4.2 Sanitation and Sewerage

4.2.2 Types of Facilities and Definition of Service Level Standard

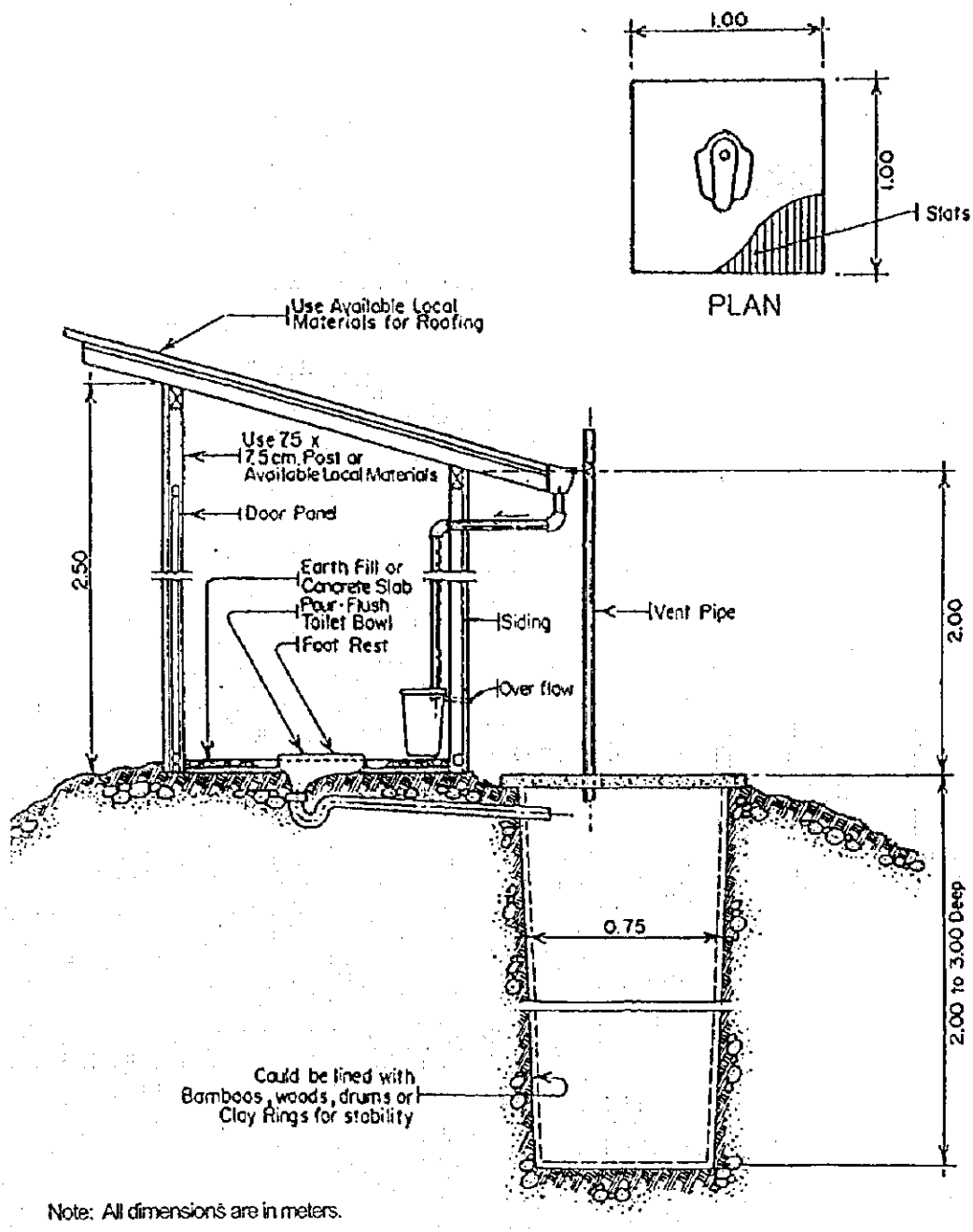
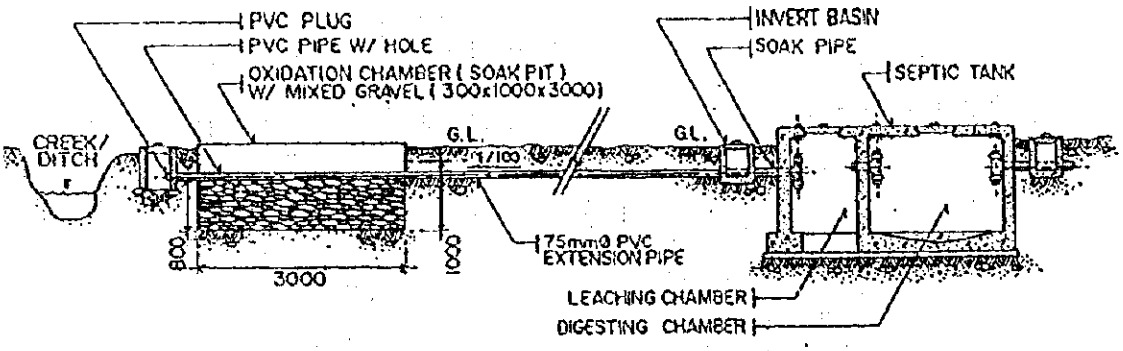


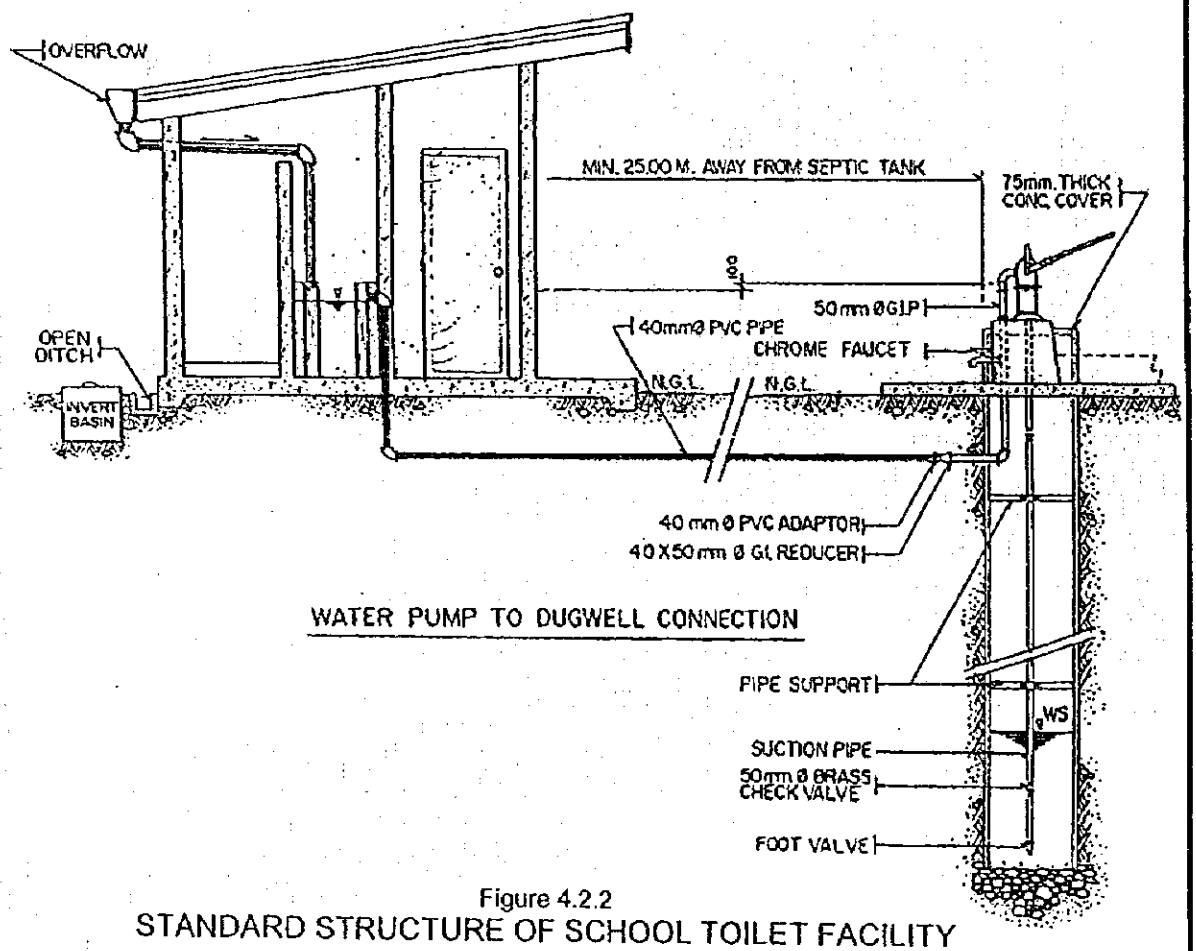
FIGURE 4.2.1

STANDARD STRUCTURE OF PRIVATE TOILET FACILITY

Source: Department of Health



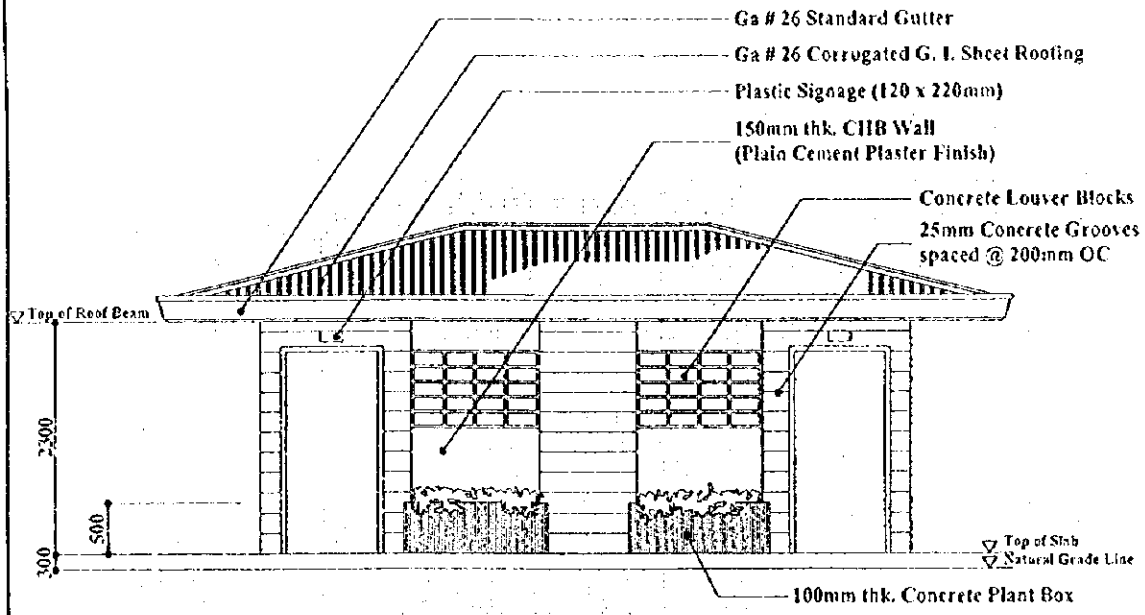
LAYOUT PLAN OF HIGH GROUND WATER SITE



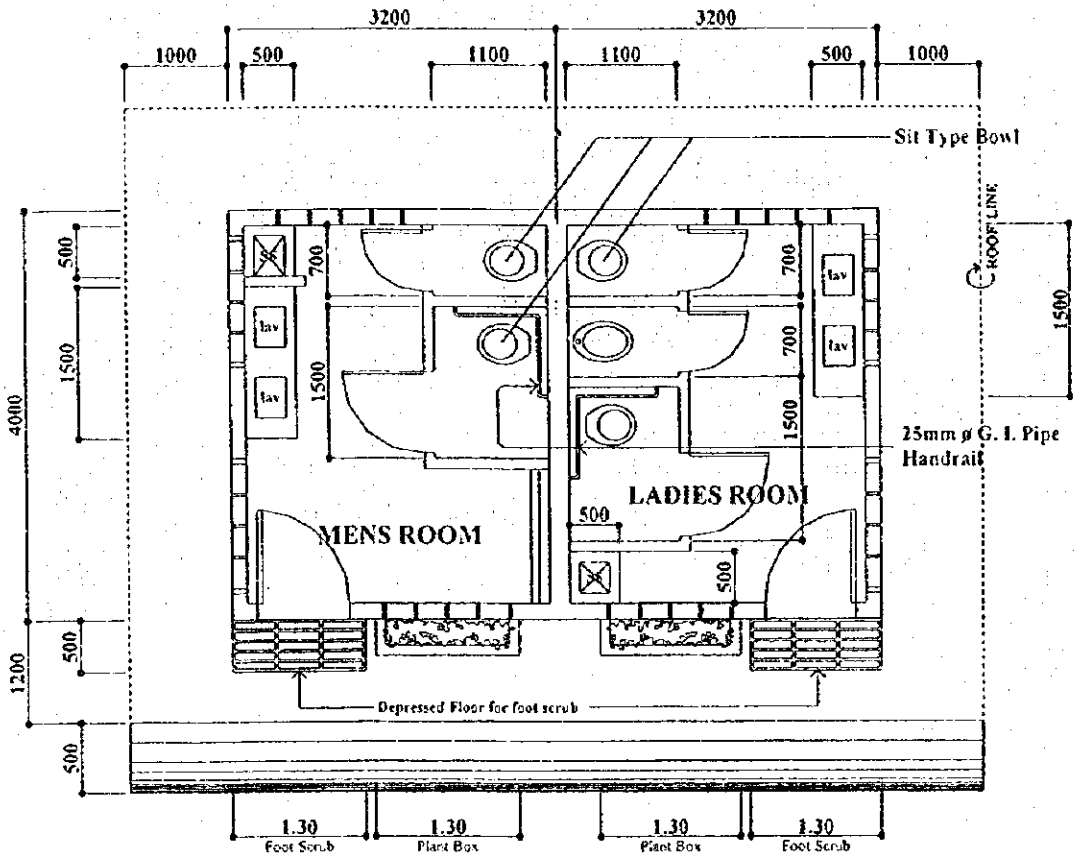
WATER PUMP TO DUGWELL CONNECTION

Figure 4.2.2
STANDARD STRUCTURE OF SCHOOL TOILET FACILITY

SOURCE: JICA - DPWH RURAL ENVIRONMENTAL SANITATION PROJECT



FRONT ELEVATION
Not to Scale



FLOOR PLAN
Not to Scale

FIGURE 4. 2.3 Typical Structure of Public Toilet

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 1998

Name of Municipality/City	Area	No. of Households (1998)	Households Served by Sanitary Toilets								Underserved/Unserved HHs			
			Flush Toilet		Pour Flush		VIP/Dry		Total		Unsanitary		No Facility	
			Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Abuyog	Urban	2,669			2,264	85			2,264	85	311	12	94	4
	Rural	7,322			4,508	62			4,508	62	981	13	1,833	25
	Total	9,991			6,772	68			6,772	68	1,292	13	1,927	19
Alangalang	Urban	2,019	29	1	1,888	94	5	0	1,922	95			97	5
	Rural	6,232	33	1	3,436	55	44	1	3,513	56			2,719	44
	Total	8,251	62	1	5,324	65	49	1	5,435	66			2,816	34
Albuera	Urban	1,433			1,016	71			1,016	71	116	8	301	21
	Rural	5,706			3,976	70			3,976	70	423	7	1,307	23
	Total	7,139			4,992	70			4,992	70	539	8	1,608	23
Babatngon	Urban	1,347			851	63			851	63			496	37
	Rural	2,729			1,653	61			1,653	61	7	0	1,069	39
	Total	4,076			2,504	61			2,504	61	7	0	1,565	38
Barugo	Urban	1,173	243	21	697	59			940	80	35	3	198	17
	Rural	3,937	165	4	1,701	43			1,866	47	111	3	1,960	50
	Total	5,110	408	8	2,398	47			2,806	55	146	3	2,158	42
Bato	Urban	1,452	105	7	1,304	90			1,409	97			43	3
	Rural	4,652	15	0	2,643	57			2,658	57	798	17	1,196	26
	Total	6,104	120	2	3,947	65			4,067	67	798	13	1,239	20
Baybay	Urban	4,601	235	5	3,152	69			3,387	74			1,214	26
	Rural	13,484			11,937	89			11,937	89			1,547	11
	Total	18,085	235	1	15,089	83			15,324	85			2,761	15
Burauen	Urban	2,823			2,444	87			2,444	87	183	6	196	7
	Rural	7,695			5,737	75			5,737	75	1,054	14	904	12
	Total	10,518			8,181	78			8,181	78	1,237	12	1,100	10
Calubian	Urban	106	25	24	26	25	12	11	63	59	33	31	10	9
	Rural	7,032	13	0	4,014	57	34	0	4,061	58	1,252	18	1,719	24
	Total	7,138	38	1	4,040	57	46	1	4,124	58	1,285	18	1,729	24
Capoocan	Urban	1,090			1,074	99			1,074	99			16	1
	Rural	4,596			2,122	46	1	0	2,123	46	223	5	2,250	49
	Total	5,686			3,196	56	1	0	3,197	56	223	4	2,266	40
Carigara	Urban	2,480	519	21	1,415	57			1,934	78			546	22
	Rural	6,501	24	0	3,237	50			3,261	50			3,240	50
	Total	8,981	543	6	4,652	52			5,195	58			3,786	42
Dagami	Urban	834	219	26	418	50			637	76	75	9	122	15
	Rural	4,854			2,530	52			2,530	52	608	13	1,716	35
	Total	5,688	219	4	2,948	52			3,167	56	683	12	1,838	32
Dulag	Urban	4,667			4,655	100			4,655	100			12	0
	Rural	2,564			2,164	84			2,164	84			400	16
	Total	7,231			6,819	94			6,819	94			412	6
Hilongos	Urban	1,683	1,010	60	642	38			1,652	98			31	2
	Rural	8,639	1,312	15	4,300	50	1,136	13	6,748	78			1,893	22
	Total	10,322	2,322	22	4,942	48	1,136	11	8,400	81			1,922	19
Hindang	Urban	723	247	34	329	46			576	80			147	20
	Rural	2,821	1,123	40	1,240	44			2,363	84			458	16
	Total	3,544	1,370	39	1,569	44			2,939	83			605	17
Inopacan	Urban	438			360	82			360	82			78	18
	Rural	3,566			2,416	68			2,416	68			1,150	32
	Total	4,004			2,776	69			2,776	69			1,228	31
Isabel	Urban	2,827	1,359	48	912	32			2,271	80			556	20
	Rural	5,248	3,389	65	410	8			3,799	72			1,449	28
	Total	8,075	4,748	59	1,322	16			6,070	75			2,005	25
Jaro	Urban	1,428			794	56			794	56			634	44
	Rural	5,344			2,933	55			2,933	55			2,411	45
	Total	6,772			3,727	55			3,727	55			3,045	45
Javier (Bugho)	Urban	521			442	85			442	85	18	3	61	12
	Rural	4,071			327	8	321	8	648	16	2,896	71	527	13
	Total	4,592			769	17	321	7	1,090	24	2,914	63	588	13
Julita	Urban	921	120	13	742	81			862	94			59	6
	Rural	1,759			1,216	69			1,216	69			543	31
	Total	2,680	120	4	1,958	73			2,078	78			602	22
Kananga	Urban	1,381	214	15	867	63	90	7	1,171	85	108	8	102	7
	Rural	6,853	234	3	4,103	60	10	0	4,347	63	880	13	1,626	24
	Total	8,234	448	5	4,970	60	100	1	5,518	67	988	12	1,728	21
La Paz	Urban	809			711	88			711	88	24	3	74	9
	Rural	2,731			2,373	87			2,373	87	132	5	226	8
	Total	3,540			3,084	87			3,084	87	156	4	300	8

Table 4.2.1 Sanitation Facilities and Service Coverage of Household Toilets by Type, by Municipality, Urban and Rural 1998 (Cont'd.)

Name of Municipality/City	Area	No. of Households (1998)	Households Served by Sanitary Toilets								Underserved/Unserved Hlls			
			Flush Toilet		Pour Flush		VIP/Dry		Total		Unsanitary		No Facility	
			Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Leyte	Urban	697	72	10	54	8	518	74	644	92			53	8
	Rural	5,905	435	7	318	5	3,818	65	4,571	77			1,334	23
	Total	6,602	507	8	372	6	4,336	66	5,215	79			1,387	21
MacArthur	Urban	624	8	1	453	73	33	5	494	79	34	5	96	15
	Rural	2,992	9	0	2,213	74	50	2	2,272	76	23	1	697	23
	Total	3,616	17	0	2,666	74	83	2	2,766	76	57	2	793	22
Mahaplag	Urban	676	113	17	227	34	113	17	453	67	113	17	110	16
	Rural	4,101	31	1	701	17	313	8	1,045	25	1,964	48	1,092	27
	Total	4,777	144	3	928	19	426	9	1,498	31	2,077	43	1,202	25
Matag-ob	Urban	796	87	11	351	44	71	9	509	64	116	15	171	21
	Rural	2,965	5	0	2,120	72	239	8	2,364	80	44	1	557	19
	Total	3,761	92	2	2,471	66	310	8	2,873	76	160	4	728	19
Matalom	Urban	789	120	15	475	60			595	75	129	16	65	8
	Rural	4,866	64	1	3,477	71			3,541	73	296	6	1,029	21
	Total	5,655	184	3	3,952	70			4,136	73	425	8	1,094	19
Mayorga	Urban	486			158	33	157	32	315	65			171	35
	Rural	1,875			1,299	69	157	8	1,456	78			419	22
	Total	2,361			1,457	62	314	13	1,771	75			590	25
Merida	Urban	845			463	55			463	55	231	27	154	18
	Rural	4,723			3,624	77			3,624	77	212	4	887	19
	Total	5,571			4,087	73			4,087	73	443	8	1,041	19
Palo	Urban	4,448	3,064	69					3,064	69			1,384	31
	Rural	4,550	4,337	95					4,337	95			213	5
	Total	8,998	7,401	82					7,401	82			1,597	18
Palompon	Urban	2,463	262	11	2,081	84			2,343	95			120	5
	Rural	8,972	1,628	18	4,659	52			6,287	70			2,685	30
	Total	11,435	1,890	17	6,740	59			8,630	75			2,805	25
Pastrana	Urban	527	37	7	465	88			502	95			25	5
	Rural	2,348			2,105	90			2,105	90			243	10
	Total	2,875	37	1	2,570	89			2,607	91			268	9
San Isidro	Urban	1,173			706	60			706	60			467	40
	Rural	6,520			4,185	64			4,185	64			2,335	36
	Total	7,693			4,891	64			4,891	64			2,802	36
San Miguel	Urban	638			558	87			558	87	8	1	72	11
	Rural	2,275			1,419	62			1,419	62	109	5	747	33
	Total	2,913			1,977	68			1,977	68	117	4	819	28
Santa Fe	Urban	416			139	33			139	33	7	2	270	65
	Rural	2,452			1,980	81			1,980	81	82	3	390	16
	Total	2,868			2,119	74			2,119	74	89	3	660	23
Tabango	Urban	1,000			652	65			652	65			348	35
	Rural	5,659			2,669	47			2,669	47			2,990	53
	Total	6,659			3,321	50			3,321	50			3,338	50
Tabontabon	Urban	495	2	0	391	79			393	79	55	11	47	9
	Rural	1,098			739	67			739	67	161	15	198	18
	Total	1,593	2	0	1,130	71			1,132	71	216	14	245	15
Tacloban City (Capital)	Urban	31,099	14,397	46	7,752	25			22,149	71	6,920	22	2,987	10
	Rural	3,749			273	7			273	7	862	23	1,601	43
	Total	34,848	14,397	41	8,025	23			22,422	64	7,832	22	4,588	13
Tanauan	Urban	2,860	63	2	2,450	86			2,513	88	5	0	342	12
	Rural	5,810	11	0	3,878	67			3,889	67	600	10	1,321	23
	Total	8,670	74	1	6,328	73			6,402	74	605	7	1,663	19
Tolosa	Urban	335	11	3	209	62	46	14	265	79	61	18	8	2
	Rural	2,586	2	0	1,489	58	292	11	1,783	69	546	21	257	10
	Total	2,921	13	0	1,698	58	338	12	2,049	70	607	21	265	9
Tunga	Urban	664	294	44	287	43			581	88	43	6	40	6
	Rural	517	93	18	357	69			450	87	17	3	50	10
	Total	1,181	387	33	644	55			1,031	87	60	5	90	8
Villaba	Urban	638			187	29	165	26	352	55	137	21	149	23
	Rural	6,804			4,630	68	21	0	4,651	68	264	4	1,889	28
	Total	7,442			4,817	65	186	2	5,003	67	401	5	2,038	27
Provincial Total	Urban	89,097	22,855	26	45,061	51	1,210	1	69,126	78	8,812	10	12,166	14
	Rural	199,103	12,923	6	111,111	56	6,436	3	130,470	66	14,545	7	53,075	27
	Total	288,299	35,778	12	156,172	54	7,646	3	199,596	69	23,357	8	65,241	23

Table 4.2.2 Number of Student and School Toilet Facilities by Municipality

Name of Municipality		Number of School	Number of Student	Number of Toilets		
				Sanitary	Unsanitary	Total
Abuyog	Public	60	10,883	80		80
	Private	2	1,643	156		156
	Total	62	12,526	236		236
Alangalang	Public	44	6,360	194		194
	Private	2	360	14		14
	Total	46	6,720	208		208
Albuera	Public	23	8,307	102		102
	Private	1	280	2		2
	Total	24	8,587	104		104
Babatngon	Public	23	5,554	53		53
	Private	1	170	2		2
	Total	24	5,724	55		55
Barugo	Public	34	6,432	14		14
	Private	1	430	8		8
	Total	35	6,862	22		22
Bato	Public	25	7,767	108		108
	Private	1	544	14		14
	Total	26	8,311	122		122
Baybay	Public	75	18,568	139		139
	Private	4	852	6		6
	Total	79	19,420	145		145
Borauen	Public	59	8,905	287		287
	Private					
	Total	59	8,905	287		287
Calubian	Public	28	6,064	139		139
	Private					
	Total	28	6,064	139		139
Capoocan	Public	23	5,876	108	18	126
	Private			46		46
	Total	23	5,876	154	18	172
Carigara	Public	31	3,786	171		171
	Private	1	958	2		2
	Total	32	4,744	173		173
Dagami	Public	37	6,150	144		144
	Private	1	435	1		1
	Total	38	6,585	145		145
Dulag	Public	40	2,503	196		196
	Private					
	Total	40	2,503	196		196
Hilongos	Public	46	7,925	168		168
	Private	1	253	8		8
	Total	47	8,178	176		176
Hindang	Public	20	3,439	44		44
	Private	1	607	2		2
	Total	21	4,046	46		46
Inopacan	Public	23	4,172	88		88
	Private	1	201	50		50
	Total	24	4,373	138		138
Isabel	Public	25	7,858	68		68
	Private	3	1,188	16		16
	Total	28	9,046	84		84
Jaro	Public	39	7,724	30		30
	Private	1	489	4		4
	Total	40	8,213	34		34
Javier (Bugho)	Public	24	4,182	104	7	111
	Private	2	374	4		4
	Total	26	4,556	108	7	115
Julita	Public	18	2,805	35	8	43
	Private					
	Total	18	2,805	35	8	43
Kananga	Public	24	8,630	72	2	74
	Private	2	637	6		6
	Total	26	9,267	78	2	80
La Paz	Public	29	4,768	90		90
	Private					
	Total	29	4,768	90		90

Table 4.2.2 Number of Student and School Toilet Facilities by Municipality (Cont'd.)

Name of Municipality		Number of School	Number of Student	Number of Toilets		
				Sanitary	Unsanitary	Total
Leyte	Public	30	10,747	60	4	64
	Private					
	Total	30	10,747	60	4	64
MacArthur	Public	16	3,523	43		43
	Private					
	Total	16	3,523	43		43
Mahaplag	Public	29	5,809	28	16	44
	Private					
	Total	29	5,809	28	16	44
Matag-ob	Public	19	3,669	32		32
	Private					
	Total	19	3,669	32		32
Matalom	Public	30	6,312	108		108
	Private	1	488	2		2
	Total	31	6,800	110		110
Mayorga	Public	14	2,613	16	12	28
	Private					
	Total	14	2,613	16	12	28
Merida	Public	24	5,224	154		154
	Private					
	Total	24	5,224	154		154
Palo	Public	33	4,996	42		42
	Private	2	234			
	Total	35	5,230	42		42
Palompon	Public	50	5,510	57		57
	Private	3	240	6		6
	Total	53	5,750	63		63
Pastrana	Public	21	3,504	25		25
	Private					
	Total	21	3,504	25		25
San Isidro	Public	21	5,111	29		29
	Private	1	23	2		2
	Total	22	5,134	31		31
San Miguel	Public	22	3,914	53		53
	Private	1	60	2		2
	Total	23	3,974	55		55
Santa Fe	Public	15	3,468	48		48
	Private					
	Total	15	3,468	48		48
Tabango	Public	27	6,733	271		271
	Private					
	Total	27	6,733	271		271
Tabontabon	Public	12	1,974	38	4	42
	Private					
	Total	12	1,974	38	4	42
Tacloban City (Capital)	Public	37	6,150	144		144
	Private	14	2,613	16		16
	Total	51	8,763	160		160
Tanauan	Public	30	6,367	180		180
	Private	1	389	6		6
	Total	31	6,756	186		186
Tolosa	Public	14	3,868	87		87
	Private					
	Total	14	3,868	87		87
Tunga	Public	5	2,406	58		58
	Private					
	Total	5	2,406	58		58
Villaba	Public	30	6,855	139		139
	Private	2	1,359	7		7
	Total	32	8,214	146		146
Provincial Total	Public	1,229	247,411	4,046	71	4,117
	Private	50	14,827	382		382
	Total	1,279	262,238	4,428	71	4,499

Table 4.2.3 Number of Public Toilets Facilities in 1998

Name of Municipality	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	
Abuyog	2		2	3		3	12		12	17
Alangalang	3		3							3
Albuera	2		2							2
Babatngon	1		1	1		1	2		2	4
Barugo	2		2	1		1				3
Bato	3		3							3
Baybay	6		6	2		2	5		5	13
Burauen	2		2							2
Calubian	1		1				1		1	2
Capoocan										
Carigara	4		4							4
Dagami	1		1							1
Dulag	1		1	1		1				2
Hilongos	3		3				11		11	14
Hindang	3		3				2		2	5
Inopacan	2		2							2
Isabel	1	1	2	1		1	1		1	4
Jaro	1		1							1
Javier (Bugho)	2		2							2
Julita										
Kananga	3		3	3		3	17	2	19	25
La Paz	1		1	1		1	6		6	8
Leyte	1		1	1		1				2
MacArthur	2		2							2
Mahaplag	1		1	1		1				2
Matag-ob	1		1	1		1				2
Matalom	2		2							2
Mayorga	1		1							1
Merida	5		5							5
Palo	1		1							1
Palompon							53		53	53
Pastrana	2		2	2		2				4
San Isidro	1		1				16		16	17
San Miguel	1		1							1
Santa Fe	1		1							1
Tabango				2		2				2
Tabontabon	1		1							1
Tacloban City (Capital)	4		4	2		2	2		2	8
Tanauan	4		4				1		1	5
Tolosa	1		1							1
Tunga	1		1							1
Villaba	5		5	1		1	1		1	7
Provincial Total	79	1	80	23		23	130	2	132	235

5. EXISTING SECTOR ARRANGEMENT AND INSTITUTIONAL CAPACITY

5.5 Sector Agencies at the Local Level

Figure 5.5.1 Provincial Planning and Development Office, Province of Leyte

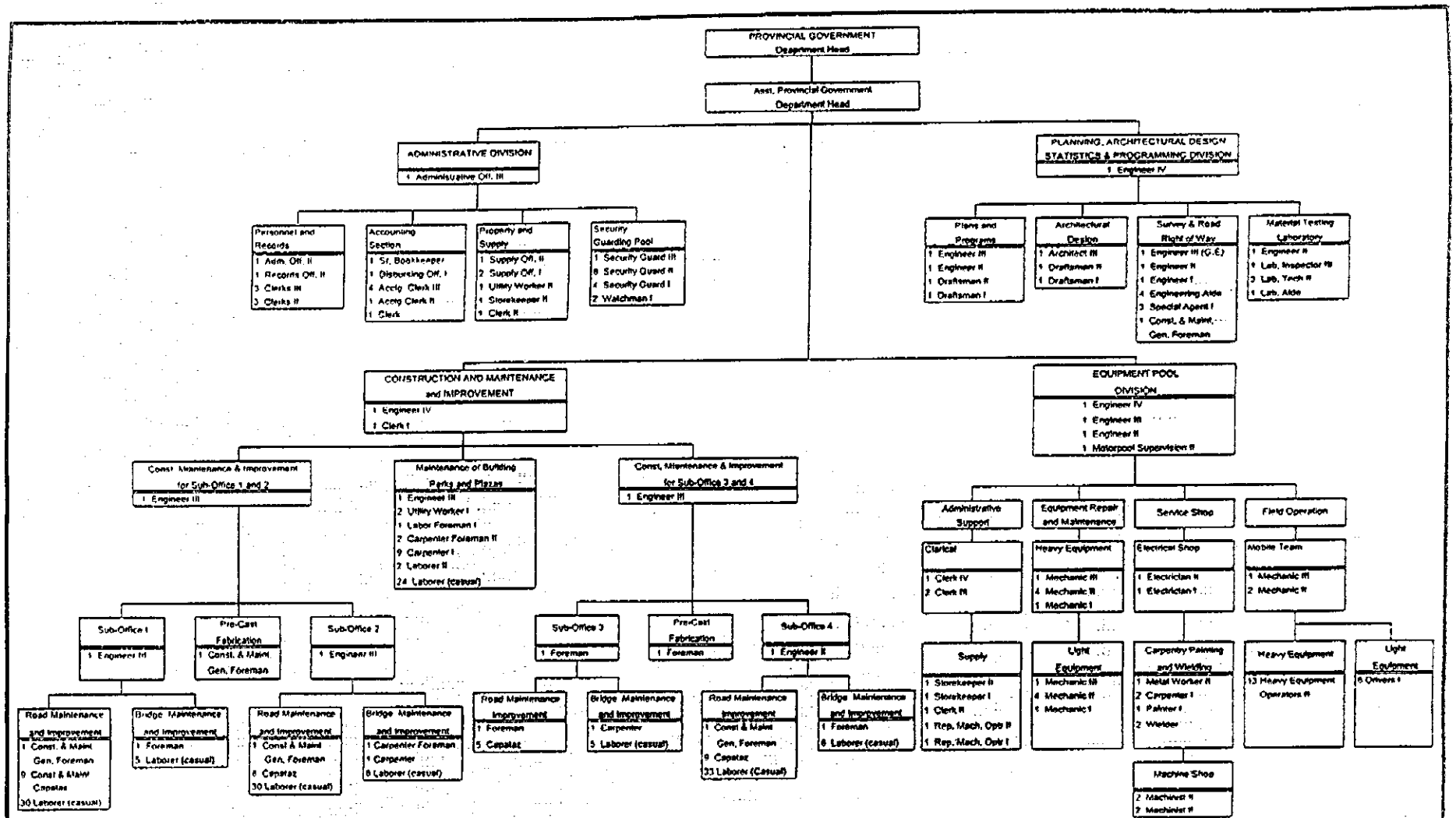


Figure 5.5.2 Provincial Engineers Office, Province of Leyte

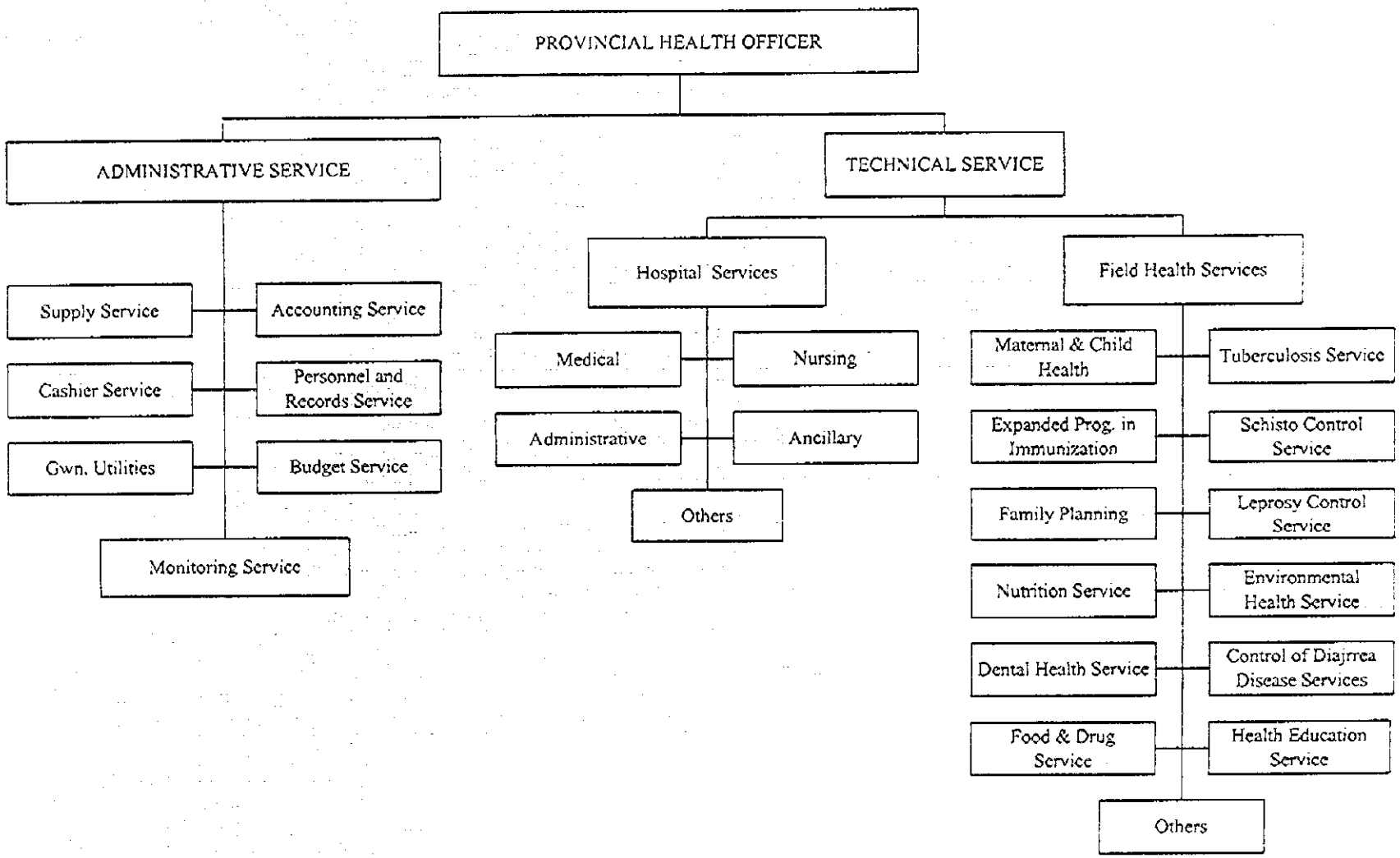


Figure 5.5.3 Provincial Health Office, Province of Leyte

Table 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
OECF	Providing project loans for *capital infrastructure (urban.rural), agricultural development, export promotion.* 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: *agriculture, agri-industry, energy, social infra.,transport and communications;* Program Loans: sector loans (e.g., *forestry, livestock, environment*). 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 *education, training, development planning, resource management, environmental management, health/population, infrastructure (e.g. water supply, coal energy development), social infrastructure, community development and agriculture;* 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 *water supply and sanitation services and facilities, telecom ancillary equipment, small-scale power projects, environmental project, fishery and cold storage and post-harvest facilities;* Can finance up to 100% of foreign exhcange 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., *power generation, telecommunication, research involving high technology, water supply, air navigational equipment, etc.* 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 *small and medium-scale industries, rural development, technical training, health/family planning, and environmental protection (forest management).*	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 *conduct of feasibility studies/master plans, provision of training, limited provision of equipment.* Capital assistance for *provision of euqipment/materials for construction of hospitals, schools, research, social welfare centers.* Priority areas include *basic infrastructure, e.g., 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).* 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.

Table 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.*	WATSAN Program for LGUs and selected BWSAs/DILG.
UNICEF	Providing grant aids for technical assistance. Priority area: *social services, particularly for children.*	Community-based water supply program in Palawan Province: Water supply and sanitation Study for Southern Mindanao.
USAID	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 resouces; reduce emissions of greenhouse gas; broaden participation in public formulation/implementation (selected areas); prevent rapid increase of HIV/AIDS.*	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 tehnical assistance in the form of ESW, IDF, Poverty and Human Resource Development Project Preparation and Policy Notes. Can finance 100% of foreign exchange costs of the project. Priority areas: *powerand 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. LGU-Urban Water and Sanitation Project.

(1) Foreign Agencies

The World Bank supported the *First Water Supply, Sewerage and Sanitation Sector Project* or *FW4SP*. This project provided capital funds (US$58.0M) for rural water supply system in Luzon provinces and sanitation system nationwide based on completed provincial master plans. The project concept called for a community-based approach through BWSAs. The project was implemented from 1991 to 1995 with an extension up to 1997. Subsequently, the Capacity Enhancement Program (CEP) with DILG as implementing agency was conducted until the end of 1997.

In addition, the World Bank prepared a new loan for DILG implementation - the *Local Government Unit Urban Water Supply & Sanitation Project* (*LGUUWSSP*). This project aims to support the water supply requirement in the urban centers of approximately 250 small and medium-sized municipalities nationwide, benefitting about 6 million people. The project consists of three components, namely: i) Water and Sanitation Facilities Component, ii) Institutional Development Component and iii) Technical Assistance Component. The project is to be implemented from 1999 to 2006 in three phases, and estimated cost is US$ 250 M. More information on this project is attached on the following pages.

UNDP assists the *Institution Building for Decentralized Implementation of Community-Managed Water Supply and Sanitation Project* or *IBWSSP* known as *UNDP PHI/93/010* Project under the Fifth Country Program (1994-1997). This project directly responds to the government's Poverty Alleviation Program. UNDP provides assistance in strengthening the institution involved in the delivery of water supply and sanitation services with emphasis on support to local government units, NGOs, and communities through the BWSAs. The project will complement earlier efforts by UNDP (through the UNDP/ World Bank Water and Sanitation Program) to promote appropriate cost effective technologies in water and sanitation and to improve the training capacity of the sector. The project covered seven (7) provinces; 180 sub-projects were implemented in the objective areas during implementation period 1994-1997.

The United Nations Children's Fund (UNICEF) supports the sector through the Philippines Plan of Action for Children. Apart from hardware support in the priority project site, UNICEF assisted NEDA in updating the national master plan. UNICEF works through the inter-agency committee on environmental health and through NGOs. With the World Health Organization (WHO), UNICEF has been assisting in the preparation of Information, Education and Communication (IEC) materials and in strengthening the sector monitoring system. As part of these various

assistance, UNICEF supported NEDA in 1997 for the assessment of WATSAN Sector of Eastern Visayas (Region VIII) and Southern Mindanao (This was compelled by the sudden and unexpected occurrence of water-borne epidemics that hit Region XI).

Asian Development Bank (ADB) support the *Rural Water Supply & Sanitation Sector Project* (*RW3SP*) through sector lending approach for the 20 prospect provinces of the country. The project area covers about 3,000 rural communities with population ranging from 200 to 5,000 persons in provinces located in Luzon, Visayas (Biliran, Eastern Samar and Southern Leyte included from Region VIII) and Minadanao. RW3SP will: i) provide capacity-building to local government units (LGUs) to enhance the delivery of social services, ii) improve social infrastructure for basic needs such as water supply and sanitation, and iii) reduce poverty incidence. The project also includes: i) comprehensive institutional capacity-building, ii) community development program, iii) point source water supply systems, and iv) public and household latrine facilities. This will be implemented from 1995 – 2000. More information on this project is attached on the following pages.

The Japan International Cooperation Agency (JICA) has been extending a grant aid program for the *Rural Environmental Sanitation Project* which is/was jointly implemented by DPWH and DOH. The project covered construction of Level I and II rural water systems and school toilet facilities in ten- (10) provinces. With DPWH, rural water supply systems were constructed at the evacuation centers for the Pinatubo refugees. JICA also supported the ground water development study in Cavite province (with LWUA) and the institutional development activities for MWSS. The *PW4SPs* for the nine (9) provinces in Luzon area were completed through previous technical cooperation.

The Overseas Economic Cooperation Fund (OECF) provided financial assistance for the *RWS IV Project*. It provided a loan of up to Y 5.08B, with a counterpart fund of P 400M. The project covered construction/rehabilitation of Level I systems, construction of workshop building and procurement of various equipment. OECF has also been supporting the *Provincial Cites Water Supply Project* of LWUA and the *Angat Water Supply Optimization Project* of MWSS.

DILG requested OECF last year to provide a loan for the *Water Supply and Sanitation Project* or *WSSP* for the 6 provinces (based on JICA assisted PW4SPs). The project will achieve additional service coverage both for water supply and sanitation as follows: 549,100 persons with water supply, 9,579 households provided with latrines, 18,750 students with 375 school toilets and 72 public toilets.

The *Barangay Water Program* (*BWP*) was a special project being implemented by the then Ministry of Local Government (now DILG) with financial assistance from the USAID. The program envisions to alleviate the health standards of small rural farming and fishing communities by providing safe, adequate and potable water through the establishment of public faucets or individual house connections. The systems for these communities should be owned, operated, maintained and managed by the users themselves through rural waterworks and sanitation associations. The program also intended to enhance the capabilities of local government units in project planning, programming, designing, implementation, evaluation and monitoring. Phase I of the BWP was implemented in the period 1978 – 1981; Phase II started in 1982 and was extended until December 1987. Phase II operations officially ended in December 1987, but a one-year winding-up period was agreed upon between the GOP and USAID. USAID extended loans to cover the construction costs and the installation of facilities on a reimbursement basis while the GOP through DILG shouldered the operational, training and personnel costs. Through BWP, waterworks projects were implemented in 50 provinces, 22 cities and 7 municipalities.

The Australian International Development Assistance Bureau (AIDAB) supported the *Central Visayas Water and Sanitation Project* through a $ 14.65M grant. The project was implemented by the LGUs and the Regional Development Council. Project components include: planning and monitoring information systems; infrastructure planning and rehabilitation; and institution building with an emphasis on community management based on experience from other AIDAB-funded projects. The project period was extended until 1997.

The *Water Supply and Sanitation Performance Enhancement Project* (*WPEP*) funded by AusAid through WSP-EAP aims: i) to initiate a systematic program of applied research examining what works and what does work in the field from the recent past and from the new generation of WATSAN projects, ii) to provide technical advice to any privately sponsored community-based field experiments which would seek to apply demand-responsive approaches to bring sustainable WSS; iii) to enhance capacity building programs and implemented to LGUs about operationalizing demand-responsive approaches in the filed and; iv) to help refine policy implementation guideline, and policy where were learned from the field. WPEP is an applied research activity. It will help National Government consolidate its facilitative role in the future. Its structured approach will be a key collaborative activity with NEDA's new Project Performance Monitoring System (PPMS). The project will be executed by DILG in coordination with NEDA in two years from 1999.

The Canadian International Development Agency (CIDA) carried out until March 1998 pre-feasibility study of *Malalag Bay Alliance Water Supply Project.* This project covers ten (10) coastal municipalities. The project includes water source development, construction of storage, transmission and distribution facilities, and service connections. Basic construction costs will be allocated between MBA and its municipalities. Implementation period is scheduled from 1998 to 2002. The Malalag Bay Area Development Office will submit a proposal for assistance to CIDA through the Regional Management Committee of NEDA Region XI office.

(2) WATSAN project by GOP

To provide safe/accessible water and sanitation serves to the basic sector groups within the 5th and 6th class municipalities; to enhance the capabilities of the target LGUs in terms of WATSAN planning, implementation and maintenance of the facilities; and to minimize the incidence of water borne diseases through proper site selection, disinfection of contaminated water sources and management waster water, the project of the WATSAN component of PAF 2 (Poverty Alleviation Fund 2 – Potable Water Development and Sanitation Component) was implemented with GOP fund in all the 960 municipalities belonging to the 5th and 6th class. The project started from 1997 to 1998. GOP provided project fund of P533M (P485,000 for each municipality as capital outlay). The project was implemented with a strategy: i) facility construction by the LGUs themselves; ii) water supply facilities limited to Level I hand pumps with some Level II on a case to case basis; iii) provision of skills enhancement training for LGU personnel; iv) provision of assistance to LGUs in the organization, training, and sustainability of BWSAs; v) installation of an effective projects monitoring and evaluation network; and other effective arrangements.

(3) Local Government Unit - Urban Water Supply and Sanitation Project (LGUUWSSP)

1) Project Objectives

The Project has the following objectives: (i) to assist LGUs in improving and sustaining the provision of water, sanitation, drainage and other environmental services to their urban populations; (ii) to build institutional capability for decentralized planing, implementation and management of water and sanitation services at all levels of government national provincial and municipal; and (iii) to test the implementation of the government policy framework vis-a-vis LGU financing of local infrastructure.

2) Basic Project Principles

The project is based on two underlying principles aimed at ensuring project sustainability, to wit: (i) The "demand driven approach" in project development and implementation, meaning

that the project shall provide services that the consumers want and are willing to pay for and that the services shall be managed at the lowest appropriate levels; and (ii) The adoption of commercial principles in the management/operation of water utilities by involving the private sector, or simply put, the facilities must be operated as commercial entities and water treated as an economic commodity.

3) The Project Rules

i) The project promotes full cost recovery, that is, the tariff to be paid by the consumers should cover the cost of operation and maintenance and the repayment of the LGU DBP loan.

ii) The system shall be operated by a private operator under a long-term lease contract with the LGU.

4) Project Coverage

The project aims to support the waters supply requirement in the urban centers of approximately 250 small and medium-sized municipalities, benefiting about 6 million people. There are two sets of market targets, namely: (i) Municipalities/cites, irrespective of income class, which have not formed a water district; and (ii) Municipalities/cites, irrespective of income class, which have water districts but are not in LWUA's current program of assistance (in which case, the LGU should secure a certification/clearance t o that effect. In the even that the local water district is servicing a loan from LWUA, the local water district shall seek clearance from LWUA prior to entering into an agreement with LGU concerned in any program of system expansion rehabilitation).

5) Project Components

The project consists of three components, namely:

Part A Water and sanitation facilities component

- construction/improvement/rehabilitation of Level III water facilities
- provision/improvement of sanitation facilities construction/improvement
- construction/improvement of urban drainage

Part B Institutional development component

- Training of LGUs in decentralized planing, implementation and management of water facilities applying the following commercial principles:

  i) Demand-driven approach, ii) Private sector participation, iii) Full cost recovery

Part C Technical assistance component consists of

- This component consists of i) Feasibility study and ii) Detailed engineering

6) Estimated cost and implementation timetable

Phase	World Bank	LGU	Total	LGU Coverage
I. 1999 – 2002	$ 23.3 M	$13.7 M	$ 37.0 M	40
II. 2000 – 2004	60. 0 M	20.0 M	80.0 M	80
III. 2003 - 2006	100.0 M	33.0 M	133.0 M	130
Total	$ 183.3 M	$ 66.7 M	$ 250.0 M	250

* The required LGU equity ranges from 10% -25% of the total project cost.

7) Relending Terms

World Bank funds shall be channeled thru the Development Bank of the Philippines (DBP) which shall relend them as subproject loans to the LGUs. The DBP subproject loans shall include costs of feasibility study, technical design and construction of the water facility. Basic terms of the loan are: i) Interest per annum: 15 % per annum, ii) Amortization period: 15 years with 3-year grace period.

8) DBL Scheme

The subprojects will be implemented thru the DBL (Design, Build and Lease). A qualified private constructor designs and constructs the facility (while F/S is done by WB consultant), and another private entity, qualified, undertakes the system operation thru a lease contract with LGU (respective municipality).

(4) Rural Water Supply & Sanitation Sector Project (RW3SP)

1) Project overview

The RW3SP's objectives are: i) to improve the capacity of sector agencies in enhancing the delivery of social services; ii) to provide safe, adequate and reliable WSS services to selected low-income rural communities through community-based arrangements; and iii) to support health and hygiene education, water quality surveillance, and community management activities. The project will help develop the technical capability of LGUs and communities in the planing, implementation and O&M of basic WSS services, promote a sense of subproject ownership and enhance community management of rural WSS services, and improve health and hygiene education in the Project areas to ensure the sustainability of Project benefits.

The project will cover about 3,000 rural communities (barangays) with populations ranging from 200 to 5,000 persons. This represents about 50% of the total number of communities in the SRA (Social Reform Agenda) provinces, spread through Luzon, Visayas and Mindanao. They are also the least developed provinces in the country. Presently, only about 40% of the

rural population in these provinces have adequate access to safe and reliable WSS facilities compared with the nation wide average of 70% for the rural areas.

SRA provinces: Batanes, Benguet, Abra, Ifugao, Apayao, Kalinga, Mt.Province, Aurora, Masbate, Romblon, Antique, Guimaras, Biliran, Eastern Samar, Southern Leyte, Agusan del Sur, Surigao del Sur, Basila, Sulu, Tawi-tawi

The project involves institutional development and improvement of WSS in bout 3,000 rural income communities through the construction and rehabilitation of WSS facilities serving approximately 2.0 million persons and thereby increase the coverage of the project areas rural population from 40 to 90 percent by the year 2000. The project will cover five years and 50% of the rural communities in the poorest provinces under the National Rural WSS Development Programs. The project consists of two main parts; Part A: Institutional Development, and Part B: Water Supply and Sanitation Facilities.

Part A. Institutional Development consists of four components

- Capacity –building program for local institutions covering training courses for LGUs
- Community management program to help the communities to design and set up cost recover, O&M and the community management organization
- Health and hygiene education program focusing in safe drinking water, good habits for personal hygiene and the control of diarrhea. Various media will be used. Educational material (handouts, posters, cassettes and vide tapes) will be developed. A total of 750 person-months of sanitary inspector and 750 person months of midwives will implement the education program covering the target communities
- Water quality control and surveillance program: A total of 500 person months of sanitary inspectors and 500 person months of water quality technicians will establish this program in the project provinces, in addition, 50 laboratories will be constructed and equipped.

Part B. WSS Facilities consists of subprojects for the construction and rehabilitation of point source (Level I) water supply systems. It is estimated that over 6,100 new water supply systems will be constructed. In addition, 2,000 shallow and deep wells, 130 springs, and transmission lines will be rehabilitated. The subprojects will also selectively cover sanitation facilities, such as the construction of sanitary public and household latrines, and district laboratories.

2) Cost estimates and budgetary requirement

Based on the cost estimates of the eight representative subprojects appraised and the subprojects proposed for about 200 communities the total cost of the designated segment of the rural was investment program the project is estimated at $57.4 million equivalent, including taxes and duties as well as interest during construction. The foreign exchange cost is estimated at $20.0 million equivalent (including $1.4 million for interest and service chare during construction) or about 35 percent of the project cost, and the local currency cost is $ 37.4 million equivalent of about 65% of the project cost. The fund to be provided by the government to the executing and implementing agencies will be channeled through regular budgetary allocations. Each province participation in the project will provide for the contribution of 10% for the total cost of each subproject in a particular province.

3) Implementation Schedule

Designed to commence in mid 1997, the project is planned to implement over a period of five years, with completion expected by 1 August 2001. The advance project preparation activities that have been carried out in about 200 communities in the project areas through the community management approach will ensure that the project gets off to a fast start.

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 Northern Samar, Eastern Samar, Samar, Biliran, Leyte and Southern Leyte	• 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 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. • Qualifications and experiences of the provincial office staff are sometimes inadequate/inappropriate for their allotted responsibilities. This is important as the municipal government, having no permanent staff for water supply, requires support from the provincial government. • Training has been irregularly organized. Course materials are complicated and provided a very wide range of topics that are difficult to absorb by the participants at one given time considering their background and experience.	• Project identification is usually upon the request of the barangay/municipal officials and approval is done 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 • Toilets in schools are not used because there is no water. FW4SP design has to be redesign	• 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 coursed 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.	• 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 grassroot 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 preparation by requiring beneficiaries to put up its equity contribution through certain amount of money or labor. Until now, the system is still functioning.

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

Areas	Institutional	Technical	Financial	Community Development
	• 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. • There are a few functional BWSAs, then majority needs reactivation through a joint effort of the Province and DILG.		• 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 capitaization and operation. They can request funds from the Province, particularly the barangay ^based waterworks.	• 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	• 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 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	• 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			• 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 Planning & Development Office	• Formulates of comprehensive development plans and policies for the PDC • Integrates and coordinates sectoral plans by functional groups and monitor and evaluate program(s)/project(s) implementation.
Provincial Engineering Office	• Assists in the construction, operation and maintenance of the WATSAN facilities
Provincial Health Office	• Conducts water quality examination examination thru Sanitary Inspector • Conduct health and hygiene education thru RHU
Provincial Accounting Office, Budget Office, Treasury Office, General Service Office	• Responsible for provincial administrative works
Barangay/Municipal governments thru Municipal Planning & Development Office	• Identifies projects • Provides counterpart support during implementation • Conducts water testing thru RSI
NGOs	• Provides consultancy services especially in CO/CD works
DILG, Provincial Office	• Conducts/assists training especially on topics related to human resource development
District Engineering Offices of DPWH	• Implements central government funded projects • Provides some assistance to Barangays
Water Districts	• Provides water supply coverage in urban areas
Sangguniangs (LGU Council)	• Adopts priority programs and projects and appropriates funds
Local Development Councils of LGUs	• Institute multi-sectoral development of LGUs
Regional Development Council	• Institute multi-sectoral development of the region

Sector Issues and Problems

The implementation of the water supply and sanitation undertaken by the different agencies encounters issues and problems which primarily concerns with existing policy, existing institutional arrangement and management, access to financing institutions and capability building issues that needs to be addressed if LGUs are now given the full responsibility in project implementation.

(1) Issues on Policy

1) Weak enforcement of laws, policies and regulations

The apparent weakness in the enforcement of water resources laws, rules and regulation could be seen in the prevalence of illegal tapping of urban and irrigation water by parties who do not possess permits, the unregulated exploitation of ground water resources through drilling without permits secured at NWRB or any deputized agencies for that matter, in inefficient use of limited resources available, pollution of water bodies and degradation of the environment.

2) ICC – Financing policy to devolved services

One of the constraints in the implementation of this policy is obviously seen in the varied level of capability and readiness of the LGUs to provide and manage reliable water supply and sanitation services and the lack of political will to pursue development initiatives without depending too much on grants assistance from the national government.

3) Economic regulation and market

While it has been established that there are significant advantages to adopting economic and market- based instrument, the actual policy shift has been slow. Most apparent is the lack of technical capabilities and data required to enable to design and implement these policy reforms. Political difficulties encountered under the current institutional and regulatory framework and the viewing of water as free and public good to one which has a price should be fully understood.

(2) Issues on Institutional and Management Framework

1) Lack of integrated management and non-systematic approach to water resources

For the water resources sector, the existing institutional and regulatory framework is the result of incremental developments for the past years, each in response to

particular changes. This had led the absence of an integrated water resources management system that adopts a holistic approach in the organization of the system. Though NWRB is seen to be the over all coordinating and regulatory body for this sector, yet it lacks technical capabilities and still needs institutional strengthening to fulfill its functions.

2) Too many agencies involved in the sector

These are more than twenty government agencies involved in different aspects of the water sector resulting inevitably in a fragmented approach to water management. With this number of agencies involved, it resulted to overlapping of work, varied types of data needed depending on the agency that implements which creates confusion at the LGU level.

3) Inter-agency coordination

For tri-agency program such as DPWH, DILG and DOH implementing water supply projects, weak coordination had been demonstrated. There was difficulty in synchronizing activities which deals on physical construction of facilities (DPWH) as to activities that entails training of provincial and municipal water and sanitation task forces and formation of BWSAs where target facilities will be constructed (DILG) and the installation of latrines and promotion of health and education programs (DOH).

4) Absence of an over-all planning framework to guide investment activities.

As a result of too many agencies involved in the sector and the fragmentation of water resources management, there are no cross-sectoral water resource plans to integrate effectively the various water and land use activities. Water quality and quantity management, and proper utilization of surface and groundwater.

5) Lack of data management

The main problem concerning to data management are the inadequacy of the network coverage, outdated monitoring equipment, scattered data collection responsibilities, lack of continuous data records and lack of an integrated water resources data base. Most data collection efforts are project related and are usually discontinued once the project is terminated.

6) Accountability and responsiveness of stakeholders

A lot has been said about improving the delivery of water supply and sanitation services by LGUs in the light of the devolution policy of the government. However, little attention has been given on the extent of which these LGUs carried out their devolved functions and responsibilities to their constituents. While its true that some problems were attributed to varying levels of preparedness and capacity to implement projects at their level, it can also be due to lack of political-will and commitment of the LGUs to perform their tasks and accountabilities.

7) Absence of over-all coordination body

Due to fragmental planning and implementation of sector projects, a number of agencies and offices had overlapping activities and functions. For the development of the sector to progress, there must be a body/agency/office that will serve as a focal point, responsible for all related initiatives.

8) Lack of available staff at the LGU level

In the light of devolved policy as enacted in the LGC and NEDA Board No.4 where LGUs could now implement all levels of water supply services, a need to develop their capability and interpersonal skills to ensure sustainability of projects. But is has been observed that the provincial and municipal planning staff who are supposed to be responsible for managing, coordinating, implementing training programs at the local levels and monitoring the performance of BWSAs/RWSAs are unable to devote full time due to lack of staff and too many job assignments with other projects.

9) Large demand for training

Various training programs have been developed and designed to suit the needs for training with different levels of approaches for foreign and locally funded projects. However, due to lack of funds to support the training programs, training opportunities were not fully delivered to the recipient LGUs. And, there is another issue on training that due to large number of barangays to be covered nationwide, some of these were not able to access training provided by the different agencies like DILG. This could also be attributed to the geographic location, accessibility to these areas and lack of initiative of the LGUs to request training which could then be prioritized based on immediate need.

(3) Issues on Financial Aspects

1) Access of the LGUs to other financing institutions

Most of the LGUs depend on their IRA to fund waters supply projects which often times limit them to implement only for level I facilities. Although the LGUs initiated to take risk in borrowing from banks to financed Level II or III systems, they are constraints to pursue the loan due to high interest rates imposed by the financing institutions, requirements needs the hold-out of their IRA, and some LGUs lack information where to access funding.

2) Cost sharing arrangement

With the limited available funds to be used in implementing water supply and sanitation projects, cost sharing mechanism have been encourage to LGUs to feel sense of ownership of the system. However, the lack of political-will and lack of commitment of the leaders hinders the success of its implementation.

3) Varied level of preparedness of the LGUs

In the light of NEDA-ICC financing policy where no subsidy from the national government will be provided for Level II and III systems and 0 (zero) to 50 percent will be subsidized by national government but limited only to Level I for 5th and 6th class municipalities, it has been observed that most of the LGUs are dependent on grants/assistance provided by the national government or other funding institutions.

5.7.4 Institutional Arrangements/Capability of the Municipal Government

(1) Municipality of Babatngon

There are 25 barangays (about 20,000 population) broken down into 5 urban and 20 rural barangays. Current water supply by urban and rural area is as follows:

1) Urban water supply

About 40% of urban population is served by municipal waterworks. Others use shallow and deep wells. Since 1982 the municipality has expanded/improved the system for urban areas (converted from Level II system to Level III system about 2-3 years ago).

Water charge collection was started by municipal treasurer's office upon upgrading of the service level (Level III). However, the rate has not been increased as of now (flat charge of ₱30/HH without water meter). A total of about ₱12,000/month is collected. Measure expenditures are for repair of pipes and purchase of chlorine materials. Municipal government (3 persons from MEO and 5 persons from MPDO) manages personnel expenditures for the waterworks.

Current problem of the system is insufficient water supply caused by smaller diameter of transmission pipe (designed 6"dia. was changed to 3"dia in the construction stage). Although MPDO is ready to make a plan to improve the services, it is necessary to get a prior concurrence from users to increase water charges to cover the required cost for the improvement. It seems to be affordable for the users in case the charge is less than 5% of monthly household income, but their willingness to pay must be ensured.

2) Rural water supply

There exist Level I and II systems. Two Level II systems in use of deep wells are managed by associations: Malibago for 177 HH and San Isidro for 144 HH. Water charge of ₱5/HH/month is collected for the payment of electric charges. Other Level II systems are operated by respective Barangay Councils. While, majority of Level I facilities are privately owned. Public Level I facilities are usually managed by Barangay Councils. There are some cases that the wells are non-functional within one year after construction.

Assistance by MEO is provided to the barangays on O&M of facilities, as requested. However, there is not so much experience by MEO on such works.

3) Financial Arrangement

Current priority sector in allocation of municipal IRA is agriculture. Thus, road construction is a major investment item. For the relevant sector, about ₱100,000 and P50,000 were allotted in 1998 and 1999, respectively, while total IRA is about 3 million pesos. The allotted amount was used for purchase of pipes and chlorine. The municipality provides each barangay with ₱20,000 for infrastructure development. Three barangays are financially assisted by the National Government through social welfare development fund.

(2) Municipality of Jaro

In Jaro municipality, there are 46 barangays break down into 4 urban and 42 rural barangays.

1) Urban Water Supply

720 HHs are served by Jaro WD at present. The water source of the system is a deep well. In the F/S, discharge rate of the well was estimated at 10 lps enough to serve 1,100 connections, but current discharge rate is 6 - 7 lps. Under the condition, insufficient water supply has been experienced especially during fiesta occasion. The WD was established in 1993 through the assistance of LWUA. Before then, the municipal waterworks supplied water to users: previous system used river-bed water (1982 - 1983), and changed to spring source (1983 – 1993). Water charge is ₱95 for the first 10m3 and collected by municipal treasurer's office. WD is paying back the loan (a total of ₱5.296 million).

The municipality has a plan of system expansion, but it was not yet completed due to limited financial source. Untapped spring was already identified as a potential water source.

2) Rural Water Supply

Level I and II systems managed by BWSAs/RWSAs cover 8 barangays. Projects are prioritized considering water sources and needs of barangay through investigation at all barangays. Associations were organized before construction. Repair work is resorted to mayor according to the situation.

3) Sanitation

Public toilets are managed by barangay caretakers. Some public schools in poblacion have classroom toilets. Water quality examination is conducted for deep wells quarterly. Financial arrangement for sanitation sub-sector is minimal in the municipality. In this connection, scope of annual work shall be identified and budget/manpower shall be secured.

4) Institutional and Financial Arrangements

Municipal offices in the relevant sector are MPDO (5 staffs), MEO (4 staffs) and MHO, while DPWH (DEOs) was responsible for foreign assisted projects. MEO has experience to conduct D/D of Level I and II systems. As for this sector, technical

working group (MPDC, ME, MSWD and DILG representative) is organized on the project basis. About 4% (in average) of municipal IRA is allotted to the sector.

(3) Municipality of Burauen

The municipality of Burauen has 77 barangays with a total population of about 55,000.

1) Urban Water Supply

Burauen Waterworks (Level III) managed by municipal government covers poblacion area in use of spring source. The municipality has a plan to conduct F/S for rehabilitation of transmission and distribution pipelines due to deterioration of the facilities, but financial source is not yet secured.

2) Rural Water Supply

Other rural barangays are served by either Level I or II systems. Among them, Level II system in Brgy Cansiboy is just inaugurated under the Agrarian Reform program.

3) Financial arrangements

As for financial arrangement by the municipality, the first priority for year 1999 is given to barangay road networks aiming at improvement of transportation for copra, a major product in the municipality. After completion of barangay road networks, the priority project will be given to water supply sector.

The Municipality is ready to borrow the money (₱15 million) required for procurement of heavy duty equipment (a new bulldozer, and second hand backhoe, grader, tractor shovel and 2 dump trucks) from the Land Bank. The municipality is now waiting for authorization from NEDA and DILG.

(4) Ormoc City

1) Urban Water Supply

There are 110 barangays, out of which 49 barangays (29 urban and 20 rural barangays) are covered by the city waterworks (Level III). The system has 9,000 HH connections. Service coverage for urban barangays and rural barangays is 97% and 60%, respectively. There is no laboratory for water quality examination (water sample is carried to provincial laboratory).

Water sources of the system are 3 groups of spring sources and 14 deep wells (capacity of deep well: 2,500m^3/d). The daily consumption is about 11,000 m^3/d (supply efficiency is 65% due to leakage of pipes: 50 years old).

Water charge at present is ₱25/first 10m^3 and ₱3/m^3 in excess of 10m^3. New charge rate will be adopted from July 1999 (₱35/ 10m^3 and ₱4/m^3 in progressive). Currently, City government supports the WWs for financial shortage, however, the WWs expects a sound financial management upon application of the new charge system. Major expenditures of WWs are salary of the staff, electric charges and chlorine (added at reservoir/elevated tank).

There exists a cooperative water supply covering 7 barangays. The system started as Level II using spring sources. At present the system is upgraded to Level III (with water meter provision). About 50% of the HHs in the area are served. Progressive water charges are adopted at the system (₱12/10m^3 and ₱1.5/m^3 addition).

City Waterworks (WWs) and the cooperative are coordinated each other, as a required basis. The City WWs is under consideration to utilize the water of Lake Danao, 17 km away from urban center, as an alternative water source for the system expansion. According to the survey conducted by the city, water level and discharge of the lake are stable through the year. The flow rate was roughly estimated at 30,000-50,000 m^3/d by the Study Team during observation trip. However, the lake water is used for water supply of Leyte-Metro WD at present. In case that Ormoc City WWs plans to utilize the water of Lake Danao, a water treatment plant is required as well as re-arrangement of water right. In addition, water shed management for environmental conservation will be a requisite.

2) Rural Water Supply

Fifty four (54) barangays in the rural area are served either by Level I or II systems.

3) Institutional Arrangements

There are major 4 organizations; CPDO, CEO (Barangay water supply: Level I & II), City Waterworks Division (Level III water supply) under City Administrator, and CHO (sanitation including water quality examination). City offices coordinate with provincial government and national government agencies, as required.

4) Community Development and Gender Consideration

The DILG conducted training for the formation of BWSA/RWSA two years ago. The CHO tried to establish the association (Level I and many Level II systems). However, people were not willing to accept such arrangements, since they don't like to pay for the services. Then, CHO gave up to conduct the activities. Information dissemination using various kind of manner will be required to promote people's participation. LGUs also need to ensure budget and increase staff (especially CD specialist) to change the idea of people on water supply. City office is not yet aware of the gender matter.

5) Technical Capability

The city offices have experiences (Level I to Level III) on investigation/survey, F/S, D/D, bidding/procurement, contract with private sector and construction supervision. The know-how of the city will be helpful for the province in the future.

NGOs are mobilized as a required basis (getting idea, assistance in the project implementation). But, there is no list of available NGOs. No periodic training for city staff has been conducted.

Laboratory shall be provided to monitor water quality to ensure drinking/safe water. The WWs shall prepare a comprehensive proposal to City government to attain self-reliance in the near future (technical, institutional and financial plan).

6) Financial Arrangements

About 5% (₱500,000) of total IRA allotted to the city (about 11 million Pesos) is used for this sector (maintenance of the WWs system, electricity, etc.). In other words, the WWs is supported by the City government. Collected water charges by the City WWs are managed by City Treasurer's office as a general fund. No experience by the city on the use of external financial sources (loan).

7) Sector Monitoring

O&M section of WWs conducts the services with monitoring. CEO also collects information through their monitoring activity/assistance for repair work and association set-up activities, but people are not cooperative. Educational measures/information dissemination by the City are urgent matters.

(5) Brgy. Limburan, Burauen, Leyte

About 140 HHs exist in the barangay. Barangay council manages Level I facilities with free of charge in provision of spring source. The municipality is eager to upgrade existing service level to Level II together with other 2 rural barangays. For the purpose, it is necessary to construct transmission pipeline between a potential spring source located in upland barangay, about 15 km away from Brgy. Limburan. However, F/S is not yet prepared. The study shall include alternative water sources such as Lake Mahagnao entailing investigation on outflow rate and water quality.

(6) Brgy. Bubon, Baybay, Leyte

Brgy. Bubon is located 5 km away from poblacion. There exist about 100 HHs. People are fetching drinking water at Level I spring box located 500m away and about 40m lower from barangay center. The facility was constructed by the barangay in 1963. Estimated discharge rate is 0.5 lps. (about 40 m3/d) at present.

The barangay is eager to upgrade existing Level I to Level II system, but study is not made. Another option for realizing Level II is discussed by barangay people, that is the utilization of a potential spring source located in other barangay about 15 km away from Bubon. This spring source has a capacity to cover the demand of neighboring 5 barangays including Bubon. F/S shall be prepared including barangay survey and topographic survey. LGUs shall also provide assistance to the barangays to have chances of discussions to get understanding on the prospective project.

5.8 Community Development

5.8.1 General

(1) RESULTS OF THE BARANGAY KEY INFORMANT SURVEY FOR LEYTE

I. BARANGAY

A. General

The barangay is the smallest political unit in the Philippines. It is headed by a barangay captain who is elected for a three-year term. Together with the barangay council, the barangay captain is responsible for running the affairs of the barangay. Water supply and

sanitation sector projects are important to the barangay. Benefits are directly related to health and productivity, as well to improved economic activities in the community.

The key informant survey was conducted in ten barangays representing two municipalities in the province of Leyte. The key informants were either an official of the barangay council, an official of the BWSA, or a recognized community leader. The purpose of the survey was to find out the degree and type of government assistance on the sector that cascades from the national government down to the barangay level. The barangays surveyed were: San Esteban, Arado, Malabca, Limburan, and Cagangon, all in Burauen, and Barangays Gaas, Butigan, Buenavista, Imelda and Bubon, in Baybay

B. Community Organization

1. Manner of Participation in Sector Development

The need for water supply and sanitation facilities is discussed within and prioritized by the Barangay Development Council (BDC). If the barangay is not able to finance the WATSAN project from its own funds, the BDC then endorses the project to the municipality. Again, the prioritization and funding of the endorsed project is discussed in the municipal development council (MDC). If the municipality can finance said project, then it does so, usually by providing technical and material support. The barangay is asked to contribute its share, which is usually in the form of free labor. If, however, the municipality cannot fund the barangays request, the project is once again endorsed, but this time to the province. The project is then discussed/prioritized and provided funding by the provincial development council (PDC). If implemented by the province, a counterpart is asked of the barangay and sector participation is in the form of free labor and/or donations in cash or in kind.

2. Existing Community Organization Serving /Acting as the Water Association

Except in two barangays (Malabca and San Esteban) where a BWSA exists, it was the barangay councils that is the community organization that is in charge of providing safe, potable water in the other eight (8) barangays.

3. Role of the Barangay Council in O&M Assistance in the Form of Funds/ Manpower/Materials

The barangay councils provide direct assistance in the operation and maintenance of the water systems. They coordinate with the local government units (PHO/MHO) in extending technical and functional assistance to the barangays.

The barangay councils are also willing to pay for the training of community members/volunteers on the operation and maintenance of WATSAN facilities.

II. COMMUNITY PARTICIPATION

A. General

The beneficiaries' participation is recognized as one of the determining factors in the success of the WATSAN sector plans on the community level. Participation by the barangay people is measured by their willingness to organize themselves into a water association and contribute their share towards its operationalization. This may come in the form of free labor, donations in kind or in cash, or their active involvement in the management, operation and maintenance of the WATSAN facilities.

B. Socio-Economic Conditions

1. Average Monthly Income in the Rural Area

The average monthly income of the households in the barangays surveyed was P 3,600. The list of economic activities shows the following: livestock and poultry raising, vegetable gardening, sari-sari-store tending and sugar cake making from which the people earn an average of P 1,500 per month. The list shows that both genders are equally involved in these economic activities.

2. Waterborne/Water Related Diseases

Incidences of waterborne and water related diseases were reported in most barangays surveyed. Most prevalent diseases are intestinal disorder, diarrhea, schistosomiasis, typhoid fever and skin diseases. This is compounded by the lack of effective drainage and garbage disposal systems in the areas.

C. Willingness to Participate

1. Initiating the Organization of a WATSAN Association

Each of the ten barangays surveyed has a committee on water and sanitation within the barangay council. The key informants indicated that all the barangay councils are willing to participate in sector projects and in the operation and maintenance of WATSAN facilities. All of the respondents indicated that the barangay council is willing to pay for

and/or facilitate the training for the user-beneficiary volunteers on O&M. In the area of health and sanitation education, almost all interviewees believed that the barangay council has the capability to implement information dissemination activities.

D. Status of BWSAs/NGOs/CBOs/POs

1. Number of Barangay with Functional BWSAs

As mentioned earlier, only two barangays (Malabca and San Esteban) have a BWSA organized in their communities, although the association in Barangay San Esteban is not functional. Thus, only the BWSA in Barangay Malabca had a set of officers.

2. Status of NGOs/CBOs/POs

Only a few people's organizations exist in the areas surveyed. Most of the barangays have just one active NGO that operates within their jurisdiction. The areas of concern of these NGOs are limited to livelihood and farmers cooperative.

F. Water Charges Adopted and Collection Efficiency

1. Sufficiency of Collected Charges for O&M

All of the respondents indicated that the residents do not pay for the operation and maintenance of their water supply facilities. Respondents in eight barangays, however, indicated that people are willing to pay for the water.

2. Current Practices with Affordability by Users and Manner of Fee Collection

Nobody was collecting fees for water supply in all barangays surveyed.

G. Requests by the Beneficiaries on O&M of the Facilities from LGUs and other Sources

1. Government Subsidies Requested by End Users

Most barangays were recipients of financial and institutional development assistance from the provincial and municipal government. The assistance ranged from the barangay's inclusion of funds distribution for the repair and maintenance of WATSAN facilities and the provision of various training programs.

III. GENDER

A. General

The survey results do not point to a severe lack of gender responsiveness to sector projects, but awareness of the key informants must be enhanced as to why both genders' participation is important in the WATSAN sector plans and implementation.

B. Gender in the Composition of the Barangay Council

In the ten barangays surveyed, the total number of barangay council members was 104. Of this number, 60 were males and 44 females. Nine of the ten barangays had a male barangay captain.

C. Gender in the Composition of the BWSA

Only Barangay Malabca (Burauen) had a functional BWSA. It had an active set of officers which meets only if the need arises. There is almost an equal number of male and female members in said BWSA.

D. Gender in Participation in the O&M of the Water Facilities

Respondents are divided on their assessment whether or not women participate in the O&M of the water facilities. Half of the interviewees said women are responsible for O&M; while the other half said the women have no participation. According to those who claimed women participated, women undertake the actual operation of the facilities. They also supervise the repair of broken facilities and handle cleaning of the surroundings.

E. Gender in Knowledge or Awareness of Sector Related Information

There is no gender bias when it came to awareness of sector related information. Both women and men were knowledgeable as seen from their answers to questions such as assistance extended by LGUs, facility conditions, and O&M practices.

(2) RESULT OF GROUP INTERVIEWS

A. General

Group interviews were conducted in ten selected barangays representing two municipalities in the province of Leyte. The objectives of the group survey/interviews were to identify potential service population and service level desired by the community, to assess the degree of involvement of both men and women in planning, managing, operating and maintaining WATSAN projects, and the willingness and capacity to pay of potential users.

The Project Team conducted the interviews on two sets of interviewees: an all female group and an all male group, each consisting of a minimum of 10 and a maximum of 16 participants. None of the respondents belonged to the same household. Answering interview questions was made by raising of hands. The group interviews were conducted in the following barangays: Imelda (Baybay); Gaas (Baybay); Bubon (Baybay); Buenavista (Baybay); Butigan (Baybay); Arado (Burauen); Cagangon (Burauen); Limburan (Burauen); Malabca (Burauen) and San Esteban (Burauen)

B. Demographic Profile

1. Population

The aggregate population in the ten barangays was 8,985 broken down as follows: Imelda (Baybay) 756; Gaas (Baybay) 1,572; Bubon (Baybay) 558; Buenavista (Baybay) 652; Butigan (Baybay) 382; Arado (Burauen) 1,434; Cagangon (Burauen) 635; Limburan (Burauen) 605; Malabca (Burauen) 1,072 and San Esteban (Burauen) 1,320.

2. Households

As indicated by the respondents, there were 1,697 households in the ten barangays, that is, Imelda (Baybay) 126; Gaas (Baybay) 352; Bubon (Baybay) 93; Buenavista (Baybay) 137; Butigan (Baybay) 75; Arado (Burauen) 239; Cagangon (Burauen) 127; Limburan (Burauen) 120; Malabca (Burauen) 203 and San Esteban (Burauen) 225. The figures represent an average of five (5) members per household.

TABLE 1: TOTAL POPULATION OF BARANGAYS AND NUMBER OF HOUSEHOLDS

BARANGAY (MUNICIPALITY)	M	F	T	NO. OF HH
1. Imelda (Baybay)			756	126
2. Gaas (Baybay)			1,572	352
3. Bubon (Baybay)			558	93
4. Buenavista (Baybay)			652	137
5. Butigan (Baybay)			382	75
6. Arado (Burauen)			1,434	239
7. Cagangon (Burauen)			635	127
8. Limburan (Burauen)			605	120
9. Malabca (Burauen)			1,071	203
10. SanEsteban (Burauen)			1,320	225
TOTAL			**8,985**	**1,697**

3. Composition of Barangay Councils

Of the 97 barangay council members in the 10 barangays, 61 (63%) were males and 36 (37%) females. Of the 10 barangay captains, only one, that of Cagangon, was female.

C. Respondents' Profile

1. Number and Gender of Respondents

There were 229 respondents in the group interviews. Of this number, 106 (46%) were males and 123 (54%) were females. Table 2 presents the number of respondents by gender for each barangay:

TABLE 2: NUMBER OF RESPONDENTS

BARANGAY (MUNICIPALITY)	M	F	T	%
1. Imelda (Baybay)	11	16	27	11
2. Gaas (Baybay)	10	12	22	10
3. Bubon (Baybay)	11	10	21	9
4. Buenavista (Baybay)	10	13	23	10
5. Butigan (Baybay)	10	15	25	11
6. Arado (Burauen)	11	11	22	10
7. Cagangon (Burauen)	10	12	22	10
8. Limburan (Burauen)	11	11	22	10
9. Mafabca (Burauen)	11	10	21	9
10. San Esteban (Burauen)	11	13	24	10
TOTAL	106	123	229	100

2 Age Bracket

A total of 137 respondents (63 males, 74 females) was within the 15 to 45 age bracket; 57 respondents (27 males, 30 females) constituted the 46 to 60 age bracket; thirty-five respondents (16 males, 19 females) belonged to 61 and above age bracket.

TABLE 3: AGES OF THE RESPONDENTS

AGE BRACKET	M	F	T	%
15 and Below	-	-	-	-
15-45	63	74	137	60
46-60	27	30	57	25
61 and above	16	19	35	15
TOTAL	106	123	229	100

3. Level of Education

About 43.23% of the respondents (49 males, 50 females) graduated from elementary education; while 32.62% (35 males, 42 females) graduated from high school. Forty respondents (14 males, 26 females) were able to complete college. Ten interviewees pursued vocational courses and only one pursued a post graduate degree.

TABLE 4: RESPONDENTS' LEVEL OF EDUCATION

EDUCATION LEVEL	M	F	T	%
1. Elementary Level	-	-	-	-
2. Elementary Graduate	49	50	99	43.23
3. High School Level	-	-	-	-
4. High School Graduate	35	42	77	33.62
5. College Level	-	-	-	-
6. College Graduate	14	26	40	17.47
7. Vocational	6	4	10	4.37
8. Post Graduate	-	1	1	0.44
9. No response	2	-	2	0.87
TOTAL	106	123	229	100

4. Occupation

At the time of the interview, the majority of the respondents (77 males, 48 females) was engaged in either farming or fishing; 12 respondents (9 males, 3 females) were laborers; 15 respondents (9 males, 6 females) were service workers; and 21 respondents (4 males, 17 females) were engaged in business. Five respondents listed themselves as a professional; two male respondents as equipment operator; two respondents each as office worker and technical equipment operator. Around 47 other respondents, mostly females, had other occupations.

TABLE 5: OCCUPATION OF RESPONDENTS

OCCUPATION	M	F	T	%
1. Farmer/Fisherfolk	77	48	125	55
2. Laborer	9	3	12	5
3. Service Worker	9	6	15	6
4. Businessman/woman	4	17	21	9
5. Professional	1	4	5	2
6. Office Worker	2	-	2	1
7. Tech. Equipment Operator	2	-	2	1
8. Others	2	45	47	21
TOTAL	106	123	229	100

D. Socio Economic Profile

1. Level of Education of Household Members

The respondents' answers indicated that 134 male household members graduated from the elementary level compared to just 22 female household members. However, an almost equal number of female and male household members graduated from high school, that is, 99 to 94. Of the household members who moved on to college, 34 males were able to graduate compared to 24 females. Two male and two female household members pursued post graduate courses; while 18 male and 17 females got vocational/technical courses

TABLE 6: LEVEL OF EDUCATION OF HH MEMBERS

EDUCATIONAL LEVEL	EDUCATED HOUSEHOLD MEMBERS	
	M	F
1. Elementary Level	-	-
2. Elementary Graduate	134	22
3. High School Level	-	-
4. High School Graduate	94	99
5. College Level	-	-
6. College Graduate	34	24
7. Vocational	18	17
8. Post Graduate	2	2

2. **Employed Household Members**

More male household members were employed compared to the females. Of the total male household members who were employed, 157 belonged to the 25 to 45 age bracket; 11 were within the 25-and-below age bracket; 46 belonged to the 46 to 60 age bracket; and 29 were from the 61 and above. Of the female household members who were employed, a good 113 belonged to the 25 to 45 age bracket; five were within the 25 and below age bracket; 38 belonged to the 46 to 60 age group and 22 to the 61 and above.

TABLE 7: EMPLOYED HH MEMBERS

RESPONSE	EMPLOYED HOUSEHOLD MEMBERS	
	MALE	FEMALE
25 and Below	11	5
25-45	157	113
46-60	46	38
61 and above	29	22

3. **Occupation of Household Heads and Other Members**

Male household members constituted the working group where 301 were employed compared to only 182 female household members. The majority of the men was engaged in farming or fishing, 158; while the others were either a laborer, 64; professional, 1; office worker 6; engaged in business, 14; technician, 9; factory worker, 1; and other occupations, 2. The women employed were either engaged in farming/fishing, 53; engaged in business, 32; professional, 7; office worker, 4; laborer, 10; service worker, 12; factory worker, 2; and other occupations, 62.

TABLE 8: OCCUPATION OF HH MEMBERS

OCCUPATION	M	F	T	%
1. Farmer/Fisherfolk	158	53		
2. Laborer	64	10		
3. Service Worker	46	12		
4. Businessman/woman	14	32		
5. Professional	1	7		
6. Office Worker	6	4		
7. Technician	9	-		
8. Factory Worker	1	2		
9. Others	2	62		
TOTAL		182		

Most of the household members who were gainfully employed earned a monthly income of P 5,000.00 and below. Eighty-seven household members (38 males, 49 females) earned P 5,000.00 to P 14,999. Two female members earned P 15,000 to 24,999 and one member earned above P 25,000.

TABLE 9: AVERAGE MONTHLY INCOME OF HH MEMBERS

ITEM	M	F	T	%
Below P 5,000.00	67	72	139	60.70
P 5,000 to 14,999	38	49	87	37.99
P 15,000 to 24,999	-	2	2	0.87
Above P 25,000	-	1	1	0.44
TOTAL	106	123	229	100

4. **Average Expenditures of Household**

As indicated by almost half of the respondents, the average monthly expenditure of a family was below P 5,000.00. For 101 respondents, the reported family expenses an averaged P 5,000.00 to P 14,999.00 a month; while one reported having spent P15,000 to 24,000 a month.

TABLE 10: AVERAGE MONTHLY EXPENSES OF HH MEMBERS

ITEM	M	F	T	%
Below P 5,000	69	58	127	55.46
P 5,000 to 14,999	37	64	101	44.10
P 15,000 to 24,999	-	1	1	0.44
Above P 25,000	-	-	-	-
TOTAL	106	123	229	100

5. **Practices**

Source of Drinking Water. Majority of the respondents had as the sources of their water supply either communal deep wells or communal faucets. The rest got water from the following sources: communal dug well, 38; communal shallow well, 22; piped water supply, 20; and private shallow well 12.

TABLE 11: SOURCES OF DRINKING WATER

SOURCES	USER RESPONDENT		T	%
	M	F		
1. Communal Shallow Well	12	10	22	9.61
2. Communal Deep Well	33	35	68	29.69
3. Communal Dug Well	22	16	38	16.60
4. Communal Faucet	30	38	68	29.69
5. Private Shallow Well	-	12	12	5.24
6. Private Deep Well	-	-	-	-
7. Piped Water Supply	8	12	20	8.73
8. Private Dug Well	-	-	-	-
9. Others	1	-	1	0.44
TOTAL	106	123	229	100

Responsible for Fetching Water. According to 55 female respondents, the wife was still the person responsible for fetching water for the family's needs. The husband and male children assisted in the task for 37 and 34 female respondents respectively. But, the female children also helped according to 26 other female interviewees. But the male respondents said otherwise. As many as 81 said it was the husband who took on the responsibility of fetching water from source to home; while only 17 said the wife assisted in the task. Eighteen male respondents pointed out to the help of male children; while and 10 male respondents said female children assist in hauling water, too.

TABLE 12: RESPONSIBLE FOR FETCHING DRINKING WATER

FAMILY MEMBER	USER RESPONDENT	
	M	F
1. Husband	81	37
2. Wife	17	55
3. Male Children	18	34
4. Female Children	10	26
5. Others	3	2

Frequency of Fetching Water. Close to 64% of the total respondents indicated that it took them one to two times a day to fetch drinking water. Around 16% fetched water three times a day and close to 10% hauled water more than five times a day. Eleven respondents did not reply.

TABLE 13: FREQUENCY OF FETCHING DRINKING WATER

DURATION	RESPONDENTS		T	%
	M	F		
1. Once a Day	29	44	73	31.88
2. Twice a Day	38	35	73	31.88
3. 3x a Day	19	17	36	15.72
4. 4x a Day	8	5	13	5.68
5. 5x a Day	1	-	1	.44
6. More than 5x days	11	11	22	9.60
6. No Response	-	11	11	4.80
TOTAL	106	123	229	100

Duration of Fetching Water. As many as 73 respondents said it took them about 30 minutes to fetch water; but for 52 respondents, this task took more than 30 minutes. Getting water from the source back to home took 20 minutes for 28 respondents. For 68 respondents, however, it took less, or about 10 minutes only. A total of 12 did not respond to this question.

TABLE 14: DURATION FOR FETCHING DRINKING WATER

DURATION	RESPONDENTS		T	%
	M	F		
1. Less than 5 Minutes	-	-	-	-
2. About 10 Minutes	36	32	68	30
3. About 20 Minutes	24	4	28	12
4. About 30 Minutes	24	45	69	30
5. More than 30 Minutes	22	30	52	23
6. No Response	-	12	12	5
TOTAL	106	123	229	100

Problems with Source. A big majority of the respondents or 89 % (95 males and 108 females) reported that they have problems with the current water source.

TABLE 15: PROBLEM WITH SOURCE OF WATER

RESPONSE	RESPONDENTS		T	%
	M	F		
1. No Problem	11	15	26	11
2. There are problems	95	108	203	89
TOTAL	106	123	229	100

E. Institutional

1. Presence of BWSA

A majority of the respondents, 78% (79 males and 100 females) indicated that there was no BWSA in their barangays.

TABLE 16: KNOWLEDGE OF THE EXISTENCE OF BWSA

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	27	23	50	22
2. No	79	100	179	78
TOTAL	106	123	229	100

2. Membership to BWSAs

Only 10% or 22 respondents indicated that he or she is a member of the BWSA. Around 85% or 195 respondents gave a negative response; while 5% or 12 respondents did not respond at all.

Those who were members of the BWSA indicated that involvement in the affairs of the association was by assisting in the repair and maintenance of the facilities as well as in attending or facilitating training.

TABLE 17: MEMBERSHIP TO THE BWSA

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	9	13	22	10
2. No	97	98	195	85
3. No response	-	12	12	5
TOTAL	106	123	229	100

TABLE 18: HOW ACTIVELY INVOLVED ARE YOU IN THE AFFAIRS OF THE BWSA

RESPONSE	RESPONDENTS		T	%
	M	F		
1. As BWSA Officer	2	-	-	-
2. As Collection Officer	-	-	-	-
3. Assist in the repair/maintenance of facilities	22	13	-	-
4. Attend/ Facilitate Training	9	13	-	-
5. Not active	-	-	-	-
6. BWSA Member	-	-	-	-
TOTAL	-	-	-	-

3. Who maintains the facilities of the BWSA?

Around 76% of the respondents had no response when it came to identifying who was responsible for the maintenance of BWSA facilities. Around 15% replied it was "someone" in the barangay; 7% said it was someone from the BWSA; and 2% admitted to not knowing who maintained the facilities.

TABLE 19: RESPONSIBLE FOR MAINTAINING BWSA FACILITIES

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Someone in the Barangay	20	13	33	15
2. Professional caretaker	-	-	-	-
3. Someone from the BWSA	7	10	17	7
4. No one	-	-	-	-
5. Don't know	5	-	5	2
6. No response	74	100	174	76
TOTAL	106	123	229	100

4. Interested to be a member of BWSA

The majority of the respondents indicated interest in becoming a member of BWSA once it will be formed and/or activated in their respective barangays.

TABLE 20: INTEREST OF RESPONDENTS TO JOIN BWSA

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Interested	101	110	211	92
2. Not Interested	-	-	-	-
3. No Response	5	13	18	8
TOTAL	106	123	229	100

5. How can respondents become actively involve in BWSA affairs?

A big majority of the male respondents, or 104 said that contributing labor is the best way to show active involvement in WATSAN projects. The rest of the respondents' replies was distributed as follows: do repair and maintenance, 35; contribute cash, 12; just be member, 19; be an officer, 7 and collect fees, 4. As for the female respondents, an almost equal number were willing to contribute cash and contribute labor, at 44 and 47 replies, respectively; 23 were interested in doing repair and maintenance; and two each were willing to either be a BWSA officer, or to collect water fees.

TABLE 21: INVOLVEMENT IN WATSAN PROJECTS

RESPONSE	RESPONDENTS	
	M	F
1. Contribute Cash	12	44
2. Contribute labor	104	47
3. Be Officer	7	2
4. Collection of Fees	4	2
5. Do Repair/Maintenance	35	23
6. Just Member	10	-

6. Responsible for minor repairs of water facilities

Majority or 125 of the respondents agreed that it was a male member of the barangay who was responsible for minor repairs of the water facilities. For 43 others, it was "somebody" in the barangay; while 22 mentioned a professional caretaker did the job.

TABLE 22: RESPONSIBLE FOR MINOR REPAIRS

SOURCE OF WATER	RESPONDENTS		T	%
	M	F		
1. Female Member	-	13	13	5
2. Male Member	70	55	125	55
3. Somebody in the Brgy.	20	23	43	19
4. Professional Caretaker	10	12	22	10
5. Owner of the Well	-	-	-	-
6. Uncertain	-	-	-	-
7. Others	6	20	26	11
TOTAL	106	123	229	100

F. Training Activities

1. Training Program attended in 1998

A little more than half of the respondents, or 56 males and 71 females, attended training programs for the year 1998. The rest did not attend any training program.

TABLE 23: TRAINING ATTENDED BY RESPONDENTS IN 1998

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	56	71	127	55.46
2 No	50	51	101	44.10
3. No response	-	1	1	0.44
TOTAL	106	123	229	100

2. Kinds of Training Program

Table 24 summarizes the various training programs/seminars that the respondents attended in 1998.

TABLE 24: TRAINING COURSES ATTENDED BY RESPONDENTS IN 1998

BARANGAY	MALE	FEMALE
1. Imelda (Baybay)	Tanod Training Lupon Training	Barangay Health Worker Training Barangay Administrative Training
2. Gaas (Baybay)	Auxiliary Police Barangay Training	Barangay Health Worker Training Movement for Responsible Parenthood Mothers' Class
3. Bubon (Baybay)	Barangay Integrated Development for Nutrition Improvement Military Tanod Training	Nutrition/Livelihood BHW-Health and Sanitation Training Agriculture/One-Crop Village
4. Buenavista (Baybay)	Lupong Tagapamayapa Leadership Training	BHW Training Community Based Program on Nutrition
5. Butigan (Baybay)	Barangay Development Council Training Barangay Tanod Training	Livelihood (BIDANI-sponsored) Other Cottage Industries
6. Arado (Burauen)	Solid Waste Management Tanod Training	Solid Waste Management Non-Formal Education
7. Cagangon (Burauen)	Solid Waste Management	Solid Waste Management Flower Making Non-Formal Education
8. Limburan (Burauen)	Solid Waste Management Lupong Tagapamayapa Barangay Tanod Training	Barangay Administration Barangay Health Worker Training Health and Sanitation
9. Malabca (Burauen)	Barangay Administration Training Educational Training Service Crew Training Training & Update of Barangay Admin.	Barangay Administration Training Livelihood Training Program
10. San Esteban (Burauen)	Solid Waste Management Tanod/Lupon Training	Livelihood Barangay Health Workers' Training Solid Waste Management Non-Formal Education

3. **On BWSA Training**

Only a few respondents were aware of training program for BWSA members. This notwithstanding, all of the respondents were interested in attending any BWSA training for the barangay in the future.

TABLE 25: AWARENESS ON THE FOLLOWING TRAINING FOR BWSA

TRAINING PROGRAM	YES	
	M	F
1. Caretaker's Training	12	23
2. Collection/Finance	10	23
3. Repair/O&M	10	23

TABLE 26: WILLINGNESS TO ATTEND BWSA-RELATED TRAINING PROGRAMS

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	106	123	229	100
2. No	-	-	-	-
TOTAL	106	123	229	100

4. **Training on Health Education**

Only seventy-three interviewees (17 males, 56 females) participated in health education and training programs compared to 156 respondents who did not attend or did not respond to the question. If given a chance, the female respondents wanted to attend WATSAN related training programs such as: BWSA Training (such as Caretakers' Training; Construction of Facilities; O&M; Financing of the System), WATSAN Health and Sanitation Education Training, Training on Plumbing and Welding, and Water and Sanitation Leadership Program.

TABLE 27: PARTICIPATION IN HEALTH EDUCATION AND TRAINING

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	17	56	73	32
2. No	89	67	156	68
TOTAL	106	123	229	100

TABLE 28: TYPES OF TRAINING RESPONDENTS WISH TO ATTEND

BARANGAY	MALE	FEMALE
1. Imelda (Baybay)	BWSA Training Water and Sanitation	BWSA Training Health Education Training Livelihood
2. Gaas (Baybay)	Training on Plumbing Training on Welding	Livelihood/Skill Training Health and Sanitation Day Care Service
3. Bubon (Baybay)	BWSA Training Livelihood Training on Agriculture	BWSA Training Health Education Training Livelihood
4. Buenavista (Baybay)	Livelihood Program Leadership Program Farmers' Training	Water and Sanitation Livelihood & Poultry Barangay Development Religious Seminar
5. Butigan (Baybay)	Water and Sanitation Training (such as Caretakers' Training; Construction of Facilities; O&M; Financing of the System)	Livelihood Projects WATSAN Facilities and Operation and Maintenance Training
6. Arado (Burauen)	BWSA Training Health Education Production of Food	BWSA Training Food Production Training Health Education Training
7. Cagangon (Burauen)	Health and Sanitation Food Production BWSA Training	BWSA Training Health Education Livelihood Training
8. Limburan (Burauen)	BWSA Training Food Production Health Education Training	Health Education Training Livelihood BWSA Training
9. Malabca (Burauen)	Health and Sanitation Food Production Military Training BWSA Training	Water and Sanitation Food Production Cottage Industries
10. San Esteban (Burauen)	BWSA Training Health Education Food Production	BWSA Training Health Education Livelihood

5. Desirable Training Period

Most of the female respondents believed that a three-day training period was adequate; but the male respondents were split between a one-day and a three-day training duration. The rest wanted more than 3 days, (14%); 2 days (11%); and less than 1 day (2%).

TABLE 29: DESIRABLE TRAINING PERIOD

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Less Than 1 Day	4	-	4	2
2. One (1) Day	40	25	65	28
3. Two (2) Days	16	9	25	11
4. Three (3) Days	39	63	102	45
5. More Than Three Days	7	26	33	14
TOTAL	106	123	229	100

G. Community Development

1. CBOs and contact person

The majority of the male and female respondents did not know of NGOs working in their communities. Only 46 respondents, or 20% were aware of the presence of NGOs or CBOs doing different development works in the barangays. Table 31 lists down these NGOs/CBOs and their contact persons:

TABLE 30: ARE THERE NGOs WORKING IN THE BARANGAY

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	36	10	46	20
2. No	70	113	183	80
TOTAL	106	123	229	100

TABLE 31: NGOS/CBOS IN THE BARANGAYS

BARANGAY	AREAS OF CONCERN	CONTACT PERSON
1. Imelda (Baybay)	N/A	N/A
2. Gaas (Baybay)	N/A	N/A
3. Bubon (Baybay)	BIDANI- Bubon Chapter	Cecille Sandoal
4. Buenavista (Baybay)	Small Farmers Association Religious Organization	Eliseo Nunez Boy Magbag
5. Butigan (Baybay)	Barangay Bidani	Dr. Sandoval
6. Arado (Burauen)	Barangay Arado Marketing Corp.	Esmeraldo Esfermo
7. Cagangon (Burauen)	N/A	N/A
8. Limburan (Burauen)	N/A	N/A
9. Malabca (Burauen)	N/A	N/A
10. San Esteban (Burauen)	Farmers Credit Corporation KKK	Alfonso Sax Sr. Noli Comora

2. Were the respondents consulted on their respective roles and responsibilities?

Some respondents indicated they were not consulted and/or briefed on their proposed roles and responsibilities on the planning, design and construction of their water supply facilities. The others, however, were consulted but in varying degrees. This situation was also true for the operation and maintenance and financing aspects of the system.

TABLE 32: RESPONDENTS CONSULTED IN PAST WATSAN PROJECTS

BWSA ACTIVITIES	YES		NO	
	M	F	M	F
1. Planning & Design	10	44	-	-
2. Construction Facilities	40	56	-	-
3. O&M of the System	19	59	-	-
4. Financing of the System	4	34	-	-

3. Were the respondents consulted when the BWSA was formed?

Most of the respondents claimed they are not members of the BWSA. Thus, only a few respondents were actually consulted on the different important activities of the water supply and sanitation association as of the time the interviews were held, as shown in Table 33.

TABLE 33: WERE YOU CONSULTED WHEN:

ACTIVITIES	YES		NO	
	M	F	M	F
1. BWSA was formed in the Brgy.	19	23	-	-
2. Water fee was decided upon	1	13	-	-
3. Level or type of service was agreed upon	-	23	-	-
4. Facilities were constructed	39	23	-	-

4. How did the respondents participate in past construction projects?

Around 28% of the respondents did not say the nature of their participation in past construction projects. But the majority or 67 % said that they provided labor. An insignificant number provided/donated either cash, materials or a site for the WATSAN facilities.

TABLE 34: PARTICIPATION IN PAST CONSTRUCTION PROJECTS

TYPE OF PARTICIPATION	RESPONDENTS		T	%
	M	F		
1. Contributed Cash	1	-	1	0.44
2. Provided labor	80	73	153	66.81
3. Donated Site	3	1	4	1.75
4. Provided Materials	4	-	4	1.75
5. Others	3	-	3	1.31
6. No response	15	49	64	27.94
TOTAL	106	123	229	100

5. **Will the respondents participate in future projects?**

For future projects, the respondents, as a whole, were willing to participate and/or contribute for future WATSAN projects. There were a few who did not volunteer to participate depending on the activity to be undertaken such as in the formulation of water rates and in the selection of sites.

TABLE 35: WILLINGNESS/TYPE OF PARTICIPATION IN FUTURE PROJECTS

PROJECT ACTVITIES	YES		NO	
	M	F	M	F
1. Formation of BWSA	106	117	-	6
2. Formulation of water rates	50	112	56	11
3. Selection of sites and levels of services	85	-	21	11
4. Construction of facilities	106	123	-	-
5. Operation and maintenance	106	123	-	-

H. **Financial Aspects**

1. **Are respondents presently paying for their water supply?**

Majority of the respondents, or 81% claimed that they do not pay for their water supply. Only 14% or 8 males and 25 females, paid their bills. The rest of respondents, or 5%, all of them females, did not respond to this question.

TABLE 36: NUMBER OF RESPONDENTS PRESENTLY PAYING WATER FEE

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	8	25	33	14
2. No	98	87	185	81
3. No response	-	11	11	5
TOTAL	106	123	229	100

2. **If so, how much per household per month?**

Around 9% of the respondents spent above P50.00 for water; while 6% spent below P5.00. Again, the rest, now a high 85%, did not respond nor pay for the water they consumed.

TABLE 37: PRESENT WATER FEES PAID

WATER FEES	RESPONDENTS		T	%
	M	F		
Below P 5.00	-	13	13	6
P 6.00 to P 10.00	-	-	-	-
P 11.00 to P 20.00	-	-	-	-
P 21.00 to P 30.00	-	-	-	-
P 31.00 to P 40.00	-	-	-	-
P 41.00 to P 50.00	-	-	-	-
Above P 50.00	8	12	20	9
No Pay/No Response	98	98	196	85
TOTAL	106	123	229	100

3. **Is the water fee enough for O&M?**

All the respondents were uncertain if the water fee being collected was adequate for the operation and maintenance of the system.

TABLE 38: ADEQUACY OF WATER FEE FOR O&M

RESPONSE	RESPONDENTS			%
	M	F		
1. Yes 2. No	N/A			
TOTAL				

All the respondents were also uncertain or were not sure of the reasons why the fees being collected were not adequate for the operation and maintenance of facilities.

TABLE 39: IF NOT ADEQUATE, STATE THE REASON/S

REASON/S	M	F	T	%
1. Water fee is low 2. O&M cost is too high 3. Not all water users pay their Water fee 4. Others/Uncertain	N/A			
TOTAL				

4. **Who shoulders the O&M of Facilities?**

Around 77% of the respondents claimed it was the barangay council that shouldered the operation and maintenance costs. The rest either did not know, or had no response.

TABLE 40: RESPONSIBILITY FOR SHOULDERING THE O&M COSTS

PERSON/ORGANIZATION	RESPONDENTS		T	%
	M	F		
1. Barangay Council	90	87	177	77.30
2. WATSAN Association	-	-	-	-
3. Private Owner	4	23	27	11.79
4. Don't know	2	-	2	0.87
5. Others	2	13	15	6.55
6. No response	8	-	8	3.49
TOTAL	106	123	229	100

5. **Are the people willing to pay for O&M of future facilities?**

A high 97% of the respondents expressed willingness to pay for the operation and maintenance of future WATSAN facilities. Those who categorically said no were all male respondents, making up 3% of the total interviewees.

TABLE 41: RESPONDENTS' WILLINGNESS TO PAY FOR FUTURE FACILITIES

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	100	123	223	97
2. No	6	-	6	3
TOTAL	23	123	229	100

6. **How much are respondents willing to pay?**

The majority of those who were willing to pay, or around 67% of the total respondents claimed they could pay from P 6.00 to around P10.00. Around 29% wanted to pay water fees of below P5.00 only; the rest put the cost at P11.00 to P20.00.

TABLE 42: AMOUNT RESPONDENTS ARE WILLING TO PAY

RESPONSE	RESPONDENTS		T	%
	M	F		
Below P 5.00	39	27	66	28.82
P 6.00 to P 10.00	58	95	153	66.81
P 11.00 to P 20.00	3	1	4	1.75
P 21.00 to P 30.00	-	-	-	-
P 31.00 to P 40.00	-	-	-	-
P 41.00 to P 50.00	-	-	-	-
Above P 50.00	-	-	-	-
No response	6	-	6	2.62
TOTAL	106	123	229	100

7. **Are you willing to contribute for future projects?**

About 99% of the respondents indicated their willingness to contribute in cash or in kind for the construction of WATSAN facilities in their respective barangays. Only 1% of the respondents, all of them male, said they are not willing to contribute because the government must provide water for free.

TABLE 43: WILLINGNESS TO CONTRIBUTE FOR FUTURE FACILITIES

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	104	123	227	99
2. No	2	-	2	1
TOTAL	106	123	229	100

TABLE 44: IF NOT WILLING, STATE THE REASON/S

REASON/S	M	F	T	%
1. Cannot afford to pay	5	-	5	2
2. Gov't must provide water for free	18	25	43	19
3. Water service is not good	-	-	-	-
4. Others (Specify)	-	-	-	-
5. No Response	83	98	181	79
TOTAL	106	123	229	100

8. **If so, what kind?**

Almost all the respondents said that they preferred to provide free labor as a manifestation of their contribution to future WATSAN facilities.

TABLE 45: TYPES OF CONTRIBUTION

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Will free provide labor	104	117	221	97
2. Will donate site	-	-	-	-
3. Will provide materials	-	-	-	-
4. Others	-	-	-	-
5. No response	2	6	8	3
TOTAL	106	123	229	100

9. **Reason/s for not Contributing**

While the majority of the respondents no longer responded to the question, those who did still were of the mistaken notion that the government should provide water for free.

TABLE 46: IF NOT WILLING TO CONTRIBUTE, STATE REASONS:

REASONS	RESPONDENTS		T	%
	M	F		
1. Cannot afford to contribute	1	-	1	0.44
2. No land/site to contribute	-	-	-	-
3. Government should provide water for free	22	31	53	23.14
4. No Response	83	92	175	76.42
TOTAL	106	123	229	100

I. Health and Sanitation

1. Type of toilet

The majority of the respondents (175, or 77%) used toilet with flushes to a septic tank on the site. The rest were divided on the following: private pit latrine (37, or 16%); shared flush toilet with septic tank (9, or 4%); and bush or other open outdoor site (8, or 3%).

TABLE 47: TYPES OF TOILETS RESPONDENTS USE

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Toilet w/ flushes to septic tank on the site	72	103	175	77
2. Toilet w/ flushes/ drops straight to sea	-	-	-	-
3. Private pit latrine	26	11	37	16
4. Shared flush toilet w/ septic tank	8	1	9	4
5. Public toilet	-	-	-	-
6. Bush or other open outdoor site	-	8	8	3
7. Pour Flush Water	-	-	-	-
8. Others	-	-	-	-
TOTAL	106	123	229	100

2. Who got sick during the past year? What sickness?

About 56% were uncertain as to the types of illnesses that afflicted their family members in the past year. But reported illnesses were diarrhea (26); followed by skin disease (21); schistosomiasis (19); kidney trouble (16), gastro-enteritis (15) and typhoid fever (1) and malaria (1). The children were the household members, together with their parents, were equally afflicted with illnesses in the past year.

TABLE 48: WATER ILLNESSES

DISEASE	RESPONDENTS		T	%
	M	F		
1. Diarrhea	15	11	26	11.35
2. Kidney trouble	11	5	16	6.99
3. Gastro-enteritis	10	5	15	6.55
4. Cholera	-	-	-	-
5. Typhoid fever	1	-	1	0.44
6. Malaria	1	-	1	0.44
7. Skin Disease	16	5	21	9.17
8. Schistosomiasis	9	10	19	8.29
9. Others	1	2	3	1.31
10. Uncertain	42	85	127	55.46
TOTAL	106	123	229	100

TABLE 49: HOUSEHOLD MEMBERS FREQUENTLY GOT SICK IN 1998

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Husband	12	13	25	11
2. Wife	10	14	24	10
3. Father	3	2	5	2
4. Mother	5	3	8	4
5. Male Children	12	14	26	11
6. Female Children	4	19	23	10
7. Grandmother	-	-	-	-
8. Grandfather	-	-	-	-
9. Others	-	-	-	-
10. Uncertain	60	58	118	52
TOTAL	106	123	229	100

3. Health and hygiene practices

All of the respondents recognized the importance of good health and hygiene practices. Most of the respondents, whether male or female, learned about health and sanitation matters mostly from health workers/inspectors and from clinics, and from the broadcast media or TV/radio.

TABLE 50: DO YOU RECEIVE/GET INFORMATION ABOUT HEALTH AND SANITATION

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	106	123	229	100
2. No	-	-	-	-
TOTAL	106	123	229	100

TABLE 51: WHERE PEOPLE LEARNED HEALTH AND HYGIENE EDUCATION

RESPONSE	RESPONDENTS	
	M	F
1. Radio	33	91
2. Newspapers	2	27
3. Television	43	80
4. NGOs	11	10
5. Family and Friends	14	45
6. Health Clinics/Hospitals	81	107
7. Health workers/ inspectors	89	109
8. School	17	83
9. Others/HMO	-	14

5.8.5 Utilization of NGOs

List of NGOs/CBOs for Leyte

Name of NGOs/PSOs/POs	Expertise	Current/Recent Projects
1. Leyte Federation of Women's Club	a. Community Service b. Woman Information Center c. Credit Assistance	a. Tubig Kada Panimalay (Water in Every Home) b. Promotion and Distribution Of Iodized Salt c. Beautification d. Livelihood Caravan Cum Capitalization
2. Runggiyan Social Development Foundation	a. Gender and Development b. Child Welfare	a. Installation of Artesian Wells funded by the PMS b. Construction of Core Shelter c. Construction of School Buildings
3. Rural Improvement Club of Babatngon (RIC)	a. Food Processing	a. Kindergarten School b. Selling of Processed Food

5.8.6 Existing Community Development Process

Detailed Typical CD Process in Agusan del Sur

1) **Make courtesy calls**. Courtesy calls are made to barangay/sitio officials prior to the conduct of meetings with the community. Then, a series of meetings and community assemblies are done where the WATSAN program is introduced, its significance and impact taken up and the importance of organizing promoted. This is followed by a more detailed presentation/orientation of the project – its concept, features, history, stakeholders, and the CO process utilized. Depending on the level of community awareness regarding the program/project, two or three meetings/assemblies are needed before doing the baseline survey.

2) **Preparation of profile (secondary information) and survey forms.**

(a) **General information**. Distance from barangay to poblacion, mode of travel, time and fare; no. of sitio/purok; dominant ethnic groups, common occupation of residents; demographic data (no. of household, male and female population) by sitio/purok, no, of dwelling structures, school buildings, other buildings, availability of electricity by sitio/purok.

(b) **Barangay WATSAN status.** Existing water supply system, by sitio/purok, by type and service level, no. of facilities (functioning), portability, no, of HH served, who installed, who operates, user charges, if any; HHs toilet facilities, by sitio/purok, no. of HHs with private toilets by type, no. HH using shared toilets by type, no. of HH without toilets; no. of community waste disposal systems by sitio/purok, by method and wastewater system; no. of reported morbidity and mortality cases of water-borne/contact/vector-borne disease of barangay residents.

(c) **WATSAN related programs and project in the barangay**. Existing WATSAN program/project by type of activity, implementing organization/agency, sponsoring funding agency, specify years when operated in barangay, name of community association organized, if any; past WATSAN programs/projects by type of activity, implementing organization/agency, sponsoring funding agency, specify years when operated, name of community association organized, if any; Community organizations in the barangay, WATSAN related groups/organization and other community organizations, its name of group/organization, sitios where members are, sponsoring agencies, year

organized and status; other barangay facilities.

(d) Resources for barangay water supply and toilet facilities fabrication. Brief description of water sources-undeveloped springs, streams and other water sources which can be tapped and developed, source which can be improve including estimated distance to center of HHs to be served, availability of water, estimated flows during dry and wet seasons; water and well depths by sitio/purok, by season; availability of construction materials for water supply and toilet if available for free at barangay or at hardware/other stores, its sources, name and address of store, materials available, distance from barangay and means of transport for materials, sources of pumps and spare parts for pumps – name and address of dealer/store, types of pumps/parts available and distance from barangay; barangay residents with skills in water supply system construction and maintenance, type of skill, no. of persons and remarks; well drillers and water supply contractors who can be tapped for barangay works, their name address, services rendered and charging rates; local fabricators of toilet bowls, their name, location, type/description of toilet bowl.

3) **Identify of community volunteers.** As an initial step in community organizing, a core group of about 7 persons consisting of community leaders is formed. This is the formation of an informal community organization that will assist the CD worker in the preparation of CO strategies, community profiling, identification of project sites, and other work.

4) **Conduct baseline survey.** In the conduct of this survey, focus group discussion was applied and the result validated during barangay spot mapping. The barangay spot map reflects the location of structures (scaled) and different facilities/infrastructure. This serves as a planning tool in the development of WATSAN program for the area.

5) **Inspect/Identify project sites and validates projects.** An assembly is called again to present the results of the survey, its profile, assessment and needs. The CD team situates the community, i.e., where they are now in the sector. A member of the CD team will then facilitate the surfacing of thoughts from the group in terms of identifying the needs for WATSAN facilities, how project will be implemented in their area, how they facility will be designed and constructed, and how the community perceives their role in the project. In some cases, the community request technical assistance from the Center on site selection of identified areas.

6) **Conduct technical and community consultative meetings** of members and officers together with barangay officials. By this time, the one group has already specific projects to be implemented. Together with these interim officers, meetings with barangay officials are undertaken to determine local counterpart funding support to the program/project.

7) **Facilitate project implementation**. After funding has been assured, the CD team facilities the implementation of the project through supervision and monitoring progress of construction. Contribution from the community comes in the form of free labor (pahina).

8) **Consolidate BWSA Organization**. The core group formulates the by-laws and policies of the organization and have these ratified by the members. The election of BWSA officers follows. A barangay resolution is passed endorsing the association and submitted to the Municipal Development Council/Sangguniang Bayan for registration/accreditation. Parallel to this activity is the completion of the facility and in most cases, the turn-over of the facility to the newly-organized BWSA, which can coincide with the swearing-in of BWSA officials.

9) **Conduct training on skills and management to BWSA officials** by the Center. The module includes topics on: human resource development (self and group awareness, communication skills, group facilitation and conducting meeting, effective community work, leadership skills and roles of officers and members, and conflict management); technical (hydrogeology and site selection, well construction and identification of handpump parts, equipment plumbing tools and materials for construction and repairs, hand pump principles of operations, maintenance and approach in trouble shooting, spring development, types of spring, their characteristics and method of developing, operation and maintenance of tank, spring box and distribution line, excreta, liquid and solid disposal system, water related diseases-prevention/control and water quality surveillance); financial management; project planning management; and action planning.

10) **Undertake follow-up activities**. The CD team after the construction of the WATSAN facilities undertakes follow-up activities such as monitoring and evaluation and the provision of recommendations/adjustments on the O&M of the facilities, where needed.

Source: DILG/WATSAN UNDP-PHI as modified by Province of Agusan del Sur