

4. EXISTING FACILITIES AND SERVICE COVERAGE

4.1 Water Supply

4.1.3 Level III Systems

Table 4.1.1 Details on Existing Level III Systems

Sheet 1 of 4

Name of Municipality	Name of Operating Body	Level III Service								
		Number of Barangays Served			Number of Households Served			Number of Population Served		
		Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Alubijid	Alubijid RWSA	1		1	505		505	3,050		3,050
Balingoan	Balingoan RWSA	2		2	264		264	1,720		1,720
Claveria	Claveria WD	1	17	18	1,420	3,505	4,925	7,100	21,027	28,127
El Salvador	El Salvador WWS	1		1	1,142		1,142	5,817		5,817
	Molugan WWS		1	1		250	250		1,100	1,100
	Municipal Total	1	1	2	1,142	250	1,392	5,817	1,100	6,917
Gingoog City	Gingoog WD	50		50	2,342		2,342	11,710	4,365	16,075
Gitagum	Gitagum WS	1		1	299		299	2,040		2,040
Initao	Initao LGU WWS		1	1	1,295		1,295	6,094		6,094
Jasaan	Jasaan RWSA	2	6	8	957	1,301	2,258	4,785	6,205	10,990
	Kimaya RWSA		1	1		267	267		1,635	1,635
	Municipal Total	2	7	9	957	1,568	2,525	4,785	7,840	12,625
Kinoguitan	KRWASA	1		1	236		236	1,280		1,280
	Lagonglong LGU	1	1	2	304	72	376	1,520	360	1,880
Laguindingan	Mun. Water Sys.	1		1	276		276	1,652		1,652
	Sinai RWSA	1	3	4	141	524	665	845	4,086	4,931
	Municipal Total	2	3	5	417	524	941	2,497	4,086	6,583
Libertad	Libertad WWA	1		1	356		356	1,780		1,780
Lugait	Mun. of Lugait	1	1	2	1,332	158	1,490	6,172	756	6,928
Manticao	Prov'l. Gov't.	1	1	2	610	56	666	3,660		3,660
Medina	Medina RWSA	2	3	5	1,130	92	1,222	5,650	460	6,110
Naawan	LGU-Naawan	3		3	352		352	1,760		1,760
Opol	Cagayan del Oro	1		1	100		100	510		510
Sugbongcogon	Sugbongcogon LGU	1	4	5	194	87	281	970	522	1,492
Tagoloan	Tagoloan	8		8	6,530		6,530	39,230		39,230
Villanueva	Napopong LGU WS		1	1		140	140		2,009	2,009
	Soligao-Lagtak WS	2	1	3	1,400	200	1,600	7,154	1,984	9,138
	Municipal Total	2	2	4	1,400	340	1,740	7,154	3,993	11,147
Provincial Total		82	41	123	21,185	6,652	27,837	114,499	44,509	159,008

Table 4.1.1 Details on Existing Level III Systems (cont'd)

Sheet 2 of 4

Name of Municipality	Name of Operating Body	Level II Service								
		Number of Public Faucets			Number of Households Served			Number of Population Served		
		Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Alubijid	Alubijid RWSA									
Balingoan	Balingoan RWSA				22		22	110		110
Claveria	Claveria WD									
El Salvador	El Salvador WWS									
	Molugan WWS									
	Municipal Total									
Gingoog City	Gingoog WD									
Gitagum	Gitagum WS									
Initao	Initao LGU WWS									
Jasaan	Jasaan RWSA									
	Kimaya RWSA									
	Municipal Total									
Kinoguitan	KRWASA				93		93	562		562
Lagonglong	Lagonglong LGU									
Laguindingan	Mun. Water Sys.									
	Sinai RWSA					315	315		1,595	1,595
	Municipal Total					315	315		1,595	1,595
Libertad	Libertad WWA				368		368			
Lugait	Mun. of Lugait	2	2	4	20	309	329	100	1,547	1,647
Manticao	Prov'l. Gov't.									
Medina	Medina RWSA					746	746		2,885	2,885
Naawan	LGU-Naawan									
Opol	Cagayan del Oro									
Sugbongcogon	Sugbongcogon LGU				398	394	792	1,591	1,576	3,167
Tagoloan	Tagoloan				767		767	4,849		4,849
Villanueva	Napopong LGU WS									
	Soligao-Lagtak WS									
	Municipal Total									
Provincial Total		2	2	4	1,668	1,764	3,432	7,212	7,603	14,815

Table 4.1.1 Details on Existing Level III Systems (cont'd)

Sheet 3 of 4

Name of Municipality	Name of Operating Body	Water Sources			Consumption			
		Type ¹	Number	Production (cu.m/day)	Domestic	Institutional	Commercial	Industrial
					(cu.m/day)			
Alubijid	Alubijid RWSA	DW/SP	3/1	691				
Balingoan	Balingoan RWSA	SP	1	200	132	1	3	
Claveria	Claveria WD	SP	1	115				
El Salvador	El Salvador WWS	DW	1	70				
	Molugan WWS	DW	1	9				
	Municipal Total	DW	2	79				
Gingoog City	Gingoog WD	DW	4	3,802	1,793		168	
Gitagum	Gitagum WS	DW/SP	1/1	150				
Initao	Initao LGU WWS	DW	2	544				
Jasaan	Jasaan RWSA	SP	2	4,608				
	Kimaya RWSA							
	Municipal Total	SP	2	4,608				
Kinoguitan	KRWASA	DW	1	82				
Lagonglong	Lagonglong LGU	SP	1	18				
Laguindingan	Mun. Water Sys.	DW/SP	2/1	32				
	Sinai RWSA	SP	1	6				
	Municipal Total	DW/SP	2/2	39				
Libertad	Libertad WWA	DW	1	48	56			
Lugait	Mun. of Lugait	DW/SP	4/1	765				
Manticao	Prov'l. Gov't.	SP	1	1,344		4	5	
Medina	Medina RWSA	DW/SP	1/2	1,266	1,000			
Naawan	LGU-Naawan		1	864		42	45	
Opol	Cagayan del Oro							
Sugbongcogon	Sugbongcogon LGU	SP	2	138				
Tagoloan	Tagoloan	SP	1	6,394	131	42	14	5
Villanueva	Napopong LGU WS	SP	1	176				
	Soligao-Lagtak WS	SP	1	4,368				
	Municipal Total	SP	2	4,544				
Provincial Total			23	25,690	3,112	88	235	5

Note: 1. Type of Water Source; DW - Deep Well, DgW - Dug Well, Surf - Surface Water (River), SP - Spring, and IG - Infiltration Gallery

Table 4.1.1 Details on Existing Level III Systems (cont'd)
Sheet 4 of 4

Sheet 4 of 4

Name of Municipality	Name of Operating Body	Consumers														
		Domestic House Connections			Domestic Public Faucets			Institutional Consumers			Commercial Consumers			Industrial Consumers		
		Connection		Consumption (m ³ /day)	Connection		Consumption (m ³ /day)	Connection		Consumption (m ³ /day)	Connection		Consumption (m ³ /day)	Connection		Consumption (m ³ /day)
		Metered	Unmetered		Metered	Unmetered		Metered	Unmetered		Metered	Unmetered		Metered	Unmetered	
Alubijid	Alubijid RWSA															
Balingoan	Balingoan RWSA	264	22	132.00				1		0.50	3	1	3.00			
Claveria	Claveria WD	4,869									56					
El Salvador	El Salvador WWS															
	Molugan WWS	250														
	Municipal Total	250														
Gingoog City	Gingoog WD	2,342		1,793.35							192		168.45			
Gitagum	Gitagum WS															
Initao	Initao LGU WWS	1,275	2			16		2								
Jasaan	Jasaan RWSA															
	Kimaya RWSA															
	Municipal Total															
Kinoguitan	KRWASA		236			5			2							
Lagonglong	Lagonglong LGU															
Laguindingan	Mun. Water Sys.															
	Sinai RWSA															
	Municipal Total															
Libertad	Libertad WWA	89		56.00												
Lugait	Mun. of Lugait	705				7										
Manticao	Prov'l. Gov't.							15		4.00	2		5.00			
Medina	Medina RWSA	1,130		1,000.00												
Naawan	LGU-Naawan					1		6	4	42.00	3		45.00			
Opol	Cagayan del Oro															
Sugbongcogon	Sugbongcogon	281														
Tagoloan	Tagoloan	2,817		130.66				19		41.80	37		13.60	8		5.20
Villanueva	Napopong LGU	140														
	Soligao-Lagak	1,600														
	Municipal Total	1,740														
Provincial Total		15,762	260	3,112		29		43	6	88.30	293	1	235.05	8		5.20

4.1.4 Level II System

Table 4.1.2 Details on Existing Level II Systems
Sheet 1 of 6

Name of Municipality	Name of Operating Body	Water Source		Discharge (m ³ /day)	Existing Facilities				
		Type	Number		Length of Transmission Line (meter)	Reservoir	Length of Distribution Line (meter)	Number of Public Faucets	
Alubijid	Baybay WWS	DW	1	0.9	12	1	11.3	800	8
	Benigwayan WWS	SP	1	3.9	1,200	1	13.8	600	11
	Calacat WWS I	DW	1	0.6	24	1	8.0	1,300	8
	Calacat WWS II	DW	1	0.5	12	1	3.0	500	3
	Dumanog WWS	DW	1	1.6	30	1	11.3	800	8
	Kiikog WWS	DW	1	8.4	36	1	10.0	440	5
	Lagtang WWS	DW	1	0.5	18	1	8.0	400	6
	Loguilo WWS	DW	1	1.3	12	1	11.3	1,200	12
	Lumbo WWS	SP	1	2.2	150	1	20.0	1,500	12
	Quiabo Sampatulog W	DW	1	8.4	90	1	27.0	300	8
	Sampatulog WS	DW	1	3.5	36	1	32.0	3,000	15
	Talaba WWS	DW	1	10.7	30	1	27.0	1,600	12
	Talabang Gamay WS	DW	1	1.5	18	1	10.0	1,000	11
	Taparak WWS	SP	1	0.2	600	1	8.0	400	4
	Tugasnon WWS	SP	1	0.7	540	1	5.4	800	20
	Tula WS	SP	1	3.9	150	1	4.0	100	8
	Balingasag	Municipal Total	DW/SP	11/5	48.8	2,958	16	210.0	14,740
San Juan-Linabu WW		SP	1	64.3	10,000	2	17.3	3,080	35
Upper Brgy. WWS		SP	1	2.7	1,700	1	15.0	2,200	20
Binuangan WS		SP	1	40.9	4,500	3	60.0	1,670	130
Hinaplunan WWS		SP	1	2.9	3,500	1	8.0	1,200	6
Mat-I Brgy. WWS		SP	1	4.3	3,000	1	10.0	1,200	6
Municipal Total		SP	2	7.2	6,500	2	18.0	2,400	12
Amoros WWS		SP	1	2.2	20	1	12.0	4,000	4
Cogon WWS		DW	1	34.6	40	1	24.0	2,000	13
Himaya WWS		DW	1	5.5	60	1	20.0	500	25
Binuangan	Pedro Sa. Baculio WW	DW	1	7.2	15	1	12.0	2,000	16
	Quibonbon	DW	1	5.4	20	1	10.0	100	4
	Sambulawan WWS	SP	1	2.2	20	1	12.0	2,000	6
	Sinaloc WWS	DW	1	5.4	10	1	20.0	3,000	28
	Taytay WWS	DW	1	8.6	50	1	25.0	3,000	12
	Municipal Total	DW/SP	6/2	71.0	235	8	135.0	16,600	108
	Claveria								
El Salvador									

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)

Sheet 1 of 6

Name of Municipality	Name of Operating Body	Water Source			Existing Facilities			
		Type	Number	Discharge (m ³ /day)	Length of Transmission Line (meter)	Reservoir Number Volume (m ³)	Length of Distribution Line (meter)	Number of Public Faucets
Gingoog City	Gingoog							
	Gitagum WS	DW	1	84.0	20	3	91.0	75
	Gitagum WWS	DW	1	44.5	120	1	136.4	75
	Initao							
	Corrales Brgy. WP	SP	1	32.7	1,000	1	6.0	13
	Kimaya Rural WW	SP	1	163.3	2,000	1	8.0	80
	Luz Banzon Brgy. WP	SP	1	27.2	1,500	1	60.0	27
	Natubo Brgy. WP	SP	1	12.0	2,400	1	12.0	24
	San Isidro Brgy. WP	SP	1	27.2	2,000	1	27.0	23
	San Nicolas Brgy. WP	DW	1	54.4	10	1	8.0	11
Kinoguitan	SORWASCO	SP	1	54.4	1,800	1	27.0	20
	Municipal Total	SP	7	371.3	10,710	7	148.0	198
	Bolisong WWS	SP	1	8.0	50	1	17.3	22
	Calubo WWS	SP	1	5.5	2,500	2	33.0	61
	Kinoguitan Mun. WW	SP	1	1.1	1,300	1	8.0	14
	Salicapawan WWS	SP	1		2,000	1	18.0	15
	Suarez WS	SP	1	4.3	1,200	1	13.0	18
	Municipal Total	SP	5	19.0	7,050	6	89.3	130
	Lagonglong WS	SP	1	34.6	2,500	2	135.0	165
	Aromahon WS	DW	1	2.6	6	1	14.4	25
Laguindingan	Gasi WS	DW	1	3.6	3	1	14.0	2
	Moog Centro WSA	DW	1	158.4	8	1	160.0	33
	Sambulawan WS	DW	1	1.1	10	1	5.0	16
	San Isidro WS	SP	1	0.6	2,500	1	6.0	9
	Municipal Total	DW/SP	5/1	166.3	2,527	5	199.4	85
	Gimaylan WWSA	DW	1	30.0	25	1	120.0	20
	Libertad RWSA	DW	1	2.3	12	1	10.0	23
	Panimagsalan WWS	DW	1	0.6	12	1	8.0	4
	Small Sequijor WWS	DW	1	0.6	6	1	8.0	3
	Municipal Total	DW	4	33.6	55	4	146.0	50
Libertad								

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)

Sheet 1 of 6

Name of Municipality	Name of Operating Body	Water Source			Existing Facilities			
		Type	Number	Discharge (m ³ /day)	Length of Transmission Line (meter)	Reservoir	Length of Distribution Line (meter)	Number of Public Faucets
Lugait	Aya-aya WWS	SP	1	6.9	1,000	1	10.0	1,500
	Betahon WWS	SP	1	4.3	2,000	1	8.0	1,000
	Kaluknayan WWS	SP	1	10.8	500	1	12.0	1,000
	Lower Talacogon WW	SP	1	3.5	1,500	1	6.0	1,500
	Upper Talacogon WW	SP	1	3.5	2,000	1	10.0	2,000
	Municipal Total		5	28.9	7,000	5	46.0	7,000
	Poblacion WS	SP	1	0.6	2,300	1	8.0	1,500
Magsaysay	Punta Silum WWS	SP	1		10	1		180
Medina	Bangbang WS	SP	1	1.7	220	1	8.0	2,000
	Bulwa BWSA	DW	1	86.4	200	2	9.6	450
	Mananum Bag-o WW	SP	1	4.8	350	1	8.0	616
	Mananum Daan-San Is	SP	1	3.2	250	1	8.0	3,960
	Nomava WS	DW	1	86.4	20	1	36.0	1,500
	San Vicente WWS	SP	1	4.3	4,000	1	10.0	1,000
	Municipal Total		2/4	186.8	5,040	7	79.6	9,326
Naawan	Linangkayan WS	DW	1	11.5	10	1	12.0	880
	Mat-i WS	SP	1	11.5	683	1	11.0	455
	Tagbalogo WS	SP	1	16.6	1,000	1	16.0	528
	Municipal Total		1/2	39.6	1,693	3	39.0	1,863
	Opol Mun. WS	DW	1	16.0	10	1	24.0	500
	Salay Rural WWS	SP	1	151.2	3,500	1	180.0	3,000
	Sugbongcogon Mun. V	SP	1	5.4	2,500	2	60.6	5,840
Talisan	Mimbiliisan-Pob. WS	SP	1		2,500	1	8.6	3,000
	Poblacion-Mintabon V	SP	1	14.2	1,300	1	20.8	1,150
	Talisanan WS	SP	1	16.0	1,000	1	16.0	1,500
	Municipal Total		3	30.2	4,800	3	45.4	5,650
	Kimaya WWS	SP	1	8.6	500	1	6.0	200
	Provincial Total		76	1,455.7	76,228	85	1,888.9	103,933
	Provincial Total							2,095

Note: 1. Type of Water Source; DW - Deep Well, DgW - Dug Well, Surf - Surface Water (River), SP - Spring, and IG - Infiltration Gallery

Table 4.1.2 Details on Existing Level II Systems

Sheet 2 of 6

Name of Municipality	Name of Operating Body	Number of Barangay Served			Number of Households Served			Number of Population Served		
		Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Alubijid	Baybay WWS		1	1		40	40		200	200
	Benigwayan WWS		1	1		55	55		275	275
	Calatcat WWS I		1	1		40	40		200	200
	Calatcat WWS II					15	15		75	75
	Dumanog WWS	1		1	40		40	200		200
	Kiikog WWS		1	1		25	25		125	125
	Lagtang WWS		1	1		30	30		150	150
	Loguilo WWS		1	1		60	60		300	300
	Lumbo WWS		1	1		60	60		300	300
	Quiabo Sampatulog WWS		1	1		42	42		210	210
	Sampatulog WS					75	75		375	375
	Talaba WWS		1	1		60	60		300	300
	Talabang Gamay WS					53	53		265	265
	Taparak WWS		1	1		20	20		100	100
	Tugasnon WWS		1	1		101	101		504	504
	Tula WS		1	1		37	37		189	189
	Municipal Total	1	12	13	40	713	753	200	3,568	3,768
Balingasag	San Juan-Linabu WWS		3	3		175	175		875	875
Balingoan	Upper Brgy. WWS	1	4	5	20	80	100	100	400	500
Binuangan	Binuangan WS	1	5	6	143	507	650	715	2,535	3,250
Claveria	Hinaplunan WWS	1		1	30		30	150		150
	Mat-I Brgy. WWS	1		1	30		30	150		150
	Municipal Total	2		2	60		60	300		300

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)

Sheet 2 of 6

Name of Municipality	Name of Operating Body	Number of Barangay Served			Number of Households Served			Number of Population Served		
		Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
El Salvador	Amoros WWS		1	1		20	20		120	120
	Cogon WWS		1	1		67	67		400	400
	Himaya WWS		1	1		125	125		750	750
	Pedro Sa. Baculio WWS		1	1		80	80		450	450
	Quibonbon		1	1		20	20		120	120
	Sambulawan WWS		1	1		30	30		180	180
	Sinaloc WWS		1	1		140	140		840	840
	Taytay WWS		1	1		70	70		480	480
	Municipal Total		8	8		552	552		3,340	3,340
	Gingoog	1	42	43	534	8,701	9,235	2,766	41,102	43,868
Gingoog City	Gitagum WS		6	6		425	425		2,550	2,550
Gitagum	Initao WWS		1	1		375	375		1,838	1,838
Initao	Corrales Brgy. WP		1	1		81	81		413	413
Jasaan	Kimaya Rural WW	1		1	291		291	1,571		1,571
	Luz Banzon Brgy. W	1		1	135		135	810		810
	Natubo Brgy. WP		1	1		50	50		300	300
	San Isidro Brgy. WP		1	1		23	23		118	118
	San Nicolas Brgy. WP		1	1		58	58		313	313
	SORWASCO	1		1	117		117	607		607
	Municipal Total	3	4	7	543	212	755	2,988	1,144	4,132
	Bolisong WWS		1	1		113	113		731	731
	Calubo WWS		1	1		305	305		1,613	1,613
	Kinoguitan Mun. W	1	2	3	23	47	70	116	234	350
Kinoguitan	Salicapawan WWS		1	1		77	77		416	416
	Suarez WS		1	1		88	88		462	462
	Municipal Total	1	6	7	23	630	653	116	3,456	3,572

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)

Sheet 2 of 6

Name of Municipality	Name of Operating Body	Number of Barangay Served			Number of Households Served			Number of Population Served		
		Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Lagonglong Laguindingan	Lagonglong WS		1	1		300	300		1,800	1,800
	Aromahon WS		1	1		123	123		733	733
	Gasi WS		1	1		10	10		60	60
	Moog Centro WSA		1	1		165	165		990	990
	Sambulawan WS		1	1		79	79		474	474
	San Isidro WS		1	1		45	45		270	270
	Municipal Total		5	5		422	422		2,527	2,527
Libertad	Gimaylan WWSA		1	1		150	150		600	600
	Libertad RWSA	1		1	115	115	230	690		690
	Panimugalan WWS		1	1		20	20		120	120
	Small Sequijor WWS		1	1		18	18		108	108
	Municipal Total	1	3	4	115	303	418	690	828	1,518
Lugait	Aya-aya WWS		1	1		136	136		816	816
	Betahon WWS		1	1		69	69		414	414
	Kaluknayan WWS		1	1		112	112		672	672
	Lower Talacogon WWS		1	1		80	80		480	480
	Upper Talacogon WWS		1	1		126	126		756	756
	Municipal Total		5	5		523	523		3,138	3,138
	Poblacion WS	1		1	271		271	1,353		1,353
Magsaysay	Punta Silum WWS		1	1		20	20		120	120
Manticao	Bangbang WS		1	1		151	151		755	755
Medina	Bulwa BWSA		1	1		200	200		1,000	1,000
	Mananum Bag-o WWS		1	1		70	70		350	350
	Mananum Daan-San Isidro WWS		1	1		227	227		1,242	1,242
	Nomawa WS		1	1		135	135		675	675
	San Vicente WWS		1	1		100	100		500	500
	Municipal Total		6	6		883	883		4,522	4,522

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)

Sheet 2 of 6

Name of Municipality	Name of Operating Body	Number of Barangay Served			Number of Households Served			Number of Population Served		
		Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Naawan	Linangkayan WS		1	1		52	52		311	311
	Mat-i WS		1	1		34	34		205	205
	Tagbalogo WS		1	1		32	32		192	192
	Municipal Total		3	3		118	118		708	708
Opol	Opol Mun. WS	3		3	75		75	450		450
Salay	Salay Rural WWSS	2	1	3	1,326	394	1,720	6,747	2,077	8,824
Sugbongcogon	Sugbongcogon Mun. WS	2	3	5	228	102	330	1,139	510	1,649
Talisayan	Mimbilisan-Pob. WS	1	3	4	250	351	601	1,250	1,755	3,005
	Poblacion-Mintabon	1	1	2	100	15	115	500	75	575
	Talisayan WS	1	1	2	300	80	380	1,500	400	1,900
	Municipal Total	3	5	8	650	446	1,096	3,250	2,230	5,480
Villanueva	Kimaya WWS		1	1		20	20		100	100
Provincial Total		22	125	147	4,028	15,901	19,929	20,814	79,368	100,182

Table 4.1.2 Details on Existing Level II Systems
Sheet 3 of 6

Name of Municipality	Name of Operating Body	Service Conditions During Dry Season							Supply Water Pressure (% of total)	
		Supply (Hrs/day)	Dirty Water ¹	Taste or Smell ²	Power Failure	Pump Breakdown	Pipe Burst	Others		
Alubijid	Baybay WWS	4		G						
	Benigwayan WWS	24								
	Calatcat WWS I	4								
	Calatcat WWS II	4								
	Dumanog WWS	6								
	Kiikog WWS	24								
	Lagtang WWS	4		G						
	Loguilo WWS	4								
	Lumbo WWS	8		G						
	Quiabo Sampatulog WWS	24		G						
	Sampatulog WS	8		G						
	Talaba WWS	24								
	Talabang Garnay WS	6								
	Taparak WWS	24								
	Tugasnon WWS	4		G						
	Tula WS	24								
Balingasag	San Juan-Linabu WWS	12		G						
Balingoan	Upper Brgy. WWS	6		G						
Binuangan	Binuangan WS	6								
Claveria	Hinaplanan WWS	8		G						
	Mat-I Brgy. WWS	8		G						

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)

Sheet 3 of 6

Name of Municipality	Name of Operating Body	Service Conditions During Dry Season							
		Supply (Hrs/day)	Dirty Water ¹	Taste or Smell ²	Power Failure	Pump Breakdown	Pipe Burst	Others	Supply Water
El Salvador	Amoros WWS	6							
	Cogon WWS	24							
	Himaya WWS	5							
	Pedro Sa. Baculio WWS	5							
El Salvador	Quibonbon	5							
	Sambulawan WWS	6							
	Sinaloc WWS	5							
	Taytay WWS	6							
Gingoog City	Gingoog								
Gitagum	Gitagum WWS	24							
	Initao WWS	14		G	2				
	Corrales Brgy. WP	24							
	Kimaya Rural WW	24							
Jasaan	Luz Banzon Brgy. WP	12							
	Natubo Brgy. WP	24							
	San Isidro Brgy. WP	24							
	San Nicolas Brgy. WP	24							
Kinoguitan	SORWASCO	24					1		
	Bolisong WWS	12		G					
	Calubo WWS	8		G				1	
	Kinoguitan Mun. WWS	4		G	3			2	
	Salicapawan WWS			G				1	
	Suarez WS	8		G				1	

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)

Sheet 3 of 6

Name of Municipality	Name of Operating Body	Service Conditions During Dry Season							Supply Water	
		Supply (Hrs/day)	Dirty Water ¹	Taste or Smell ²	Power Failure	Pump Breakdown	Pipe Burst	Others	Adequate	Inadequate
Laganglong Laguindingan	Laganglong WS	4		G	3	2				
	Aromahon WS				1	2				
	Gasi WS	6			1		1			
	Moog Centro WSA	8		G		2	1			
	Sambulawan WS	6								
	San Isidro WS	3			1					
Libertad	Gimaylan WWSA	6			2					
	Libertad RWSA	6			3		3			
	Panmugsalan WWS	2			2					
	Small Sequijor WWS	2								
	Aya-aya WWS	24								
	Betahon WWS	24								
Lugait	Kaluknayan WWS	24								
	Lower Talacogon WWS	24								
	Upper Talacogon WWS	24								
	Poblacion WS	3		G						
	Punta Silum WWS	12		G						
	Bangbang WS	24		G	4					
Magsaysay Manticao Medina	Bulwa BWSA	12		G						
	Mananum Bag-o WWS	12		G						
	Mananum Daan-San Isidro V	12		G						
	Nomawa WS	12		G	3					
	San Vicente WWS	12		G						

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)

Sheet 3 of 6

Name of Municipality	Name of Operating Body	Service Conditions During Dry Season							
		Supply (Hrs/day)	Dirty Water ¹	Taste or Smell ²	Power Failure	Pump Breakdown	Pipe Burst	Others	Supply Water
Naawan	Linangkayan WS	24							
	Mat-i WS	24							
	Tagbalogo WS	24							
Opol	Opol Mun. WS	6							
Salay	Salay Rural WWSS	12		G					
Sugbongcogon	Sugbongcogon Mun. WWS	12		G					
Talisayan	Mimbilisan-Pob. WS			G					
	Poblacion-Mintabon WS	15		G					
	Talisayan WS			G					
Villanueva	Kimaya WWS	24		G					

Note: 1. Dirty Water: E - Everyday, OW - Once a week, OM - Once a month, O - Occasional.

2. Taste or Smell: G - Good taste, S - Salty, W - Wood taste, M - Metallic taste, O - Others.

Table 4.1.2 Details on Existing Level II Systems
Sheet 4 of 6

Name of Municipality	Name of Operating Body	Number of Staff					Repair Work		
		Technical Staff	Administrative Staff	Collector	Total Number of Staff	Local Trademan	MEO/CEO	DEO	Others
Alubijid	Baybay WWS						✓		
	Benigwayan WWS						✓		
	Calatcat WWS I						✓		
	Calatcat WWS II						✓		
	Dumanog WWS						✓		
	Kiikog WWS						✓		
	Lagtag WWS						✓		
	Loguilo WWS						✓		
	Lumbo WWS						✓		
	Quiabo Sampatulog WWS						✓		
	Sampatulog WS						✓		
	Talaba WWS						✓		
	Talabang Gamay WS						✓		
	Taparak WWS						✓		
	Tugasnon WWS						✓		
	Tula WS						✓		
	San Juan-Linabu WWS						✓		
Balingasag	Upper Brgy. WWS						✓		Beneficiaries
Balingoan	Binuangan WS								Beneficiaries
Binuangan	Hinaplanan WWS								Beneficiaries
Claveria	Mat-I Brgy. WWS								Beneficiaries
El Salvador	Amoros WWS		1	1	2				Beneficiaries
	Cogon WWS		1	1	2				Beneficiaries
	Himaya WWS		1	1	2				Beneficiaries
	Pedro Sa. Baculio WWS		1	1	2				Beneficiaries

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)

Sheet 4 of 6

Name of Municipality	Name of Operating Body	Number of Staff					Repair Work		
		Technical Staff	Administrative Staff	Collector	Total Number of Staff	Local Trademan	MEO/CEO	DEO	Others
El Salvador	Quibonbon		1	1	2				Beneficiaries
	Sambulawan WWS		1	1	2				Beneficiaries
	Sinaloc WWS		1	1	2				Beneficiaries
	Taytay WWS		1	1	2				Beneficiaries
Gingoog City	Gingoog								
	Gitagum WS	7	11	6	24		✓		
	Initao WWS	3	1	1	5		✓		
	Corrales Brgy. WP						✓		Beneficiaries
Jasaan	Kimaya Rural WW						✓		Beneficiaries
	Luz Banzon Brgy. WP						✓		Beneficiaries
	Natubo Brgy. WP						✓		
	San Isidro Brgy. WP						✓		Beneficiaries
Kinoguitan	San Nicolas Brgy. WP						✓		Beneficiaries
	SORWASCO						✓		Beneficiaries
	Bolisong WWS	1			1				Brgy. Council
	Calibo WWS	3			3				Brgy. Council
Laganglong	Kinoguitan Mun. WWS	4			4		✓		
	Salicapawan WWS	1							Brgy. Council
	Suarez WS	1			1				Brgy. Council
	Laganglong WS	3		1	4		✓		
Laguindingan	Aromahon WS								Beneficiaries
	Gasi WS		2	2	4				Brgy. Council
	Moog Centro WSA	8			8				Beneficiaries
	Sambulawan WS	8			8				Beneficiaries
Libertad	San Isidro WS	2			2				Beneficiaries
	Gimaylan WWSA	1	5	1	7				Beneficiaries

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 4 of 6

Name of Municipality	Name of Operating Body	Number of Staff					Repair Work		
		Technical Staff	Administrative Staff	Collector	Total Number of Staff	Local Trainedman	MEO/CEO	DEO	Others
Libertad	Libertad RWSA	3	5	1	8		✓		Beneficiaries
	Panmungsalan WWS	1	3	1	5				Assn.
	Small Sequijor WWS	1		1	2				Beneficiaries
Lugait	Aya-aya WWS								Beneficiaries
	Betahon WWS								Beneficiaries
	Kaluknayan WWS								Beneficiaries
	Lower Talacogon WWS								Beneficiaries
	Upper Talacogon WWS								Beneficiaries
Magsaysay	Poblacion WS						✓		
Manticao	Punta Silum WWS	2	5	2	9		✓	✓	Beneficiaries
Medina	Bangbang WS								PEO
	Bulwa BWSA	5		3	8		✓		Assn.
	Mananum Bag-o WWS						✓		Beneficiaries
	Mananum Daan-San Isidro WWS						✓	✓	PEO
	Nomawa WS	10		1	11		✓		Beneficiaries
Naawan	San Vicente WWS						✓		Beneficiaries
	Linangkayan WS								
	Mat-i WS								
	Tagbalogo WS								
	Opol Mun. WS						✓		
Opol	Salay Rural WWS	1	1	1	3				Assn.
Salay	Sugbongcogon Mun. WWS			1	1		✓		
Sugbongcogon	Mimbilisan-Pob. WS	1			1		✓		
	Poblacion-Mintabon WS			1	1		✓		
	Talisayan WS			1	1		✓		
Villanueva	Kimaya WWS		1						Brgy. Council

Table 4.1.2 Details on Existing Level II Systems

Sheet 5 of 6

Name of Municipality	Name of Operating Body	Expenditures (P '000.00 / year)					Tariff				Average Collection Efficiency (%)			
		Annual	Wages	Fuel, Chem.	Transport	Repairs	Loan Repayment	Other	Consumer Payment (Year)	Cost per				
										Pail		Cu.	Year	(Pesos)
Alubijid	Baybay WWS													
	Benigwayan WWS													
	Calatcat WWS I													
	Calatcat WWS II													
	Dumanog WWS													
	Kiklog WWS													
	Lagtang WWS													
	Loguilo WWS													
	Lumbo WWS													
	Quiabo Sampanlog WWS													
	Sampanlog WS													
	Talaba WWS													
	Talabang Gamay WS													
	Taparak WWS													
Tugasonon WWS														
Balingasag	Tula WS													
	San Juan-Linabu WWS													
	Upper Brgy. WWS													
	Balingoan													
	Binuangan													
	Hinaplunan WWS													
	Mat-I Brgy. WWS													
	Amoros WWS													
	Cogon WWS													
	Himaya WWS													
El Salvador	Pedro Sa. Baculio WWS													
	Quibonbon													
	Sambulawan WWS													
	Sinaloc WWS													
	Taytay WWS													
	Gingoog													
	Gitagum WS													
	Initao WWS													
	Corrales Brgy. WP													
	Kimaya Rural WW													
Gingoog City	Luz Banzon Brgy. WP													
Gitagum														
Initao														
Jasaan														

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)

Sheet 5 of 6

Name of Municipality	Name of Operating Body	Expenditures					Tariff				Average Collection Efficiency (%)					
		Annual	Wages	Fuel, Chem. Mat'l.	Transport	Repairs	Loan Repayment	Other	Consumer Payment	Cost per Pail		Cost per Cu. Meter	Cost/HH/Year	Other		
															(P '000.00 / year)	
Jasaan	Naubo Brgy. WP															
	San Isidro Brgy. WP															
	San Nicolas Brgy. WP															
Kinoguitan	SORWASCO															
	Bolisong WWS															
	Calubo WWS															
	Kinoguitan Mun. WWS															
	Salicapawan WWS															
Lagonglong	Suarez WS															
	Lagonglong WS															
	Aromahon WS															
	Gasi WS															
	Moog Centro WSA															
Laguindingan	Sambulawan WS															
	San Isidro WS															
	Gimaylan WWSA															
	Libertad RWSA															
	Panmugsalan WWS															
Libertad	Small Sequijor WWS															
	Aya-aya WWS															
	Betahon WWS															
	Kaluknayan WWS															
	Lower Talacogon WWS															
Lugait	Upper Talacogon WWS															
	Poblacion WS															
	Punta Silum WWS															
	Bangbang WS															
	Buliwa BWSA															
Magsaysay	Mananum Bag-o WWS															
	Mananum Daan-San Isidro WWS															
	Nomawa WS															
	San Vicente WWS															

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 5 of 6

Name of Municipality	Name of Operating Body	Expenditures					Tariff					Average Collection Efficiency (%)		
		Annual	Wages	Fuel, Chem. Mat'l.	Transport	Repairs	Loan Repayment	Other	Consumer Payment	Cost per Pail	Cost per Cu. Meter		Cost/HH/Year	Other
Naawan	Linangkayan WS													
	Mat-i WS													
	Tagbalogo WS													
Opol	Opol Mun. WS													
	Salay Rural WWSS													
Sugbongcogon	Sugbongcogon Mun. WWS													
	Talisayan													
Talisayan	Mimbilisan-Pob. WS													
	Poblacion-Mintabon WS													
	Talisayan WS													
Villanueva	Kimaya WWS													

Table 4.1.2 Details on Existing Level II Systems
Sheet 6 of 6

Name of Municipality	Name of Operating Body	Billings					Revenues					
		Annual Billing (Number)	Public Faucet Consume	House Connection Consumers	Expected Subsidies	Others	Annual Income	Payment by Public Faucet Consumers	Payment by House Connection	Subsidies	Other	
Alubijid	Baybay WWS											
	Benigwayan WWS											
	Calateat WWS I											
	Calateat WWS II											
	Dumanog WWS											
	Kikog WWS											
	Lagtang WWS											
	Loguilo WWS											
	Lumbo WWS											
	Quiabo Sampatulog WWS											
	Sampatulog WS											
	Talaba WWS											
	Talabang Gamay WS											
	Taparak WWS											
Balingasag	Tugasonon WWS											
	Tula WS											
	San Juan-Linabu WWS											
	Upper Brgy. WWS											
	Binuangan WS											
	Hinaplunan WWS											
El Salvador	Mar-I Brgy. WWS											
	Amoros WWS											
	Cogon WWS											
	Himaya WWS											
	Pedro Sa. Baculio WWS											
	Quibonbon											
	Sambulawan WWS											
	Sinaloc WWS											
	Taytay WWS											

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 6 of 6

Name of Municipality	Name of Operating Body	Billings				Revenues					
		Annual Billing (Number)	Public Faucet Consumer	House Connection Consumers	Expected Subsidies	Others	Annual Income (P '000.00 / year)	Payment by Public Faucet Consumers	Payment by House Connection Consumer	Subsidies	Other
Gingoog City	Gingoog										
	Gitagum WWS										
	Gitagum										
	Initao WWS										
	Initao										
	Jasaan										
	Corrales Brgy. WP										
	Kimaya Rural WW										
	Luz Banzon Brgy. WP										
	Natubo Brgy. WP										
Kinoguitan	San Isidro Brgy. WP										
	San Nicolas Brgy. WP										
	SORWASCO										
	Bolisong WWS										
	Calubo WWS										
	Kinoguitan Mun. WWS										
	Salicapawan WWS										
	Suarez WS										
	Lagonglong WS										
	Aromahon WS										
Laguindingan	Gasi WS										
	Moog Centro WSA										
	Sambulawan WS										
	San Isidro WS										
	Gimaylan WWSA										
	Libertad RWSA										
	Panmugsalan WWS										
	Small Sequijor WWS										
	Libertad										

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 6 of 6

Name of Municipality	Name of Operating Body	Billings					Revenues				
		Annual Billing	Public Faucet Consumer	House Connection Consumers	Expected Subsidies	Others	Annual Income	Payment by Public Faucet Consumers	Payment by House Connection Consumer	Subsidies	Other
		(Number)	(P '000.00 / year)								
Lugait	Aya-aya WWS										
	Betahon WWS										
	Kaluknayan WWS										
	Lower Talacogon WWS										
	Upper Talacogon WWS										
Magsaysay	Poblacion WS										
Maniticao	Punta Silum WWS										
	Bangbang WS										
	Bulwa BWSA										
	Mananum Bag-o WWS										
	Mananum Daan-San Isidro WWS										
Naawan	Nomawa WS										
	San Vicente WWS										
	Linangkayan WS										
	Mat-i WS										
	Tagbalogo WS										
Opol	Opol Mun. WS										
Salay	Salay Rural WWS										
Sugbongcogon	Sugbongcogon Mun. WWS										
	Mimbilisan-Pob. WS										
	Poblacion-Mintabon WS										
Talisayan	Talisayan WS										
Villanueva	Kimaya WWS										

4.1.5 Level I Facilities

Safe and Unsafe Classification of Level I Facilities

According to the definition of DOH, protected deep well, protected shallow well, covered/improved dug well and developed spring are classified as safe sources, while unprotected shallow well, open dug well, undeveloped spring and rainwater collector are classified as unsafe sources.

In the 1990 population census data on "Households by Main Source of Drinking Water and City/Municipality", it was shown that 21% of the households depended on shallow well, dug well, undeveloped spring, lake, river and rain water collector, etc. This figure was considered as the upper limit of doubtful sources in terms of underserved/unserved, if all shallow wells were regarded as doubtful.

The PHO has conducted water quality analysis of samples collected at public and private Level I wells, however, the results have not been recorded by type of Level I facility at present. Under this situation, in order to estimate safe/unsafe classification of shallow wells, the following are assumed:

- All samples of dug wells and undeveloped springs are regarded as unsafe sources.
- While, 50% of the samples of deep wells and developed springs are assumed as unsafe, since water sampling by PHO is usually conducted where problems on water quality and/or incidence of water related diseases have been experienced.
- The number of unsafe shallow wells is calculated as the balance between the total number of unsafe sources; and the sample number of dug wells, undeveloped springs and half of the number of deep wells and developed springs.

Table 4.1.3 shows the estimated percentage of unsafe shallow wells based on the above assumption. The unsafe percentage of shallow wells was arrived at 54% as a provincial average. The following conditions may be considered to assume the final figure for this planning purpose.

- Water sampling by the PHO is usually conducted on a request basis by the local residents where problems on water quality and/or incidence of water related diseases are reported.
- There are some cases when the same Level I sources/facilities are examined repeatedly until their safety is confirmed.

Table 4.1.3 Estimation of Unsafe Shallow Wells

Municipality	No. of Existing Level I Shallow Wells Sampled	Estimated No. of Unsafe sources	Percentage of Unsafe Sources
Alubijid	15	6	40%
Balingasag	0	N.A.	N.A.
Balingoan	9	0	0%
Binaungan	0	N.A.	N.A.
Claveria	0	N.A.	N.A.
El Salvador	6	0	0%
Gingoog City	0	N.A.	N.A.
Gitagum	1	0	0%
Initao	22	11	50%
Jasaan	0	N.A.	N.A.
Kinoguitan	12	11	92%
Lagonlong	3	1	33%
Laguindingan	0	N.A.	N.A.
Libertad	17	10	59%
Lugait	1	0	0%
Magsaysay	1	1	100%
Manticao	0	N.A.	N.A.
Medina	0	N.A.	N.A.
Naawan	39	24	62%
Opol	0	N.A.	N.A.
Salay	25	14	56%
Sugbongcogon	0	N.A.	N.A.
Tagoloan	10	5	50%
Talisayan	26	7	27%
Villa Nueva	83	42	51%
Province	270	146	54%

N.A.: Not Available

Considering the above conditions on the manner of sampling, the unsafe percentage of shallow wells derived from the above table may be overestimated.

On the other hand, the experiences during the study for 1st batch provinces in Mindanao area showed that around 20-50 % was considered as unsafe sources as shown below.

Surigao del Norte	Agusan del Norte	Agusan del Sur	Davao Oriental	Davao del Sur
20 %	50 %	23 %	40 %	46%

Based on the above study, the maximum percentage of 50 % was used in the 1st batch study. This may be adopted as the unsafe percentage to all municipalities both in urban and rural area in the classification of shallow wells. While, those sources other than shallow wells are processed as classified in the questionnaire. Table 4.1.4 (a) presents the number of Level I facilities by safe and unsafe classification.

Table 4.1.4(a) Number of Level I Facilities by Safe and Unsafe Classification

Name of Municipality	Area	Safe Sources										Unsafe Source								Grand Total		
		Public					Private					Public				Private						
		Deep Well	Shallow Well	Covered/ Improved Dug Well	Developed Spring	Sub-total	Deep Well	Shallow Well	Covered/ Improved Dug Well	Sub-total	Total	Shallow Well	Open Dug Well	Undeveloped Spring	Rain Water Collection	Sub-total	Shallow Well	Open Dug Well	Rain Water Collector		Sub-total	Total
Alubijid	Urban	9	5		7	21					21	5					5				5	25
	Rural	26	18		12	56	1	3			60	18					18	3			3	80
	Total	35	23		19	77	1	3			80	23					23	3			3	103
Balingasag	Urban	25	3			28	8	7		15	43	3					3	7	9		16	61
	Rural	34	16		16	66	1	11		12	77	16					16	11	47		58	150
	Total	59	19		32	93	9	18		27	120	19					18	18	56		74	211
Balinguan	Urban	2	1			3	5	1		6	9	1					1	1			2	12
	Rural	3	1		8	12				12	1						2	1			1	22
	Total	5	2		8	15	5	1		6	20	2					3				3	23
Binuangan	Urban	1	1		1	2				2	1	1					1				1	12
	Rural	5			7	12				12							1				1	14
	Total	6	1		8	14				14							2				2	16
Claveria	Urban	7	2		13	22	10			32	2						1				1	33
	Rural	22	1		7	30	1			31	1						3				4	35
	Total	29	3		20	52	11			63	3						4				5	68
El Salvador	Urban	7	1			8	8			16	8	1					1				1	18
	Rural	85	17		3	105	1	1		106	17						17	1	32		33	143
	Total	92	18		3	113	2	2		115	25						18	1	33		46	161
Gingoog City	Urban	73	17			90	10	4		104	17						11	4			15	119
	Rural	33	11		5	49	7	4		56	11						3				14	70
	Total	106	28		5	140	17	8		160	28						14	4			29	189
Gitagum	Urban	11			2	13				13									9		3	16
	Rural	11			2	13				13							9	2	26		37	50
	Total	22			4	26				26							18	2	52		77	100
Initao	Urban	3	9			12				12							9				9	21
	Rural	55	24		1	80	27	14		121	24						24	14	42		58	145
	Total	58	33		1	92	27	16		135	33						33	16	68		86	200
Jasaan	Urban				5	5				5							1				1	6
	Rural	1	1		8	9				9	1						1	1			2	11
	Total	1	1		13	14				14	1						2	1			3	15
Kinogutan	Urban	2	2		1	3				3							4				4	7
	Rural	8	2		7	17				17							6		4		10	27
	Total	10	4		8	20				20							10		4		14	34
Laganglong	Urban	1	2			3	3			6							2				2	8
	Rural	8	13		7	28				28	13						13	6			19	51
	Total	9	15		7	31				34	13						15	9			23	62
Laguindingan	Urban	7				7				7							7				7	14
	Rural	32	1		4	37				37	1						1				1	38
	Total	39	1		4	44				44	1						8				9	52
Liberad	Urban	9	2			11				11							2				2	13
	Rural	5	11		3	19				19	4						11	4			15	34
	Total	14	13		3	30				30	4						13	4			17	47

Table 4.1.4(a) Number of Level I Facilities by Safe and Unsafe Classification (Cont'd.)

Name of Municipality	Area	Safe Sources										Unsafe Source										Grand Total
		Public					Private					Public					Private					
		Deep Well	Shallow Well	Covered/Improved Dug Well	Developed Spring	Sub-total	Deep Well	Shallow Well	Covered/Improved Dug Well	Sub-total	Total	Shallow Well	Open Dug Well	Undeveloped Spring	Rain Water Collection	Sub-total	Shallow Well	Open Dug Well	Rain Water Collector	Sub-total	Total	
Lugait	Urban	4	9			14					34	61	9		2		11	34		34	45	
	Rural	9	21		14	44		8		8	52	21		5		26	8		8	34		
	Total	13	30		28	71		42		42	113	30		7		37	42		42	79		
																					191	
Magsaysay	Urban	4	8			12		16			16	27	8			8	16	35	10	61	95	
	Rural	16	22		19	57		59		118	22	59				22	59	56		115	137	
	Total	20	29		19	68		75		143	29	75				29	75	91	10	176	205	
																					347	
Manticao	Urban	1	1			2					2	2				1	1			1	2	
	Rural	13	8		23	44				44	8	44				8		22		22	30	
	Total	14	9		23	46				46	9	46				9	2	22		22	34	
																					76	
Medina	Urban	1	3			4		2			4	4	3			3	2			2	4	
	Rural	23	17		22	62		2		6	68	17				17	4	22		26	43	
	Total	24	20		22	66		4		10	75	20				20	6	22		28	47	
																					122	
Nauyan	Urban	1	1			2					2	2				1	1			1	3	
	Rural	17	22		4	43		1		9	53	22				22	9	8		17	39	
	Total	18	23		4	45		1		10	55	23				23	9	8		17	40	
																					95	
Opol	Urban	1	8		2	11		2			2	13	8			8	2			24	32	
	Rural	73	16		8	97		33		17	50	147	16			16	17	148	23	188	204	
	Total	74	24		10	108		33		51	159	24				24	18	170	23	211	235	
																					394	
Salay	Urban	2	2		4	6					6	6	2			2	2			4	8	
	Rural	1	4		7	12				4	12	4				4	15			4	15	
	Total	3	6		11	18				8	18	6				6	17			6	23	
																					28	
Sugbongogon	Urban																					
	Rural	3			12	15					15											
	Total	3			12	15					15											
Tagoloan	Urban	3	36		6	45		15														
	Rural																					
	Total	3	36		6	45		15														
Talisayan	Urban	2			1	3					3	3	2			3	1			1	3	
	Rural	4	10		12	26		1		9	36	10				10	9	5	4	18	28	
	Total	4	12		13	29		1		9	10	38	12			12	9	6	4	19	30	
																					58	
Villanueva	Urban	4	8		3	15					10	25	8			8	10	10		20	38	
	Rural	3	18		2	23				1	24	18				18	1	8	25	34	53	
	Total	7	26		5	38				2	49	26				26	11	18	25	54	80	
																					128	
Provincial Total	Urban	162	117		61	340		50		153	543	117	2	2		121	153	155	13	321	442	
	Rural	489	250		214	953		75		147	1,175	250				255	147	462	75	684	939	
	Total	651	367		275	1,293		125		300	1,717	366	2	2		375	300	617	88	1,005	1,380	
																					3,097	

Public and Private Level I Facilities for Rural Water Supply

Table 4.1.4 (b) presents the number and proportion of Level I facilities by public and private sources for rural water supply in the province. Public and private facilities share 57% and 43% of the total number of Level I facility, respectively. Developed springs occupy 18% of the total number of public facilities.

Table 4.1.4 (b) Public and Private Level I Facilities for Rural Water Supply

Facility	Public Source		Private Source		Total
	Number	%	Number	%	
Deep Well	489	75%	75	25%	564
Shallow Well	500	63%	294	37%	794
Spring Development	215	100%	0	0%	215
Others	5	1%	537	99%	542
Total	1,209	57%	906	43%	2,115

4.1.6 Water Supply Service Coverage

Estimation of Service Coverage in Terms of Safe, Unsafe and Unserved Classification

Through review of the number of water supply systems/facilities and the number of households that were derived from the questionnaire, it was found out that a great number of unserved population would be accounted as a balance between the total population and the population with any levels of services (including unsafe facilities) by applying the service level standard for Level I and II. To come up with more realistic service coverage, the unserved population in 1997 was referred to using the profile in the 1990 population census data on "Households by Main Source of Drinking Water and City/Municipality" prepared by NSO. The rest of the population, those who are not served by Level III and/or II systems, were considered to be covered by shared or own use of Level I facilities. The calculation procedure is as follows:

- Service percentage/population of Level III and Level II systems was estimated based on the questionnaire survey results.
- Percentage of unserved population (using undeveloped spring, lake water, river water, peddler, etc.) of respective municipality by urban and rural area, which were studied in the 1990 population census, was discounted to half of their percentage, since the figures were estimated based on 10% sample and the situation at that time seems to have been improved.
- Population covered by Level I facilities was calculated as the balance between the total population and the population served by Level III & II systems and the unserved population.

- Level I population coverage was estimated with the assumption that 50% of the private facilities were shared by neighbors.

Unserved population and the population covered by Level I facilities are presented in Table 4.1.5. Table 4.1.6 presents the overall population covered by Level I facilities and the number of households.

The number of households per shared public/private facility is estimated at 17 households in urban area and 26 in rural area as provincial averages. Compared with the service level standard of Level I public facility (15 households/facility), these figures are considered rather high especially in the municipalities of Jasaan, Manticao and Salay. This reason seems to arise from the existence of a considerable number of non-reported/unidentified private wells in such municipalities.

Percentage of Population Covered by Level I Public Facility for Rural Water Supply

Grasping the current percentage of population covered by public facilities would be a useful information in considering as to what extent the additional population to be covered by public facilities in the future plan. This takes into account that the major facilities would be Level I especially for rural water supply in the future.

Population covered by public facilities is calculated as the balance between total population served by Level I facilities and the population covered by private facilities. Thus, it is estimated at 131,100 persons or 89% of the total population is covered by public Level I facilities based on the figures in Tables 4.1.6 (a) and 4.1.6 (b).

Table 4.1.5 Estimation of Unserved Population by Municipality

Name of Municipality	Area	Population and Household (1997)		Served Population			Unserved Population				Population Covered by Level I Facilities
		Number	HH Size	Level III	Level II	Total	Unserved Percentage (1995)		Unserved Population 1997		
							Total No. of HHs	No. of Unserved		%	
Alubijid	Urban	5,714	4.77	3,050	200	3,250	1,149	87	433	2,031	
	Rural	16,992	4.70		3,568	3,568	3,464	199	976	12,448	
	Total	22,706	4.72	3,050	3,768	6,818	4,613	286	1,409	14,479	
Balingasag	Urban	12,799	5.31				2,316	341	1,882	10,917	
	Rural	35,114	5.40		875	875	6,246	781	4,391	29,848	
	Total	47,913	5.37		875	875	8,562	1,122	6,272	40,766	
Balingoan	Urban	3,628	5.28	1,720	210	1,930	655	38	210	1,488	
	Rural	4,286	5.16		400	400	793	87	470	3,416	
	Total	7,914	5.21	1,720	610	2,330	1,448	125	681	4,903	
Binuangan	Urban	1,533	5.56		715	715	270	38	213	605	
	Rural	3,953	4.98		2,535	2,535	777	86	435	983	
	Total	5,486	5.13		3,250	3,250	1,047	123	648	1,588	
Claveria	Urban	19,674	5.47	7,100	300	7,400	3,291	554	3,309	8,965	
	Rural	22,991	5.32	21,027		21,027	3,951	1,270	1,964		
	Total	42,665	5.39	28,127	300	28,427	7,242	1,824	5,273	8,965	
El Salvador	Urban	6,207	5.09	5,817		5,817	1,142	90	390		
	Rural	27,405	5.09	1,100	3,340	4,440	5,048	207	1,124	21,841	
	Total	33,612	5.09	6,917	3,340	10,257	6,190	297	1,514	21,841	
Gingoog City	Urban	32,098	5.18	11,710	2,766	14,476	6,060	783	4,147	13,475	
	Rural	57,401	5.07	4,365	41,102	45,467	11,076	1,797	9,310	2,624	
	Total	89,499	5.11	16,075	43,868	59,943	17,136	2,580	13,458	16,098	
Gitagum	Urban	2,214	4.91	2,040		2,040	446	10	174		
	Rural	9,238	4.84		2,550	2,550	1,887	23	113	6,575	
	Total	11,452	4.86	2,040	2,550	4,590	2,333	33	287	6,575	
Initao	Urban	6,112	4.71	6,094		6,094	1,295	28		18	
	Rural	17,298	4.81		1,838	1,838	3,586	63	301	15,159	
	Total	23,410	4.78	6,094	1,838	7,932	4,881	90	301	15,177	

Table 4.1.5 Estimation of Unserved Population by Municipality (Cont'd.)

Name of Municipality	Area	Population and Household (1997)		Served Population			Unserved Population				Population Covered by Level I Facilities
		Number	HH Size	Level III	Level II	Total	Unserved Percentage (1995)		Unserved Population 1997		
							Total No. of HHs	No. of Unserved		%	
Jasaan	Urban	21,071	5.31	4,785	2,988	7,773	3,756	145	4	811	12,487
	Rural	14,454	5.29	7,840	1,144	8,984	2,584	332	13	1,857	3,613
	Total	35,525	5.30	12,625	4,132	16,757	6,340	477	8	2,668	16,100
Kinoguitan	Urban	1,968	5.60	1,280	678	1,958	329	43	13		10
	Rural	9,151	5.41		3,456	3,456	1,583	99	6	569	5,126
	Total	11,119	5.44	1,280	4,134	5,414	1,912	142	7	569	5,136
Lagonglong	Urban	3,459	5.29	1,520		1,520	608	58	10	330	1,609
	Rural	12,942	5.32	1,800	1,800	3,600	2,262	133	6	758	8,584
	Total	16,401	5.32	3,320	1,800	5,120	2,870	191	7	1,088	10,193
Laguindingan	Urban	2,497	4.90	2,497		2,497	497	28	6		
	Rural	14,432	4.83	4,086	4,122	8,208	2,917	63	2	309	5,915
	Total	16,929	4.84	6,583	4,122	10,705	3,414	90	3	309	5,915
Libertad	Urban	3,554	4.91	1,780	690	2,470	700	17	2	86	998
	Rural	6,021	5.19		828	828	1,122	89	8	478	4,715
	Total	9,575	5.08	1,780	1,518	3,298	1,822	106	6	564	5,713
Lugait	Urban	6,356	4.95	6,172	100	6,272	1,242	68	5	84	
	Rural	7,083	4.20	756	4,685	5,441	1,632	157	10	679	963
	Total	13,439	4.53	6,928	4,785	11,713	2,874	225	8	763	963
Magsaysay	Urban	1,546	5.26		1,353	1,353	286	266	93		193
	Rural	22,843	5.20				4,275	611	14	3,262	19,581
	Total	24,389	5.20		1,353	1,353	4,561	877	19	3,262	19,774
Manticao	Urban	6,601	5.07	3,660		3,660	1,276	93	7	481	2,460
	Rural	16,497	4.99		120	120	3,238	213	7	1,085	15,292
	Total	23,098	5.01	3,660	120	3,780	4,514	306	7	1,566	17,752

Table 4.1.5 Estimation of Unserved Population by Municipality (Cont'd.)

Name of Municipality	Area	Population and Household (1997)		Served Population			Unserved Population				Population Covered by Level I Facilities
		Number	HH Size	Level III	Level II	Total	Unserved Percentage (1995)		Unserved Population 1997		
							Total No. of HHs	No. of Unserved		%	
Medina	Urban	5,820	5.25	5,650		5,650	1,081	119	11	170	
	Rural	18,113	5.33	460	7,407	7,867	3,309	274	8	1,497	8,749
	Total	23,933	5.31	6,110	7,407	13,517	4,390	393	9	1,667	8,749
Naawan	Urban	3,140	4.97	1,760		1,760	610	46	8	237	1,143
	Rural	11,946	4.84		708	708	2,387	106	4	530	10,708
	Total	15,086	4.86	1,760	708	2,468	2,997	152	5	767	11,851
Opol	Urban	7,205	5.02	510	450	960	1,350	193	14	1,027	5,218
	Rural	18,280	4.99				3,441	442	13	2,345	15,935
	Total	25,485	5.00	510	450	960	4,791	634	13	3,373	21,152
Salay	Urban	6,861	5.09		6,747	6,747	1,326	131	10		114
	Rural	12,381	4.92		2,077	2,077	2,473	301	12	1,504	8,800
	Total	19,242	4.98		8,824	8,824	3,799	432	11	1,504	8,914
Sugbongcogon	Urban	3,700	5.54	970	2,730	3,700	637	2	0		
	Rural	3,589	5.59	522	2,086	2,608	613	5	1	29	952
	Total	7,289	5.57	1,492	4,816	6,308	1,250	7	1	29	952
Tagoloan	Urban	44,079	5.20	39,230	4,849	44,079	7,875	310	4		
	Rural										
	Total	44,079	5.20	39,230	4,849	44,079	7,875	310	4		
Talisayan	Urban	4,505	5.47		3,250	3,250	777	83	11	478	777
	Rural	16,426	5.36		2,230	2,230	2,893	190	7	1,076	13,120
	Total	20,931	5.38		5,480	5,480	3,670	272	7	1,554	13,897
Villanueva	Urban	10,281	5.11	7,154		7,154	1,847	75	4	417	2,710
	Rural	12,953	5.18	3,993	100	4,093	2,294	173	8	974	7,886
	Total	23,234	5.15	11,147	100	11,247	4,141	248	6	1,391	10,596
Provincial Total	Urban	222,622	5.18	114,499	28,026	142,525	40,821	3,642	9	14,880	65,217
	Rural	391,789	5.09	45,949	86,971	132,920	73,851	7,695	10	36,039	222,830
	Total	614,411	5.12	160,448	114,997	275,445	114,672	11,336	10	50,919	288,047

Table 4.1.6 (a) Estimation of Population Covered by Safe and Unsafe Source by Municipality

Name of Municipality	Area	Pop. Covered by Level I Facilities	Number of Facilities			Coverage of Own Use										
			Public Facilities		Private Facilities		Number of Private Facilities				(1) Population Covered					
			Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total		
Alubijid	Urban	2,031	21	5	25											
	Rural	12,448	56	18	74	4	3	6	2	1	3	8	6	14		
	Total	14,479	77	23	99	4	3	6	2	1	3	8	6	14		
Balingasag	Urban	10,917	28	3	30	15	16	31	8	8	16	40	42	82		
	Rural	29,848	66	16	81	12	58	69	6	29	35	31	153	183		
	Total	40,766	93	18	111	27	74	100	13	37	50	70	195	265		
Balingoan	Urban	1,488	3	1	4	6	1	6	3	0	3	15	1	16		
	Rural	3,416	12	1	12											
	Total	4,903	15	2	16	6	1	6	3	0	3	15	1	16		
Binuangan	Urban	605	2	1	2											
	Rural	983	12		12											
	Total	1,588	14	1	14											
Claveria	Urban	8,965	22	2	23	10	1	11	5	1	6	27	3	30		
	Rural		30	1	31	1	19	20	1	10	10					
	Total	8,965	52	3	54	11	20	31	6	10	16	27	3	30		
El Salvador	Urban		8	1	8											
	Rural	21,841	105	17	121	2	33	34	1	16	17	4	83	87		
	Total	21,841	112	17	129	2	33	34	1	16	17	4	83	87		
Gingoog City	Urban	13,475	90	17	107	14	4	18	7	2	9	36	10	47		
	Rural	2,624	50	11	60	11	4	14	5	2	7	27	9	36		
	Total	16,098	140	28	167	25	8	32	12	4	16	63	19	83		
Gitagum	Urban															
	Rural	6,575	13		13		12	12		6	6		29	29		
	Total	6,575	13		13		12	12		6	6		29	29		
Initao	Urban	18	12	9	21	2	28	30	1	14	15	5	66	71		
	Rural	15,159	80	24	104	41	58	98	20	29	49	95	135	231		
	Total	15,177	92	33	125	43	86	128	21	43	64	100	201	301		

Table 4.1.6 (a) Estimation of Population Covered by Safe and Unsafe Source by Municipality (Cont'd.)

Name of Municipality	Area	Pop. Covered by Level I Facilities	Number of Facilities					Coverage of Own Use				
			Public Facilities			Private Facilities		Number of Private Facilities			(1) Population Covered	
			Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total	Total
Jasaan	Urban	12,487	5		5	1	1	2	1	1	3	5
	Rural	3,613	9	1	9	1	1	2	1	1	3	5
	Total	16,100	14	1	14	2	2	4	1	2	5	11
Kinoguitan	Urban	10	3	4	6		2	2		1	6	6
	Rural	5,126	17	2	19		4	4		2	11	11
	Total	5,136	20	6	25		6	6		3	17	17
Lagonglong	Urban	1,609	3	2	4	3	3	5	1	1	7	13
	Rural	8,584	28	13	41	6	6	12	3	6	16	32
	Total	10,193	31	15	45	9	9	17	4	9	22	45
Laguindingan	Urban		7		7							
	Rural	5,915	37	1	37							
	Total	5,915	44	1	44							
Libertad	Urban	998	11	2	12	3	18	21	2	9	7	52
	Rural	4,715	19	11	30	4	62	66	2	31	10	162
	Total	5,713	30	13	42	7	80	87	4	40	17	214
Lugait	Urban		27	11	38	34	34	68	17	17	34	
	Rural	963	44	26	70	8	8	15	4	4	19	37
	Total	963	71	37	108	42	42	83	21	21	42	37
Magsaysay	Urban	193	12	8	19	16	61	76	8	30	41	200
	Rural	19,581	57	22	78	59	115	174	30	58	155	458
	Total	19,774	68	29	97	75	176	250	37	88	196	657
Manticao	Urban	2,460	2	1	2							
	Rural	15,292	44	8	52		22	22		11	56	56
	Total	17,752	46	9	54		22	22		11	56	56
Medina	Urban		4	3	6	4	2	5	2	1	3	
	Rural	8,749	62	17	79	6	26	32	3	13	16	84
	Total	8,749	66	20	85	10	28	37	5	14	19	84
Naawan	Urban	1,143	2	1	3							
	Rural	10,708	43	22	65	10	17	27	5	9	25	67
	Total	11,851	45	23	68	10	17	27	5	9	25	67

Table 4.1.6 (a) Estimation of Population Covered by Safe and Unsafe Source by Municipality (Cont'd.)

Name of Municipality	Area	Pop. Covered by Level I Facilities	Number of Facilities						Coverage of Own Use					
			Public Facilities			Private Facilities			Number of Private Facilities			(1) Population Covered		
			Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total
Opol	Urban	5,218	11	8	19	2	24	25	1	12	13	4	59	63
	Rural	15,935	97	16	113	50	188	237	25	94	119	124	470	595
	Total	21,152	108	24	132	51	211	262	26	106	131	128	529	657
Salay	Urban	114	6	2	8									
	Rural	8,800	12	4	15									
	Total	8,914	18	6	23									
Sugbongogon	Urban		4		4									
	Rural	952	15		15									
	Total	952	19		19									
Tagoloan	Urban		45	36	80	86	108	193	43	54	97			
	Rural													
	Total		45	36	80	86	108	193	43	54	97			
Taisayan	Urban	777	3	2	4		1	1		1	1	3	3	3
	Rural	13,120	26	10	36	10	18	27	5	9	14	26	48	74
	Total	13,897	29	12	40	10	19	28	5	9	14	26	51	77
Villanueva	Urban	2,710	15	8	23	10	20	30	5	10	15	26	51	77
	Rural	7,886	23	18	40	1	34	35	1	17	18	3	87	89
	Total	10,596	38	26	63	11	54	65	6	27	33	28	138	166
Provincial Total	Urban	65,217	340	121	460	203	321	524	102	161	262	209	454	663
	Rural	222,830	953	255	1,207	222	684	906	111	342	453	561	1,689	2,250
	Total	288,047	1,292	375	1,667	425	1,005	1,430	213	503	715	770	2,143	2,913

Table 4.1.6 (b) Estimation of Population Covered by Safe and Unsafe Source by Municipality

Name of Municipality	Area	Coverage of Shared Well					Level I Coverage (1) + (2)				
		(2) Population Covered by Private and Public			Number of Households		No. of HHs per Shared Facility	Safe		Unsafe	
		Safe	Unsafe	Total	Safe	Unsafe		Pop.	%	Pop.	%
Alubijid	Urban	1,666	366	2,031	349	77	17	1,666	29	366	6
	Rural	9,336	3,098	12,434	1,985	659	34	9,344	55	3,104	18
	Total	11,002	3,463	14,465	2,335	735	30	11,010	48	3,469	15
Balingasag	Urban	8,398	2,437	10,835	1,582	459	45	8,438	66	2,480	19
	Rural	18,413	11,252	29,665	3,410	2,084	48	18,443	53	11,405	32
	Total	26,811	13,689	40,500	4,992	2,543	47	26,881	56	13,884	29
Balingoan	Urban	1,222	250	1,472	231	47	40	1,236	34	251	7
	Rural	3,273	142	3,416	635	28	55	3,273	76	142	3
	Total	4,495	392	4,887	866	75	50	4,510	57	393	5
Binuangan	Urban	454	151	605	82	27	54	454	30	151	10
	Rural	983		983	197		16	983	25		
	Total	1,437	151	1,588	279	27	22	1,437	26	151	3
Claveria	Urban	8,336	599	8,935	1,525	110	57	8,363	43	602	3
	Rural										
	Total	8,336	599	8,935	1,525	110	24	8,363	20	602	1
El Salvador	Urban										
	Rural	16,658	5,097	21,755	3,274	1,002	31	16,662	61	5,180	19
	Total	16,658	5,097	21,755	3,274	1,002	29	16,662	50	5,180	15
Gingoog City	Urban	11,268	2,160	13,428	2,175	417	22	11,304	35	2,171	7
	Rural	2,144	443	2,587	423	87	8	2,171	4	453	1
	Total	13,412	2,604	16,015	2,598	505	17	13,475	15	2,623	3
Gitagum	Urban										
	Rural	4,499	2,047	6,546	929	423	71	4,499	49	2,076	22
	Total	4,499	2,047	6,546	929	423	71	4,499	39	2,076	18
Initao	Urban										
	Rural	9,932	4,996	14,928	2,065	1,039	20	10,028	58	5,131	30
	Total	9,932	4,996	14,928	2,065	1,039	16	10,032	43	5,197	22
Jasaan	Urban	11,447	1,035	12,482	2,157	195	392	11,449	54	1,038	5
	Rural	3,252	356	3,608	615	67	68	3,254	23	359	2
	Total	14,698	1,391	16,090	2,772	262	190	14,704	41	1,397	4
Kinoguitan	Urban	4	1	4	1	0	0	4	0	0	0
	Rural	4,149	965	5,114	767	178	45	4,149	45	976	11
	Total	4,153	966	5,119	768	179	34	4,153	37	983	9
Lagonglong	Urban	928	668	1,596	175	126	46	935	27	674	19
	Rural	5,662	2,890	8,552	1,064	543	34	5,678	44	2,906	22
	Total	6,590	3,558	10,148	1,239	669	36	6,613	40	3,580	22
Laguindingan	Urban										
	Rural	5,835	80	5,915	1,208	17	33	5,835	40	80	1
	Total	5,835	80	5,915	1,208	17	28	5,835	34	80	0

Table 4.1.6 (b) Estimation of Population Covered by Safe and Unsafe Source by Municipality (Cont'd.)

Name of Municipality	Area	Coverage of Shared Well						Level I Coverage (1) + (2)					
		(2) Population Covered by Private and Public			Number of Households			No. of HHs per Shared Facility	Safe		Unsafe		Total
		Safe	Unsafe	Total	Safe	Unsafe	Total		Pop.	%	Pop.	%	
Libertad	Urban	532	414	946	108	84	193	9	539	15	458	13	998
	Rural	1,572	2,982	4,553	303	575	878	14	1,582	26	3,134	52	4,715
	Total	2,104	3,396	5,500	411	659	1,070	13	2,121	22	3,592	38	5,713
Lugait	Urban												
	Rural	593	332	926	141	79	220	3	612	9	351	5	963
	Total	593	332	926	141	79	220	1	612	5	351	3	963
Magsaysay	Urban								41	3	159	10	200
	Rural	10,206	8,918	19,123	1,963	1,715	3,678	22	10,361	45	9,220	40	19,581
	Total	10,206	8,918	19,123	1,963	1,715	3,678	17	10,402	43	9,379	38	19,781
Manticao	Urban	1,845	615	2,460	364	121	485	243	1,845	28	615	9	2,460
	Rural	10,680	4,556	15,236	2,140	913	3,052	48	10,680	65	4,612	28	15,292
	Total	12,525	5,171	17,696	2,504	1,034	3,538	54	12,525	54	5,227	23	17,752
Medina	Urban												
	Rural	5,986	2,679	8,665	1,122	502	1,625	17	6,002	33	2,747	15	8,749
	Total	5,986	2,679	8,665	1,122	502	1,625	16	6,002	25	2,747	11	8,749
Naawan	Urban	762	381	1,143	153	77	230	77	762	24	381	12	1,143
	Rural	6,547	4,093	10,640	1,354	846	2,200	28	6,572	55	4,135	35	10,708
	Total	7,309	4,474	11,784	1,507	923	2,430	30	7,334	49	4,516	30	11,851
Opol	Urban	1,946	3,209	5,155	388	640	1,027	33	1,950	27	3,268	45	5,218
	Rural	8,380	6,960	15,340	1,678	1,394	3,072	13	8,504	47	7,430	41	15,935
	Total	10,327	10,168	20,495	2,066	2,033	4,099	16	10,454	41	10,698	42	21,152
Salay	Urban	86	29	114	17	6	22	3	86	1	29	0	114
	Rural	6,746	2,053	8,800	1,370	417	1,787	119	6,746	54	2,053	17	8,800
	Total	6,832	2,082	8,914	1,387	423	1,810	79	6,832	36	2,082	11	8,914
Sugbongogon	Urban												
	Rural	952		952	170		170	11	952	27			952
	Total	952		952	170		170	9	952	13			952
Tagoloan	Urban												
	Rural												
	Total												
Talisayan	Urban	431	342	774	79	63	142	31	431	10	345	8	777
	Rural	8,150	4,896	13,046	1,522	914	2,436	49	8,176	50	4,944	30	13,120
	Total	8,582	5,238	13,820	1,601	977	2,578	48	8,608	41	5,289	25	13,897
Villanueva	Urban	1,426	1,207	2,633	279	236	516	14	1,452	14	1,258	12	2,710
	Rural	3,154	4,642	7,797	609	896	1,506	26	3,157	24	4,729	37	7,886
	Total	4,580	5,849	10,430	888	1,133	2,021	21	4,609	20	5,987	26	10,596
Provincial Total	Urban	50,750	13,864	64,614	9,666	2,685	12,351	17	50,959	23	14,317	6	65,276
	Rural	147,103	73,477	220,580	28,946	14,378	43,323	26	147,064	38	75,167	19	222,830
	Total	197,853	87,341	285,194	38,612	17,063	55,675	23	198,623	32	89,484	15	288,107

4.2 Sanitation and Sewerage

4.2.2 Types of Facilities and Definition of Service Level Standard

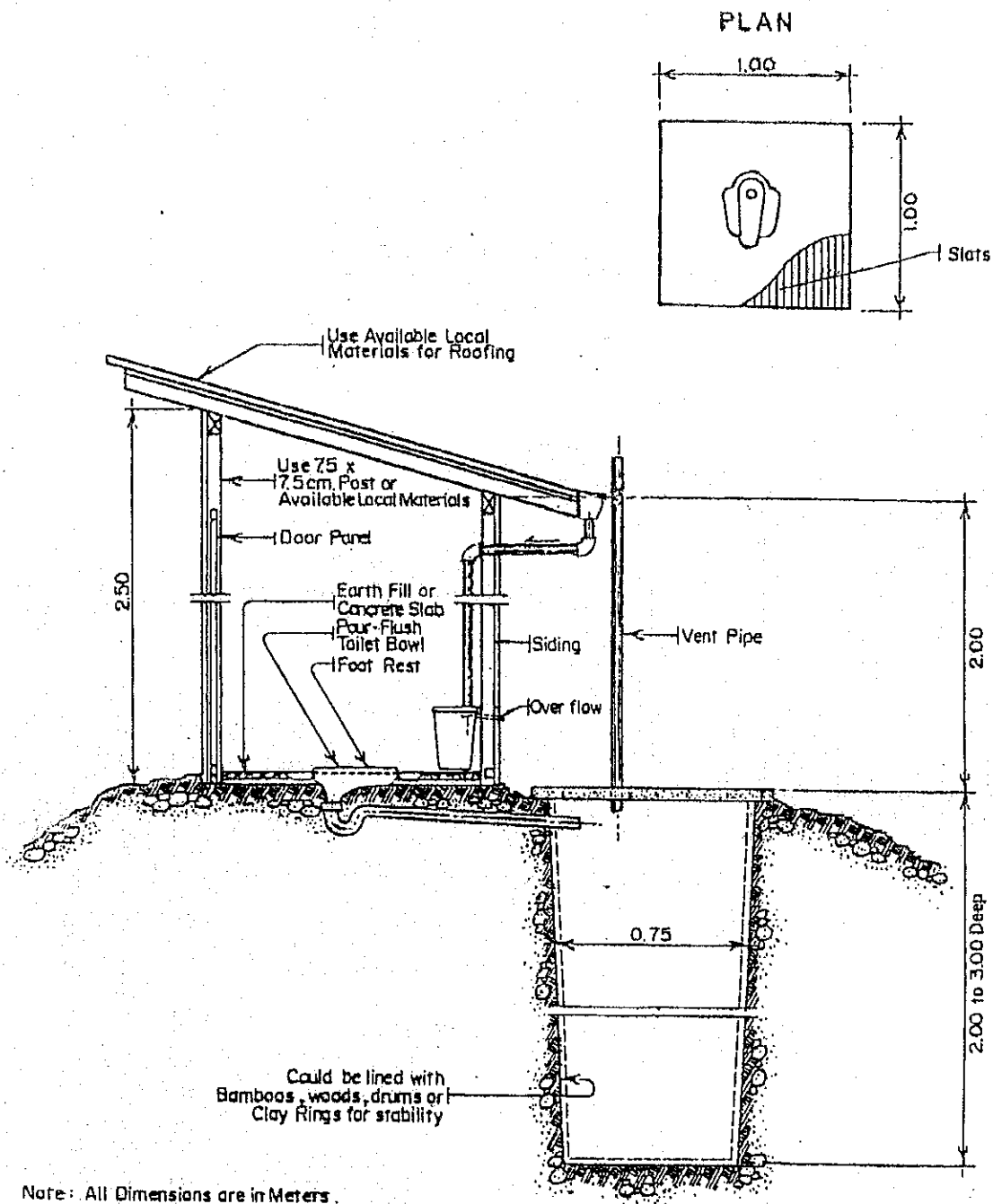
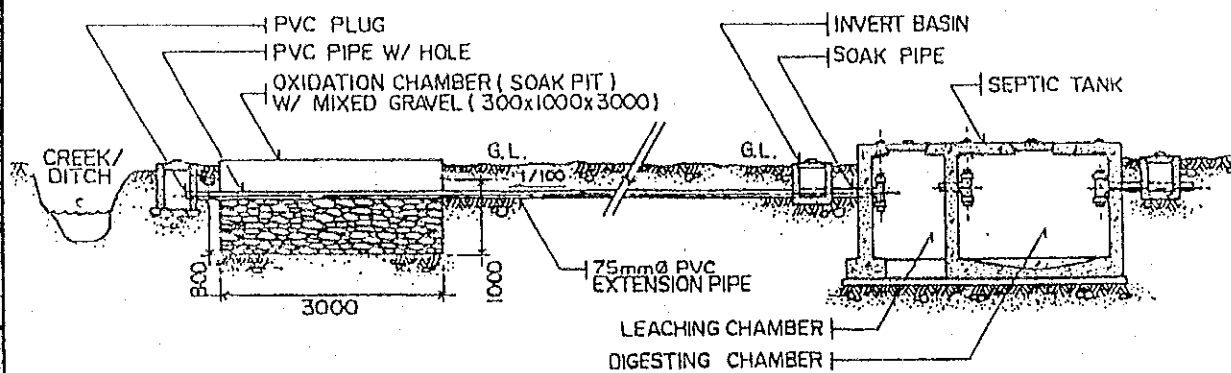


FIGURE 4.2.1
STANDARD STRUCTURE OF PRIVATE TOILET FACILITY

SOURCE : DEPARTMENT OF HEALTH



LAYOUT PLAN OF HIGH GROUND WATER SITE

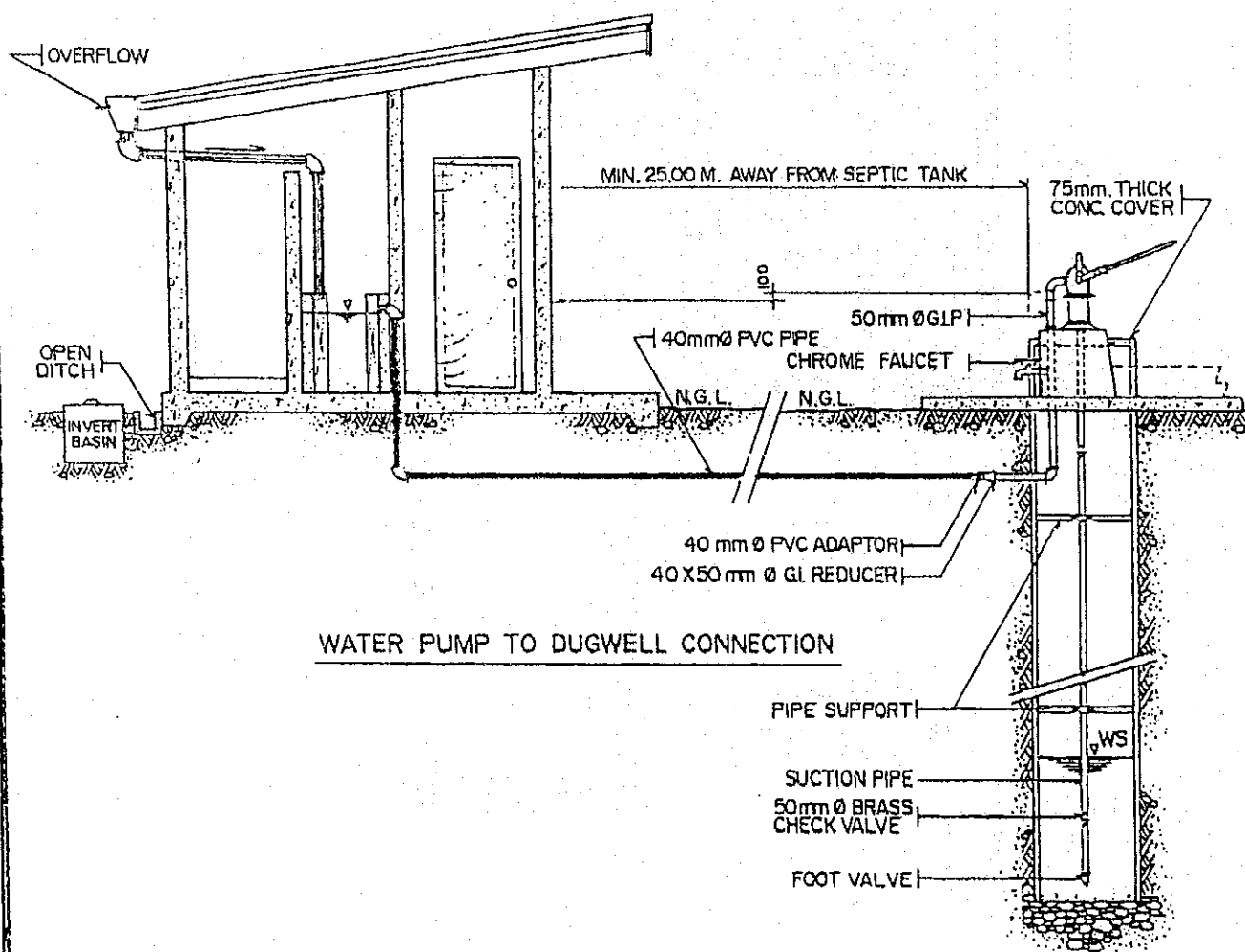


FIGURE 4.2.2
STANDARD STRUCTURE OF SCHOOL TOILET FACILITY

4.2.3 Sanitation Facilities and Service Coverage

Table 4.2.1 Sanitation Facilities and Service Coverage of Household Toilets by Type, by Municipality, Urban and Rural 1997

Municipality/City	Area	No. of Households (1997)	Households Served by Sanitary Toilets								Underserved/Unservd HHs			
			Flush Toilet		Pour Flush		VIP		Total		Unsanitary		No Facility	
			Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Alubijid	Urban	1,199	40	3	821	68	11	1	872	73	242	20	85	7
	Rural	3,614	11	0	1,336	37	42	1	1,389	38	1,506	42	719	20
	Total	4,812	51	1	2,157	45	53	1	2,261	47	1,748	36	804	17
Balingasag	Urban	2,411	8	0	1,143	47	150	6	1,301	54	667	28	443	18
	Rural	6,503	8	0	2,861	44	683	11	3,552	55	1,510	23	1,441	22
	Total	8,915	16	0	4,004	45	833	9	4,833	54	2,177	24	1,884	21
Balingoan	Urban	687	3	0	510	74	0	0	513	75	12	2	162	24
	Rural	831	0	0	587	71	0	0	587	71	20	2	224	27
	Total	1,518	3	0	1,097	72	0	0	1,100	72	32	2	386	25
Binuangan	Urban	276	3	1	218	79	0	0	221	80	4	1	51	19
	Rural	793	4	1	575	72	0	0	579	73	44	6	170	21
	Total	1,069	7	1	793	74	0	0	800	75	48	4	221	21
Claveria	Urban	3,598	0	0	2,063	57	585	16	2,648	74	834	23	116	3
	Rural	4,320	0	0	569	13	1,170	27	1,739	40	748	17	1,833	42
	Total	7,919	0	0	2,632	33	1,755	22	4,387	55	1,582	20	1,949	25
El Salvador	Urban	1,219	0	0	808	66	0	0	808	66	0	0	411	34
	Rural	5,386	0	0	2,278	42	0	0	2,278	42	1,198	22	1,910	35
	Total	6,605	0	0	3,086	47	0	0	3,086	47	1,198	18	2,321	35
Gingoog City	Urban	6,196	3,477	56	1,862	30	857	14	6,196	100	0	0	0	0
	Rural	11,325	0	0	8,396	74	685	6	9,081	80	280	2	1,964	17
	Total	17,521	3,477	20	10,258	59	1,542	9	15,277	87	280	2	1,964	11
Gitagum	Urban	451	6	1	337	75	0	0	343	76	99	22	9	2
	Rural	1,908	2	0	1,200	63	10	1	1,212	64	377	20	319	17
	Total	2,359	8	0	1,537	65	10	0	1,555	66	476	20	328	14
Initao	Urban	1,299	0	0	1,080	83	0	0	1,080	83	48	4	171	13
	Rural	3,597	0	0	1,488	41	280	8	1,768	49	1,120	31	709	20
	Total	4,896	0	0	2,568	52	280	6	2,848	58	1,168	24	880	18
Jasaan	Urban	3,971	43	1	2,858	72	37	1	2,938	74	136	3	897	23
	Rural	2,732	6	0	1,469	54	167	6	1,642	60	198	7	892	33
	Total	6,704	49	1	4,327	65	204	3	4,580	68	334	5	1,789	27
Kinoguitan	Urban	352	1	0	240	68	0	0	241	69	65	18	46	13
	Rural	1,692	0	0	736	44	0	0	736	44	407	24	549	32
	Total	2,043	1	0	976	48	0	0	977	48	472	23	595	29
Lagonglong	Urban	654	0	0	464	71	0	0	464	71	27	4	163	25
	Rural	2,431	0	0	1,466	60	0	0	1,466	60	252	10	713	29
	Total	3,085	0	0	1,930	63	0	0	1,930	63	279	9	876	28
Laguindingan	Urban	509	2	0	373	73	84	16	459	90	29	6	21	4
	Rural	2,989	0	0	2,091	70	266	9	2,357	79	277	9	355	12
	Total	3,498	2	0	2,464	70	350	10	2,816	80	306	9	376	11
Libertad	Urban	724	2	0	505	70	63	9	570	79	48	7	106	15
	Rural	1,160	3	0	719	62	31	3	753	65	316	27	91	8
	Total	1,884	5	0	1,224	65	94	5	1,323	70	364	19	197	10
Lugait	Urban	1,283	20	2	863	67	0	0	883	69	53	4	347	27
	Rural	1,686	0	0	677	40	0	0	677	40	206	12	803	48
	Total	2,968	20	1	1,540	52	0	0	1,560	53	259	9	1,150	39
Magsaysay	Urban	294	0	0	139	47	32	11	171	58	45	15	78	27
	Rural	4,394	0	0	1,157	26	830	19	1,987	45	1,328	30	1,079	25
	Total	4,688	0	0	1,296	28	862	18	2,158	46	1,373	29	1,157	25
Manticao	Urban	1,302	199	15	689	53	111	9	999	77	93	7	210	16
	Rural	3,305	356	11	1,339	41	904	27	2,599	79	190	6	516	16
	Total	4,607	555	12	2,028	44	1,015	22	3,598	78	283	6	726	16
Medina	Urban	1,109	0	0	704	63	0	0	704	63	0	0	405	37
	Rural	3,396	0	0	1,695	50	91	3	1,786	53	338	10	1,272	37
	Total	4,506	0	0	2,399	53	91	2	2,490	55	338	8	1,677	37
Naawan	Urban	631	0	0	584	93	12	2	596	94	0	0	35	6
	Rural	2,470	0	0	1,503	61	316	13	1,819	74	59	2	592	24
	Total	3,101	0	0	2,087	67	328	11	2,415	78	59	2	627	20
Opol	Urban	1,436	12	1	536	37	16	1	564	39	78	5	794	55
	Rural	3,660	10	0	2,519	69	500	14	3,029	83	219	6	412	11
	Total	5,096	22	0	3,055	60	516	10	3,593	71	297	6	1,206	24
Salay	Urban	1,348	8	1	1,019	76	0	0	1,027	76	71	5	250	19
	Rural	2,515	0	0	1,488	59	0	0	1,488	59	103	4	924	37
	Total	3,863	8	0	2,507	65	0	0	2,515	65	174	5	1,174	30
Sugbongcogon	Urban	667	0	0	633	95	0	0	633	95	8	1	26	4
	Rural	642	0	0	495	77	0	0	495	77	18	3	129	20
	Total	1,310	0	0	1,128	86	0	0	1,128	86	26	2	155	12
Tagoloan	Urban	8,481	274	3	6,368	75	0	0	6,642	78	1,226	14	613	7
	Rural	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	8,481	274	3	6,368	75	0	0	6,642	78	1,226	14	613	7
Talisayan	Urban	824	0	0	444	54	0	0	444	54	70	8	310	38
	Rural	3,067	0	0	1,459	48	126	4	1,585	52	473	15	1,009	33
	Total	3,891	0	0	1,903	49	126	3	2,029	52	543	14	1,319	34
Villanueva	Urban	2,014	52	3	1,352	67	136	7	1,540	76	27	1	447	22
	Rural	2,501	0	0	1,194	48	256	10	1,450	58	377	15	674	27
	Total	4,515	52	1	2,546	56	392	9	2,990	66	404	9	1,121	25
Provincial Total	Urban	42,936	4,150	10	26,613	62	2,094	5	32,857	77	3,882	9	6,196	14
	Rural	76,918	400	1	39,297	51	6,357	8	46,054	60	11,564	15	19,299	25
	Total	119,854	4,550	4	65,910	55	8,451	7	78,911	66	15,446	13	25,495	21

Table 4.2.2 Number of Student and School Toilet Facilities by Municipality

Municipality/City		Number of School	Number of Student	Number of Toilets		
				Sanitary	Unsanitary	Total
Alubijid	Public	17	5,901	69		69
	Private					
	Total	17	5,901	69		69
Balingasag	Public	33	13,874	172	1	173
	Private	4	1,524	24		24
	Total	37	15,398	196	1	197
Balingoan	Public	8	2,129	20		20
	Private					
	Total	8	2,129	20		20
Binuangan	Public	10	1,769	20		20
	Private					
	Total	10	1,769	20		20
Claveria	Public	37	12,096	308		308
	Private	1				
	Total	38	12,096	308		308
El Salvador	Public	16	6,482	222		222
	Private	4	1,185	18		18
	Total	20	7,667	240		240
Gingoog City	Public		22,544	311		311
	Private		1,837	64		64
	Total		24,381	375		375
Gitagum	Public	9	2,145	42		42
	Private					
	Total	9	2,145	42		42
Initao	Public	18	6,755	112		112
	Private	1	300			
	Total	19	7,055	112		112
Jasaan	Public	18	8,879	144		144
	Private	4	1,265	6		6
	Total	22	10,144	150		150
Kinoguitan	Public	11	2,171	52	2	54
	Private	1	146	4		4
	Total	12	2,317	56	2	58
Lagonglong	Public	11	3,859	54		54
	Private	1	425		4	4
	Total	12	4,284	54	4	58
Laguindingan	Public	13	4,474	122		122
	Private					
	Total	13	4,474	122		122
Libertad	Public	19	3,106	61		61
	Private					
	Total	19	3,106	61		61
Lugait	Public	9	3,882	34		34
	Private	1	50	3		3
	Total	10	3,932	37		37
Magsaysay	Public	28	7,535	101		101
	Private	3	532			
	Total	31	8,067	101		101
Manticao	Public	17	5,203	127		127
	Private	3	972	31		31
	Total	20	6,175	158		158
Medina	Public	23	7,803	100		100
	Private	2	185	10		10
	Total	25	7,988	110		110
Naawan	Public	13	3,624	92		92
	Private					
	Total	13	3,624	92		92
Opol	Public	18	7,666	78		78
	Private	1	122	18		18
	Total	19	7,788	96		96
Salay	Public	17	5,919	67		67
	Private					
	Total	17	5,919	67		67
Sugbongcogon	Public	10	2,395	65		65
	Private					
	Total	10	2,395	65		65
Tagoloan	Public	10	9,977	150		150
	Private	2	630	25		25
	Total	12	10,607	175		175
Talisayan	Public	21	5,528	118		118
	Private	1	282	10		10
	Total	22	5,810	128		128
Villanueva	Public	13	6,029	104		104
	Private					
	Total	13	6,029	104		104
Provincial Total	Public	399	161,745	2,745	3	2,748
	Private	29	9,455	213	4	217
	Total	428	171,200	2,958	7	2,965

Table 4.2.3 Number of Public Toilets Facilities in 1997

Municipality/City	Public Markets			Bus/Jeepney Terminals			Parks/Playground			Total Number of Toilets
	No. of Sanitary Toilets	No. of Unsanitary Toilets	Sub-total	No. of Sanitary Toilets	No. of Unsanitary Toilets	Sub-total	No. of Sanitary Toilets	No. of Unsanitary Toilets	Sub-total	
Alubijid	1		1				1		1	2
Balingasag	2		2							2
Balingoan	2		2							2
Binuangan	2		2				2		2	4
Claveria	2		2	1		1	1		1	4
El Salvador	2		2							2
Gingoog City	2		2	2		2	2		2	6
Gitagum	2		2							2
Initao	4		4							4
Jasaan	3		3	1		1				4
Kinoguitan	1		1							1
Lagonglong										
Laguindingan	1		1							1
Libertad	2		2							2
Lugait	1		1							1
Magsaysay	2		2				1		1	3
Manticao	3		3							3
Medina	1		1							1
Naawan	1		1							1
Opol	1		1							1
Salay	1		1							1
Sugbongcogon	1		1							1
Tagoloan	1		1				1		1	2
Talisayan	1		1							1
Villanueva	1		1							1
Provincial Total	40		40	4		4	8		8	52

5 EXISTING SECTOR ARRANGEMENT AND INSTITUTIONAL CAPACITY

5.5 Sector Agencies at the Local Level

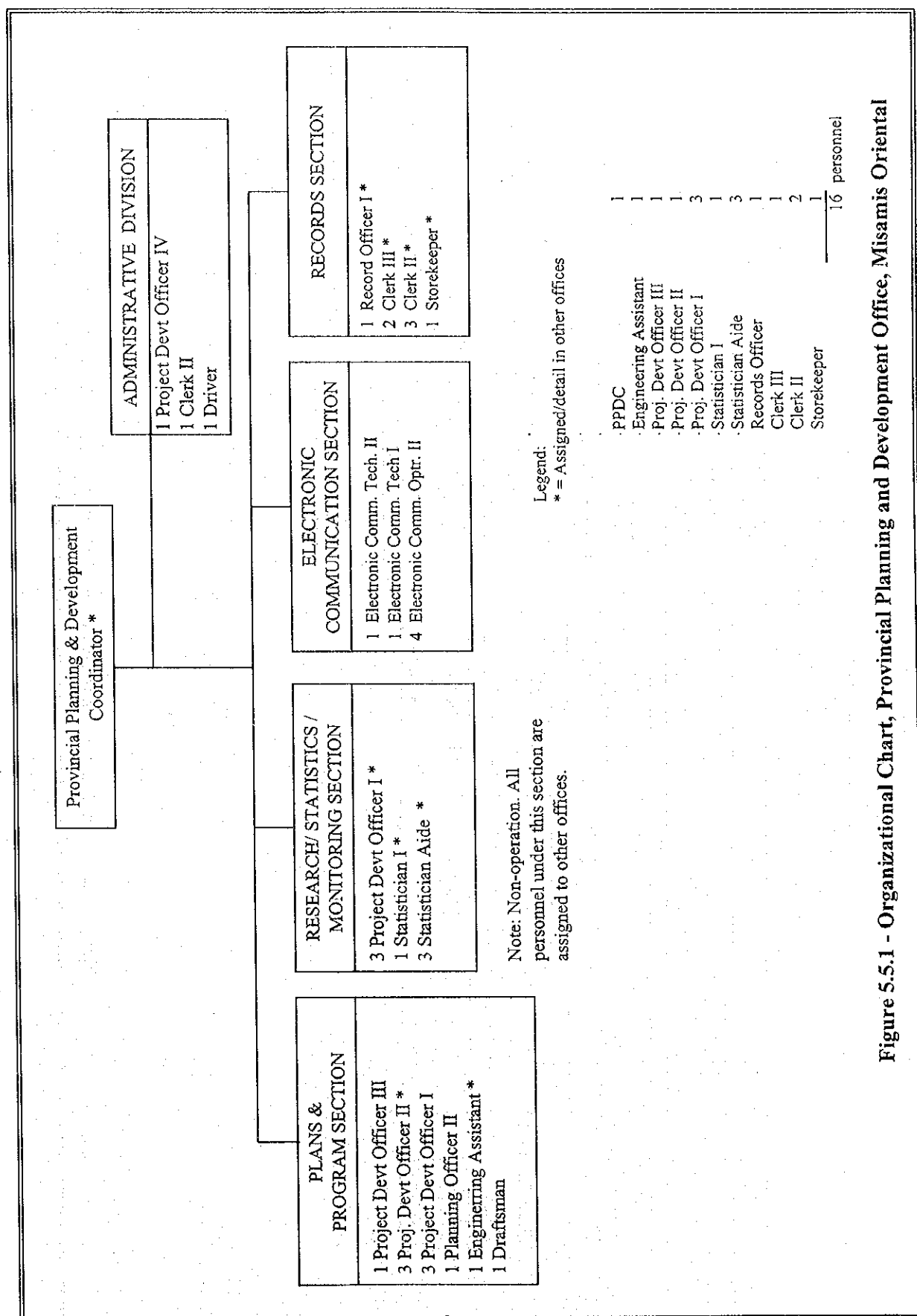


Figure 5.5.1 - Organizational Chart, Provincial Planning and Development Office, Misamis Oriental

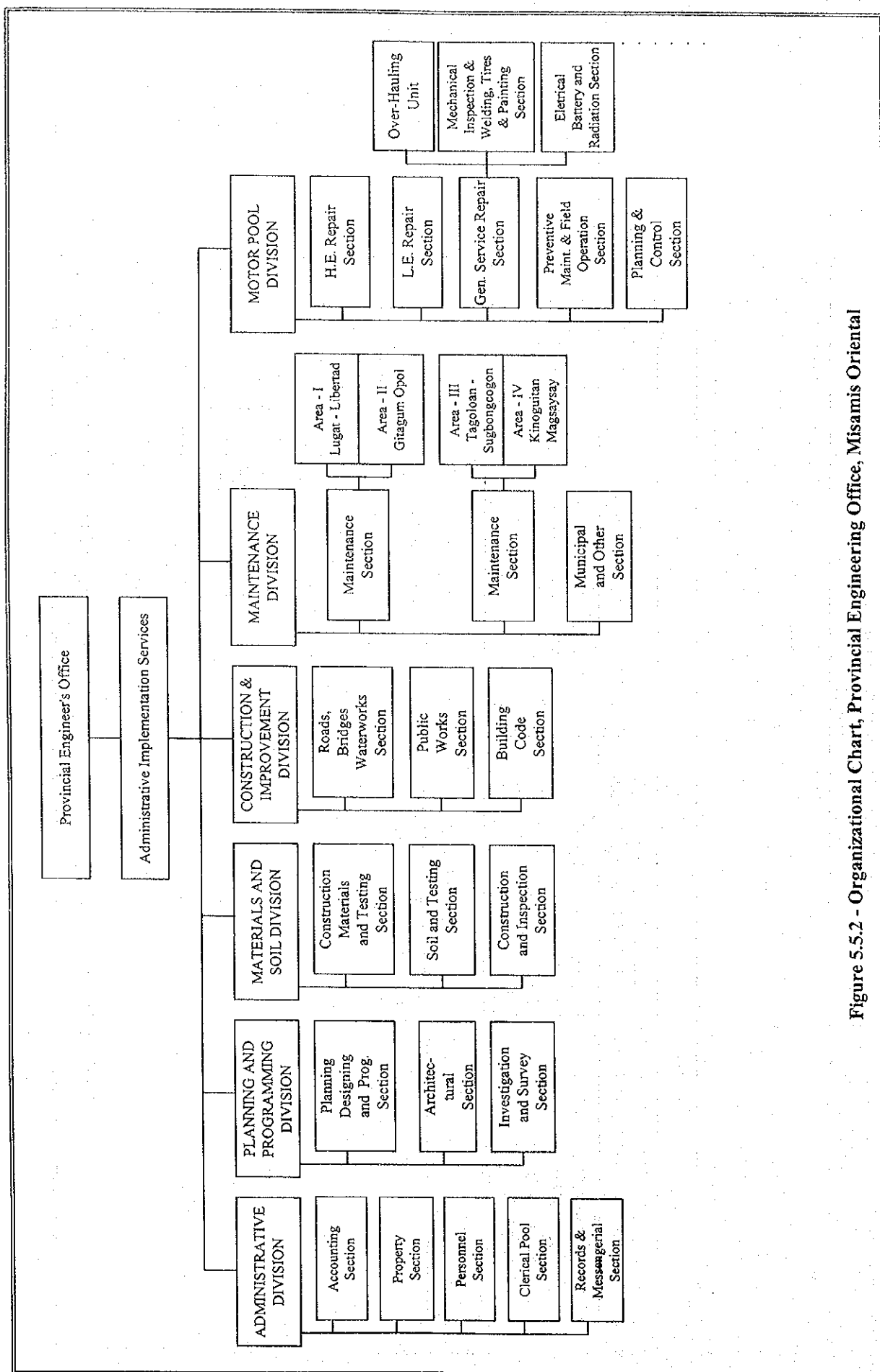
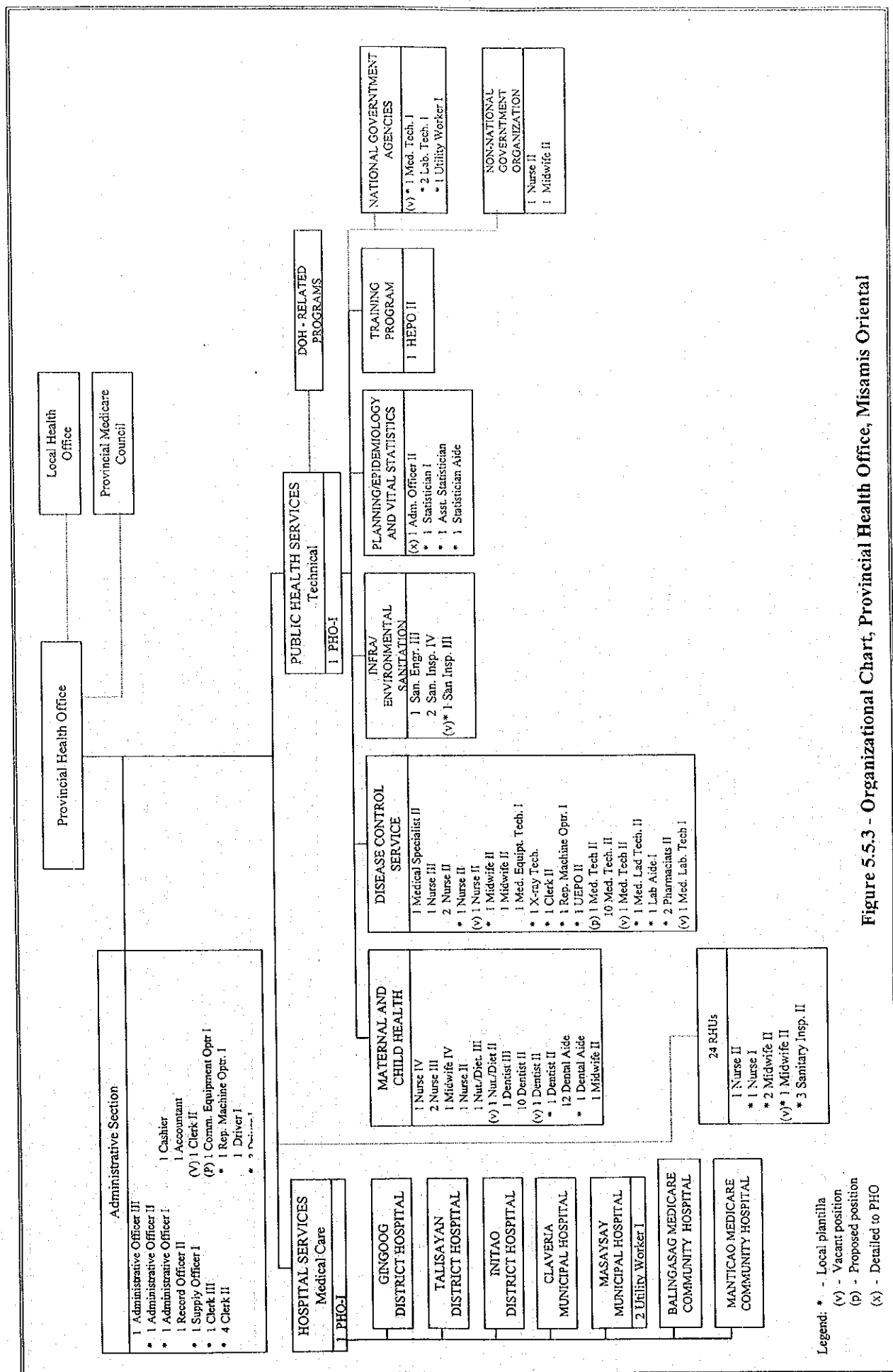


Figure 5.5.2 - Organizational Chart, Provincial Engineering Office, Misamis Oriental



Legend: * - Local plantilla
(V) - Vacant position
(P) - Proposed position
(X) - Detailed to PHO

Figure 5.5.3 - Organizational Chart, Provincial Health Office, Misamis Oriental

5.6 External Support Agencies in the Sector

Tabel 5.6.1 Priority Areas/Terms and Conditions, Programs and Projects by Donor

Donor	Priority Areas/Terms and Conditions	Programs and Projects in the Sector/Executing Agency
OECD	Providing project loans for <i>capital infrastructure (urban/rural), agricultural development, export promotion</i> . Can finance 75% of total project cost of total foreign exchange component, whichever is higher. Interest Rate: 2 to 3%; 30-year amortization with 10-year grace period. Environmental projects, Interest free.	Water Supply and Sanitation Project-23rd Yen Package/DILG; Co-financing AWSOP with World Bank and ADB/MWSS.
ADB	Providing both capital and technical assistance; Project loans: <i>agriculture, agri-industry, energy, social infra, transport and communications</i> ; Program Loans: sector loans (e.g., <i>forestry, livestock, environment</i>). Can finance 60% of total project cost or 100% of foreign exchange cost whichever is higher. Special cases can finance up to 80% of total project cost. Terms: Interest rate- pool-based variable; commitment charge of 0.75% per annum; 25 years amortization period including 5-year grace period.	Rural Water Supply and Sanitation Sector Project/DPWH; Small Towns Water Supply Sector Project/LWUA; Technical Assistance for Water Supply and Sanitation Sector Study/NEDA; Co-financing AWSOP with World Bank and OECF/MWSS.
AUSAID	Providing grant aid for <i>education, training, development planning, resource management, environmental management, health/population, infrastructure (e.g. water supply, coal energy development), social infrastructure, community development and agriculture</i> ; providing also supplies of commodities (steel cattle, drilling).	Water supply program in Central Visayas/RDCs and LGUs; Feasibility Study for Northern Mindanao Water and Sanitation Project.
DANIDA	Providing capital and technical assistance for <i>water supply and sanitation services and facilities, telecom ancillary equipment, small-scale power projects, environmental project, fishery and cold storage and post-harvest facilities</i> ; Can finance up to 100% of foreign exchange goods and services of Danish origin, 10% local cost on a case-to-case basis. Technical assistance can be negotiated for conduct of feasibility studies if implementation of the project will require Danish financing in the future.	Water supply projects for 10 towns/LWUA; Feasibility Study for control of pollution in the Pasig River-Metro Manila; Water Supply and Sanitation Data Bank.
Government of France	Grants for feasibility studies and detailed design for projects in priority areas, e.g., <i>power generation, telecommunication, research involving high technology, water supply, air navigational equipment, etc.</i> Can finance 100% of foreign exchange costs of goods and services of French origin.	Feasibility Study for water supply project in Rizal province.
German Agency for Technical Cooperation (GTZ)	Providing grants for technical assistance. Promotion of <i>small and medium-scale industries, rural development, technical training, health/family planning, and environmental protection (forest management)</i> .	Water Supply for 20 Towns/LWUA; a national water supply and sanitation on-going program; special TA programs for cost recovery, monitoring and evaluation.
JICA	Providing a combination of capital assistance thru grant-aid and technical assistance thru Technical Cooperation for development survey and project type assistance which is a combination of experts, equipment and training. Technical assistance for <i>conduct of feasibility studies/master plans, provision of training, limited provision of equipment</i> . Capital assistance for <i>provision of equipment/materials for construction of hospitals, schools, research, social welfare centers</i> . Priority areas include basic infrastructure, e.g., <i>construction of facilities and supply of equipment, project development for sectors dealing with basic services (agriculture, health, public welfare, environment) and human resource development (education, research, training)</i> . Can finance 100% of foreign exchange costs of civil works, equipment, training (in Japan) and of all goods and services of Japanese origin.	Groundwater study in Manila; Feasibility Study for Balara Water Treatment Plant Feasibility Study.

Tabel 5.6.1 Priority Areas/Terms and Conditions, Programs and Projects by Donor

Donor	Priority Areas/Terms and Conditions	Programs and Projects in the Sector/Executing Agency
UNDP	Providing technical assistance for capacity building, human resource training, technology transfer, policy research, planning, technology development and pre-investment studies; Technical assistance are formulated within country program (CP) frameworks: 6th CP (1997-2001) -poverty and sustainable livelihood, protection and regeneration of the environment and sound governance, gender equality Providing grant aids for technical assistance. Priority area: social services, particularly for children.	WATSAN Program for LGUs and selected BWSAs/DILG.
UNICEF	Providing grant aid within its strategic objectives. Six strategic objectives and one special objectives are: Accelerate the economic transformation of Mindanao; Improve national systems for trade and investment; Reduce population growth and improve maternal and child health; Enhance management of renewable national resources; reduce emissions of greenhouse gas; broaden participation in public formulation/implementation (selected areas); prevent rapid increase of HIV/AIDS.	Community-based water supply program in Palawan Province; Water supply and sanitation Study for Southern Mindanao.
USAID		Barangay Water Program (BWP) for communities with populations of less than 10,000; TA for private sector participation in the sector.
World Bank	Providing capital assistance in the form of under IBRD and IDA. IBRD (Project/Program) Loans: Interest rate = less than 7%; 20 years amortization with 5 years grace period; IDA Loans: interest free with 30 to 40-year amortization period. Providing also technical assistance in the form of ESW, IDP, Poverty and Human Resource Development Project Preparation and Policy Notes. Can finance 100% of foreign exchange costs of the project. Priority areas: power and energy, roads and railways, telecommunications, ports, water supply and sanitation, agriculture and social services.	AWSOP co-financed with ADB and OECF/MWSS; TA for a Water Supply Sector Program Study/DILG; TA on private sector participation in the water supply and sanitation sector; Water Districts Development Project.

Table 5.7.1 Matrix of Current Practices and Issues from Rapid Assessment of Subject Provinces and Local Offices of Central Government Agencies

Areas	Institutional	Technical	Financial	Community Development
1. Provincial Government Offices of Davao del Norte, South Cotabato, Sarangani, Misamis Oriental, and Bukidnon	<ul style="list-style-type: none"> Sector implementation is project-based arrangement by setting up a multi-agency team/task force. There is no overall mechanism and responsibility delineation among members wherein interrelationships/ linkages are clearly shown. There is no current provincial plan for the sector except for the annual investment plan that serves as the basis for project funding and Local Development & Investment Plan (LDIP) as a "Shopping List". As planning is budget centered, it focuses on the completion of facilities resulting to haphazard planning and poor/absence of maintenance of constructed facilities. Management is a process requiring input at every level. At the barangay level, facilities are supposed to be managed by the community. Management at higher levels is also necessary to effectively and efficiently implement a plan and requires administration abilities, and technical, negotiation, finance and economic skills. In all levels, management and skills are underdeveloped. Qualifications and experiences of the PSTF/PPDO staff are sometimes inadequate/inappropriate for their allotted responsibilities. This is important as the municipal government requires support from the provincial government. Training has been irregular and poorly organized. Course materials are complicated and provided a very 	<ul style="list-style-type: none"> Project identification is usually upon the request of the barangay/ municipal officials and approval is made by the Sanguniang Panlalawigan (SP). Most of constructions are by administration with procurement of materials done by the LGUs. Majority of the wells constructed by DPWH is abandoned/non-operational due to user's attitude, which suggest the need of community organization. O&M is participated by barangay officials with LGUs providing technical and material supply assistance upon request. Dry-type sanitary toilet shall be considered in areas where water is not available. Water quality problems, such as coliform contamination, salt water intrusion, high iron and manganese content, etc. are often encountered especially in shallow wells resulting to abandonment of these wells. There is a shortage of equipment and supplies at all levels of administration. Technologies are sometimes inappropriate to local conditions (e.g., no readily available spares for pumps). More extensive data on groundwater resource is required to determine potential yields and chemical quality. Very limited drilling expertise/equipment. Proper O&M is unlikely without significant training and equipment support at the barangay/ association level 	<ul style="list-style-type: none"> Income of the province comes from local taxes, IRA, national wealth share (3 provinces), and revenues from economic enterprises. Budgeting is guided by DILG circulars and approval is by the SP Budgetary allocation to the sector comes from 20% development fund capital expenditures for projects. However, the allocation by sector is lumped under general headings, so that allocation for WATSAN projects cannot be readily identified in the listing. Counterpart fund of LGUs for sector projects is usually for material purchase and the community is providing their labor. Sometimes, the provincial government allocates funds for WATSAN projects and the municipal government put up its counterpart fund provided by the province. Cost recovery mechanisms by LGUs and the users are not in place. BWSAs and RWSAs charge water fees for O&M purposes only and do not consider capital costs. Rates are usually based on agreement among association members. Logistics and incentives for water associations are sourced through the barangays but are limited and most often subject to availability of funds. Most of the provinces have accessed development banks to finance infrastructure projects and purchase of equipment. Foreign assistance, e.g., CIDA, UNICEF, is availed through the Regional Development Council. 	<ul style="list-style-type: none"> Limited involvement of local communities/end-users particularly in the planning and maintenance of facilities. Active involvement of religious NGOs as community organizers. No established arrangement on gender-responsiveness. There is little investigation of socio-cultural issues related to WATSAN; there is not enough commonsense understanding of the community it is working with. Little attention is given to or understanding of ethnic groups which is a serious constraint on sustainability. BWSAs formed by the DPWH-DEO are mostly not functioning now. A case of one BWSA, which was formed thrice, the first by the DEO, then the last two times by themselves is finally working and earning income from water fee collection. The failure for the first two times was due to low collection efficiency and money mismanagement. No formal system for community participation in site selection and project request; participation at the grassroots level is only considered if willingness from the beneficiaries is required for project request from the provincial government. Process is for barangay government to submit request to MDC/PDC, but no regular process for barangay to formulate projects from consultation and community participation. DILG's experimented with social

Table 5.7.1 Matrix of Current Practices and Issues from Rapid Assessment of Subject Provinces and Local Offices of Central Government Agencies

Areas	Institutional	Technical	Financial	Community Development
	<p>wide range of topics that are difficult to absorb by the participants at one given time considering their background and experience.</p> <ul style="list-style-type: none"> For monitoring and reporting, no arrangements are made to merge reports of line agencies/offices resulting in fragmentary information and difficulty of feedback. Lack of manpower to monitor. PHO provided training on water quality control/examination and sanitary toilet distribution. <p><i>Countermeasures</i></p> <ul style="list-style-type: none"> Coordinative mechanism drawn up in all implementing levels of the sector Establishment of a management information program/data base Improved planning and monitoring procedures 	<ul style="list-style-type: none"> Toilets in schools are not used because there is no water. 	<ul style="list-style-type: none"> IRA is not sufficient. 20% development fund is used for other sectors as well. LGU managed waterworks can directly source funds from the Land Bank for initial capitalization and operation. They can request funds from the Province, particularly the barangay-based waterworks. 	<p>preparation by requiring beneficiaries to put up its equity contribution through certain amount of money or labor. Until now, the system is still functioning.</p> <ul style="list-style-type: none"> In some BWSAs, the practice is to ban those who get water but are not paying. Participation of NGOs in the planning process is through their membership in the MDC/PDC.
2. NEDA Regional Offices	<ul style="list-style-type: none"> Communication between central and regional offices is deficient. Not all information on the on-going projects is reported to central office. Some multi/bilateral assistance are directly extended to the regional offices under certain amount, such as funds from CIDA, UNICEF, Japanese government grass-root assistance. Only foreign assisted and national projects are reported regularly (quarterly reporting) by the regional office to NEDA central office. Regional office has just started and staffing is minimal compared to other regional offices causing difficulty in smooth implementation of the work. Plans to start computer-aided information control system. Project monitoring and evaluation system in regional level is a requisite including information on infrastructure status and investment. NEDA follows a general flow of reporting system within its organization. In spite of this, the central office has no complete or any information on region-specific projects. 			
3. DILG Regional Offices	<ul style="list-style-type: none"> The DILG has field offices down to municipal level. Increasing responsibilities of the DILG as a result of devolution and decentralization of authority to the LGUs, would require greater logistic support, i.e., administrative support, not only technical support. 			
4. DPWH - DEO			<ul style="list-style-type: none"> The DEO has no more budget for WATSAN activities because this has been devolved to the LGUs. However, the people still approach the office and request for financial help for its O&M. 	

5.7.2 Institutional Aspect

Table 5.7.2 Office/Agencies involved in WATSAN project

Office/Agencies	Nature of Involvement
Provincial Engineering Office	<ul style="list-style-type: none"> Assists in the construction, operation and maintenance of the WATSAN facilities
Provincial Health Office	<ul style="list-style-type: none"> Conducts water quality examination Provides toilet facilities
DILG, Provincial Office	<ul style="list-style-type: none"> Conducts/assists training especially on topics related to human resource development
Barangay/Municipal governments thru MPDO	<ul style="list-style-type: none"> Identifies projects Provides counterpart support during implementation
District Engineering Offices I & II, DPWH	<ul style="list-style-type: none"> Provides pipes Implements central govt. funded projects
Water Districts	<ul style="list-style-type: none"> Provides water supply coverage in urban areas
CIDA-PMO Regional Office	<ul style="list-style-type: none"> Provides technical and financial assistance through its Local Govt. Support Program
Provincial General Services Office	<ul style="list-style-type: none"> Responsible in procurement of materials
Provincial Accounting Office, Provincial Budget Office & Provincial Treasury Office	<ul style="list-style-type: none"> Responsible in financial releases
NGOs	<ul style="list-style-type: none"> Provides consultancy services especially in CO/CD works
Sangguniang Panlalawigan	<ul style="list-style-type: none"> Appropriates funds