?	Water from shallow wells, boreholes, rives etc.
2	Socio-Economic activities (Key Informant) 2-1 How many water venders IN your village? 2-2 How much dose it cost in one Tank cost? 2-3 What are their social status, education level etc. ? 2-4 Are there any Venders who come from OUTSIDE of your Village?	10-15 persons Rainy Season : - Tsh Dry Season : - Tsh - Yes, from next village
3	Water users - General (Women) 3-1 How long dose it take to get to water ? 3-2 How long do you need to wait for getting water in water intake ? 3-3 What is the most problem in water for you ?	Rainy Season : 20-30 minutes Dry Season : 40 minutes from river Rainy Season : 40 minutes Dry Season : 0 minutes because it is from river Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others
	Children on Water Fetching (Women or Chairman etc) 3-4 Is there children who didn't go to school because of fetching water ?	<input checked="" type="checkbox"/> Yes No,
	<b>Memo</b> Water sources are available if villagers don't care not matter how bad it is.	
4	Split of community 4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water sources ?	<input checked="" type="checkbox"/> Yes No
5	Cultural and Community Property 5-1 What kind of community property for cultural or religious aspects are existing in the village? <b>Memo</b> There are another water supply project existing by NGO, Plan International. The JICA Study Team appropriately demarcated the area for support.	4 Public Primary School 2 Public Secondary School which is under construction Unknown Mosque 1 Church

(Kitunda 2/3)

		Check Items					
6	Road Condition to Village	<b>Main :</b> Main road from Dar es Salaam <b>Second :</b> <b>Third :</b> inside of the village to water source Roads to Muzinga in the village are extremely narrow and even worse getting ramify for construction, road arrangement plan should be considered. On the other hands, to Kivule, road condition is not so bad which allow larger trucks in	Pave road <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Pave road <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Pave road <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Road Width 12 m Road Width 8 m Road Width 2 - 3 m	Density- High, Medium, Low Density- High, Medium, Low Density- High, Medium, Low		
7	<b>Water source 1</b> Road Condition Land Owner	<b>Location:</b> ①Mzinga Refer to the location <i>Attentions to Operation and Construction :</i> Roads are pretty narrow and there are many villagers walking around, therefore, size of trucks need to be carefully selected and enough attention to walkers <i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to ask permission from the land owner and try to do it without any payment.	Pave road : <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Width of the path : 3 m <b>Public:</b> Village Mitta / Ward <b>Informal :</b>	Density- High, Medium, Low <b>Private:</b> Land use: <b>Type of Crops:</b>		
	<b>Water source 2</b> Road Condition Land Owner	<b>Location :</b> ②Kivule-Mbonea, near ward office <i>Attentions to Operation and Construction :</i> Not really, but it is facing main road so special attention is needed to villagers <i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to ask permission from the land owner and try to do it without any payment.	Pave road : <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Width of the path 8 m <b>Public:</b> Village Mitta / Ward <b>Informal :</b>	Density- High, Medium, Low <b>Private:</b> Land use: Agriculture <b>Type of Crops :</b>		
	<b>Storage Tank Location 1</b> Road Condition Land Owner	<b>Location :</b> ①Mzinga Refer to the location i <i>Attentions to Operation and Construction :</i> Not specifically <i>How should we negotiate and take procedure to acquire the load for this project ?</i> Negotiation with village chairman is needed.	Pave road : <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Width of the path : 3 m <b>Public:</b> Village Mitta / Ward <b>Informal :</b>	Density- High, Medium, Low <b>Private:</b> Land use: <b>Type of Crops :</b>		
	<b>Storage Tank Location 2</b> Road Condition Land Owner	<b>Location :</b> ②Kivule-Mbonea, near ward office <i>Attentions to Operation and Construction :</i> Not really, but it is facing main road so special attention is needed to villagers walking around. <i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to ask permission from the land owner and try to do it without any payment. <i>Is there any Transmission routes whose above on the ground is something important?</i>	Pave road : <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Width of the path : 8 m <b>Public:</b> Village Mitta / Ward <b>Informal :</b> Yes : <input checked="" type="checkbox"/> NG : Along with existing main road	Density- High, Medium, Low <b>Private:</b> Land use: Agriculture, <b>Type of Crops :</b> Coconuts		
	<b>Transmission routes</b>						
	<b>Memo</b>	There are a existing pipe 2 m below from ground. This area kept for development, however, using the existing pipe, no need to disturb any land.					

(Kitunda 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		Yes <input type="radio"/> No
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?		Yes <input type="radio"/> No
	In which point, we should be careful ?		
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?		Yes <input type="radio"/> No
	In which point, we should be careful ?		
10 Topography and geology	Dose Water source Location change Topography and Geology ?		Yes; Why <input type="radio"/> No
	Dose Storage Tank Location change Topography and Geology ?		Yes; Why <input type="radio"/> No
	Dose Transmission change Topography and Geology ?		Yes; Why <input type="radio"/> No
11 Groundwater	Are there any wells within <b>100 m of the planning water source</b> ?		Yes: How it looks like ? <input type="radio"/> No
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	Pit Latrines are commonly used.	
	Are there any wells Latrine 10 m of the <b>planning water source</b> ?		Yes: How it looks like ? <input type="radio"/> No
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?		Yes: Which kinds of species ? <input type="radio"/> No
	Dose Storage Tank Condition damage any special Fauna and Flora ?		Yes: Which kinds of species ? <input type="radio"/> No
	Dose Transmission Main will cross national parks or game reserves and affect ?		Yes: Name of reserves <input type="radio"/> No
14 Noise and vibration			
	Drilling Water source Location : Is there houses / school with 30 m ?		Yes: How far m <input type="radio"/> No
	Construction of Water tank and Transmissions Water tank Location: Is there houses/ school with 30 m ?		Yes: How far m <input type="radio"/> No
	Transmission construction might cause any noise problem ?		Yes : <input type="radio"/> No

**Note :**

## Check List of Priority Projects in terms of E&S consideration

Date June 21, 2005 District : Ilala  
 Sheet No. 14 Ward Name : Msongola  
 Village Name : Msongola  
 Sub Village Name : Yange Yamge, (Mbondole, Kitonga, Mvuleni)  
 Numbers of Scheme : 1

(Msongola 1/3)

Location in Map No: \_\_\_\_\_

Impression of Location

The Full- Scale Study		
Environmental and Social Indicators	Questions	Check Items
		Response
1	Current Water Source Condition (Key Informant) 1-1 What type of water do you have in your village ?	Water from traditional wells
2	Socio-Economic activities (Key Informant) 2-1 How many water vendors IN your village? 2-2 How much dose it cost in one Tank cost? 2-3 What are their social status, education level etc. ? 2-4 Are there any Vendors who come from OUTSIDE of your Village?	Unknown Rainy Season : - Tsh Dry Season : - Tsh
3	Water users - General (Women) 3-1 How long dose it take to get to water ? 3-2 How long do you need to wait for getting water in water intake ? 3-3 What is the most problem in water for you ?	No Rainy Season : 30 minutes Dry Season : 30 minutes Rainy Season : 0 minutes Dry Season : 1 hrs
	Children on Water Fetching (Women or Chairman etc) 3-4 Is there children who didn't go to school because of fetching water ?	Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others Yes, (No)
4	Memo 4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source ?	Yes, No
5	Cultural and Community Property Memo 5-1 What kind of community property for cultural or religious aspects are existing in the village?	1. Mosque 2. Church 1. Public Primary School

(Msongola 2/3)

		Check Items	
6	Road Condition to Village	Main : Pave road <u>Y</u> <u>N</u>	Density- High, Medium, Low
		Second : Pave road <u>Y</u> <u>N</u>	Density- High, Medium, Low
		Third : Pave road <u>Y</u> <u>N</u>	Density- High, Medium, Low
7	<b>Water source 1</b>		
	Road Condition	<b>Location :</b> <i>Attentions to Operation and Construction :</i> Not specifically	<b>Width of the path :</b> 4 m
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to ask permission from the land owner and try to do it without any payment.	<b>Public:</b> Village Mitta / Ward /District• Municipality <b>Informal :</b>
	<b>Water source 2</b>		
	Road Condition	<b>Location :</b> <i>Attentions to Operation and Construction :</i>	Width of the path ___m
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public:</b> Village Mitta / Ward /District• Municipality <b>Informal :</b>
	<b>Water source 3</b>		
	Road Condition	<b>Location :</b> <i>Attentions to Operation and Construction :</i>	Width of the path ___m
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public:</b> Village Mitta / Ward /District• Municipality <b>Informal :</b>
	<b>Storage Tank Location</b>		
Road Condition	<b>Location :</b> <i>Attentions to Operation and Construction :</i> Not specifically	<b>Width of the path :</b> 8 m	Density- High, Medium, Low
Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to ask permission from the land owner and try to do it without any payment.	<b>Public:</b> Village Mitta / Ward /District• Municipality <b>Informal :</b>	<b>Private:</b> Land use: Agriculture, <b>Type of Crops :</b> Coconuts
<b>Transmission routes</b>	<i>Is there any Transmission routes whose above on the ground is something important? Not specifically</i>	Yes (No) no need newly to disturb land and existing road	
	<b>Memo</b>		

(Msongola 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		Yes <input type="radio"/> No
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?		Yes <input type="radio"/> No
	In which point, we should be careful ?		
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?		Yes <input type="radio"/> No
	In which point, we should be careful ?		
10 Topography and geology	Dose Water source Location change Topography and Geology ?		Yes: Why <input type="radio"/> No
	Dose Storage Tank Location change Topography and Geology ?		Yes: Why <input type="radio"/> No
	Dose Transmission change Topography and Geology ?		Yes: Why <input type="radio"/> No
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>		Yes: How it looks like ? <input type="radio"/> No
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	Pit Latrines are commonly used.	
	Are there any wells Latrine 10 m of the <b>planning water source?</b>		Yes: How it looks like ? <input type="radio"/> No
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?		Yes: Which kinds of species ? <input type="radio"/> No
	Dose Storage Tank Condition damage any special Fauna and Flora ?		Yes: Which kinds of species ? <input type="radio"/> No
	Dose Transmission Main will cross national parks or game reserves and affect ?		Yes: Name of reserves <input type="radio"/> No
14 Noise and vibration			
	Drilling Water source Location : Is there houses / school with 30 m ?		Yes: How far m <input type="radio"/> No
	Construction of Water tank and Transmissions Water tank Location: Is there houses/ school with 30 m ?		Yes: How far m <input type="radio"/> No
	Transmission construction might cause any noise problem ?		Yes : <input type="radio"/> No

**Note :**

## Check List of Priority Projects in terms of E&S consideration

Date July 21, 2005 District : Ilala  
 Sheet No. 15 Ward Name : Pugu  
 Village Name : Pugu Station  
 Sub Village Name : Kichangai, Pugu Station, (Bangulo)  
 Numbers of Scheme : 1

Location in Map No: \_\_\_\_\_  
 Impression of Location \_\_\_\_\_

(Pugu Station 1/3)

The Full- Scale Study		
Environmental and Social Indicators	Questions	Check Items
1	Current Water Source Condition (Key Informant) 1-1 What type of water do you have in your village ?	Water from Ring wells - 50 Tsh / Tank Saline Water of Ring wells - 20Tsh/ Tank
2	Socio-Economic activities (Key Informant) 2-1 How many water venders IN your village? 2-2 How much dose it cost in one Tank cost? 2-3 What are their social status, education level etc. ? 2-4 Are there any Venders who come from OUTSIDE of your Village?	4 persons Rainy Season : 150 Tsh Dry Season : 120 Tsh Completed primary education Yes
3	Water users - General (Women) 3-1 How long dose it take to get to water ? 3-2 How long do you need to wait for getting water in water intake ? 3-3 What is the most problem in water for you ?	Rainy Season : 15 minutes Dry Season : 30 minutes Rainy Season : 10-15 minutes Dry Season : 3 hrs Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others
	Children on Water Fetching (Women or Chairman etc) 3-4 Is there children who didn't go to school because of fetching water ?	Yes, <u>No</u>
4	Split of community 4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source in terms of village perspective	<u>Yes</u> , No
5	Cultural and Community Property 5-1 What kind of community property for cultural or religious aspects are existing in the village?	<u>1</u> Mosque <u>1</u> Church <u>1</u> Public Secondary School <u>1</u> Private Primary School
	Memo	

(Pugu Station 2/3)

		Check Items		
6	Road Condition to Village	Main : Pave road <u>Y</u> <u>N</u>	Road Width <u>  </u> m	Density- High, Medium, Low
		Second : Pave road <u>Y</u> <u>N</u>	Road Width <u>  </u> m	Density- High, Medium, Low
		Third : Pave road <u>Y</u> <u>N</u>	Road Width <u>  </u> m	Density- High, Medium, Low
7	<b>Water source 1</b>	<b>Location :</b> Pugu Mhadani		
	Road Condition	<i>Attentions to Operation and Construction :</i> Special attentions should be taken due to the high population, those who are selling livestock.	<b>Pave road :</b> <u>Y</u> <u>N</u>	<b>Width of the path :</b> 4 m
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> ? Negotiation with Director of Ilala Municipality is needed.	<b>Public :</b> Village Mitta / Ward / District • Municipality	<b>Private :</b> Land use: Type of Crops:
	<b>Water source 2</b>	<b>Location :</b>		
	Road Condition	<i>Attentions to Operation and Construction :</i>	<b>Pave road :</b> <u>Y</u> <u>N</u>	Width of the path <u>  </u> m
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public :</b> Village Mitta / Ward / District • Municipality	<b>Private :</b> Land use: Type of Crops:
	<b>Water source 3</b>	<b>Location :</b>		
	Road Condition	<i>Attentions to Operation and Construction :</i>	<b>Pave road :</b> <u>Y</u> <u>N</u>	Width of the path <u>  </u> m
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public :</b> Village Mitta / Ward / District • Municipality	<b>Private :</b> Land use: Type of Crops:
	<b>Storage Tank Location</b>	<b>Location :</b> Mr. Mchems farm		
Road Condition	<i>Attentions to Operation and Construction :</i> It might be necessary to construct or widen the road since existing path to the location is ultimately narrow.	<b>Pave road :</b> <u>Y</u> <u>N</u>	<b>Width of the path :</b> 1 m	Density- High, Medium, Low
Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> ? Negotiation will be needed closely with the Land owner and discussion on compensation	<b>Public :</b> Village Mitta / Ward / District • Municipality	<b>Private :</b> Land use: Agriculture, Type of Crops : Oranges,	
<b>Transmission routes</b>	<i>Is there any Transmission routes whose above on the ground is something important?</i>	Yes (No) Along with existing Oil/Gas pipe and road, no need newly to disturb land and existing road		TAZAMA OIL PIPELINE
<b>Memo</b>	Across the road where water pipe is planned to pass and it is about transmission in depth from the round and 0.3 m diameter.			



(Pugu Station 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		No Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?		No Yes
	In which point, we should be careful ?		
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?		No Yes
	In which point, we should be careful ?		
10 Topography and geology	Dose Water source Location change Topography and Geology ?		No Yes: Why
	Dose Storage Tank Location change Topography and Geology ?		No Yes: Why
	Dose Transmission change Topography and Geology ?		No Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>		No Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.		Pit Latrines are commonly used. Each house has one at least about 5 m away from house.
	Are there any wells Latrine 10 m of the <b>planning water source?</b>		No Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?		No Yes: Which kinds of species ?
	Dose Storage Tank Condition damage any special Fauna and Flora ?		No Yes: Which kinds of species ?
	Dose Transmission Main will cross national parks or game reserves and affect ?		No Yes: Name of reserves
14 Noise and vibration			
	Drilling Water source Location : Is there houses \ school with 30 m ?		No Yes: How far 30m
	Construction of Water tank and Transmissions Water tank Location: Is there houses school with 30 m ?		No Yes: How far 20m
	Transmission construction might cause any noise problem ?		No Yes: Near by the house

Note :

### Check List of Priority Projects in terms of E&S consideration

Date July 11, 2005 District : Kinondoni Location in Map No: \_\_\_\_\_ Impression of Location \_\_\_\_\_  
 Sheet No. 16 Ward Name : Goba  
 Village Name : Matosa  
 Sub Village Name : Matosa, (Mkunguni, Tegeta)  
 Numbers of Scheme : 1

( Matosa 1/3)

The Full- Scale Study		
Environmental and Social Indicators	Questions	Check Items Response
1	1-1 What type of water do you have in your village ?	Borehole water provided from factory, Water from traditional wells and ponds
2	2-1 How many water venders IN your village? 2-2 How much dose it cost in one Tank cost? 2-3 What are their social status, education level etc. ? 2-4 Are there any Venders who come from OUTSIDE of your Village?	- Rainy Season : 150 Tsh Dry Season : 200 Tsh Completed primary school Some
3	3-1 How long dose it take to get to water ? 3-2 How long do you need to wait for getting water in water intake ? 3-3 What is the most problem in water for you ?	30 minutes 3-4 hours Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others
	3-4 Is there children who didn't go to school because of fetching water ?	Yes, <input type="radio"/> No <input checked="" type="radio"/>
4	Memo Amount of traditional spring is very limited and quality is not good with white muddy 4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source?	<input checked="" type="radio"/> Yes <input type="radio"/> No
5	5-1 What kind of community property for cultural or religious aspects are existing in the village?	6 Mosque 5 Church 2 Public Primary School
	Memo	

( Matosa 2/3)

		Check Items	
6	Road Condition to Village	<p><b>Main :</b> from Morogoro road to the Matosa</p> <p><b>Second :</b> Mandela / Mono / Matipwili</p> <p><b>Third :</b> inside of the village to water source</p> <p>The main road is not paved but still with smooth, and the second road is getting narrow, but not so terribly bad, which allow 4WD to access water source</p> <p><b>Location:</b> Close to bridge, which is near by Ms. Ktuzi's house</p>	<p>Pave road <input checked="" type="checkbox"/> N</p> <p>Pave road <input checked="" type="checkbox"/> N</p> <p>Pave road <input checked="" type="checkbox"/> N</p>
			<p>Road Width <u>5</u> m</p> <p>Road Width <u>3</u> m</p> <p>Road Width <u>2</u> m</p>
7	<b>Water source 1</b>		<p><b>Pave road :</b> <input checked="" type="checkbox"/> N</p>
	Road Condition	<p><b>Attentions to Operation and Construction :</b></p> <p>Just the road is narrow, and slop is sharp like up side down.</p>	<p><b>Width of the path :</b> <u>5</u> m</p>
	Land Owner	<p><i>How should we negotiate and take procedure to acquire the land for this project ?</i></p> <p>Since the location is alluvial fun inside of river without any informal cultivation even, so no need negotiation.</p>	<p><b>Public:</b> Village Mitta / Ward / District • Municipality</p> <p><b>Informal :</b></p>
		<p><b>Location :</b></p> <p><b>Attentions to Operation and Construction :</b></p>	<p><b>Private:</b> Land use: Agriculture</p> <p><b>Type of Crops:</b> Cassava</p>
<b>Water source 2</b>		<p><b>Pave road :</b> <input type="checkbox"/> N</p>	<p>Width of the path <u>   </u> m</p>
Road Condition	<p><b>Attentions to Operation and Construction :</b></p>	<p><b>Public:</b> Village Mitta / Ward / District • Municipality</p> <p><b>Informal :</b></p>	<p><b>Density-</b> High, Medium, Low</p>
Land Owner	<p><i>How should we negotiate and take procedure to acquire the land for this project?</i></p>		<p><b>Private:</b> Land use:</p> <p><b>Type of Crops:</b></p>
<b>Water source 3</b>		<p><b>Pave road :</b> <input type="checkbox"/> N</p>	<p>Width of the path <u>   </u> m</p>
Road Condition	<p><b>Attentions to Operation and Construction :</b></p>	<p><b>Public:</b> Village Mitta / Ward / District • Municipality</p> <p><b>Informal :</b></p>	<p><b>Density-</b> High, Medium, Low</p>
Land Owner	<p><i>How should we negotiate and take procedure to acquire the land for this project?</i></p>		<p><b>Private:</b> Land use:</p> <p><b>Type of Crops:</b></p>
<b>Storage Tank Location</b>		<p><b>Pave road :</b> <input checked="" type="checkbox"/> N</p>	<p>Width of the path <u>3</u> m</p>
Road Condition	<p><b>Location :</b> Mr Omari Demoso's land facing cross section</p> <p><b>Attentions to Operation and Construction :</b></p> <p>Not specifically</p>	<p><b>Public:</b> Village Mitta / Ward / District • Municipality</p> <p><b>Informal :</b></p>	<p><b>Density-</b> High, Medium, Low</p>
Land Owner	<p><i>How should we negotiate and take procedure to acquire the land for this project ?</i></p> <p>It is necessary to negotiate with village chairman and the land owner. But according to villagers, compensation will be done gently with understanding of the owner for common and valuable property, water.</p>		<p><b>Private:</b> Land use:</p> <p>Agriculture,</p> <p><b>Type of Crops :</b>Coconuts</p>
<b>Transmission routes</b>	<p><i>Is there any Transmission routes whose above on the ground is something important?</i></p> <p>Not specifically since there is nothing above ground something is important</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>: no need newly to disturb land and existing road</p>	
	<b>Memo</b>		

( Matosa 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		No Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ? In which point, we should be careful ? Is there any risk point for <b>Storage Tank Construction or Operation</b> ? In which point, we should be careful ?		No Yes No Yes
10 Topography and geology	Dose Water source Location change Topography and Geology ? Dose Storage Tank Location change Topography and Geology ? Dose Transmission change Topography and Geology ?		No Yes: Why No Yes: Why No Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>		No Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition. Are there any wells Latrine 10 m of the <b>planning water source?</b>	Pit Latrines are commonly used.	No Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ? Dose Storage Tank Condition damage any special Fauna and Flora ? Dose Transmission Main will cross national parks or game reserves and affect ?		No Yes: Which kinds of species ? No Yes: Which kinds of species ? No Yes: Name of reserves
14 Noise and vibration	Water source Location : Is there houses / school with 30 m ? Water tank Location: Is there houses/ school with 30 m ? Transmission construction might cause any noise problem ?		No Yes: How far m No Yes: How far 10 m No Yes :

**Note :**

## Check List of Priority Projects in terms of E&S consideration

Date June 24, 2005 District : Jemeke  
 Sheet No. 17 Ward Name : Pemba Mhazi  
 Village Name : YaleYale Puna Location in Map No: \_\_\_\_\_ Impression of Location \_\_\_\_\_  
 Sub Village Name : Kibungo, Kwamorisi, Puna Center  
 Numbers of Scheme : 1

(YaleYale Puna 1/3)

The Full- Scale Study		
Environmental and Social Indicators	Questions	Check Items Response
1	Current Water Source Conditon (Key Informant) <b>1-1</b> What type of water do you have in your village ?	Traditional wells, and ring wells Yield is poor and water is saline
2	Socio-Economic activities (Key Informant) <b>2-1</b> How many water venders IN your village? <b>2-2</b> How much dose it cost in one Tank cost? <b>2-3</b> What are their social status, education level etc. ? <b>2-4</b> Are there any Venders who come from OUTSIDE of your Village?	5 persons 1.50 Tsh Completed primary school Yes
3	Water users - General (Women) <b>3-1</b> How long dose it take to get to water ? <b>3-2</b> How long do you need to wait for getting water in water intake ? <b>3-3</b> What is the most problem in water for you ?	Dry Season : 45 minutes Dry Season : 60 minutes Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others
	Children on Water Fetching (Women or Chairman etc) <b>3-4</b> Is there children who didn't go to school because of fetching water ?	Yes, (No)
4	<b>Memo</b> Path is over grass and snakes and pigs are showing up. <b>4-1</b> Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source.	Yes, No
5	Cultural and Community Property <b>5-1</b> What kind of community property for cultural or religious aspects are existing in the village?	3 Mosque 4 Church 1 Public Primary School
	<b>Memo</b>	

## (YaleYale Puna 2/3)

		Check Items	
6	Road Condition to Village	Main : A half paved Pave road <u>Y N</u>	Density- High, Medium, Low
		Second : Getting gradually narrow Pave road <u>Y N</u>	Density- High, Medium, Low
		Third : inside of the village to water source Pave road <u>Y N</u>	Density- High, Medium, Low
7	<b>Water source 1</b>	<b>Location :</b> Up side of river	
	Road Condition	<i>Attentions to Operation and Construction :</i> In tide saline comes up to the river from the sea, but it is up more between 100-150 m.	<b>Width of the path :</b> 3 m <b>Density- High, Medium, Low</b>
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> _____ It is necessary to negotiate with local government / Mitta.	<b>Public:</b> Village Mitta / Ward /District• Municipality <b>Informal :</b>
	<b>Water source 2</b>	<b>Location :</b>	
	Road Condition	<i>Attentions to Operation and Construction :</i>	Width of the path _____ m <b>Density- High, Medium, Low</b>
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public:</b> Village Mitta / Ward /District• Municipality <b>Informal :</b>
	<b>Water source 3</b>	<b>Location :</b>	
	Road Condition	<i>Attentions to Operation and Construction :</i>	Width of the path _____ m <b>Density- High, Medium, Low</b>
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public:</b> Village Mitta / Ward /District• Municipality <b>Informal :</b>
	<b>Storage Tank Location</b>	<b>Location :</b>	
Road Condition	<i>Attentions to Operation and Construction :</i> Not specifically	<b>Width of the path :</b> 2.5 m <b>Density- High, Medium, Low</b>	
Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> It is necessary to negotiate with the land owner and local government.	<b>Public:</b> Village Mitta / Ward /District• Municipality <b>Informal :</b>	
<b>Transmission routes</b>	<i>Is there any Transmission routes whose above on the ground is something important? Not specifically</i>	Yes (No) no need newly to disturb land and existing road	<b>Private:</b> Land use: Farm <b>Type of Crops :</b>
	<b>Memo</b>		

(YaleYale Puna 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		No Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ? In which point, we should be careful ? Is there any risk point for <b>Storage Tank Construction or Operation</b> ? In which point, we should be careful ?		No Yes No Yes
10 Topography and geology	Dose Water source Location change Topography and Geology ? Dose Storage Tank Location change Topography and Geology ? Dose Transmission change Topography and Geology ?		No Yes: Why No Yes: Why No Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>		No Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition. Are there any wells Latrine 10 m of the <b>planning water source?</b>	Pit Latrines are commonly used.	No Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ? Dose Storage Tank Condition damage any special Fauna and Flora ? Dose Transmission Main will cross national parks or game reserves and affect ?		No Yes: Which kinds of species ? No Yes: Which kinds of species ? No Yes: Name of reserves
14 Noise and vibration	Drilling Water source Location : Is there houses / school with 30 m ? Construction of Water tank and Transmissions Water tank Location: Is there houses/ school with 30 m ? Transmission construction might cause any noise problem ?		No Yes: How far m No Yes: How far m No Yes :

**Note :**

## Check List of Priority Projects in terms of E&S consideration

Date June 23, 2005 District : Jemeke  
 Sheet No. 18 Ward Name : Pembambazi  
 Village Name : Tundwi Songani Location in Map No: \_\_\_\_\_ Impression of Location  
 Sub Village Name : Nvange, Songani, Tundwi, (Kighangani, Muhimbili)  
 Numbers of Scheme : 1

(Tundwi Songani 1/3)

The Full- Scale Study		
Environmental and Social Indicators	Questions	Check Items
		Response
1	Current Water Source Condition (Key Informant) 1-1 What type of water do you have in your village ?	Water from dug wells and shallow wells and 3 persons Rainy Season : 150 Tsh Dry Season : - Tsh Completed or dropped out primary school. No
2	Socio-Economic activities (Key Informant) 2-1 How many water venders IN your village? 2-2 How much dose it cost in one Tank cost? 2-3 What are their social status, education level etc. ? 2-4 Are there any Venders who come from OUTSIDE of your Village?	Rainy Season : 1 hour Dry Season : Same as rainy season Rainy Season : 5 minutes Dry Season : 30 - 40 minutes
3	Water users - General (Women) 3-1 How long dose it take to get to water ? 3-2 How long do you need to wait for getting water in water intake ? 3-3 What is the most problem in water for you ?	Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others Yes, (No)
4	Children on Water Fetching (Women or Chairman etc) <b>Memo</b> The water quality is not so bad without saline. 4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source.	Yes, (No)
5	Cultural and Community Property <b>Memo</b> 5-1 What kind of community property for cultural or religious aspects are existing in the village?	1. Mosque 2. Church 2 Public Primary School



(Tundwi Songani 2/3)

		Check Items	
6	Road Condition to Village	<p><b>Main</b> : from Mukuranga - larger road</p> <p><b>Second</b> : Getting narrow</p> <p><b>Third</b> : Only foot path</p>	<p>Pave road <u>Y</u> <u>N</u></p> <p>Pave road <u>Y</u> <u>N</u></p> <p>Pave road <u>Y</u> <u>N</u></p>
			<p>Road Width <u>10</u> m</p> <p>Road Width <u>3</u> m</p> <p>Road Width <u>2.5</u> m</p>
7	<b>Water source 1</b>	<p><b>Location</b>: Muhimbili</p>	
	Road Condition	<p><i>Attentions to Operation and Construction</i> :</p> <p>Since it seems that food path to reach the location is narrow, so it might be better to make another road to reach</p>	<p><b>Pave road</b> : <u>Y</u> <u>N</u> Foot path</p>
	Land Owner	<p><i>How should we negotiate and take procedure to acquire the load for this project</i> ? <u>      </u> It is necessary to negotiate with the land owner together with local government/Mitaa.</p>	<p><b>Public</b>: Village Mitta / Ward / District • Municipality</p> <p><b>Informal</b> :</p>
	<b>Water source 2</b>	<p><b>Location</b> : Tundui</p>	
	Road Condition	<p><i>Attentions to Operation and Construction</i> :</p>	<p>Width of the path <u>2.5</u> m</p>
	Land Owner	<p><i>How should we negotiate and take procedure to acquire the load for this project</i> ? <u>      </u> It is necessary to negotiate with the land owner together with local government/Mitaa.</p>	<p><b>Public</b>: Village Mitta / Ward / District • Municipality</p> <p><b>Informal</b> :</p>
	<b>Water source 3</b>	<p><b>Location</b> : In the Valley</p>	
	Road Condition	<p><i>Attentions to Operation and Construction</i> :</p> <p>It will not have any problem, however, there is a existing boreholes near.</p>	<p><b>Pave road</b> : <u>Y</u> <u>N</u></p>
	Land Owner	<p><i>How should we negotiate and take procedure to acquire the load for this project</i> ? <u>      </u> It is necessary to negotiate with the land owner together with local government/Mitaa.</p>	<p><b>Public</b>: Village Mitta / Ward / District • Municipality</p> <p><b>Informal</b> :</p>
	<b>Storage Tank Location</b>	<p><b>Location</b> : School area</p>	
	Road Condition	<p><i>Attentions to Operation and Construction</i> :</p> <p>There are broken, intake, collapsed tank near by. Borehole functioned between 1085. .... 12001</p>	<p><b>Width of the path</b> : <u>3-4</u> m</p>
	Land Owner	<p><i>How should we negotiate and take procedure to acquire the load for this project</i> ? <u>      </u> It is necessary to negotiate with local government/Mitaa, Municipality, school members.</p>	<p><b>Public</b>: Village Mitta / Ward / District • Municipality</p> <p><b>Informal</b> :</p>
	<b>Transmission routes</b>	<p><i>Is there any Transmission routes whose above on the ground is something important?</i> <u>Not specifically</u></p>	<p>Yes / No; no need newly to disturb land and existing road</p>
	<b>Memo</b>		

(Tundwi Songani 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		No Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?		No Yes
	In which point, we should be careful ?	Since primary school is near by, therefore, special attentions of construction are needed. Like	
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?		No Yes
	In which point, we should be careful ?	During rainy season, ear handling should be carefully not to get stuck	
10 Topography and geology	Dose Water source Location change Topography and Geology ?		No Yes: Why
	Dose Storage Tank Location change Topography and Geology ?		No Yes: Why
	Dose Transmission change Topography and Geology ?		No Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>		No Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	Pit Latrines are commonly used.	
	Are there any wells Latrine 10 m of the <b>planning water source?</b>		No Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?		No Yes: Which kinds of species ?
	Dose Storage Tank Condition damage any special Fauna and Flora ?		No Yes: Which kinds of species ?
	Dose Transmission Main will cross national parks or game reserves and affect ?		No Yes: Name of reserves
14 Noise and vibration		Although it is out of the scheme area, there is community reserve for development which extend 30 hectares.	
	Water source Location : Is there houses / school with 30 m ?		No Yes: How far m
	Water tank Location: Is there houses/ school with 30 m ?		No Yes: How far m
	Transmission construction might cause any noise problem ?		No Yes :

Note :

## Check List of Priority Projects in terms of E&S consideration

Date July 19, 2005 District : Jemeke  
 Sheet No. 19 Ward Name : Mjimwema  
 Village Name : Mjimwema Location in Map No: \_\_\_\_\_ Impression of Location  
 Sub Village Name : Salanga, Jiwe La Adabu, Mjimwema, Tangwani  
 Numbers of Scheme : 1

(Mjimwema 1/3)

The Full- Scale Study		
Environmental and Social Indicators	Questions	Check Items
		Response
1	Current Water Source Condition (Key Informant) <b>1-1</b> What type of water do you have in your village ?	Water from traditional hand dug wells and others
2	Socio-Economic activities (Key Informant) <b>2-1</b> How many water venders IN your village? <b>2-2</b> How much dose it cost in one Tank cost? <b>2-3</b> What are their social status, education level etc. ? <b>2-4</b> Are there any Venders who come from OUTSIDE of your Village?	40 persons 100 Tsh Primary/Shcool No
3	Water users - General (Women) <b>3-1</b> How long dose it take to get to water ? <b>3-2</b> How long do you need to wait for getting water in water intake ? <b>3-3</b> What is the most problem in water for you ?	Internal venders to bring water to house. 20- 30 minutes 16-20 minutes Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others
4	Children on Water Fetching (Women or Chairman etc) <b>3-4</b> Is there children who didn't go to school because of fetching water ?  <b>Memo</b> Water from traditional dug well is saline, but quantity is enough, but path to reach water source is slope, and some people lives far away.	Yes, <u>No</u>  <u>Yes</u> No
5	Cultural and Community Property <b>5-1</b> What kind of community property for cultural or religious aspects are existing in the village?  <b>Memo</b>	<u>3</u> Mosque <u>0</u> Church <u>1</u> Public Primary School

(Mjimwema 2/3)

		Check Items	
6	Road Condition to Village	Main : good condition with a half paved Second : good condition, but not paved Third : very narrow and slope Path is slope, and some people live. Location: not determined a this time	Pave road <u>Y</u> <u>N</u> Pave road <u>Y</u> <u>N</u> Pave road <u>Y</u> <u>N</u>
			Road Width <u>8</u> m Road Width <u>4-5</u> m Road Width <u>2</u> m
			Density- High, Medium, Low Density- High, Medium, Low Density- High, Medium, Low
7	Water source 1 Road Condition	Location: not determined a this time Attentions to Operation and Construction :	Pave road : <u>Y</u> <u>N</u>
	Land Owner	How should we negotiate and take procedure to acquire the load for this project? ? It is necessary to ask permission from the land owner and try to do it without any payment.	Width of the path : 4 m Public: Village Mitta / Ward /District· Municipality Informal :
	Water source 2 Road Condition	Location : Attentions to Operation and Construction :	Width of the path <u>m</u> Pave road : <u>Y</u> <u>N</u>
Land Owner	How should we negotiate and take procedure to acquire the load for this project?	Public: Village Mitta / Ward /District· Municipality Informal :	Private: Land use: Type of Crops:
Water source 3 Road Condition	Location : Attentions to Operation and Construction :	Pave road : <u>Y</u> <u>N</u>	Width of the path <u>m</u> Density- High, Medium, Low
	Land Owner	How should we negotiate and take procedure to acquire the load for this project?	Public: Village Mitta / Ward /District· Municipality Informal :
			Private: Land use: Type of Crops:
Storage Tank Location Road Condition	Location : Attentions to Operation and Construction : Not specifically	Pave road : <u>Y</u> <u>N</u>	Width of the path : 8 m Density- High, Medium, Low
	Land Owner	How should we negotiate and take procedure to acquire the load for this project?	Public: Village Mitta / Ward /District· Municipality Informal :
			Private: Land use: Type of Crops:
Transmission routes	Location : Attentions to Operation and Construction : Not specifically	Pave road : <u>Y</u> <u>N</u>	Width of the path : 8 m Density- High, Medium, Low
	Land Owner	How should we negotiate and take procedure to acquire the load for this project? ? It is necessary to ask permission from the land owner and try to do it without any payment.	Public: Village Mitta / Ward /District· Municipality Informal :
		Is there any Transmission routes whose above on the ground is something important? Not specifically	Yes (No) no need newly to disturb land and existing road
	Memo		

(Mjimwema 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		No Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ? In which point, we should be careful ? Is there any risk point for <b>Storage Tank Construction or Operation</b> ? In which point, we should be careful ?		No Yes No Yes
10 Topography and geology	Dose Water source Location change Topography and Geology ? Dose Storage Tank Location change Topography and Geology ? Dose Transmission change Topography and Geology ?		No Yes: Why No Yes: Why No Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>		No Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition. Are there any wells Latrine 10 m of the <b>planning water source?</b>	Pit Latrines are commonly used	but maintaining condition is not good. Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ? Dose Storage Tank Condition damage any special Fauna and Flora ? Dose Transmission Main will cross national parks or game reserves and affect ?		No Yes: Which kinds of species ? No Yes: Which kinds of species ? No Yes: Name of reserves
14 Noise and vibration	Drilling Water source Location : Is there houses / school with 30 m ? Water tank Location: Is there houses/ school with 30 m ? Transmission construction might cause any noise problem ?		No Yes: How far m No Yes: How far m No Yes :

**Note** :Although approximate location water source and storage tank was not determined at the site visit, but a possibility of special fauna and flora, and reserve area was confirmed that there were nothing special

## Check List of Priority Projects in terms of E&S consideration

Date July 19, 2005 District : Jemeke  
 Sheet No. 20 Ward Name : Mjimwema  
 Village Name : Kibugumo  
 Sub Village Name : \_\_\_\_\_  
 Numbers of Scheme : 1

Location in Map No: \_\_\_\_\_  
 Impression of Location \_\_\_\_\_

(Kibugumo 1/3)

The Full- Scale Study		
Environmental and Social Indicators	Questions	Check Items
1	Current Water Source Condition (Key Informant) 1-1 What type of water do you have in your village ?	Water from traditional wells and hand dug well freely.
2	Socio-Economic activities (Key Informant) 2-1 How many water vendors IN your village? 2-2 How much dose it cost in one Tank cost? 2-3 What are their social status, education level etc. ? 2-4 Are there any Vendors who come from OUTSIDE of your Village?	No No payment - No
3	Water users - General (Women) 3-1 How long dose it take to get to water ? 3-2 How long do you need to wait for getting water in water intake ? 3-3 What is the most problem in water for you ?	30 minutes 30 minutes Water Quality, Water Quantity, Distance, Location and Topography of the Village, Path Condition for fetching , Others
	Children on Water Fetching (Women or Chairman etc) 3-4 Is there children who didn't go to school because of fetching water ?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Particularly in dry season of August and September, children need to get involved in fetching water without going to school.
4	Memo 4-1 Have the Study Team members made a presentation on the purpose of the visit and get understandings of priority project's concept and accompany with village chairman or his/her secretary or village board members in order to determine of facilities and water source.	For fetching water, 2 km from home, and totally it takes one and a half hour totally to come back to home. Water quality is good, clean, and no salt. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5	Cultural and Community Property 5-1 What kind of community property for cultural or religious aspects are existing in the village?	4. Mosque 5. Church 1. Public Primary School
	Memo	

(Kibugumo 2/3)

		Check Items	
6	Road Condition to Village	Main : Kisarawe road to Chole Second : Chole area Third : Access road need to be modified for larger trucks.	Pave road <u>Y</u> <u>N</u> Pave road <u>Y</u> <u>N</u> Pave road <u>Y</u> <u>N</u>
			Road Width 7-8 m Road Width 5-4m Road Width 2 m
			Density- High, Medium, Low Density- High, Medium, Low Density- High, Medium, Low
7	<b>Water source 1</b>	<b>Location :</b> Near primary school (Pain Land)	
	Road Condition	<i>Attentions to Operation and Construction :</i> Not specifically	<b>Pave road :</b> <u>Y</u> <u>N</u>
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project ?</i> Negotiation with village chairman and members is needed.	<b>Public :</b> Village Mitta / Ward / District <b>Municipality Informal :</b>
			<b>Private :</b> Land use: Agriculture <b>Type of Crops :</b> Cash nuts
	<b>Water source 2</b>	<b>Location :</b>	
	Road Condition	<i>Attentions to Operation and Construction :</i>	<b>Pave road :</b> <u>Y</u> <u>N</u>
	Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public :</b> Village Mitta / Ward / District <b>Municipality Informal :</b>
			<b>Private :</b> Land use: <b>Type of Crops :</b>
	<b>Water source 3</b>	<b>Location :</b>	
	Road Condition	<i>Attentions to Operation and Construction :</i>	<b>Pave road :</b> <u>Y</u> <u>N</u>
Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public :</b> Village Mitta / Ward / District <b>Municipality Informal :</b>	
		<b>Private :</b> Land use: <b>Type of Crops :</b>	
<b>Storage Tank Location</b>	<b>Location :</b> Near primary school		
Road Condition	<i>Attentions to Operation and Construction :</i> Not specifically	<b>Pave road :</b> <u>Y</u> <u>N</u>	<b>Width of the path :</b> 4 m
Land Owner	<i>How should we negotiate and take procedure to acquire the load for this project?</i>	<b>Public :</b> Village Mitta / Ward / District <b>Municipality Informal :</b>	<b>Private :</b> Land use: <b>Type of Crops :</b>
			Density- High, Medium, Low
<b>Transmission routes</b>	<i>Is there any Transmission routes whose above on the ground is something important? Not specifically</i>		<b>Private :</b> Land use: Agriculture, <b>Type of Crops :</b> Coconuts
	<b>Memo</b>		

(Kibugumo 3/3)

Environmental and Social Indicators	Check Items	Panning Stage	Construction Stage
8 Waste	Do some activities like the drilling, pumping and other activities generate construction waste ?		No Yes
9 Hazards (risk)	Is there any risk point for <b>water source finding and its construction or operation</b> ?		No Yes
	In which point, we should be careful ?	During construction, students in the ground need to be special attention, since the storage tank is	
	Is there any risk point for <b>Storage Tank Construction or Operation</b> ?		No Yes
	In which point, we should be careful ?		
10 Topography and geology	Dose Water source Location change Topography and Geology ?		No Yes: Why
	Dose Storage Tank Location change Topography and Geology ?		No Yes: Why
	Dose Transmission change Topography and Geology ?		No Yes: Why
11 Groundwater	Are there any wells within <b>100 m of the planning water source?</b>		No Yes: How it looks like ?
12 Latrines condition	What <b>types of Latrines</b> are there, list up and describe condition.	No Pit Latrines	
	Are there any wells Latrine 10 m of the <b>planning water source?</b>		No Yes: How it looks like ?
13 Fauna and flora	Dose Water source Location damage any special Fauna and Flora ?		No Yes: Which kinds of species ?
	Dose Storage Tank Condition damage any special Fauna and Flora ?		No Yes: Which kinds of species ?
	Dose Transmission Main will cross national parks or game reserves and affect ?		No Yes: Name of reserves
14 Noise and vibration			Yes: How far m
	Water source Location : Is there houses / school with 30 m ?		No Yes: How far m
	Water tank Location: Is there houses/ school with 30 m ?		No Yes: How far 5 m, may be very little notice during construction
	Transmission construction might cause any noise problem ?		No Yes :

Note :