

JAPAN INTERNATIONAL CO-OPERATION AGENCY

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STUDY ON ECONOMIC DEVELOPMENT

CHANGING ISLAND

THE ECONOMIC DEVELOPMENT OF

CHANGING ISLAND

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JAPAN INTERNATIONAL COOPERATION AGENCY

NATIONAL INSTITUTE FOR WATER
RESOURCES AND MANAGEMENT
REPUBLIC OF CAPE VERDE

THE STUDY ON GROUNDWATER DEVELOPMENT
FOR
SANTIAGO ISLAND
IN
THE REPUBLIC OF CAPE VERDE

FINAL REPORT

Vol. 3 SUPPORTING REPORT

September 1999

KOKUSAI KOGYO CO., LTD., TOKYO
JAPAN TECHNO CO., LTD., TOKYO



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- São Miguel : 6 villages
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- Santa Cruz : 8 villages
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4. Report on In-depth Survey

(Morabi report)

1. Inventory of Rural Water Supply Facilities

Supply Facility and Water Use Condition by Village
 CONCELHO: TARRAFAL (1/4)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks											
1	1	Achada Biscainhos	73	83	Tank Lorry	10 m ³		2	L-1	0.80	7.0	5	Delivery : <2 times/week											
			27	31																				
	2	Bimbirrim	46	52										No Access by Tank Lorry										
			203	230																				
	2	Achada Lugos	1 Chao Tavares	29	33	Spring																		
			2 Cutelo Numes	52	59	Spring																		
			3 Lem da Costa	37	42	Spring																		
			4 Lem Vavela	47	53	Spring																		
			5 Rua Comprida	38	43	Spring																		
	3	Achada Longueira	1 Achada Longueira	869	930	Borehole Well (FBE-121)	40m ³	Chafariz	3			9.0	4	Pump up : 3 times/week 4.0 hr / 1 time										
			2 Achada Pilao Cao	20	23																			
			3 Achada Ponciano	66	75																			
			4 Aguadinha	35	40																			
			5 Baixo Casa Branca	5	6																			
			6 Cabocca Vaca	33	38																			
			7 Cantador	44	50																			
			8 Casa Choca	103	117																			
9 Cutelo Mendes			28	32																				
10 Cutelo Moreira			39	44																				
11 Gundo			5	6																				
12 Monte Vermelho			56	64																				
13 Mominho			61	69																				
14 Pagigalo			136	155																				
15 Passo			50	-																				
16 Ponta			2	-																				
17 Travessa Vaz			139	158																				
4	Achada Meio	1 Achada Cruz	47	53	Tank Lorry Rainfall Collection	40m ³ 600m ³	Chafariz	2	L-2 L-1	0.60 0.70	7.0	5	Private W. vendor : 1200Esc/m ³ Delivery : 2 times/week											
		2 Achada Meio	172	197																				
		3 Fundo Portal	33	38																				
		4 Maricota	57	65																				
		5 Ponta Chao Bom	4	5																				
		6 Portal Abaixo	40	46																				
			15	17																				
			23	26																				
		5	Achada Moirao	1 Achada Moirao										778	776	Borehole Well (FBE-122)	40m ³	Chafariz	3	L-1	0.80	8.0	3	
				2 Baixo										206	234									

Santo Amaro Abade

Supply Facility and Water Use Condition by Village
 CONCELHO: TARRAFAL (3/4)

Freguesia No.	ZONA		Population		Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks	
	No.	Lugar	CENSUS 1990	Estimation 1998										
1	8	Chão Bom											UNICEF Project Project is on-going	
	10	Monte de Moxca	6	11										
	11	Pecheco	256	458										
	12	Perdigoto	283	506										
	13	Ponta Ribeira	102	182										
	14	Quintal	162	290										
	15	Riba Estrada	327	585										
	9	Curral Velho	324	369	Tank Lorry	30m ³	Fontanário	2			6.0	5		Delivery : <1 time/week Project is on-going
	10	Fazenda	141	160										
	1	Achada Bilim	8	9	Spring									
	2	Fazenda	133	151	Dug Well									
	11	Figueira Muita	103	117										
	1	Caldeira	24	27						L-2				
	2	Figueira Muita	69	79	Tank Lorry Rainfall Collection	40m ³ 700m ³	Chafariz	2			7.0	5		Delivery : <2 times/week Out of Job
	3	Ponta Alto	10	11						L-2				No Access by Tank Lorry
12	Lagoa	294	335											
1	Covao Mendes	26	30	Spring										
2	Fonte Banana	15	17	Spring										
3	Lem Monteiro	177	201	Spring										
4	Mato Galo	40	46	Spring										
5	Ponta Vital	5	6	Spring										
6	Rabo Dagu	18	20	Spring										
7	Subida Espinho	13	15	Spring										
13	Mato Brasil	216	246										Project is on-going	
1	Chao de Quebrada	40	46											
2	Massape	60	68											
3	Mato Brasil	44	50											
4	Mato Fava	23	26											
5	Monte Vermelho	23	26											
6	Montinho	15	17											
7	Quebrada	11	13											
14	Mato Mendes	394	380											
1	Achadinha	43	-											
2	Chao de Mato	56	64	Borehole Well (FBE-131)	40m ³	Chafariz	3			7.0	4			
3	Coco Sanches	67	76						L-2					
4	Cuteio Baixo	16	18						L-2					
5	Fundo	62	71						L-2					

Santo Amaro Abade

Supply Facility and Water Use Condition by Village
 CONCELHO: TARRAFAL (4/4)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks
Santo Amaro Abade	14	Mato Mendes											
	6	Lapa Porco	17						L-2				
	7	Lem Borges	51	58					L-2				
	8	Mato Baixo	51	58					L-2				
	9	Poomel	31	35									
	15	Milho Branco	299	340									
	1	Achada Milho Branco	100	114	Borehole Well(FBE-173)	40m ³	Chafariz	3	L-1		8.0	3	
	2	Pe de Rocha	76	86					L-1				
	3	Ponta Alta	57	65					L-1				
	4	Quebrada	66	75									
	16	Ponta Lobrão	283	322									
	1	Ponta Lobrão	71	81						L-2			Delivery : 2 times/week
	2	Ponta Furna	212	241	Tank Lorry	10/30m ³					3.0	5	
	17	Ribeira da Praia	659	750									
1	Achadinha	31	35						L-4	0.50			
2	Bongalon	27	31						L-4	0.50			
3	Cuba de Baixo	145	165						L-4	1.50			
4	Ribeira da Praia	456	519	Borehole Well(FBE-150)	9m ³	Fontenário					6.0	2	House Connection : 69
18	Ribeirão Sal	75	85										
1	Chão de Café	13	15						L-5				
2	Curelo Baixo	25	28						L-5				
3	Curelo de Portal	4	5						L-5				
4	Funda Portal	9	10						L-5				
5	Ribeirão Sal	24	27										
19	Trás os Montes	396	450										
1	Achada Carreira	52	59						P.Lobrão	0.50			
2	Achada Igreja	9	10						P.Lobrão	0.50			
3	Joan Varela	10	11						P.Lobrão	0.50			
4	Trás os Montes	208	237										
5	Travessa Pinha	117	133										
20	Vila do Tarrafal	3,626	4,600										
1	Codje Bicho	697	884										
2	Covao Sanches	336	426										
3	Monte Iria	384	487										
4	Ponta Gato	426	540										
5	Ponta Lagoa	1,202	1,525										
6	Villa (Centro)	581	737										

Santo Amaro Abade

Delivery : 2 times/week
 Borehole Well is Dry
 URBAN

Supply Facility and Water Use Condition by Village
 CONCELHO: SÃO MIGUEL (1/9)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20ℓ)	Remarks
1	1	Achada do Monte	687	782									
	1	Achada Bolanha	42	48					L-4				
	2	Achada do Monte	117	133	Borehole Well(FBE-128)	40m ³	Chafariz	3	L-2		8.0	3	
	3	Achadona	30	34					L-2				
	4	Bolanha	81	92					L-2				
	5	Cha de Cruz	24	27					L-2				
	6	Cha Tome	28	32					L-2				
	7	Daculinha	14	16					L-2				
	8	Lem Ferreira	121	138					L-2				
	9	Manguinho	36	41					L-2				
	10	Meio d'Achada	117	133					L-2				
	11	Pedra Barro	16	18					L-2				
12	Ponta Manguinho	61	70					L-2					
2	2	Calheta de S. Miguel	2,599	2,800									URBAN
	1	Achada Batalha	283	305									
	2	Achada Portinho	143	154									
	3	Cuteiro Miranda	366	393									
	4	Galliao	122	131									
	5	Manguinho	282	304									
	6	Monte Terra	241	260									
	7	Pizarra	428	461									
	8	Ponta Calheta	5	5									
	9	Ponta Calhetona	33	36									
	10	Ponto	13	14									
	11	Porto	116	125									
12	Venceza	568	612										
3	3	Casa Branca	711	750									
	1	Achadinha	35	37	Dug Well								
	2	Batibamba	4	4	Dug Well								
	3	Carcim	9	9	Dug Well								
	4	Casa Branca	96	101	Dug Well								
	5	Cha Baixo	17	18	Spring								
	6	Chao Formoso	7	7	Dug Well								
	7	Chiqueiro Velho	7	7	Dug Well								
	8	Covada	34	36	Dug Well								
	9	Covao Grande	10	11	Dug Well								
	10	Cuteiro Coco	28	30	Dug Well								
	11	Cuteiro Pinha	6	6	Dug Well								
12	Forno	6	6	Dug Well									

São Miguel Arcanjo

Supply Facility and Water Use Condition by Village
 CONCELHO: SÃO MIGUEL (2/9)

Freguesia No.	ZONA		Population CENSUS 1990	Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks	
	No.	Lugar												
1	3	Casa Branca												
	13	Fundo Ribeira	77	81	Dug Well									
	14	Limso	55	58	Dug Well									
	15	Pe Bodja	27	28	Dug Well									
	16	Pe de Rocha	76	80	Dug Well									
	17	Podra Largo	117	123	Dug Well									
	18	Quelem de Fonte	9	9	Dug Well									
	19	Selada	19	20	Dug Well									
	20	Suave	8	8	Dug Well									
	21	Torril	60	63	Dug Well									
	22	Zimbroa	4	4	Dug Well									
	4	Chá de Ponta	554	700										
	1	Boca Ribeira	11	14	Dug Well									
	2	Chao de Nona	20	25						L-7				
	3	Chao Dentro	47	59						L-7				
	4	Cuteiro de Meio	60	76						L-7				
	5	Cuteiro Redondo	22	28						L-7				
	6	Fonte S. Joao	51	64						L-7				
	7	Garcote	137	173		30m ³		2		L-7		4.0	5	Delivery : < 1 time/week
	8	Lem Gomes	7	9										
	9	Pe de Monte	30	38						L-7				
	10	Ponta de Aguada	36	45						L-7				
11	Ponta Mato	104	131						Horralao					
12	Rua Comprida	29	37						L-7					
5	Cuteiro Gomes	741	800										Project is on-going	
1	Achada Barril	56	60											
2	Aguadinha	29	31											
3	Cha de Mato	35	38											
4	Covao Pertado	13	14											
5	Cuteiro de Riba	14	15											
6	Cuteiro Forno	61	66											
7	Cuteiro Gomes	105	113											
8	Cuteiro Moreno	16	17											
9	Cuteiro Vassoura	8	9											
10	Figueira Grande	5	5											
11	Fonton	16	17											
12	Forno	25	27											
13	Lagoa	81	87											
14	Lagoa Baixo	5	5											

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Supply Facility and Water Use Condition by Village
 CONCELHO: SÃO MIGUEL (3/9)

Freguesia	ZONA		Population	Type of Water	Reservoir	Type of Public	Taps	Water	Distance	Supply	Water	Remarks
No.	No.	Lugar	CENSUS 1990 Estimation 1998	Source	(m ³)	Faucets	Source	(Km)	Time (hr/day)	Tariff (Esc/20l)		
1	5	Cutele Gomes										Project is on-going
	15	Laranja	17									
	16	Lem Monteiro	18									
	17	Lem Varela	8									
	18	Lem Vieira	57									
	19	Mato	1									
	20	Mato Grande	11									
	21	Mato Piquinho	55									
	22	Monte Branco	17									
	23	Monte Pe de Bandeira	5									
	24	Pai Antonio	83									
	25	Romao	2									
	6	Espinho Branco	341									
	1	Cagarro	7	Tank Lorry	20m ³		2	L-2	0.40	7.0	3	Delivery : 2 times/week
	2	Cha Baixo	63			Chafariz	3			4.0	3	
	3	Lem Curdoso	24									
	4	Lem Pereira	86									
	5	Po Fino	48	Tank Lorry Borehole Well	10m ³	Chafariz	3			3.0	3	Delivery : 2 times/week
	6	Ponte Cabral	81									
	7	Tabuleiro	32									
	7	Gongon	368									
	1	Cabaceira	24	Spring								
	2	Cantada	2									
	3	Cha Riba	57	Spring								
	4	Chao Grande	43	Spring								
	5	Cutele	57	Spring								
	6	Cutele Baixo	15	Spring								
	7	Cutele Pupa	3									
	8	Cutele Vermelho	31	Spring								
	9	Fobero	5	Spring								
	10	Lem Ramos	49	Spring								
	11	Lem Varela	31	Spring								
	12	Quebrada	11	Spring								
	13	Rubom Pupa	8	Spring								
	14	Serra Po	32	Spring								
	8	Machado	251									
	1	Carreira	9	Spring (Gallery)								
	2	Fonte Rocha	16	Spring (Gallery)								
	3	Lem Sanches	77	Spring (Gallery)								

Sao Miguel Arcanjo

Supply Facility and Water Use Condition by Village
 CONCELHO: SÃO MIGUEL (4/9)

Freguesia No.	ZONA No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks
1	8	Machado											
	4	Terra Vermelha	13	15	Spring (Gallery)								
	5	Travessa Baixo	24	27	Spring (Gallery)								
	6	Vieira	112	128	Spring (Gallery)								
	9	Mato Correia	371	424									
	1	Agua de Boi	47	54	Spring	15m ³		2	L-2		4.0	5	Delivery : < 2 times/week
	2	Belem	12	14	Tank Lorry				L-2				
	3	Curulo Mato Correia	44	50					L-2				
	4	Curulo Purgona	22	25					L-2				
	5	Fazenda	8	9					L-2				
	6	Fundao	40	46					Exp. Branco				
	7	Lem Cardoso	22	25					L-2				
	8	Pedra Macho	12	14					L-2				
	9	Ponia de Mafafa	3	3					L-2				
	10	Portal	78	89					L-2				
	11	Rebello	48	55					L-2				
	12	Sarrimba	30	34					L-2				
	13	Selado	5	6					L-2				
	10	Monte Bode	277	316									
	1	Achada Cavalo	20	23	Spring				L-1				
	2	Lem Tavares	53	60									
	3	Milho Branco	27	31	Spring				L-1				
	4	Monte Bode	127	145					Flamengos				
	5	Sole Abaixo	26	30	Dug Well				Flamengos				
	6	Sole Acima	10	11	Dug Well				Flamengos				
	7	Pla	14	16	Dug Well				Flamengos				
	11	Monte Pousada	402	598									
	1	Cha Calipho	29	33					L-3				
	2	Cha de Guerra	72	82					L-3				
	3	Cha de Dencho			Tank Lorry	30m ³ (School)							Delivery : < 1time/week
	4	Joao Goncalves	43	49					L-3				
	5	Lem Sanches	32	37					L-3				
	6	Mangu	11	13					L-3				
	7	Monte	2	2					L-3				
	8	Monte Riba	21	24					L-3				
	9	Ponia	10	11					L-3				
	10	Ponia Brufa	75	86					L-3				
	11	Portal	53	60					L-3				
	12	Ribeiro Cruz	26	30					L-3				

Sao Miguel Arcanjo

Supply Facility and Water Use Condition by Village
 CONCELHO: SÃO MIGUEL (5/9)

Freguesia No.	ZONA		Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20ℓ)	Remarks
	No.	Lugar											
1	11	Monte Pousada	22	25	Spring								
	13	Rocha Branca	6	146	Dug Well					2.00			
	14	Variantes	628	717									
	12	Palha Carga	51	58					L-4				
	1	Caxonia	10	11					L-4				
	2	Cha de Papaia	10	11					L-4				
	3	Chao Atras	28	32	Borehole Well (FBE-128)	40m ³	Chafariz	3			7.0	3	
	4	Cutele de Pinha	146	167					L-4				
	5	Cutele Landim	70	80					L-4				
	6	Cutele Mendes	24	27					L-4				
	7	Frada	57	65	Borehole Well (FBE-124)	20m ³	Fontenário	2					Solar system out of service
	8	Hortalao	25	29					L-8				
	9	Laranjeira	5	6					L-4				
	10	Lem Caxonia	122	139					L-4				
	11	Magima	11	13					L-4				
12	Ponta Rochinha	37	42					L-4					
13	Ponta Lauvada	27	31					L-8					
14	Santo Antonio	5	6					L-8					
15	Sinta	335	382					L-4					
13	13	Pedra Barro	9	10									
	1	Cantada	52	59					L-4				
	2	Chao Freire	47	54					L-4				
	3	Chao Vaz	58	66	Tank Lorry	30m ³		2			7.0	5	Delivery : 2 times/week
	4	Couco	54	62					L-4				
	5	Espinho Branco	27	31					L-4				
	6	Monte Bode	43	49					L-4				
	7	Ribao Bandeira	45	51					L-4				
14	14	Pedra Serrado	485	554									
	1	Casa Grande	15	17					L-7				
	2	Chocalho	85	97					L-7				
	3	Covao de Agua	18	21					L-7				
	4	Cutele de Saitos	64	73					L-7				
	5	Djeu Ribeira Grande	9	10					L-7				
	6	Lem Pereira	29	33					L-7				
	7	Lem Mendes	153	175	Tank Lorry	30m ³		2			10.0	5	Delivery : 1 time/week
	8	Malhada Velha	5	6					L-7				
	9	Monte Baixo	10	11					L-7				
10	Pedra Larga	40	46					L-7					

São Miguel Arçango

Supply Facility and Water Use Condition by Village
 CONCELHO: SÃO MIGUEL (6/9)

Freguesia	No.	No. No.	ZONA	Lugar	Population	Type of Water	Reservoir	Type of Public	Taps	Water	Distance	Supply	Water	Remarks
No.					CENSUS	Source	(m ³)	Faucets		Source	(Km)	Time	Tariff	
					1990							(hr/day)	(Esc/20L)	
	1	14	Pedra Serrado		47									
		11	Ribeira Grande		16									
		12	Santa Cruz		18									
		15	Pilao Cao		1,055									
		1	Bacio		23		40m ³	Chafariz	4	L-27		2.0	2	
		2	Canto de Ladreira		76	Borehole Well(FT-134)				L-27				
		3	Carreira		41					L-5				
		4	Cha Cardoso		18									
		5	Cha de Figueira		84			Chafariz	3	L-27				
		6	Cha de Perreira		14					L-2				
		7	Cha de Tacho		44					L-2				
		8	Chao de Carreira		23					L-2				
		9	Chao de Ferro		14					L-2				
		10	Covao Montinho		22					L-2				
		11	Covao Pereira		51					L-2				
		12	Cutelo de Tinta		43					L-2				
		13	Esquerdo		10					L-2				
		14	Gregorio Lopes		12	Spring				L-27				
		15	Janiane		51					L-27				
		16	Lapa Simao		9									
		17	Lem Cardoso		6	Spring								
		18	Lem Gomes		66	Spring								
		19	Lem Lopes		13									
		20	Mato Garca		52	Spring				L-2				
		21	Montinho		38					L-2				
		22	Nona Branco		29					L-2				
		23	Pilao Cao Cima		24					L-2				
		24	Purgueira		13					L-2				
		25	Redondeira		11					L-2				
		26	Rochinha		10					L-2				
		27	Sao Domingos		77			Chafariz	3	L-2				
		28	Talho		125					L-2				
		29	Tambarina		30					L-2				
		30	Tessa		26					L-27				
		16	Ponta Verde		489									
		1	Ponta Verde		489	Borehole Well(FT-144)		Chafariz	5			6.0	2	
		17	Principal		1,277									
		1	Chao Beira		9	Spring								
		2	Chao de Hortã		109	Borehole Well(FBE-112)	20m ³	Fontenário	5			5.0	2	Solar system

Supply Facility and Water Use Condition by Village
 CONCELHO: SÃO MIGUEL (9/9)

Freguesia No.	ZONA		Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks
	No.	Lugar											
1	20	Tagarra	10	-									
	21	Vila Cantor	41	-									
	22	Portal	457	500									
	1	Achada Queimado	65	71	Spring								
	2	Cantada	45	49	Spring								
	3	Cutele Baixo	139	152	Spring								
	4	Cutele do Funco	40	44	Spring								
	5	Cutele Lopes	9	10	Spring								
	6	Lem Pereira	36	39	Spring								
	7	Marruliano	9	10	Spring								
	8	Mato Grande	22	24	Spring								
9	Quebrada	3	3	Spring									
10	Temada	54	59	Spring									
11	Poilao	35	38	Spring									
22	Xaxa	177	250										No Access by Tank Lorry
1	Cutele Xaxa	18	25	Spring									
2	Moron Grosso	42	59	Spring									
3	Ponta Curral	30	42	Spring									
4	Xaxa Acima	87	123	Spring									

São Miguel Arcanjo

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (1/19)

Freguesia No.	ZONA		Population	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tarif (Esc/20ℓ)	Remarks
No.	No.	Lugar	CENSUS 1990	Estimation 1998								
1	1	Achada Galego	378	437								
	1	Achada Carpate	13	15								
	2	Achada Galego	105	122	Borehole Well (FB-100)	40m ³	3		L-2	3.0	2	
	3	Caldeira	84	97					L-2			
	4	Gudo	63	73					L-2			
	5	Ponta Fundo	67	77					L-2			
	6	Ponta Lopes	46	53					L-2			
	2	Achada Gomes	350	403								
	1	Achada Camelo	58	67	Spring							
	2	Cha de Baixo	83	96	Borehole Well (FB-83)	40m ³	3		L-2	8.0	2	
	3	Chao de Riba	68	79					L-2			
	4	Chao Ladeira	12	13					L-2			
	5	Chao Santos	29	33					L-2			
	6	Chao Tavernna	27	31					L-2			
	7	Viava	73	84					L-2			
	3	Achada Lazão	128	148								
	1	Achada Lazão	128	148	Spring							
	4	Achada Leite	186	216								
	1	Achada Leite	186	216	Spring							
	5	Achada Lém	2,390	2,762								
	1	Achada Baixo	46	53					L-10			
	2	Alto Jose Do	74	86					L-23			
	3	Berbel	91	105					L-10			
	4	Cavaleiro	37	43					L-10			
	5	Cha de Lagoa	47	54					L-10			
	6	Chao Baixo	11	12					L-10			
	7	Chiqueirinho	60	69					L-10			
	8	Curral Velho	27	31					L-28			
	9	Funco Guarda	3	3								
	10	Fundura	104	120	Borehole Well(FT-127)	40m ³	3			5.0	3	
	11	Jagau	24	27					L-30			
	12	Lage	152	176					L-30			
	13	Lem Dias	236	274								
	14	Lem dos Reis	42	48					L-30			
	15	Lem Fortes	142	165					L-30			
	16	Lem Martins	133	154					L-13			
	17	Lem Semedo	49	56					L-23			
	18	Lem Silva	102	118					L-13			
	19	Lem Tavares	96	111					L-13			

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (2/19)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks	
1	5	Achada Lém												
	20	Mato Fundura	66	76					L-10					
	21	Passo de Vaca	42	48					L-10					
	22	Pizarra	59	68					L-10			2.5		
	23	Portal de Furna	141	163			↑	Chafariz	3					
	24	Quimtal Varela	33	38						L-13				
	25	Sarradao	25	29						L-13				
	26	Sobrado	10	11						L-10				
	27	Tubanca	60	69						L-13			2.5	
	28	Taberna	231	268		Borehole Well (ST712)	100m ³	Chafariz	3	L-23			2.5	
	29	Vila Nova	80	93									2.5	
	30	Volta de Monte	167	194				Chafariz	3					
	6	Achada Ponta	178	206								5.0	3	
	7	Achada Tossa	178	206		Borehole Well (FBE-99)	40m ³	2 Chafariz	6					Project is under planning
	Santa Catarina	1	Achada Pelado	803	928									
		2	Achada Tossa	7	8					L-4				
		3	Assomadinho	371	431					L-4				
		4	Barreira	108	125					L-4		10.0	5	Delivery : <2 times/week
		5	Boca Mato	28	32		Tank Lorry	80m ³	2					
		6	Carvoeiro	67	77					L-4				
		7	Chao Oliveira	38	44					L-4				
		8	Curelo	14	16					L-4				
		9	Lem Almeida	11	12					L-4				
		10	Malveira	88	102					L-4				
		11	Monte	54	62					L-4				
	8	Agua Podres	17	19					L-4					
	9	1	Achada Fora	144	165									Project is under planning
		2	Chao de Monte	43	49									
		3	Ribeirao Areia	79	91		Spring							
	10	1	Arribada	22	25									
2		Arribada Acima	124	143										
Banana Semedo	1	Arribada Coelho	51	59		60m ³		2	L-1	0.30	8.0	5	Delivery : 3 times/week	
	2	Banana Semedo	84	84										
	3	Cova Furtado	485	562										
Fonte Semedo	1	Banana Semedo	180	209										
	2	Cova Furtado	220	255										
	3	Fonte Semedo	85	98					Cruz Grande Furna	0.20 0.60				

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (4/19)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks
1	13	Bombardreiro											
	12	Mamipo	49	56	Spring								
	13	Ribeirao Carrico	212	246									
	14	Telhal	6	6									
	15	Travessa	60	69	Spring								
	16	Volta de Ouro	21	24									
	14	Chã de Lagoa	476	552									
	1	Chã de Cruz	90	104	Tank Lorry	60m ³		2	L-1		8.0	10	Delivery : <1 time/week
	2	Chã Cabra	168	195					L-1				
	3	Lem de Parede	62	72					L-1				
	4	Lem Monteiro	117	136					L-1				
5	Lem Vieiro	39	45					L-1					
15	Chã de Tanque	1,204	1,396										
	1	Achada Grande	191	222	Tank Lorry	11m ³		2			7.0	10	Delivery : <1 time/week
	2	Achada Gregorio	74	86	Rainfall Collection				L-5				
	3	Boa Vista	179	208					L-5				
	4	Chã de Pombal	28	32	Spring								
	5	Chã de Tanque	205	238	Tank Lorry	60m ³	Chafariz	3	L-5		8.0	5	Delivery : 3 times/week
	6	Desdes	41	47									
	7	Gamboa	131	152	Spring								
	8	Mina de Ouro	19	22	Spring								
	9	Romao	69	80					L-5				
	10	Ribeirao Engracia	233	270					L-5				
16	Charco	311	361										
	1	Charco	311	361	Spring								
17	Cruz Grande	509	591										
	1	Cruz Grande	370	430	Borehole Well(FBE-67)	40m ³	Chafariz	3	Lem Dias		8.0	3	
	2	Portal de Furna	94	109					L-1				
18	Entre Picos	45	52										
	1	Castelo	293	339									
	5	Castelo	5	5	Tank Lorry	50m ³		2					
	2	Covao Portal	102	118									
19	Entre Picos	160	186										
	3	Entre Picos	160	186									
	4	Mato d'Orca	26	30	Spring								
	Entre Picos de Reda	295	342										
1	Entre Picos de Reda	295	342	Tank Lorry	50m ³			2				8	Delivery : <1 time/week
	1	Entre Picos de Reda	295	342									

Santa Catarina

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (5/19)

Freguesia No.	ZONA		Population		Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20ℓ)	Remarks
	No.	Lugar	CENSUS 1990	Estimation 1998									
1	20	Figueira das Naus	1,091	1,257									
	1	Achada da Agua	92	106									
	2	Achada Hilario	81	94									
	3	Achada Nho Marco	5	5									
	4	Achadinha	85	98									
	5	Bole	52	60									
	6	Cacheu	21	24									
	7	Cha de Cuba	16	18									
	8	Cha de Curral	39	45									
	9	Cha de Figueira	10	11									
	10	Cha de Lagoa	33	38									
	11	Chao de Loma	2	2									
	12	Chao de Pinto	24	27									
	13	Covao Baixo	26	30									
	14	Cruz	44	51									
	15	Curral de Cabra	36	41									
	16	Feital	71	82									
	17	Figueira das Naus	126	146	Rainfall Collection	700m ³		2					
	18	Ganchumba	22	25									
	19	Garganta	74	86									
	20	Marmulano	96	111									
	21	Monte Mosca	20	23									
	22	Pedra Branco	51	59									
	23	Ponta Poco	7	8									
	24	Rufeu	58	67									
	21	Fonteana	1,038	1,200									
	1	Achada Braz	95	110					L-3				
	2	Cubeca Correia	334	388					L-3				
	3	Chororo	8	9	Spring				L-3				
	4	Cruz de Cima	24	27					L-3				
	5	Fonteana	233	270					L-3				
	6	Fontianinho	41	47					L-3				
	7	Futaleza	74	86					L-3				
	8	Ilheu	135	156					L-3				
	9	Lem Gomes	20	23					L-3				
	10	Massape	17	19					L-3				
	11	Monte Tiro	6	6					L-3				
	12	Vila Cantor	31	36					L-3				
	13	Vivenda	20	23					L-3				

Santa Catarina

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (6/19)

Freguesia No.	ZONA		Population		Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20ℓ)	Remarks	
	No.	No.	CENSUS 1990	Estimation 1998										
1	22	Fonte Lima	823	954	Spring (Gallery)		Chafariz	3	L-4	1.00	10.0	2		
	1	Banana	65	75					L-4	0.50				
	2	Cha de Moreira	113	131					L-4	0.50				
	3	Culegio	162	188										
	4	Fonte Lima	271	315										
	5	Lem de Almeida	52	60					L-4	0.90				
	6	Nona	47	54					L-4	0.50				
7	Podra Vermelha	113	131	L-4	0.70									
23	Fuma		453	521										
	1	Boqueirao	26	30										Spring
	2	Cada Vez	5	5										Spring
	3	Cativo	65	75										Spring
	4	Cha de Ouro	24	27										Spring
	5	Covao Ribcino	18	20										Spring
	6	Cuteio Varcla	55	63										Spring
	7	Funco	67	77										Spring
	8	Fuma Abaixo	155	180										Spring
9	Pico Rebelo	38	44	Spring										
24	Ganchemba		215	249	Dug Well (HP)									
	1	Chao Grande	173	201										
	2	Cruz	17	19										
3	Ganchemba	25	29	Spring										
25	Gil Binpo		844	977										
	1	Achada Riba	42	48										
	2	Carapate	67	77										
	3	Covao Martins	64	74										
	4	Cuteio Semedo	53	61										
	5	Lem Teixeira	93	108										
	6	Ponta Lopes	89	103										
	7	Rubolo	198	230										
	8	Serra Pau	107	124										
9	Vila Nova	131	152											
26	Japluma		193	220	Spring									
	1	Cidreira	19	22										
	2	Covao de Goiaba	6	6										
	3	Covao Robato	55	63										
	4	Cuteio de Hortinha	10	11										
	5	Cuteio Moreira	7	8										
	6	Fonte Goncalves	60	69										
7	Japluma	36	41											

Santa Catarina

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (7/19)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks	
Santa Catarina	27	João Bernardo	400	475	Borehole Well(FBE-95)	40m ³	Chafariz	3			8.0	2.5		
	1	Achadinha	50	58										
	2	Covao Vaz	102	118										
	3	Lem Moreira	100	116										
	4	Mancanha	26	30										
	5	Ponta Mendes	132	153										
	28	João Dias	508	590	Borehole Well(FBE-94)	40m ³	Chafariz	3						
	1	João Dias	508	590										
	29	Junco	83	95	Spring									
	1	Aguada	7	8										
	2	Chao Banana	22	25										
	3	Junco Cima	54	62	Spring									
	30	Librao	529	614	Spring									
	1	Librao dos Engenheiros	529	614										
	31	Mancholy	590	681	Tank Lorry	50m ³	Chafariz	3		L-6		2.0	3	Delivery : 1 time/week
	1	Chao Tavares	123	142										
	2	Chiqueiro Barbosa	36	41										
	3	Fundo Baixo	28	32										
	4	Lem Garcia	71	82										
	5	Lem Silva	28	32										
	6	Mancholy	270	313										
	7	Monte Moreira	34	39										
	32	Mato Baixo	528	611	Borehole Well(FT-119)	50m ³	Chafariz	3	L-6		5.5	3	Solar system	
	1	Branco d'Ouro	19	22										
	2	Calbeceira	28	32										
	3	Chao Gomes	80	93										
	4	Chao Semedo	41	47										
	5	Foixo	19	22										
	6	Malgos	12	13										
	7	Mato Baixo	240	279										
	8	Meio Mundo	89	103										
	33	Mato Gogé	1,196	1,380	Spring									
	1	Aguinho	20	23										
2	Camastouro	40	46											
3	Casa Grande	101	117											
4	Chao de Casa	24	27											
5	Chao de Espinho	34	39											
6	Chao Manuel	2	-											
7	Chao Marmulano	36	41											

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (8/19)

Freguesia No.	ZONA		Population		Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20')	Remarks
	No.	Lugar	CENSUS 1990	Estimation 1998									
1	33	Mato Gege											
	8	Chao Mendés	66	76					L-7				
	9	Convento	237	275	Spring								
	10	Cumbem	72	83	Spring				L-10 L-10				
	11	Cuteio Correia	39	45									
	12	Ilheu	101	117	Spring								
	13	Olho d'Agua	139	161	Spring								
	14	Pollao	154	179	Spring				L-14 L-14 L-14				
	15	Ponta Lopes	25	29									
	16	Preenca	60	69									
	17	Travessa	46	53									
	34	Mato Sancho	459	488									
	1	Achada Conde	12	13	Dug Well								
	2	Achadinha	36	41	Spring								
	3	Bataeira	8										
	4	Cabeça Carneira	25	29	Dug Well								
	5	Cha de Forno	13	15									
6	Chao de Penedo	30	34	Dug Well									
7	Chocalho	5											
8	Corre Pedra	11	12	Dug Well									
9	Coqueiro	85	98	Dug Well									
10	Meio de Horta	9											
11	Ribeirao Breu	13											
12	Rombado	112	130	Spring									
13	Tabuleiro	100	116	Spring									
35	Palha Carga	1,248	1,444										
1	Boca Mato	315	366										
2	Casa Branca	73	84										
3	Cha Almada	35	40										
4	Cha Duarte	27	31										
5	Cha Semedo	25	29										
6	Cha de Babosa	2	2	FBE- 87									
7	Cha de Mau Passo	23	26	Spring									
8	Covada	165	191										
9	Cuteio Vaz	21	24										
10	Lem Cabral	122	141										
11	Lem Moreira	276	320										
12	Ranuda	8	9										
13	Ribeirao Riba	156	181	Tank Lorry	60m ³		3			10.0	5	Delivery : \$2 times/week	

Santa Catarina

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (9/19)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks	
1	36	Pata Brava	299	345										
	1	Chao de Nona	46	53	Spring									
	2	Cuteiro da Veiga	39	45	Spring									
	3	Gelado Cabral	12	13	Spring									
	4	Pata Brava	137	159	Spring									
	5	Pinha Doce	65	75	Spring									
	37	Pau Verde	289	332										
	1	Achadinha	11	12	Spring									
	2	Covada	3	3	Spring									
	3	Cuteiro	8	9	Spring									
	4	Lern d'Achada	53	61	Spring									
	5	Padjeiro	25	29	Spring									
	6	Pau Verde	165	191	Tank Lorry	50m ³		3				4.0	5	
	7	Riba Monie	24	27	Spring									
	38	Pedra Barro	489	567										
	1	Caris Monto	9	10										
	2	Covao da Veiga	32	37										
	3	Cuteiro Covao Da Veiga	1	1										
	4	Joao Preto	58	67										
	5	Pedra Barro	389	452										
	39	Pedra Serrado	127	144										
	1	Cha de Areia	1	1										
	2	Cuteiro	8	9										
	3	Lern Pereira	7	8										
	4	Malhada Velha	56	65										
	5	Maria Parda	18	20										
	6	Pedra Serrado	32	37										
	7	Santa Cruz	5	5										
	40	Pingo Chuva	369	417										
	1	Chao Gomes	41	47										
	2	Covao de Tras	5	5										
	3	Lern Gomes	93	108						L-8				
	4	Pingo Chuva	63	73						L-8				
	5	Redonda	2	2						L-8				
	6	Ribeiro Cavalo	17	19						L-8				
7	Romao	145	168											
8	Simao Nunes	145	168											
					Tank Lorry	40m ³		2			4.0	5	Delivery : 2 times/week	

Santa Catarina

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (10/19)

Freguesia	ZONA		Population		Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks	
No.	No.	Lugar	CENSUS 1990	Estimation 1998										
1	41	Pinha dos Engenhos	949	1,100										
	1	Bica	173	201										
	2	Cha de Acouge	187	217										
	3	Cha Coelha	129	149										
	4	Chaozinho	131	152										
	5	Joaõ Goto	116	134										
	6	Pinha	213	247	Borehole Well(FBE-89)	40m ³	Chafariz	3		8.00	2.5	3		
	42	Ribeira Acima	254	295										
		1	Ribeira Acima	254	295									
	43	Ribeira da Barca		1,557	1,809									
1		Port 1	832	967	Tank Lorry	22m ³	Chafariz	3	L-1		8.0	5	Delivery : 3 times/week	
2		Port 2	100	116					L-1					
44	Ribeira da Barca		625	726										
	3	Ribeira da Barca	625	726										
	44	Ribeirão Isabel	519	598										
45	1	Achadinha	39	45	Dug Well									
	2	Baixo Carreira	22	25	Dug Well									
	3	Bica	52	60	Dug Well									
	4	Covao Lopes	11	12										
	5	Da Cruz	9	10										
	6	Figueira de Ferro	6	6	Salto Acima									
	7	Massape de B. Carreira	39	45	Salto Acima									
	8	Mato Garca	84	97	Salto Acima									
	9	Mato Real	120	139	Salto Acima									
	10	Ribeirão Isabel	137	159	Salto Acima									
46	Ribeirão Manuel		559	646									Project is on-going	
	1	Achada Mato	32	37										
	2	Chao de Monte	10	11										
	3	Chao Tavares	141	163										
	4	Ilheu	47	54										
	5	Monte Vermelho	111	129										
	6	Ponta do sol	130	151	Tank Lorry	50m ³	Chafariz	3			3.0	5		
	7	Ponta Fundao	46	53										
	8	Ponta Lopi	39	45										
	9	Ribeirão Manuel	3	3										
46	Rincão		755	877										
	1	Baixo la	168	195					L-2	0.50	6.0	5		
	2	Riba Cha	587	682	Borehole Well	15m ³	Chafariz	3						

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (11/19)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks
1	47	Saltos Acima		670	769								
	1	Bianga	6	6					L-15				
	2	Carreira	39	45					L-15				
	3	Carriçal	6	6					L-15				
	4	Chao Beira	7	8					L-15				
	5	Chao de Nona	25	29					L-15				
	6	Chao de Papaia	36	41					L-15				
	7	Covao de Agua	9	10					L-15				
	8	Cuteio Mendes	45	52					L-15				
	9	Da Cruz	61	70					L-15				
	10	Lom da Veiga	18	20					L-15				
	11	Lem Gomes	30	34					L-15				
	12	Limoeiro	89	103					L-15				
	13	Monte Sal	8	9					L-15				
	14	Montinho	30	34					L-15				
	15	Saltos Acima	193	224					L-15				
	16	Sole	54	62					L-15				
17	Ulula	14	16					L-15					
Santa Catarina	48	Sodeguma		302	321								
	1	Bassouri	80	93					Spring				
	2	Chao de Casa Grande	16	18					Spring				
	3	Chao Moreno	30	34					Spring				
	4	Covao Tarafe	10	11					Spring				
	5	Cuteio de Bol	27	31					Spring				
	6	Expinho Branco	20	23					Spring				
	7	Galo Cania	21						Spring				
	8	Manipo	14	16					Spring				
	9	Ourinho	4	4					Spring				
	10	Ourizinho	28	32					Spring				
	11	Palacio	4	4					Spring				
	12	Quental	7	8					Spring				
13	Ribeirinha	41	47					Spring					
49	Serra Malagueta		478	552									
	1	Cha Baixo	46	53					Spring				
	2	Cha de Casa	57	66					Spring				
	3	Cha de Curral	42	48					Spring				
	4	Cuteio Lopes	73	84					Spring				
	5	Ilheu de Camico	34	39					Spring				
6	Lem Leal	19	22					Spring					

Delivery : 1 time/week

Santa Catarina

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (13/19)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20ℓ)	Remarks
2	52	Aboboreiro											
	11	Gambia	33	38						L-12			
	12	Goiaba	84	97	Borehole Well(FBE-97)	40m ³	Chafariz	3		L-12			
	13	Lem Varela	28	32						L-4			
	14	Rocha Preta	33	38						L-12			
	15	Seminguinho	21	24						L-12			
	16	Sopra Boli	18	20						L-12			
	17	Tagara	43	49						L-12			
	18	Terra Branca	58	67						L-12			
	53	Achada Igreja (Picos)	996	1,149									
	1	Achada Igreja (Picos)	218	253						L-5			
	2	Betania	11	12						L-5			
	3	Bao Esperanca	15	17						L-5			
	4	Cachou	51	59						L-5			
	5	Casa Grande	119	138	Borehole Well(FBE-97)	40m ³	Chafariz	3		L-5	4hr/2days	2.5	House Connection
	6	Chao de Tuberna	83	96						L-5			
	7	Cruz de Portal	102	118						L-5			
	8	Cutelinho	25	29						L-5			
	9	Funte Leao	65	75						L-5			
	10	Gundao	31	36						L-5			
	11	Lem da Rua	28	32						L-5			
	12	Lem de Monte	32	37						L-5			
	13	Muro	6	6						L-5			
	14	Penedo	85	98						L-5			
	15	Penedo Acima	36	41						L-5			
	16	Ponta	44	51						L-5			
	17	Sete Semanas	10	11						L-5			
	18	Telha	35	40						L-5			
	54	Achada Leitao	672	777									
	1	Achada Leitao Acima	289	335	Achada Igreja		Fontenário	1			4.0	2	
	2	Achada Leitao Baixo	68	79	Achada Igreja		Fontenário	1			4.0	2.5	
	3	Achada Leitao de Meio	161	187	Achada Igreja	50m ³	Fontenário	1			3.0	2.5	
	4	Casa Grande	39	45						L-3			
	5	Covada	18	20	Dug Well								
	6	Ilheu	9	10	Dug Well								
	7	Leitao Baixo	77	89						L-3			
	8	Rochinha	11	12						L-1			

S. Salvador do Mundo

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (14/19)

Freguesia No.	ZONA		Population		Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks	
	No.	Lugar	CENSUS 1990	Estimation 1998										
2	55	Babosa	254	292	Borehole Well(FBE-104)	15m ³		2	L-2		8.0	3		
	1	Babosa Baixo	79	91										
	2	Babosa Cima	49	56										
	3	Ilheu	101	117										
	4	Locotano	15	17										
	5	Monte Cima	10	11										
	56	Burbur	253	289	Spring				L-1					
	1	Burbur	13	15					L-1					
	2	Chao Candido	33	38					L-1					
	3	Chao Mendes	64	74					L-1					
	4	Covao de Ilorrelao	17	19					L-1					
5	Cutelao	26	30					L-1						
6	Cutelao Boca Lerga	12	13					L-1						
7	Lem de Ribeira	13	15					L-1						
8	Lugar Novo	34	39					L-1						
9	Pedra Branco	13	15					L-1						
10	Pico Cagarro	6	6					L-1						
11	Purgueira	22	25					L-1						
3, Salvador do Mundo	57	Covao Grande	492	568	Spring				L-7	0.50				
	1	Canaria	48	55					L-7					
	2	Covao Grande	32	37					L-7					
	3	Cutejo Gemia	45	52					L-7					
	4	Lem Jorge	84	97					L-7					
	5	Lem Tavares	30	34	Dug Well(HP)				L-7				HP: 1.75m ³ /day	
	6	Manipulo	32	37	Spring				L-7					
	7	Mato Afonso	221	256	Tank Lorry	50m ³		2	L-7		6.0	3		
	58	Degredo	204	233					L-7					
	1	Covao Varela	25	29	Spring				L-7					
	2	Degredo Baixo	27	31	Spring				L-7					
3	Funco Bandeira	15	17	Spring				L-7						
4	Ilheu	61	70	Spring				L-7						
5	Lem Cabral	10	11	Spring				L-7						
6	Morro	5	5	Spring				L-7						
7	Papaia	53	61	Spring				L-7						
8	Campanario	8	9	Spring				L-7						
59 Faveta	397	Faveta	397	386					L-8					
	1	Aguada	48	55					L-8					
	2	Cha de Laranja	7	8					L-8					
	3	Covada	31	36					L-8					

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (15/19)

Freguesia No.	No. No.	ZONA Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20ℓ)	Remarks	
2	59	Faveta												
	4	Covao Dentro	20	23					L-8					
	5	Covao Varela	17	19					L-8					
	6	Curelo Riba	26	30					L-8					
	7	Curelo Vieira	27	31					L-8					
	8	Dundona	15	17	Dug Well	20m ³		2					Under Construction Reservoir, Public Faucets	
	9	Faveta	33	38					L-8					
	10	Fundao	4	4					L-8					
	11	Lem Monteciro	19	22					L-8					
	12	Lem Mendes	19	22					L-8					
	13	Lem Pereira	16	18					L-8					
	14	Monte Diogo	36	41					L-8					
	15	Noneira	19	22					L-8					
	S. Salvador do Mundo	60	Jalalo Ramos	534	607									
		1	Chao de Tamara	17	19					L-5				
2		Cruz de Jalalo	30	34					L-5					
3		Curelo Carvalho	42	48					L-5					
4		Curelo Covada	33	38					L-5					
5		Curelo Grande	28	32					L-5					
6		Dentro Ribeira	22	25	Tank Lorry	50m ³		2			4.0	5	Delivery : 1 time/week Private water vendor: 800 Esc /m ³	
7		Fontc Banana	14	16					L-5					
8		Galiza	25	29					L-5					
9		Jalalo	2	2					L-5					
10		Lem Cardoso	35	40					L-5					
11		Lem Dias	40	46					L-5					
12		Lem Sanches	27	31					L-5					
13		Lugar Novo	7	8					L-5					
14		Mafafa	17	19					L-5					
15		Pinha	31	36					L-5					
16		Piquinho	61	70					L-5					
17		Ribeirao Arcanjo	19	22					L-5					
18		Ribeirao Fundo	58	67					L-5					
19		Tabanca	22	25					L-5					
20		Travessa do Rio	3						L-5					
21	Tribuna	1						L-5						
61	Junco		38	44										
	1	Cruz dos Picos	38	44	Tank Lorry	10m ³		2				2		

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (16/19)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks
2	62	Leitão Grande	964	1,101									
	1	Baxtiana	5	5									
	2	Bonson	5	5									
	3	Chao de Mangul	34	39	Spring					L-11			
	4	Chao Baixo	20	23						L-11			
	5	Chao Riba	7	8									
	6	Covao Segredo	1	1									
	7	Cruz Rebelo	8	9									
	8	Cuteiro Rocha	66	76						L-11			
	9	Cuteiro Tandonga	42	48						L-11			
	10	Cuteiro Zimbrão	35	40						L-11			
	11	Dencanso	45	52	Borehole Well(PBE-104)	40m ³	Chafariz	3			6.0	2.5	
	12	Faicho	4	4						L-11			
	13	Fonte Baixo	6	6						L-11			
	14	Fundao	6	6						L-11			
	15	Gugao	36	41						L-11			
	16	Gundao	39	45						L-11			
	17	Laranjeira	34	39						L-11			
	18	Lem Tavares	24	27	Spring								
	19	Limao	19	22	Spring								
	20	Malveira	36	41	Spring								
	21	Monte Fuja	14	16	Spring								
	22	Mundo Grande	12	13	Spring								
	23	Nona	5	5									
	24	Pedra Branco	9	10	Spring								
	25	Pedra Severina	63	73	Spring								
	26	Pedregal	45	52						L-11			
	27	Pegada	6	6						L-11			
	28	Ponta Traz	15	17						L-11			
	29	Ponta Rubera	36	41	Spring								
	30	Ponto Ferro	8	9									
	31	Quebrada	31	36	Spring								
	32	Ribeira Grande	17	19	Spring								
	33	Sansao	130	151						L-11			
	34	Sansao Baixo	83	96	Spring								
	35	Lem Rocha	9	10	Spring								
	36	Lem Pereira	9	10	Spring								

S. Salvador do Mundo

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (17/19)

Freguesia	ZONA		Population	Type of Water	Reservoir	Type of Public	Taps	Water	Distance	Supply	Water	Remarks
No.	No.	Lugar	CENSUS 1990	Source	(m ³)	Faucets	(Km)	Source	(Km)	Time (hr/day)	Tariff (Esc/20l)	
2	63	Leitadoinho	492	561								
	1	Banana	1	1								
	2	Cha de Nona	11	12	50m ³					5.5	5	Delivery : <1 time/week
	3	Cha de Tamara	7	8								
	4	Chao de Reis	7	8								
	5	Coreia	22	25								
	6	Covao Branco	5	5								
	7	Furroba	29	33								
	8	Figueira	27	31								
	9	Fonte Mato	15	17								
	10	Ilorta Lopi	3	3								
	11	Joo Galante	12	13								
	12	Levada	7	8								
	13	Lem Sanches	9	10								
	14	Lem Soares	14	16								
	15	Manipo	37	43								
	16	Mato Ribeiro	72	83								
	17	Monte Mexca	18	20								
	18	Pe de Subida	67	77								
	19	Polão	30	34								
	20	Sansao	33	38								
	21	Somada	21	24								
	22	Tagarra	45	52								
	64	Manhanga	235	268								
	1	Cha de Monte	17	19				Pico Freire				
	2	Cha de Nona	23	26				Pico Freire				
	3	Cha de Paredo	33	38				Pico Freire				
	4	Cutelo Laranja	22	25				Pico Freire				
	5	Cutelo Mato	6	6				Spring				
	6	Cutelo Mouro	6	6								
	7	Papala	20	23								
	8	Selada	64	74				Pico Freire				
	9	Travessa	44	51				Pico Freire				
	65	Mato Fortes	201	230								Private water vendor: 800 Esc / m ³
	1	Avelho	9	10				L4				
	2	Chourana	20	23				L4				
	3	Cruz de Souge	32	37				L4				
	4	Majada	16	18								
	5	Mato Forte Riba	41	47				L4				

S. Salvador do Mundo

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (18/19)

Freguesia No.	ZONA		Population		Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks
No.	No.	Lugar	CENSUS 1940	Estimation 1998									
2	65	Mato Fontes	29	33					L-4				
	6	Quintal	38	44					L-4				
	7	Tombado	16	18					L-4				
	8	Pau de Guine	246	281					L-10				
	1	Carrira	16	18					L-10				
	2	Covao Almeida	23	26					L-10				
	3	Covao Deniro	15	17					L-10				
	4	Covao Sanches	13	15					L-10				
	5	Curta	38	44					L-10				
	6	Cuteio	19	22					L-10				
	7	Curral de Porco	14	16					L-10				
8	Fontinha	5	5					L-10					
9	Lem Lopes	40	46					L-10					
10	Mato Limao	41	47	Hand Pump				L-10					
11	Rocha Preta	22	25					L-10					
S. Salvador do Mundo	67	Picos Acima	1,499	1,730					L-21				
	1	Alegrete	38	44					L-21				
	2	Banana	117	136					L-21				
	3	Bombida	78	90					L-21				
	4	Chao Cardoso	45	52					L-21				
	5	Chao de Mora	16	18					L-21				
	6	Chao de Limao	16	18					L-21				
	7	Chao Grande	71	82					L-21				
	8	Chao Pariba	32	37					L-21				
	9	Chao Varela	86	99					L-21				
	10	Choupana	97	112					L-21				
	11	Covao Nunes	35	40					L-21				
	12	Cruzinho	31	36					L-21				
	13	Cuteio Paia	45	52					L-21				
	14	Cuteio	20	23					L-21				
	15	Cuteio Dias	78	90					L-21				
	16	Cuteio Fernandes	61	70					L-21				
	17	Demanda	60	69					L-21				
	18	Funco Banana	44	51					L-21				
	19	Junco de Baixo	106	123					L-21				
	20	Lugar Grande	29	33	Spring (Gallery)				L-21				
	21	Matos	69	80		15m ³	Fontenário	3	L-21			1.5	
22	Milho Branco	33	38					L-21					

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CATARINA (19/19)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20ℓ)	Remarks	
2	67	Picos Acima												
	23	Pedra Barro	71	82					L-21					
	24	Penedinho	58	67					L-21					
	25	Rocha Belem	23	26					L-21					
	26	Tomba Pilon	140	162					L-21					
	68	Pico Freire	410	471										
	1	Bandeira	21	24					L-2			8.0	2.5	
	2	Carreira	49	56	Borehole Well(FBE-90)	40m ³	Chafaniz	3	L-2					
	3	Chao de Zimbrão	38	44					L-2					
	4	Cutele	96	111					L-2					
	5	Cutele Lopi	36	41					L-2					
	6	Jabacoche	39	45					L-2					
	7	Lem Varela	8	9					L-2					
	8	Manipulo	96	111					L-2					
	9	Monte Rama	3	3					L-2					
	10	Nona	24	27					L-2					
	69	Purgueira		430	495									
	1	Cobi	37	43						L-8				
	2	Covada	51	59						L-8				
	3	Cutele	55	63						L-8				
	4	Manipulo	35	40						L-8				
	5	Monte	20	23						L-8				
	6	Papaia	12	13						L-8				
	7	Paradona	32	37						L-8				
	8	Purgueira	85	98						L-8				
	9	Rebello Acima	103	119			60m ³		2	L-8		5.5	5	Delivery : <3 times/week
70	Rebello		133	154										
1	Rebello Acima		133	154	Spring									

S. Salvador do Mundo

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CRUZ (1/13)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20ℓ)	Remarks
1	1	Achada Laje	298	363	Tank Lorry	10m ³	2						Project is on-going
2	1	Achada Laje	298	363									
	2	Achada Bel Bel	766	1,160	Tank Lorry	40m ³	2			0.40	4.0	3	Delivery : 3times/week
	1	Achada Bel Bel	31	30	Tank Lorry					0.60			
	2	Achada Bel Bel Acima	235	306	Dug Well					0.70			
	3	Aguada	108	141	Dug Well					1.50			
	4	Casona	86	104					L-2	0.60			
	5	Chuo Poilao	26	4	Dug Well					2.00			
	6	Geu	145	189	Dug Well					0.80			
	7	Manipo	54	169	Dug Well					1.50			
	8	Mato Boi	26	106					L-2	3.00			
	9	Sarrado	38	98					L-2	0.30			
	10	Varzea Laranja	17	13	Dug Well								
	3	Achada Fazenda	1,073	2,394	Borehole Well(PT-33)	10m ³	3			0.60	6.0	2	House Connection
	1	Achada Fazenda	989	2,279			2	Chatariz	L-1				
	2	Cha de Cutelo	81	110					L-1	1.00			Project is on-going
	3	Zimbrom	3	5									
	4	Achada Ponta	331	462									
	1	Achada Casuanda	11										
	2	Achada Ponta	317	457	Tank Lorry	10m ³	2	Chatariz		0.30	4.0	6	Delivery : 1time/week
	3	Cutelo	3	5					L-2	0.40			Private W. vendor : 20Esc/20ℓ
	5	Boaventura	477	522									
	1	Bao Esperanca	66	106	Dug Well					0.20			
	2	Boaventura	37	45	Dug Well					1.50			
	3	Casona	8	18	Dug Well					0.45			
	4	Cha de Casa	31	21	Dug Well					0.60			
	5	Cruz de Aguada	71	88	Dug Well					1.20			
	6	Cutelo Salto	18	23	Dug Well					3.00			
	7	Formosa	5	15	Dug Well					0.60			
	8	Horta Nova	40	52	Dug Well					1.50			
	9	Oril	29	20	Dug Well					0.60			
	10	Orissinho	30	10	Dug Well					0.25			
	11	Pedra Sarrado	34	9	Dug Well					0.70			
	12	Pole	12	9	Dug Well					1.80			
	13	Toril	85	91	Dug Well					0.50			
	14	Traz de Monte	11	15	Dug Well					3.50			
	6	Boca Larga	289	289									
	1	Achadinha	42	79	Spring					0.40			
	2	Achadona	1										
	3	Andecal	16	16	Spring					0.80			

Santiago Maior

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CRUZ (3/13)

Freguesia	No.	ZONA	Population	Type of Water	Reservoir	Type of Public	Taps	Water	Distance	Supply	Water	Remarks	
No.	No.	Lugar	CENSUS 1990 Estimation 1998	Source	(m ³)	Faucets		Source	(Km)	Time (hr/day)	Tariff (Esc/20l)		
Santiago Maior	2	9 Julangue	27									No Body	
		3 Lem Rocha	22										
		4 Lem Vaz	10										
		5 Massape	7										
		6 Monte	7										
		7 Pupaia	7										
		10 Librão	434	515						3.50			
		1 Baixo Rocha	11	35						0.50			
		2 Bonina	24	48						0.60			
		3 Cha de Laranjeira	15	39						0.30			
		4 Coqueiro	38	62						0.40			
		5 Covão Comprido	37	34						0.60			
		6 Curolo da Veiga	16	20						0.50			
		7 Laidada	110	120						0.80			
		8 Lem Correia	17	19						0.85			
		9 Lem da Coxa	31	32						0.45			
		10 Lem Monteiro	35	37						0.50			
	11 Lem Semedo	7	7		10m ³				0.60				
	12 Lima	14	18						0.30				
	13 Macurta	17	13						0.85				
	14 Mancelo	22	16						1.20				
	15 Mancholy	16	15						1.28				
	16 Mato Raia	5											
	17 Ponta Semedo	19											
	11 Matinho	579	1,141										
	1 Aguada	53	110	Spring					0.60				
	2 Banana	7	19	Dug Well					0.50				
	3 Bandeira	12	20	Dug Well					1.40				
	4 Carrical	51	62	Dug Well					1.60				
	5 Ilheu	3	5	Dug Well					2.00				
	6 Laranjeira	22	87	Dug Well					0.30				
	7 Lem Sanches	11	68	Dug Well					4.00				
	8 Matinho	153	240	Dug Well					0.50				
	9 Matinho Acima	50	140	Dug Well					1.00				
	10 Mato Madeira	52	115	Dug Well					0.80				
	11 Quebrada	63	113	Dug Well					0.90				
	12 Ribeira dos Porcos	81	150	Dug Well					0.20				
	13 Ribeira Gil	6	40	Dug Well					0.40				
	14 São Jacinto	15	34	Dug Well					0.50				

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CRUZ (4/13)

Freguesia No.	No.	No. No.	ZONA Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks	
2		12	Monte Negro	587	804										
		1	Achadinha	5	4	Dug Well					L-4	0.30			
		2	Aguada	40	52	Dug Well					L-4	0.30			
		3	Bolanha	40	46	Dug Well					L-4	0.40			
		4	Cha de Bol	16	20	Tank Lorry	10m ³	Chafariz	2		L-4	0.30	7.0	3	Delivery : 2 times/week
		5	Cha de Figueira	17	23	Dug Well					L-4	0.40			
		6	Cha de Pomba	6	9	Dug Well					L-4	0.60			
		7	Cha de Zimbrão	39	47	Dug Well					L-4	0.70			
		8	Cha Semedo	4	2	Dug Well					L-4	0.55			
		9	Covão de Poilão	9	16	Dug Well					L-4	1.50			
		10	Gil Andre	35	48	Dug Well					L-4	0.50			
		11	Lem Lopes	44	67	Dug Well					L-4	0.40			
		12	Limeira	6	15	Dug Well					L-4	0.60			
		13	Longueira	20	24	Dug Well					L-4	0.70			
		14	Matinho	23		Dug Well					L-4	0.80			
		15	Monte	39	51	Dug Well					L-4	2.00			
		16	Pare Rapaz	11	15	Dug Well					L-4	1.50			
		17	Ponte Achada	6	21	Dug Well					L-4	1.70			
		18	Ponte Diante	90	117	Dug Well					L-4	0.10			
		19	Ponte Ricenta	19	96	Dug Well					L-4	0.40			
20	Traz dos Montes	118	131	Dug Well					L-4	0.40					
Santiago Maior		13	Porto Madeira	488	616									Project is on-going	
		1	Achadinho	27	36						L-13	0.40			
		2	Belem	49	63						L-13	0.60			
		3	Cha Baixo	11	22						L-13	0.20			
		4	Cha Carreira	6	6						L-14	0.50			
		5	Cha de Beira	9	4						L-14	0.60			
		6	Covão Grande	3	5						L-14	1.80			
		7	Cruz de Riba Gato	17	23						L-13	0.80			
		8	Fonte Leme	24	31						L-13	0.25			
		9	Lem Barbosa	90	119						L-13	0.60			
		10	Lugar Grande	54	70						L-14	1.80			
		11	Ma Domingas	9	12						L-13	2.00			
		12	Monte Badio	6	2						L-13	2.50			
		13	Pizarra	59	77	Tank Lorry	50m ³		2		L-13		6.0	3	Delivery : 1 time/week
		14	Sala	42	55	Tank Lorry	20m ³		2		L-14		6.0	3	Delivery : 1 time/week
		15	Serrado Freire	15	32						L-14	1.50			
		16	Sole	9	15						L-14	0.15			
		17	Telha	51	40						L-13	0.70			
18	Travessa	7	4						L-13	0.70					

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CRUZ (5/13)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks
2	14	Rebello	147	196	Tank Lorry	10m ³		2		0.60	8.0	3	Delivery : 1 time/week Project is on-going
	15	Renque Purga	774	1,008	1,008								
	1	Bamdim	17	23	Tank Lorry	40m ³	Chafariz	3	L-2	0.60	5.0	3	Delivery : 3 times/week
	2	Capela de São Jose	24	33									
	3	Chã de Nispre	94	123									
	4	Chã de Tossa	55	72									
	5	Cuteio	19	25	Tank Lorry	22m ³	Chafariz	3	L-2	1.40			
	6	Cuteio Malagueta	18	24									
	7	Cuteio Miguel Sanchez	8	11									
	8	Cruz de Barajo	40	52									
	9	Dja Cafu	7	9									
	10	Guarda Vento	25	32									
	11	Pedra Barro	28	36									
	12	Planeta	15	19	Spring					L-2	0.50		
	13	Ponta de Cumba	43	55									
	14	Renque Acima	148	192	Spring						0.50		
	15	Renque Baixo	135	175	Spring						0.70		
16	Salva Terra	20	26	Spring						0.70			
17	Vassoura	78	101	Spring						0.50			
Santiago Maior	16	Ribeira Seca	617	623									Project is under planning
	1	Achada Braz	5	5					L-4	2.00			
	2	Bargado	7	7					L-14	0.60			
	3	B. Chonchoron	17	-									
	4	Cuteio de Coelho	11	11	Borehole Well(FT-63)								
	5	Estancia	4	-									
	6	Fazenda Grande	3	-									
	7	Forno	19	18	Dug Well					0.60			
	8	Lém Driguês	25	25	Dug Well					3.00			
	9	Lem Jorge	59	55	Dug Well					0.50			
	10	Lem Vieira	24	14	Dug Well					1.20			
	11	Libencha	60	60	Dug Well					0.80			
	12	Mucati	149	220	Borehole Well(FT-9)	20m ³	Chafariz	3					
	13	Mitra	32	20						1.50			
	14	Paulado	19	17	Borehole Well(FT-169)					0.15			
	15	Paulao Fonseca	30	15	Dug Well					0.85			
	16	Ribeirao Moura	82	82	Tank Lorry	Private				0.60			
	17	Taberna	46	46	Dug Well					0.50			
18	Vila Quente	25	28	Dug Well					0.20				

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CRUZ (6/13)

Freguesia No.	ZONA No.	ZONA Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks	
2	17	Ribeirão Almaco	174	260	Dug Well					0.40				
	1	Chao de Babosa	2	4	Dug Well					0.60				
	2	Cha de Fundao	14	49	Dug Well					0.80				
	3	Covao Esqueiro	32	37	Dug Well					0.60				
	4	Curelinho	8	12	Dug Well					0.20				
	5	Encontrada	22	20	Dug Well					0.05				
	6	Jaracunda	12	17	Dug Well					0.15				
	7	Lem Grande	21	27	Dug Well					0.50				
	8	Mato Raia	19	24	Dug Well					0.20				
	9	Ribeirão Almaco	44	70	Dug Well									
	18	Ribeirão Boi	678	641										
	1	Cha de Agua	39							L-8	0.50			
	2	Cha da Silva	18	26						L-8	0.40			
	3	Chao de Limao	47	51						L-8	2.00			
	4	Covao Correia	51	55						L-8	0.50			
5	Figueira Gorda	33	46						L-8	0.10				
6	Fornalha	87	95						L-8	0.30				
7	Lem Vieira	66	10						L-8	0.80	4.5	3	Delivery : 3 times/week	
8	Pizarra	69	68			11m ³	Chafariz	3						
9	Ponta Ribeira Acima	20	22											
10	Ponte Riba	4												
11	Ribeirão Boi	46	39						L-8	0.80				
12	Ribeirão Boi Acima	132	152			11m ³	Chafariz	3	L-8	1.60				
13	Ribeirão Boi Baixo	24	32						L-8	0.30				
14	Ribeirão Egua	9	2						L-8	0.40				
15	Ribeirão Fundo	33	43						L-8	0.70				
19	Rocha Lama	438	534											
1	Acha da Igreja	203	247							0.10				
2	Covada	7	9							0.20				
3	Rocha Lama	228	278											
20	Salto Abaixo	900	646											
1	Aboboreira	8	2							3.00				
2	Cha de Azedinha	57								1.80				
3	Cha de Pinha	25	46											
4	Cha Grande	33												
5	Cha Quente	15												
6	Coqueiro	109	78							0.50				
7	Covao Ramos	55	31							2.50				
8	Cruz Tavares	5												
9	Fonte Tras	10												

Project is on-going

Santiago Maior

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CRUZ (7/13)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks		
2	20	Saltos Abaixo											Project is on-going		
	10	Imperador	27	20	Dug Well					1.50					
	11	Lem Dias	32	32	Dug Well					0.80					
	12	Margosa	110	105	Dug Well					0.80					
	13	Pinchoza	44	57	Dug Well					2.00					
	14	Ribeirao d'Asno	94	98	Dug Well					2.20					
	15	Ribeirao Feijao	68	89	Dug Well					3.00					
	16	Ribeirao Pereira	51	62	Dug Well					0.30					
	17	Rombado	20	1	Dug Well					2.50					
	18	Sarradinho	42	15	Dug Well					0.60					
	19	Tras dos Montes	63	10	Dug Well					2.00					
	20	Rufeuz	32		Dug Well										
	21	Santa Cruz		920	1,126										
		1	Carriçal	4											
		2	Cha de Abobora	3	6	Spring					1.00				
		3	Cha de Agua	48	71	Spring					2.00				
		4	Cha de Camelo	74	99	Spring					2.00				
		5	Cha de Taberna	83	103										
		6	Cha Fernandes	39	45										
		7	Cha Fernando	29	35										
8		Chupana	169	211	Borehole Well(PT-31)	40m ³	Chafariz	3	L-8		8.0	2			
9		Lem Cachorro	97	110											
10		Lem Pereira	19	21											
11		Pinga Mel	35												
12		Ponta Ribeira	8												
13		Portalinho	34	47						0.40					
14		Ribeirao Egua	34	77	Spring					1.50					
15		Ribeirao Fundo	43	61	Spring					1.00					
16	Terra Branca	201	240	Tank Lorry	30m ³		2	L-8	2.60			Delivery : 2 times/week			
22	Sao Cristóvão		603	700											
	1	Achada Soares	55	63	Dug Well					2.00					
	2	Babosa	15	2	Dug Well					1.50			Delivery : 2 times/week		
	3	Bonina	86	92	Tank Lorry	20m ³	Chafariz	2			4.0	3	Delivery : 2 times/week		
	4	Canibra Hortinha	5	6	Tank Lorry	20m ³		2			4.0	3	Delivery : 2 times/week		
	5	Capela	36	50	Dug Well					0.30					
	6	Casa Nova	12	8	Dug Well					0.40					
	7	Chao Baixo	14	53	Dug Well					0.80					
	8	Cha de Bonco	31	44	Dug Well					1.20					
	9	Chao Formosa	32	47	Dug Well					0.60					
10	Cibe Novo	15	8	Dug Well					0.30						

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CRUZ (10/13)

Freguesia No.	ZONA No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks	
3	28	João Goto			Tank Lorry	11m ³		2	L-4	0.60	5.0	3	Delivery : 2 times/week	
	4	Cuteio Tavares	38	57					L-4	0.90				
	5	Gaspar Alto	16	28					L-4	1.00				
	6	Gaspar Vaz	55	78					L-4	0.70				
	7	Mato Novo	12	24					L-4					
	8	Subida Velho	72	106										
	29	João Teves	1,550	1,878										
	1	Achada Denga	56	81							0.40			
	2	Armazem	27	37							0.60	4.0	2	
	3	Canaria	21	28				Chafariz	2		0.10			
	4	Carreira	119	158							0.40			
	5	Covao Carrico	14	19							0.20			
	6	Covao Lopes	26	31							0.80			
	7	Covao Sequeira	71	90							0.60			
	8	Cuteio Tavares	61	80							1.00			
	9	Fontana	11	17							0.60			
	10	Funco Bandeira	144	144										
	11	Funco Marques	135	103								4.0	2	Project is on-going
	12	João Teves	321	417	Borehole Well (FT-84)	40m ³	Chafariz	2				4.0	2	
	13	Lagedo	104	117				Chafariz	2		0.80			
	14	Massape	53	68							1.20			
	15	Mato Raia	111	164							0.60			
	16	Posto	109	142							0.80			
	17	Ribeirinha	3	5							0.70			
	18	Serrado	17	11							0.50			
	19	Travessa	28	12							0.40			
	20	Varzea da Igreja	119	154							0.30			
	30	Lage		335	403									
1	Atras	54	64						L-2	0.20	6.0	2	House Connection	
2	Budjendi	35	49	Borehole Well(FT-80)	40m ³	Chafariz	3		L-2	0.80				
3	Cuteio Gomes	13	25						L-2	1.80				
4	Djobe	4	18						L-2	0.15				
5	Lage	6	14						L-2	0.60				
6	Mato Lobe	118	120						L-2	0.60				
7	Ponte Ferro	56	65						L-2	0.60				
8	Varanda	49	48						L-2	0.40				
31	Levada		218	310										
1	Achadilha	14	42						L-9	0.70				
2	Bateira	5	25						L-9	1.80				
3	Bom Pau	26	34						L-9	0.50				

São Lourenço dos Orgaos

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CRUZ (11/13)

Freguesia	No.	ZONA	Population	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20ℓ)	Remarks	
No.	No. No.	Lugar	CENSUS 1990	Estimation 1998									
3	31	Levada											
	4	Coqueiro	13	17				L-9	0.75				
	5	Covao Boi	27	26				L-9	0.90				
	6	Lapa	11	15				L-9	2.00				
	7	Lem Centeio	4	2				L-9	1.50				
	8	Lem Monteiro	21	21				L-9	0.70			Delivery: 1 time/week	
	9	Levada	82	107	Tank Lorry	20m ³	2			5.0	3		
	10	Varzea Novo	15	21				L-9	0.80				
	32	Longueira		441	326								
		1	Alcerim	47	20	Spring				0.40			
2		Casa Grande	12	7	Spring				0.20				
3		Covao	21	14	Spring				0.80				
4		Cuteio Manipo	53	20	Spring				0.60				
5		Frieza	74	50	Spring				0.30				
6		Mato Furtos	12	18	Spring				0.15				
7		Papaia	24	17	Spring				0.20				
8		Taberna	23	15	Spring				0.35				
9		Vazagua	173	165	Spring				0.40				
33	Montanha		900	972								Project is on-going	
	1	Achada Manipo	65	72					0.40				
	2	Banana	18	26					0.60				
	3	Bandam	44	48					0.80				
	4	Bedjera	18	12					0.18				
	5	Bica	29	32					2.00				
	6	Cha de Lagoa	54	62					0.90				
	7	Cha de Coelho	92	104					0.75				
	8	Cuteio Fernandes	23	18					0.65				
	9	Cuteio Serrado	17	19					0.45				
	10	Fundao	33	48					0.50				
	11	Galcao	58	63					0.90				
	12	Laranjeira	41	54					1.20				
	13	Lem de Brito	24	20					1.80				
	14	Lem Sanches	57	55					2.50				
	15	Lirnao da Veiga	4	1					1.60				
	16	Montanhinha	60	77					0.40				
	17	Monte da Veiga	53	67					0.30				
	18	Nhuagar	83	48					3.00				
	19	Pampaia	26	69					1.80				
	20	Rasta	41	22					3.00				
21	Varzea	60	55					0.40					

São Lourenço dos Orgaos

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CRUZ (12/13)

Freguesia No.	ZONA No. No.	Lugar	CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks
3	34	Orgaos Pequeno	573	707									Project is under planning
	1	Achadinha	21	26	Dug Well				L-13				
	2	Achadinha Cima	23	28	Dug Well				L-13				
	3	Alecrim	20	24					L-13				
	4	Assomada	75	91					L-13				
	5	Budjo Mesa	89	108					L-13				
	6	Banana	35	43					L-13				
	7	Beco	16	19					L-13				
	8	Curelo	48	58					L-13				
	9	Furtuna	14	17					L-13				
	10	Lataida	50	61					L-13				
	11	Lem Martins	28	34					L-13				
	12	Mato Ferreira	41	50					L-13		6.0	2	
	13	Pe de Subida	100	122	Borehole Well(FT-371)	40m ³	Chafariz	3					
14	Ribeira Grande	21	26					L-13					
São Lourenço dos Orgaos	35	Pico António/Padjom	659	664									
	1	Benfica	11	11	Spring				L-1	0.50			
	2	Casa Grande	50	44					L-1	0.60			
	3	Cha de Curral	37	37									
	4	Covao Grande	5	5									
	5	Curral Velho	19	20	Spring				L-5	1.30			
	6	Cuteio Moreno	76	68					L-9	1.00			
	7	Fonte Grande	33	32					L-5	0.70			
	8	Joao Sanches	43	40									
	9	Laranjeira	80	72	Borehole Well(FT-21)	40m ³	Chafariz	3					
	10	Lem de Mato	18	16					L-1	1.20			
	11	Lem Veira	70	76					L-5	0.70			
	12	Monte de Ouro	2	2					L-9	0.30			
	13	Monte Varela	40	42									
	14	Montinho	12	12					L-5	0.40			
	15	Palhao	105	87					L-9	0.45			
	16	Temerosa	35	47					L-9	0.50			
	17	Travessa Goiaba	15	31					L-9	0.65			
18	Varzea da Moura	8	41					L-9					
36	Pedra Molar	449	755										
	1	Chia	16	15					L-9	0.30			
	2	Costa da Ilorta	20	24					L-9	0.20			
	3	Covadinha	22	19					L-9	0.50			
	4	Curcio dos Orgaos	12	10					L-9	0.80			
5	Curcio Moreno	30	38					L-9	0.60				

Supply Facility and Water Use Condition by Village
 CONCELHO: SANTA CRUZ (13/13)

Freguesia No.	ZONA		Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks	
No.	No.	Lugar												
3	36	Pedra Molar												
	6	Lem Jorge	12	15					L-9	0.30				
	7	Mato Vaz	30	37					L-9	0.65				
	8	Mercado	177	287	Tank Lorry	11m ³	Chafariz	4			5.0	2	Delivery : 2 times/week	
	9	Varzea Fernandes/Saniana	82	252	Borehole Well(FT-21)	50m ³	Chafariz	3				6.0	2	
	10	Telha	48	58					L-9	0.40				
	37	Poilao Cabral	244	674										Project is under planning
	1	Achadinha Baixo	44	56					L-6	0.30				
	2	Lâm Bega	22	19					L-6	0.35				
	3	Lem Vaz	42	37					L-6	0.50				
4	Macroca	18	14					L-6	0.80					
5	Palha Carga	89	90					L-6	1.20					
6	Poilao Cabral	29	458	Orgaos Pequeno	40m ³	Chafariz	3				6.0	2		
38	São Jorge		1,132	1,451										
	1	Covada	277	400					L-3	1.00				
	2	Caiada	16	27					L-3	1.20				
	3	Cha de Vacca	175	228	Borehole Well(FT-23)	16m ³	Chafariz	4				8.0	2	
	4	João Gucla	152	198					L-3	0.60				
	5	Matao	22	20					L-3	0.80				
	6	Pedra Janela	25	27					L-3	1.20				
	7	Ponta Cruz	22	18					L-3	1.50				
	8	Ribeiro Galinha	372	483	Borehole Well(FT-145)	11m ³		2				2.0	3	
9	São Jorge	71	50					L-3	0.10					

São Lourenço dos Orgaos

Supply Facility and Water Use Condition by Village
 CONCELHO: SÃO DOMINGOS (1/6)

Freguesia	ZONA		Population	Type of Water	Reservoir	Type of Public	Taps	Water	Distance	Supply	Water	Remarks
No.	No.	Lugar	CENSUS 1990 Estimation 1998	Source	(m ³)	Faucets		Source	(Km)	Time (hr/day)	Tariff (Esc/20ℓ)	
1	1	Achada Baleia	267	317								
	1	Achada Baleia	267	317	Borehole Well(FT-25)	33m ³	Chafariz	3		7.0	2	
	2	Baia	441	524								
	1	Achada Baixo	116	138			Chafariz	3		3.0	2	
	2	Achada Riba	63	75	Borehole Well (FT-44)	22m ³	Chafariz	3		2.0	2	
	3	Castelinho	31	36				L-1				
	4	Covao Santana	62	73				L-1				
	5	Lam da Veiga	46	54				L-1				
	6	Moia Moia	123	148	Tank Lorry	11m ³	Chafariz	2		2.0	4	Delivery : 1 time/week
	3	Cancelo	226	270								
	1	Achada Lama Abaixo	22	26				L-2		6.0	2	
	2	Cancelo Baixo	60	72	Borehole Well (FT-25)	11m ³	Chafariz	2				
	3	Cancelo Riba	144	172				L-2				
	4	Chão de Coqueiro	195	213								
	1	Achadinha	5	5				L-2				
	2	Coqueiro	40	44	Tank Lorry	22m ³	Chafariz	2		3.0	4	Delivery : 1 time/week
	3	Cutele de Jatar	16	17				L-2				
	4	Lage Vermelho	75	83				L-2				
	5	Limeira	26	28				L-2				
	6	Grazote	33	36				L-2				
	5	Dobe	140	167								
	1	Dobe	76	92	Borehole Well(FT-208)		Chafariz	3		4.0	2	
	2	Tinca	64	77				L-1				
	6	Milho Branco	538	650								
	1	Cabeça Borta	48	58				L-6				
	2	Chã Cardoso	29	35				L-6				
	3	Cutele Tavares	23	28				L-6				
	4	Grazote	9	11				L-6				
	5	Limaço	78	94				L-6				
	6	Milho Branco	160	193	Tank Lorry	22m ³	Chafariz	2		3.0	4	Delivery : 3 times/week
	7	Ribeirão Jeronimo	43	52				L-6				
	8	Sezimbra	62	75				L-6				
	9	Tamarinha	20	24				L-6				
	10	Telha	13	16				L-6				
	11	Terra Branca	27	33				L-6				
	12	Varanda	26	31				L-6				
	7	Portal	368	440								
	1	Achada Lama Acima	104	124				L-2				Under Construction
	2	Capela	131	157	Dug Well							

M. Sa da Luz

Supply Facility and Water Use Condition by Village
 CONCELHO: SÃO DOMINGOS (2/6)

Freguesia No.	ZONA		Population		Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20ℓ)	Remarks	
	No.	Lugar	CENSUS 1990	Estimation 1998										
1	7	Portal	133	159					L-2					
	8	3	Praia Baixo	701	833					L-6				
		1	Castelo Grande	106	126					L-6				
		2	Cha de Mosquito	58	69					L-6				
		3	Ponta da Achada	147	175					L-6				
		4	Ponta Port	21	25					L-6				
		5	Praia Baixo	251	298	Tank Lorry	22m ³	Chafariz	2			6.0	5	Delivery : 2 times/week
	9	6	Rochinha	118	140	Tank Lorry	22m ³	Fontanário	2			4.0	5	Delivery : 2 times/week
		1	Praia Formosa	621	740									
		1	Achada Cativo	49	58					L-8				
		2	Achada Cavallo	10	12					L-4				
3		Belem	40	48					L-4					
2	4	Cha de Oliveira	66	79	Tank Lorry	22m ³	Chafariz	3			4.0	4	Delivery : 2 times/week	
	5	Covada	21	25					L-4					
	6	Cruz	49	58					L-4					
	7	Dabreu	107	127					L-4					
	8	Faial	57	68					L-4					
	9	Jardim	62	74					L-4					
	10	Lem Ferreira	50	60					L-4					
	11	Nazaré	110	131					L-4					
	1	Vale da Costa	357	424										
	2	Cachopo	67	80	Spring				L-4					
3	1	Lem de Brito	14	17					L-4					
	3	Ponta Baixo	129	153					L-4					
	4	Ponta Riba	147	174	Tank Lorry	33m ³	Chafariz	3			4.0	5	Delivery : <1 time/week	
	1	Achada Mitra	255	303										
	1	Achada Largo	16	19					L-8					
	2	Achada Vassoura	11	13					L-8					
	3	Barrabe	7	8	Spring									
	4	Cancelo	18	21	Spring									
	5	Fabrica	17	20					L-8					
	6	Figueira Portugal	99	118					L-8					
	7	Lage Vermelho	20	24					L-8					
4	8	Pedra Galinha	58	69	Tank Lorry	22m ³		2			6.0	5	Delivery : <2 times/week	
	9	Ponta de Forno	9	11					L-8					
	1	Agua de Gato	957	1,200					L-6					
	1	Achadinha	150	188					L-6					
	2	Bom Jardim	5	6					L-6					

Supply Facility and Water Use Condition by Village
 CONCELHO: SÃO DOMINGOS (3/6)

Freguesia	ZONA	Population	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks
No.	No. No. Lugar	CENSUS 1990 Estimation 1998									
2	12 Agua de Gato										
	3 Caixa	264					L-6				
	4 Chaozinho	33					L-6				
	5 Curral	66					L-6				
	6 Laranjeira	9					L-6				
	7 Lom Freire	75	2Spring(Gallery)				L-6				
	8 Lem Mendoca	152					L-6				
	9 Lem Pereira	40					L-6				
	10 Monte	69					L-6				
	11 Rema Rema	66					L-6				
	12 Travessa Baixo	17					L-6				
	13 Covao d'Agua	11					L-6				
	3 N. Tolentino	13 Banana	266								
1 Aldeia		20					L-2		2.0	4	Delivery : 2 times/week
2 Banana		65	Tank Lorry	33m ³	Chafariz	2	L-2				
3 Chacona		24					L-2				
4 Lem Fonseca		25					L-2				
5 Lem de Zimbro		24					L-2				
6 Mato Vaz		18					L-2				
7 Pontal Acima		10					L-2				
8 Ponta Ribeira		6					L-2				
9 Taberna		18					L-2				
10 Varzea Grande		56					L-2				
14 Chamimé		119									
1 Cha Chaqueira		15		Tank Lorry	22m ³	1	L-1		0.80	3.0	5
2 Costa de Nora	20					L-1					
3 Cutelo Golaba	8		Spring			L-1		0.50			
4 Leal	16					L-1		0.60			
5 Lem Semedo	34					L-1		0.90			
6 Mato Sociro	27					L-1					
7 Videla	14										
15	Ducabalato	210									
	1 Carredinha	18					L-2		0.5		
	2 Guarda Vento	12		Tank Lorry	50m ³	2	L-2			5	Delivery : 1 time/2weeks
	3 Massape	95					L-2		1.0		
	4 Mostarda	29					L-2		0.8		
5 Rochinha	56					L-2		1.0			
16	Fonte Almeida	698									
	1 Achada Podra	32					L-7				
	2 Achada Venreiro	24				L-7					

Supply Facility and Water Use Condition by Village
 CONCELHO: SÃO DOMINGOS (4/6)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Population Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks
2	16	Fonte Almcida											
	3	Agua Panelo	84	103					L-7				
	4	Cha de Cardoso	31	38					L-7				
	5	Cutelo Babosa	14	17					L-7				
	6	Fonte Acima	25	31					L-7				
	7	Massape	96	117	Tank Lorry	11m ³	Chafariz	2	L-7		1.0	4	Delivery : <2 times/week
	8	Monte Queimado	51	62					L-7				
	9	Montinhos	9	-					L-7				
	10	Olho de Agua	101	122					L-7				
	11	Quebrada	9	-					L-7				
	12	Ribeirao Areia	92	112	Borehole Well (FFT-25)	22m ³			L-7				
	13	Ribeirao Sana	7	9					L-7				
	14	Taberna	25	31					L-7				
	15	Ventreiro	98	120	Dug Well				L-7				
	17	Godim		277	330								
1		Curelo Acima	9	11					L-2				
2		Gudim	169	201	Tank Lorry	33m ³	Chafariz	3	L-2		2.0	4	Delivery : <1 time/week
3		Mundo Grande	63	75					L-2				
18	4	Telha	36	43					L-2				
	Lagoa		190	230	Spring	33m ³	Chafariz					Free	Reservoir and Chafariz not in use
19	Loura		350	390									
	1	Cancelo	54	60	Tank Lorry	Private 400m ³	Chafariz	3	L-1			5	Delivery : 3 times/week
	2	Chanquinho	52	58	Rainfall Collection				L-1			2	8 Month a year
	3	Dacabalao	43	48					L-1				
	4	Dires	86	96					L-1				
	5	Ilortelao	11	12					L-1				
20	Loura		104	116									
	Mato Afonso		386	460									
	1	Covao Vicente	45	54					L-3				
	2	Cucelo Gomes	58	69					L-3				
	3	Mato Afonso	181	216	Tank Lorry	22m ³	Chafariz	3	L-3		2.0	5	Delivery : 1 time/week
	4	Mato Martins	48	57					L-3				
	5	Sole	12	14	Spring				L-3				
6	Tambarina	17	20					L-3					
7	Volta Romao	25	30					L-3					

Supply Facility and Water Use Condition by Village
 CONCELHO: SÃO DOMINGOS (5/6)

Freguesia ... No.	No. No.	ZONA Lugar	Population CENSUS 1990 Estimatio 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks
2	21	Mendes Faleiro Cabral	101	120								
	1	Cha de Mangui	6	7				L-6				
	2	Cha de Tamara	20	24				L-6				
	3	Covao Delgado	13	15				L-6				
	4	Cruz	14	17				L-6				
	5	Laranjo	28	33				L-6				
	6	Pizarro	4	5	Tank Lorry	22m ³				2.5	4	Delivery : 1 time/week
	7	Telha	16	19				L-6				
	22	Mendes Faleiro Rendeiro	218	260								
	1	Covao	46	55					L-7			
	2	Cuteio	12	14					L-7			
	3	Lem Moreira	48	56					L-7			
	4	Lem Sanches	24	29					L-7			
	5	Lem Soares	9	11					L-7			
	6	Massape	13	16					L-7			
	7	Sacramento	38	45	Tank Lorry	33m ³	Chafariz					Delivery : 3 times/week
	8	Sibe	3	4					L-7			
	9	Travessa	4	5					L-7			
	10	Volta Romao	21	25					L-7			
	23	Nora	380	458								
	1	Barreira	17	20	Tank Lorry	Drum					4.0	4
2	Neta Gomes	180	220	Tank Lorry	22m ³	Fontanário	2					Delivery : <1 time/week
3	Nora	127	151	Tank Lorry	22m ³	Fontanário	2					
4	Travessa	56	67					L-2				
24	Po de Saco	168	210						1.00			
1	Cha de Vassoura	19	24	Spring(Gallery)					1.00			
2	Saco	149	186	Spring(Gallery)								
25	Ribeirão Chiqueiro	559	664									
1	Cha de Baixo	23	27						L-4			
2	Cha de Cachorro	49	58						L-4			
3	Cuteio Grande	129	154						L-4			
4	Ribeirão Chiqueiro	277	329	Borehole Well (FT-53)	33m ³	Chafariz	5			7.0	2	
5	Vazagua	81	96						L-4			
26	Robão de Cal	216	257									
1	Boa Vista	6	7									Project is on-going
2	Caldeira	5	6									
3	Cha de Coelho	6	7									
4	Costa Capela	36	43		22m ³	Chafariz						

S. N. Tolentino

Supply Facility and Water Use Condition by Village
 CONCELHO: SAO DOMINGOS (6/6)

Freguesia	ZONA	Population	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks
No.	No. No. Lugar	CENSUS 1990 Estimation 1998	Source	(m ³)	Faucets			(Km)	(hr/day)	(Esc/20l)	
2	26	Robo de Cal									Project is on-going
	5	Fuel	23	27							
	6	Lem Fernandes	21	25							
	7	Lem Gomes	14	17							
	8	Noneira	10	12							
	9	Pinga Mel	9	11							
	10	Ponta Mendes	39	46							
	11	Robo de Cal	39	46							
	12	Sarradão	8	10							
	27	Rui Vaz	812	956							
	1	Cancelo	68	80				L-11			
	2	Cidreira	132	155				L-11			
	3	Covao de Rui Vaz	50	59				L-11			
	4	Ouralinho	54	64				L-11			
5	Cutelo Mendes	84	99				L-11				
6	Lem da Veiga	29	34				L-11				
7	Lem Vieira	112	132				L-11				
8	Monte Fundo	60	71				L-11				
9	Monte Leso	17	20				L-11				
10	Ponta Baixo	120	141				L-11				
11	Vila	86	101				L-11				
				33m ³	Fontenário	2			6.0	7	Delivery: <1 time/week URBAN
28	Várzea da Igreja	1,860	2,212								
	1	Boa Vista	240	285							
	2	Colegio	112	133							
	3	Cova de Barro	47	56							
	4	Covao Engenho	87	103							
	5	Covao Lourenco	90	107							
	6	Cutelo Branco	54	64							
	7	Figueira Branco	83	99							
	8	Joso Garrido	480	571							
	9	Lem Lopes	82	98							
	10	Pinha	89	106							
	11	Sarradinho	33	39							
	12	Tamarceira	93	111							
	13	Tenda	168	200							
14	Várzea da Igreja	202	240								

S. N. Tolentino

Supply Facility and Water Condition by Village
 CONCELHO: PRAIA(2/5)

Freguesia No.	ZONA No. No.	Lugar	Population CENSUS 1990	Estimation 1998	Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks
1	5	Palmarço Grande	79	88									
	1	Palmarço Grande	79	88									
	6	Pedregal	25	27									
	1	Achada Lalanja	4	4									
	2	Pedregal	21	23									
	7	São Francisco	446	490									
	1	Mundo Novo	6										
	2	Ponta Lopes	12	13	Spring								
	3	Ponta Mendes	28	31	Spring								
	4	Portete de Cima	117	130	Spring								
	5	São Francisco	283	316	Borehole Well	40m ³	Chafariz	3			3.0	2	
	8	São Martinho Grande	861	960									
	1	Barce Barce	393	439	Borehole Well(FBE-138)	30m ³	Chafariz	4			5.0	2	
	2	Caiada	66	73	Borehole Well(Santa Clara)		Chafariz	3	L-4		2.5	2	
	3	Isabel Lopes	64	71									
4	Lem Dias	140	156	Spring									
5	Ponta do Sol	86	96										
6	Sanharre	112	125										
9	São Martinho Pequeno	1,153	1,279	Borehole Well(FT-200)	30m ³	Chafariz	3			5.0	2		
1	Achada Bombena	153	170										
2	Achada Carneira	14	15										
3	Bom Col	30	33										
4	Cambodjane	72	80										
5	Chão de Poeira	51	56										
6	Joaq Bom	56	62										
7	Lem Gomes	66	73										
8	Matao	79	88										
9	Pesada	149	166										
10	Purga Nova	10	11										
11	Ribeirinha	18	20										
12	São Jorginho	32	35										
13	Sarrado	272	303										
14	Trindade	76	84										
15	Vera Cruz	75	83										
10	São Tomé	230	256										
1	Portete de Baixo	68	75	Dug Well									
2	São Tome	162	181	Tank Lorry	22m ³	Fontenário	2				3.0	4	Delivery : <2 times/week
11	Veneza	176	196										
1	Veneza	176	196										

N. Sra da Graça

Supply Facility and Water Condition by Village
 CONCELHO: PRAIA(4/5)

Freguesia No.	ZONA		Population		Type of Water Source	Reservoir (m ³)	Type of Public Faucets	Taps	Water Source	Distance (Km)	Supply Time (hr/day)	Water Tariff (Esc/20l)	Remarks	
	No.	Lugar	CENSUS 1990	Estimation 1998										
3	19	Chá de Igreja	182	203	Borehole Well(FT-153)	50m ³	Chafariz	3			10.0	2		
	1	Chá de Igreja	182	203										
	20	Chá Gonçalves		164	183	Spring (Gallery)		Chafariz	3					
		1	Chá Gonçalves	164	183									
	21	Delgado		49	54									
		1	Delgado	49	54									
	22	Gouveia		249	219									
		1	Chá Sanches	51	56									
		2	Lem Correia	53	59									
		3	Teche Lem	68	75									
		4	Tira Tema	11	12									
	23	Mosquito de Horta		117	128	Borehole Well(Santa Clara)	50m ³	Chafariz	3	L-3 L-3 L-3 L-3		8.0	2	
		1	Achadinho	8	8									
		2	Chadinho	4	4									
		3	Montinho	29	32									
		4	Mosquito d'Horta	66	73									
	24	Mosquito Grande		122	135	Borehole Well(FT-227)	11m ³	Chafariz	2	L-4 L-4 L-4				
1		Achada	93	103										
25	Pico Leão		29	32									Project is on-going	
	1	Achadinha	653	718										
	2	Baifaria	10	11										
	3	Boeiro	53	59										
	4	Chá Arrcal	25	27										
	5	Chá de Riba	42	46										
	6	Chá Grande	40	44										
	7	Chuva Chove	51	56										
	8	Cutelinho	97	108										
	9	Cuteiro Cabral	18	20										
	10	Cuteiro Moreira	8	8										
	11	Curral Velho	8	8										
	12	De Grande	12	13										
	13	Furna	24	26										
	14	Galeco	73	81										
	15	Laranjinha	41	45										
	16	Monte Branco	22	24										
17	Ponta Romão	12	13											
		86	96											

São J. Baptista

Project is on-going

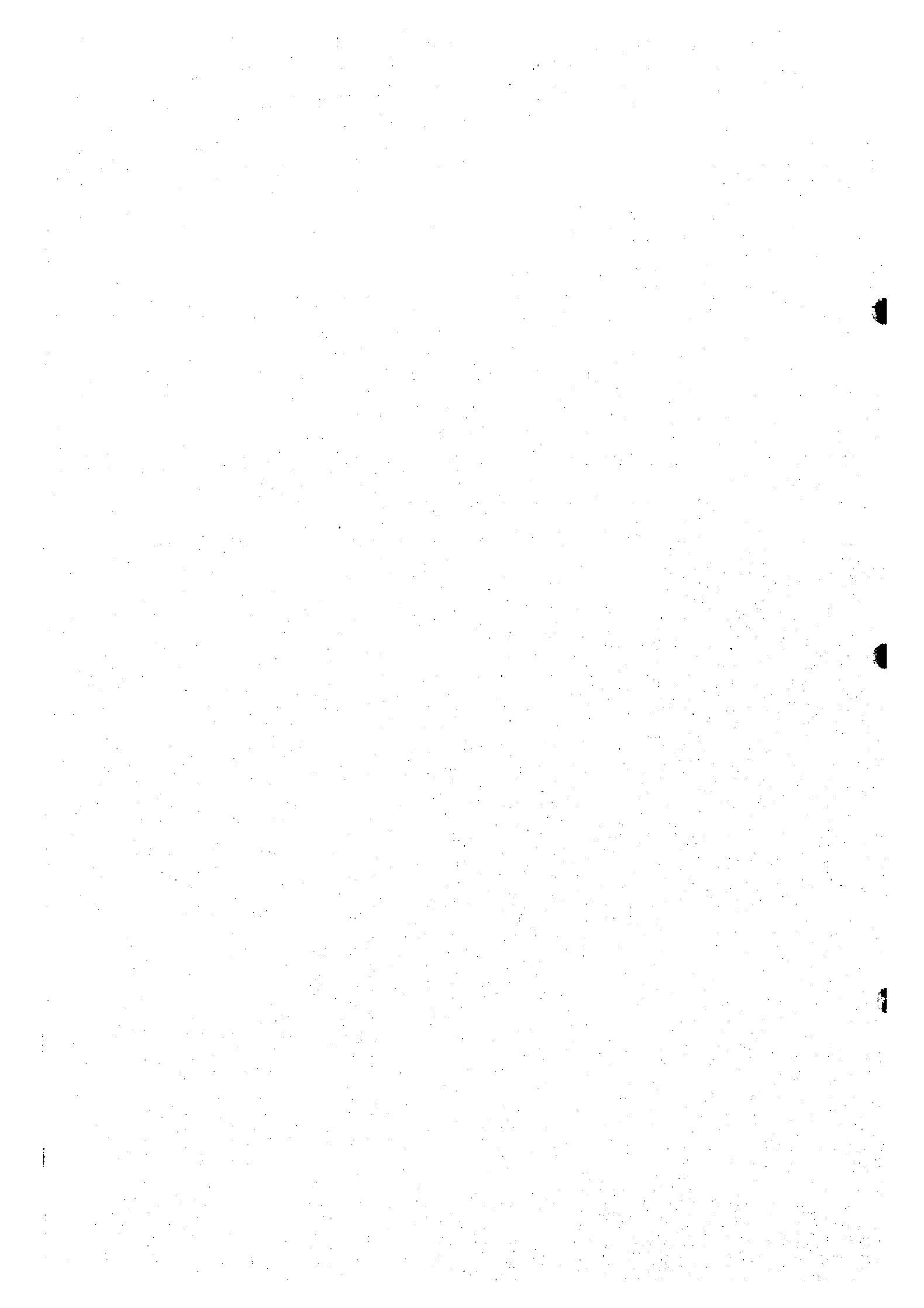
Supply Facility and Water Condition by Village
 CONCELHO: PRAIA(5/5)

Freguesia	No.	No. No.	ZONA	Lugar	Population	Type of Water	Reservoir	Type of Public	Taps	Water	Distance	Supply	Water	Remarks	
					CENSUS 1990	Source	(m ³)	Faucets		Source	(Km)	Time (hr/day)	Tariff (Esc/20l)		
3		25	Pico Leão												
		18	Rochinha	24	Spring										
		19	Rua Baixo	7	Spring										
		26	Porto Mosquito	492		549							5.0	2	
		1	Porto Mosquito	492	Borehole Well(Santa Clara)	20m ³	Chafariz	3							Reservoir and Chafariz not in use
		27	Santana	906		1,008									
		1	Achadinha	209		233					L-2	0.80			Free
		2	Chupana	92	102, Spring (Gallery)	50m ³	Chafariz				L-2	1.20			
		3	Errado	22		24					L-2	1.00			
		4	Lem Gomes	186		207									
		5	Madjada	1											
		6	Ponta d'Achada	233		260					L-2	1.00			
		7	Quebrada	163		182					L-2	1.00			
		28	Tronco	186		206									
1	Cassengal	36		40	Spring										
2	Terra Branca	12		13	Spring										
3	Tronco Baixo	69		77	Spring										
4	Tronco Riba	66		73	Spring										
5	Vassoura	3		3	Spring										

São J. Baptista

2. Questionnaires for Village Survey for

- Villagers (Male / Female)
- School Teachers
- Sanitation Agents
- Water Vendors
- Group Interview (Male / Female Separate)



Questionnaire for Villagers (Male/Female)

Date _____
 Starting Time _____
 Finishing Time _____

1. Household Roster

Household members	Resident status	Marital status	Sex	Age	School
	Present.....1 Absent.....2 Visitor.....3	Single.....1 Married.....2 Divorced....3 Widowed...4	Male.....M Female...F		None.....1 1~6 yrs2 7~10 yrs...3 Others.....4
Head					

2. General Information

2.1 What is the religion of the family ?

Catholic _____
 Protestant _____
 Muslim _____
 Others _____ (specify what)

2.2 How long has this household been living in this dwelling ?

Number of months _____
 Number of years _____

2.3 On what basis does the household occupy the dwelling ?

Owned _____ Borrowed, free of charge _____
Rented _____ Other ()

2.4 Have any member of your household been away for more than 6 months ?

Yes _____ No _____

2.5 If yes, how many persons are away in total ?

One _____ Two _____ More ()

2.6 Is the household head one of these ?

Yes _____ No _____

2.7 What are the main reasons for the absence ?

Seeking jobs overseas _____
Seeking jobs outside zona _____
Seeking jobs outside the island _____
Study _____
Others _____ (specify why)

3. Economic Activity

3.1 What is the main source of this household ?

Crop cultivation _____ Wage earning _____ (specify what)
Livestock _____ Other _____ (specify what)

3.2 What is the secondary income source ?

Crop cultivation _____ Wage earning _____ (specify what)
Livestock _____ Other _____ (specify what)

3.3 What is the total number of livestock your household owns today ?

Cow _____ Sheep _____
Horse _____ Goat _____
Donkey _____ Chicken _____
Pig _____ Other _____ (specify what)

3.4 What is the total size of land holding of your household ?

_____ liters

3.5 On what basis does the household occupy the land for agriculture ?

Owned _____ Borrowed, free of charge _____
Rented _____ Other (_____)

3.6 What was the total area under crop cultivation during the last season ?

_____ liters

3.7 What is the main crop ?

3.8 What are the second crops ?

4. Household Income/Expenditures

Item	Value
4 Income	
a.	
b.	
c. Others (_____)	
5 Expenditure	
a. Food and drinks	
b. Clothing	
c. Education	
d. Medical expenses	
e. Water fee	
f. Others(_____)	

5. Activities (productive/reproductive/community activities)

5.1 Are you a member of any group ? (such as construction group, women's group, funeral group, etc)

Yes _____ (specify what)

No _____

5.2 Any community activities commonly organized in your zona ?

Festival _____

Community meeting _____

Others _____

5.3 How do you get to know the news ?

Through community meeting _____

Through zona ocmission _____

Through camara staff _____

Through friends / neighbours _____

Through radio _____

Others _____ (Specify what)

5.4 How many hours did you spend yesterday for the following activities ?

	Hours	Location	Remarks
1. Productive Activities			
1.1 Agriculture	hours		
1.2 Fishing	hours		
1.3 Animal care	hours		
1.4 Kitchen gardening	hours		
1.5 Income generation	hours		
1.6 Wage labor	hours		
1.7 Others	hours		
2. Reproductive Activities			
2.1 Collection of water	Hours		
2.2 Collection of firewood	Hours		
2.3 Washing clothes	Hours		
2.4 Preparation of meals	Hours		
2.5 Cleaning house/maintenance	Hours		
2.6 Child rearing	Hours		
2.7 Family health care	Hours		

2.8 Shopping	Hours		
2.9 Other household chores	Hours		
3. Community Activities			
3.1 (specify)	Hours		
3.2 (specify)	Hours		

6. Access and control

	Access	Control	Remarks
1. Resources			
1.1 Water			
a. Domestic water			
b. Irrigation water			
1.2 Equipment			
a. Equipment for maintenance			
1.3 Skills/training			
a. Water system maintenance			
1.4 Labor support for water collection			
1.5 Credit for water fee			
2. Benefits			
2.1 Water			

○ = have access and control

△ = have some access and control

× = have no access and control

<Water>

6.1 Who collects water for the domestic use ?

Husband/Male partner () Wife/Male partner ()

Girl child () Boy child () Others () (specify who)

6.2 Do you get help from outside the household in water collection ?

Yes () No ()

6.3 Who decides where to take water, when to take water, who to take water, how to take water, how much water (amount) to take, for domestic use ?

Husband/Male partner () Wife/Female partner ()

Together ()

6.4 Who makes the final decision ?

Husband/Male partner () Wife/Female partner ()

6.5 Who collects water for the irrigation purpose ?

Husband/Male partner () Wife/Female partner ()
Girl child () Boy child () Others () (specify who)

6.6 Who decides where to take water, when to take water, who to take water, how to take water, how much water (amount) to take, for the irrigation purpose ?

Husband/Male partner () Wife/Female partner ()
Together ()

6.7 Who makes the final decision ?

Husband/Male partner () Wife/Female partner ()

<Equipment>

6.8 Do you repair/maintain the water supply system ?

Yes () No ()

6.9 If yes, are tools you need for repairs/maintenance available to you ?

Yes () No ()

6.10 Are the tools yours ?

Yes () No ()

<Knowledge/training>

6.11 Have you learned any skills for repairs/maintenance ?

Yes () (specify where) No ()

6.12 Did you participate in any training for repairs/maintenance ?

Yes () (where and when) No ()

<Credit>

6.13 Do you always pay for the water, or do you sometimes get water on credit ?

Always pay ()

Sometimes pay and sometimes on credit ()

<Household budget>

6.14 Who is in charge of household economy ? (in other words, who decides what to buy, how much to buy, what not to buy, etc ?)

Husband/Male partner () Wife/Male partner ()
Together () Others () (specify who)

6.15 Who makes the final decision ?

Husband/Male partner () Wife/Female partner ()

7. Health condition

7.1 What are the major health problems your family faces ?

Diarrhoea	_____	Parasite	_____
Cold / Fever	_____	Typhoid	_____
Skin diseases	_____	Eye diseases	_____
Headache	_____	Others	_____ (specify what)

7.2 Are there any seasonal variations for the diseases occurrence ?

Yes _____ (specify what) No _____

7.3 Where do you go when your family members are sick ?

Nearest health center _____
Nearest sanitation agency _____
Traditional healer _____
Others _____ (specify where)

8 Domestic Water

8.1 Where do you take water for domestic use ?

	Dry Season	Rainy season
River	_____	_____
Pond / Lake	_____	_____
Spring / gallery	_____	_____
Dug well	_____	_____

Buy from public faucet _____
 Buy from truck directly _____
 Others _____

8.2 How long does it take to get there ?

Dry season _____ hours
 Rainy season _____ hours

8.3 Have you always been taking water from there ? If not, where ?

Yes _____ No _____ (specify where)

8.4 How much water do you collect every day ?

_____ liters

8.5 How much time do you spend each day for collection of water ?

	Dry season	Rainy season
Less than one hours	_____	_____
1~3 hours	_____	_____
More	_____	_____

8.6 How much do you pay for the water ?

_____ per liter

8.7 If not paying, why ?

Do not have money _____ Not collected _____
 Other _____ (specify)

8.8 Do you have any problems with current domestic water supply ? If so, what problems ?

Quantity of water _____
 Quality of water _____
 Access to facilities _____
 Fees _____
 Reliability _____
 Others _____

8.9 Do you have any requests or suggestions for better water supply system ? If so, what are they ?

Items	Priority Order (1 to 6)
a. Improvement of water quality	
b. Improvement of the existing facility	
c. Increase in the amount of water to be supplied	
d. Reduction of water fee	
e. Reduced distance	
f. Others (what)	

1: Highest priority

6: Lowest priority

8.10 If there is an improved water supply system available, are you willing to contribute to the operation and maintenance of the system ?

Yes _____ (specify how)

No _____ (why)

8.11 If there is an improved water supply system available, are you willing to pay for the water ?

Yes _____

No _____ (why)

9 Sanitation and Hygiene

9.1 What is a more important purpose for using water ?

Drinking / cooking / dishing _____

Personal hygiene _____

Laundry _____

Agriculture / kitchen garden _____

9.2 Do you have a toilet in your house ?

Yes _____ (what type, where)

No _____

9.3 If yes, does your family use them ?

Yes, always _____

Sometimes _____

Never _____

Only women _____

9.4 What about children ?

Yes, always _____

Sometimes _____

Never _____

9.5 If you do not have a toilet at your house, do you find it inconvenient ?

Yes _____

No _____

9.6 Have you attended any health and hygiene education organized in the zona ?

Yes _____ (when, where)

No _____ (why)

9.7 Will you attend in health and hygiene education, if organized in your zona ?

Yes _____

No _____

10. Your Development Need

10.1 What is your priority need in your life ?

Economic need _____

Health of family _____

Education of children _____

Housing _____

Water supply for domestic use _____

Water supply for agriculture _____

10.2 How would you satisfy the above need on your own ?

10.3 What would you do with the time saved, when an improved water system is installed and less time is required for water collection (only for women) ?

Income generation _____
Care for children _____
Household work _____
Nothing _____
Others _____

Questionnaire for Zona Leader

Municipality _____
 Zona _____
 Informant _____
 Date _____

A Local Administration

A-1 Organization of the Zonal Administration

Name of Post	Name of Person	Years in Position and How Appointed	Major Activities

A-2 Payment for the above Members

Do the Zonal Administration members receive any payment (salary) for their services ?

a. Yes b. No

If yes, how much do they receive ?

A-3 Number of lugar _____ number

B Basic Data and Indicators

B-1 Number of households _____

B-2 Total population _____

 Male _____

 Female _____

B-3 No. of female headed-households _____

B-4 Population movement

Migration out of zona _____ persons

Migration out of country _____ persons

B-5 Percentage of religion Christian _____

Others _____

B-6 Total land area _____ km²

Crop land area _____

Others _____

C Agriculture, Livestock and Fishery

C-1 Average size of land holding by a household _____ ha

No. of farmers with own land _____

No. of tenant farmers (farmers without land but borrowing land) _____

No. of farm laborers (who has no land) _____

C-2 Main crop in the village _____

C-3 Second Crop in the village _____

C-4 Average annual household production of food crops

Maize _____

Banana _____ Others _____

C-5 Is there any considerable production of the following items in and around your zona? (circle one or more, if any)

a. fish b. poultry c. wood d. natural stone

e. bricks f. honey g. charcoal h. any other ()

C-6 Average no. of livestock in a household

Cattle for beef _____ Cattle for milk _____

Horse _____ Goat _____

Sheep _____ Chicken _____

Pig _____ Others _____

D Employment and Income

D-1 Please indicate every kind of economic activity found in your village.
(circle one or more, if any)

- | | |
|---------------------|-----------------------------|
| a. food processing | b. slaughtering |
| c. dairy products | d. bakery |
| e. beverage | f. textiles |
| g. basket making | h. rope making |
| i. wood processing | j. tanning |
| k. furniture making | l. laborer for construction |
| m. others _____ | |

D-2 Available Manpower (Please mention the number and sex)

- | | |
|---------------------|-----------------------|
| Doctor _____ | Nurse _____ |
| Pharmacist _____ | Midwife _____ |
| Teacher, male _____ | Teacher, female _____ |
| Carpenter _____ | Blacksmith _____ |
| Mason _____ | Mechanic _____ |

D-3 Number of people in your zona who work as seasonal laborers away from home outside Zona _____

Number of people in your zona who work as seasonal laborers away from home outside the country _____

D-4 Most important source of income for the families _____

D-5 Monthly average family income _____

E Location and Public/ Social Services

E-1 Distance on foot to the nearest main road

- | | |
|---------------------|-------------------------|
| a. zero | b. Less than 30 minutes |
| c. 30 to 60 minutes | d. more than 1 hour |

E-2 Is your Zona served by regular passenger transport services ? (circle one)

- a. No
- b. Yes: all year round, more than once a week
- c. Yes: all year round, less than once a week
- d. Yes: but seasonal services

E-3 Is telephone service available in the Zona ? a. Yes b. No

- E-4 Nearest health facilities
- a. Sanitation agency _____
 - b. Health center _____
 - c. Others () _____
 - d. Traditional healer _____ persons

- E-5 School (circle one)
- a. _____ number of schools are available in zona
 - b. School is available outside zona
(How far is the school? _____ km)
 - c. School is not available.

If school is available, please mention the number of school children.

	Primary (1-6 years)	Secondary (7-10 years)	Others
Male	_____	_____	_____
Female	_____	_____	_____

How / by whom is the school maintained ?

- E-6 Community hygiene / sanitation

Is there a fixed place to throw garbage in the zona ? If so, what do you do with the garbage thrown there ?

- E-7 Public utilities

Electricity

- a. Electrified
- b. Not Electrified
- c. Partially Electrified

Post Office	_____	units
Commercial Bank	_____	units
Cooperative societies	_____	units
Shops	_____	units
Others ()	_____	units

- E-8 Public information

Television	_____	units
Radio	_____	units

- E-9 Source of Drinking Water (circle one or more, if any)
- a. Public faucet (source of water _____) b. Truck supply
- c. House Connection d. Dugwell e. Spring f. Pond
- g. Stream/River h. others _____

E-10 System of operation / maintenance of the drinking water facility

- E-11 Source of Fuel (circle one or more, if any)
- a. Fuelwood b. Animal dung cake
- c. Kerosene d. Others

E-12 Main Diseases

Diseases	No. of Patient per year	Diseases	No. of Patient per year
a. Diarrhea		d. Eye Diseases	
b. Cold		e. Typhoid	
c. Skin Diseases		f. Others	

E-13 Toilet availability

Number of households with toilet (modern) _____ units

Number of households with toilet (latrine) _____ units

Toilet at school a. Yes b. No

E-14 Community Organizations

Name	Starting Year	Members	Activities

E-15 Priority community development needs

Questionnaire for
School Teacher

Date of Interview _____
Starting Time _____
Finishing Time _____

Name of School/Zona _____
Name of Informant _____
Sex _____
Age _____
Years in Position _____
Education None _____
 1~6 years _____
 7~10 years _____
 Other _____

1. Basic data

Number of classes		
Number of sessions		
Number of teachers		
Number of students	Grade 1	/
	Grade 2	/
	Grade 3	/
	Grade 4	/
	Grade 5	/
	Grade 6	/
Food provision		
Teaching materials		
Cost of education for parents		

2. Health and nutrition

2.1 What do you see as the major health related problems among school children? And why?

2.2 Any seasonal variations for the diseases occurrence ?

3. Water supply at school

3.1 If there is no water facility at school, where do you get water for your school ? How much (amount) for what purposes ? What problems do you face with the water supply at your school ?

3.2 How much do you pay for the water at your school ?

_____ esc / liter

3.3 What is the major problem concerning water supply at your school ?

4 Hygiene

4.1 Does your school have toilets ? If so, what type, where ? Separate toilets for teachers ?

4.2 Do you use the toilet ? How about school children ?

4.3 What is the condition ? Who cleans it ? How ?

**4.4 Is the health/hygiene education given at your school ? If so, how is it organized ?
Who teaches the health/hygiene education ?**

4.5 What is your general observation of school children as regards to their hygiene behavior ?

5. Gender issues

5.1 Do you observe any differences between boy children and girl children in regards to their enrollment, attendance, performance at school ?

5.2 Do girl children learn different subjects from those of boys ?

Questionnaire for
Sanitation Agent

Date of Interview _____

Starting Time _____

Finishing Time _____

Name of Zona	_____
Name of Informant and position	_____
Sex	_____
Age	_____
Years in Position	_____
Education	None _____
	1~ 6 years _____
	7~10 years _____
	Other _____

1. Your work

1.1 What services are provided at the sanitation agency ?

1.2 What are your major responsibilities ?

1.3 Do you teach the people about the importance of safe drinking water and sanitation ? Do you organize health and hygiene education for the people ? Are they for both men and women ?

1.4 Do you teach them how to make and use ORS ?

1.5 Do you face any problems in carrying out your work ? (As you are man/woman)

1.6 Do people use the sanitation agency ?

1.7 If not, why, and what do they do when they are sick ?

2. Major diseases

2.1 Five major diseases for adults

(Especially water borne diseases such as diarrhoea, parasite, typhoid, dysentery, skin disease, eye disease, cold, malaria, etc)

2.2 Five major diseases for children under 5

2.3 Any seasonal variations for the diseases occurrence ?

2.4 Any male/female differences ?

2.5 What do you see as the major health needs of the people ?

3. Sanitation / Hygiene

3.1 What are the general habits of people in terms of sanitation and hygiene (such as solid waste and excreta disposal, personal hygiene) ?

3.2 How do you rate the level of sanitation and hygiene knowledge of the people ?

Questionnaire for
Water Vendor

Date of Interview _____
Starting Time _____
Finishing Time _____

Name of zona	_____
Name of Informant	_____
Sex	_____
Age	_____
Years in Position	_____
Education	None _____
	1~6 years _____
	7~10 years _____
	Other _____

1. Your work

1.1 What are your major responsibilities as a water vendor ?

Collection of fee _____
Maintenance/repair _____
Cleaning _____
Water quality control _____
Others _____ (specify)

1.2 How did you become a water vendor ?

1.3 Is there a water committee ?

Yes _____
No _____

1.4 Did you receive any training for maintenance/repair ?

Yes _____ By whom _____
No _____

1.5 Do you have tools to carry out your responsibilities as a water vendor ?

- Yes, my own _____
- Yes, provided by Camara _____
- No, but made available if needed _____
- Not available _____

1.6 Have you actually done any repair work since you became the water vendor ?

- Yes _____
- No _____

1.7 If not, who repairs ?

- Camara _____
- Others _____ (specify)

1.8 Do you receive any remuneration ?

- Yes _____ How much _____
- No _____

1.9 Do you face any problems in carrying out your work ? (As you are man/woman)

- Yes _____ What _____
- No _____

2. Water supply

2.1 How is the water supplied to the people ?

- By truck directly (without tank) _____
- By public faucet with tank and truck _____
- By public faucet with borehole _____
- Others _____

2.2 How often is the water supplied to the people ?

- Not fixed _____
- Once a week _____
- More than once a week _____
- Less than once a week _____
- Others _____

2.3 Is the water sufficient to satisfy the needs of all the people ?

Yes _____

No _____

2.4 How much is the water sold (price per liter) ?

2.5 How much water (amount in liter) on average do people collect each time ?

2.6 Do people use the sanitation/laundry facilities ? (If such facilities are available at the public faucet)

Yes _____

No _____

Group Interview (Male/Female Separate)

Date of Interview _____

Starting Time _____

Finishing Time _____

Name of Zona	_____					
Sex	_____					
Number of participants	_____					
Age	10's	_____	20's	_____	30's	_____
	40's	_____	50's	_____	Above	_____
Education	None	_____				
	1~6 years	_____				
	7~10 years	_____				
	Others	_____				

1. Domestic Water

1.1 Where do you take water for domestic use ?

	Dry Season	Rainy season
River	_____	_____
Pond / Lake	_____	_____
Spring / gallery	_____	_____
Dug well	_____	_____
Buy from public faucet	_____	_____
Buy from truck directly	_____	_____
Others	_____	_____

1.2 How long does it take to get there ?

Dry season _____ hours

Rainy season _____ hours

1.3 Have you always been taking water from there ? If not, where ?

Yes _____ No _____ (specify where)

1.4 How much water do you collect every day ?

_____ liters

1.5 How much time do you spend each day for collection of water ?

	Dry season	Rainy season
Less than one hours	_____	_____
1~3 hours	_____	_____
More	_____	_____

1.6 How much do you pay for the water ?

_____ per liter

1.7 If not paying, why ?

Do not have money _____

Not collected _____

Other _____ (specify)

1.8 Are you satisfied with the present water supply system ?

Yes _____ No _____

1.9 If not, why ?

1.10 What is the best way to solve the problems you mentioned above ?

- install new water supply system in the village
- repair the existing water supply system in the village
- increase the water supply by water lorry
- others (specify what)

1.11 If there is an improved water supply system available in the zona, do you prefer to use it to what you have now (such as tank lorry, etc)

Yes _____ No _____

1.12 If yes, are you willing to contribute to the operation and maintenance of the system by the community ?

Yes _____ No _____

1.13 Will you be able to provide land for the construction of the water supply system ?

Yes _____ No _____

1.14 Are you willing to form a water users committee ?

Yes _____ No _____

1.15 (If yes)

1.15.1 What should be the committee do ?

Collection of water fee _____
Repair / maintenance _____
Maintenance of water source _____
Cleanliness of facility _____
Others _____ (specify what)

1.15.2 Are you willing to be a member of the committee ?

Yes _____
No _____

1.15.3 If no, why ?

No time _____
Should be responsibility of zona commission _____
Others (specify why) _____

1.16 If not willing to form a users committee, why not willing to form a users committee ?

Should be done by a single person such as care taker _____
Should be done by zona commission _____
Should be done by camara _____
Others (specify why) _____

1.17 Are you willing to assume the responsibility of repair / maintenance, if you have the necessary skills and knowledge ?

Yes _____ No _____

1.18 If not, why ?

No time _____

Should be done by zona commission _____

Should be done by camara _____

Others (specify) _____

2. Sanitation and Hygiene

2.1 Do people in your zona have a toilet ?

Yes _____ (what type, where)

No _____

2.2 If not, do you face any inconvenience ?

Yes _____

No _____

Others _____ (specify)

2.3 Do people wash hands after using toilet and before preparing and eating meals ?

Yes _____

No _____

2.4 What do you use to wash your hands ?

Water only _____

Mud _____

Ash _____

Soap _____

Bleech _____

Others _____ (what)

2.5 Do children wash hands after using toilet and before preparing and eating meals ?

Yes _____

No _____

2.6 How often do people take a bath ?

Everyday _____

Once a week _____

Less _____

Never _____

2.7 How often do your children take a bath ?

Everyday _____

Once a week _____

Less _____

Never _____

2.8 How often do people wash clothes ?

Everyday _____

Once a week _____

Less _____

Never _____

2.9 How do people dispose of solid wastes ? (Plastic, can, papers, fresh garbage, etc)

Bury in the yard _____

Burn in the yard _____

Dump anywhere _____

Make compost _____

Others _____ (what)

2.10 How do people clean your house and yard ?

Sweep only _____

With water _____

Others _____ (specify)

2.11 Where do people raise livestock ? Indoors ? Outdoors ?

Indoors _____

Outdoors _____

2.12 How is livestock excreta disposed of?

Left where it is _____

Bury in the ground _____

Dump it in a selected place _____

Make compost _____

Others _____

2.13 How do you ensure that the drinking water is safe ?

Use chlorine _____

Use bleech _____

Boil _____

Nothing _____

Others _____ (what)

2.14 How do you wash the water container ?

With water _____

With soap _____

Others _____ (specify)

2.15 How do you dispose of the waste water from washing dishes/clothes ?

Anywhere _____

Use it for kitchen garden _____

Others _____ (specify)

2.16 Did any one of your family have diarrhoea during the last six months ?

Yes _____ No _____

2.17 If yes, what did you do ?

Sought professional advice _____

Gave ORS _____

Others _____ (specify)

2.18 Do you know the cause of diarrhoea ?

Yes _____

No _____

2.19 What do you have to do to prevent diarrhoea ?

Drink safe water _____

Wash hands _____

Use toilet _____

Keep the community clean _____

Others _____

2.20 Are you doing any of the above ?

Yes _____

No _____

2.21 If not, why ?

No money to built toilet _____

No garbage bin exists _____

No support from zona, camara, sanitation agency _____

Others _____

2.22 What is a more important purpose for using water ?

Drinking / cooking / dishing _____

Personal hygiene _____

Laundry _____

Agriculture / kitchen garden _____

2 Your Development Need

3.1 Is there a zona commission ?

Yes _____

No _____

3.2 If no, who makes decisions concerning your zona ?

3.3 Are there any people's organization in your zona ?

Construction group _____
Women's group _____
Funeral group _____
Others _____ (specify)

3.4 Any community activities commonly organized in your zona ?

Festival _____
Community meeting _____
Others _____

3.5 What is your priority need in your life ?

Economic need _____
Health of family _____
Education of children _____
Housing _____
Water supply for domestic use _____
Water supply for agriculture _____

3.6 How would you satisfy the above need yourself ?

3.7 What would you do with the time saved when an improved water system is installed and less time is required for water collection ? (only for women)

Income generation _____
Care for children _____
Household work _____
Nothing _____
Others _____