

4.1.6 Water Supply Service Coverage

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

Through review of the number of water supply systems/facilities and the number of households that were derived from the questionnaire, it was found out that a great number of unserved population would be accounted as a balance between the total population and the population with any levels of services (including unsafe facilities) in application of the service level standard for Level I and II. To come up with more realistic service coverage, the unserved population in 1998 was referred to using the profile in the 1990 population census data, "Households by Main Source of Drinking Water and City/Municipality" prepared by NSO. The rest of the population, those who are not served by Level III and/or II systems, were considered to be covered by shared or own use of Level I facilities. The calculation procedure is as follows:

- Service percentage/population of Level III and Level II systems was estimated based on the questionnaire survey results.
- Percentage of unserved population (using undeveloped spring, lake water, river water, peddler, etc.) of respective municipality by urban and rural area, which were studied in the 1990 population census. Presently, only about 20% of the population as maximum level is not served with potable water supply especially those in the remote areas of the province.
- Population covered by Level I facilities was calculated as the balance between the total population and the population served by Level III & II systems and the unserved population.
- Level I population coverage was estimated with the assumption that 50% of the private facilities were shared by neighbors.

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

The number of households per shared public/private facility is estimated at 3 households in urban area and 6 in rural area as provincial averages, which are considered within reasonable level compared with the service level standard of Level I public facility (15 households/facility). However, the figure in the urban area of Banate is considered quite large. This reason seems to arise from a large number of non-reported/unidentified private wells.

Table 4.1.5 Estimation of Unserved Population by Municipality

Municipality/City	Area	Population and Household (1998)		Served Population			Unserved Population				Population Covered by Level I Facilities
		Number	HH Size	Level III	Level II	Total	Unserved Percentage (1995)		Unserved Population 1998		
							Total No. of HHs	No. of Unserved		%	
Ajuy	Urban	3,107	5.26	2,890		2,890	578	116	20	217	
	Rural	36,148	5.18	4,490	2,300	6,790	6,831	325	5	1,720	27,638
	Total	39,255	5.18	7,380	2,300	9,680	7,409	441	6	1,937	27,638
Alimodian	Urban	6,776	5.00	3,240		3,240	1,278	256	20	1,357	2,179
	Rural	24,175	5.55		2,175	2,175	4,107	821	20	4,833	17,167
	Total	30,951	5.42	3,240	2,175	5,415	5,385	1,077	20	6,190	19,346
Anilao	Urban	1,806	5.18	1,104		1,104	331	66	20	360	342
	Rural	19,997	5.36	330		330	3,544	275	8	1,552	18,115
	Total	21,803	5.34	1,434		1,434	3,875	341	9	1,912	18,457
Badiangan	Urban	1,680	5.13	490		490	315	18	6	96	1,094
	Rural	22,011	5.17		250	250	4,093	44	1	237	21,524
	Total	23,691	5.17	490		740	4,408	62	1	333	22,618
Balasan	Urban	3,602	5.19				666	5	1	27	3,575
	Rural	20,328	5.09				3,830	12	0	64	20,264
	Total	23,930	5.10				4,496	17	0	91	23,839
Banate	Urban	1,517	5.31				270	54	20	303	1,214
	Rural	24,923	5.39				4,368	874	20	4,987	19,936
	Total	26,440	5.39				4,638	928	20	5,290	21,150
Barotac Nuevo	Urban	3,844	5.32	2,010		2,010	697	18	3	99	1,735
	Rural	38,608	5.25	4,210		4,210	7,103	44	1	239	34,159
	Total	42,452	5.25	6,220		6,220	7,800	62	1	338	35,894
Barotac Viejo	Urban	3,945	5.22				716	143	20	788	3,157
	Rural	31,560	5.47	2,880	1,575	4,455	5,467	963	18	5,559	21,546
	Total	35,505	5.44	2,880	1,575	4,455	6,183	1,106	18	6,347	24,703
Batad	Urban	1,168	4.73	780	75	855	233	47	20	236	77
	Rural	15,093	5.21		1,625	1,625	2,734	245	9	1,353	12,115
	Total	16,261	5.17	780	1,700	2,480	2,967	292	10	1,588	12,193

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

Name of Municipality/City	Area	Population and Household (1998)		Served Population			Unserved Population			Population Covered by Level I Facilities		
		Number	HH Size	Level III	Level II	Total	Unserved Percentage (1995)		Unserved Population 1998			
							Total No. of HHs	No. of Unserved			%	
Bingawan	Urban	3,357	4.81					664	5	1	25	3,332
	Rural	8,731	5.10					1,629	11	1	59	8,672
	Total	12,088	5.01					2,293	16	1	84	12,004
Cabatuan	Urban	43,852	5.30	2,490	375	2,865		7,980	582	7	3,198	37,789
	Rural											
	Total	43,852	5.30	2,490	375	2,865		7,980	582	7	3,198	37,789
Calinog	Urban	5,014	5.21	1,764		1,764		890	178	20	1,003	2,247
	Rural	44,091	5.32	150		150		7,669	996	13	5,726	38,215
	Total	49,105	5.31	1,914		1,914		8,559	1,174	14	6,729	40,462
Carles	Urban	2,349	5.06					435	87	20	470	1,879
	Rural	46,979	5.35		2,425	2,425		8,235	401	5	2,288	42,266
	Total	49,328	5.33		2,425	2,425		8,670	488	6	2,757	44,146
Concepcion	Urban	4,455	5.57					758	152	20	893	3,562
	Rural	27,296	5.19		185	185		4,988	824	17	4,509	22,602
	Total	31,751	5.24		185	185		5,746	976	17	5,403	26,163
Dingle	Urban	5,917	4.94	1,960		1,960		1,174	235	20	1,184	2,773
	Rural	30,470	5.16	6,758	1,400	8,158		5,782	676	12	3,562	18,750
	Total	36,387	5.12	8,718	1,400	10,118		6,956	911	13	4,747	21,522
Duenias	Urban	4,982	5.29	1,950		1,950		916	141	15	767	2,265
	Rural	24,784	5.29					4,555	347	8	1,888	22,896
	Total	29,766	5.29	1,950		1,950		5,471	488	9	2,655	25,161
Dumangas	Urban	1,884	4.92	1,165		1,165		371	74	20	376	343
	Rural	50,816	5.13	6,215	175	6,390		9,604	596	6	3,154	41,272
	Total	52,700	5.12	7,380	175	7,555		9,975	670	7	3,529	41,616
Estancia	Urban	7,965	5.29	3,270		3,270		1,379	5	0	29	4,666
	Rural	25,547	5.16					4,531	11	0	62	25,485
	Total	33,512	5.19	3,270		3,270		5,910	16	0	91	30,151

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

Name of Municipality/City	Area	Population and Household (1998)		Served Population			Unserved Population				Population Covered by Level I Facilities
		Number	HH Size	Level III	Level II	Total	Unserved Percentage (1995)		Unserved Population 1998		
							Total No. of HHs	No. of Unserved		%	
Gumbal	Urban	7,192	5.58	3,708		3,708	1,183	57	5	347	3,137
	Rural	21,473	5.51		275	275	3,578	140	4	840	20,338
	Total	28,665	5.53	3,708	275	3,983	4,761	197	4	1,187	23,495
Igbaras	Urban	5,332	5.10				1,012	202	20	1,064	4,268
	Rural	21,499	5.04		950	950	4,131	826	20	4,299	16,250
	Total	26,831	5.05		950	950	5,143	1,028	20	5,363	20,518
Janiuay	Urban	8,557	5.09	2,406		2,406	1,597	319	20	1,709	4,442
	Rural	44,163	5.40	168		168	7,762	1,552	20	8,830	35,165
	Total	52,720	5.35	2,574		2,574	9,359	1,871	20	10,540	39,606
Lambunao	Urban	4,484	5.65				753	151	20	899	3,585
	Rural	57,531	5.66				9,632	1,650	17	9,855	47,676
	Total	62,015	5.66				10,385	1,801	17	10,754	51,261
Leganes	Urban	6,921	5.14	300		300	1,293	5	0	27	6,594
	Rural	13,102	5.37	150	675	825	2,342	12	1	67	12,210
	Total	20,023	5.29	450	675	1,125	3,635	17	0	94	18,804
Lemery	Urban	2,729	4.70				555	44	8	216	2,513
	Rural	19,099	5.01		200	200	3,646	107	3	561	18,338
	Total	21,828	4.97		200	200	4,201	151	4	777	20,851
Leon	Urban	4,830	5.33	1,758		1,758	836	167	20	965	2,107
	Rural	39,667	5.62	1,350	1,350	2,700	6,512	1,302	20	7,931	29,036
	Total	44,497	5.59	3,108	1,350	4,458	7,348	1,469	20	8,896	31,143
Maasin	Urban	3,200	5.93	585		585	527	105	20	638	1,977
	Rural	26,869	5.87	730	25	755	4,470	894	20	5,374	20,740
	Total	30,069	5.88	1,315	25	1,340	4,997	999	20	6,011	22,718
Miagao	Urban	8,137	5.51	2,112		2,112	1,444	289	20	1,629	4,396
	Rural	45,369	5.18	875	875	875	8,558	1,211	14	6,420	38,074
	Total	53,506	5.23	2,112	875	2,987	10,002	1,500	15	8,048	42,471

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

Name of Municipality/City	Area	Population and Household (1998)		Served Population			Unserved Population			Population Covered by Level I Facilities	
		Number	HH Size	Level III	Level II	Total	Unserved Percentage (1995)		Unserved Population 1998		
							Total No. of HHs	No. of Unserved			%
Mina	Urban	2,319	5.37					46	11	257	2,062
	Rural	14,763	5.45					113	4	641	14,122
	Total	17,082	5.44					159	5	898	16,184
New Lucena	Urban	2,641	5.12					102	20	530	2,111
	Rural	14,498	5.30	270		270		395	15	2,126	12,102
	Total	17,139	5.27	270		270		497	16	2,656	14,213
Oton	Urban	60,873	5.22	2,625		2,625		227	2	1,270	56,978
	Rural										
	Total	60,873	5.22	2,625		2,625		227	2	1,270	56,978
Passi City	Urban	8,625	5.32	8,550	75	8,625		313	20		
	Rural	53,085	5.28	2,466	125	2,591		1,942	20	10,618	39,876
	Total	61,710	5.28	11,016	200	11,216		2,255	20	10,618	39,876
Pavia	Urban	8,296	5.32	5,845		5,845		1,428			2,451
	Rural	20,904	5.19	7,964	1,025	8,989		3,688			11,915
	Total	29,200	5.23	13,809	1,025	14,834		5,116			14,366
Pototan	Urban	16,790	5.39	6,360		6,360		2,986	3	467	9,963
	Rural	42,002	5.24	435	100	535		7,679	3	1,116	40,351
	Total	58,792	5.28	6,795	100	6,895		10,665	3	1,583	50,314
San Dionisio	Urban	4,711	5.12	2,754		2,754		876	175	20	1,016
	Rural	21,843	5.23	2,754	1,925	1,925		3,973	795	20	15,547
	Total	26,554	5.21	2,754	1,925	4,679		4,849	970	20	16,563
San Enrique	Urban	2,112	5.34					381	76	20	1,691
	Rural	24,449	5.32					4,427	885	20	19,561
	Total	26,561	5.32					4,808	961	20	21,252
San Joaquin	Urban	4,484	5.52	1,303		1,303		750	150	20	2,284
	Rural	43,573	5.65	2,422	6,695	9,117		7,124	1,212	17	27,043
	Total	48,057	5.63	3,725	6,695	10,420		7,874	1,362	17	29,327

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

Name of Municipality/City	Area	Population and Household (1998)		Served Population			Unserved Population			Population Covered by Level I Facilities
		Number	HH Size	Level III	Level II	Total	Unserved Percentage (1995)		Unserved Population 1998	
							Total No. of HHs	No. of Unserved		
San Miguel	Urban	13,749	5.22	815		815		2,488		12,934
	Rural	6,170	5.12		425	425		1,138		5,745
	Total	19,919	5.19	815	425	1,240		3,626		18,679
San Rafael	Urban	3,144	5.23				61	567	338	2,806
	Rural	9,579	5.58				149	1,619	882	8,697
	Total	12,723	5.49				210	2,186	1,220	11,503
Santa Barbara	Urban	7,920	5.26	1,130		1,130	60	1,431	332	6,458
	Rural	33,801	5.13	1,315	150	1,465	147	6,260	794	31,542
	Total	41,721	5.16	2,445	150	2,595	207	7,691	1,126	38,000
Sara	Urban	3,852	5.06	582		582	90	725	478	2,792
	Rural	36,699	5.12	434	1,400	1,834	222	6,837	1,192	33,673
	Total	40,551	5.11	1,016	1,400	2,416	312	7,562	1,670	36,465
Tigbauan	Urban	8,335	5.56				148	1,413	873	7,462
	Rural	41,726	5.33		1,625	1,625	364	7,381	2,058	38,043
	Total	50,061	5.36		1,625	1,625	512	8,794	2,931	45,505
Tubungan	Urban	1,411	5.25		125	125	48	242	280	1,006
	Rural	19,075	5.51		1,300	1,300	624	3,119	3,816	13,959
	Total	20,486	5.49		1,425	1,425	672	3,361	4,096	14,965
Zarraga	Urban	3,134	5.19				38	551	216	2,918
	Rural	16,062	5.41				93	2,710	551	15,511
	Total	19,196	5.37				131	3,261	767	18,429
Provincial Total	Urban	310,998	5.26	63,946	650	64,596	5,138	56,061	26,223	220,179
	Rural	1,178,558	5.32	42,737	31,230	73,967	22,304	210,661	126,431	978,160
	Total	1,489,556	5.31	106,683	31,880	138,563	27,442	266,722	152,654	1,198,339

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

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

Population served by public facilities is calculated using Tables 4.1.6 (a) and 4.1.6 (b) as a balance between total population served by Level I facilities and population covered by private facilities. Thus, it is estimated that 485,200 persons or 73% of the population served by Level I facilities is covered by public facilities.

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

Name of Municipality/City	Area	Pop. Covered by Level I Facilities	Number of Facilities						Coverage of Own Use								
			Public Facilities			Private Facilities			Number of Private Facilities			(1) Population Covered					
			Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total			
Ajuy	Urban	4	2	5	8	4	12	4	2	6							
	Rural	86	35	121	273	205	478	136	103	239	718	539	1,257				
	Total	27,638	27,638	27,638	89	37	126	281	209	490	245	718	539	1,257			
Alimodian	Urban	53	15	68	134	58	192	67	29	96	334	146	480				
	Rural	354	68	422	97	57	154	48	29	77	242	144	385				
	Total	19,346	407	83	490	230	346	115	58	173	576	289	865				
Anilao	Urban	342	20	44													
	Rural	18,115	302	373	29	18	47	14	9	24	74	47	122				
	Total	18,457	321	398	719	18	47	14	9	24	74	47	122				
Badiangan	Urban	1,094	33	6	39	2	21	10	1	11	49	5	54				
	Rural	21,524	495	28	175	13	188	88	6	94	450	32	482				
	Total	22,618	528	34	562	14	209	97	7	105	499	37	536				
Balasan	Urban	3,575	22	10	4	2	5	2	1	3	9	4	13				
	Rural	20,264	239	102	341	2	3	1	0	2	5	2	8				
	Total	23,839	261	112	373	6	8	3	1	4	15	6	21				
Banate	Urban	1,214			2	2	2	1	1	5							
	Rural	19,936	123	55	177	340	171	510	170	85	255	901	1,354				
	Total	21,150	123	55	177	342	171	512	171	85	256	907	1,359				
Barotac Nuevo	Urban	1,735	30	2	32	180	3	183	90	2	92	479	8	487			
	Rural	34,159	973	132	1,105	1,590	231	1,821	795	116	911	4,229	614	4,844			
	Total	35,894	1,003	134	1,137	1,770	234	2,004	885	117	1,002	4,708	622	5,331			
Barotac Viejo	Urban	3,157	23	10	33	8	20	20	4	6	10	22	30	52			
	Rural	21,546	175	75	250	239	105	344	119	53	172	623	275	898			
	Total	24,703	198	85	283	247	117	364	124	58	182	645	305	950			
Batad	Urban	77	4	2	6	32	29	60	16	14	30	74	142				
	Rural	12,115	70	30	100	60	40	99	30	20	50	141	93	234			
	Total	12,193	75	32	106	91	68	159	46	34	80	215	161	376			
Bingawan	Urban	3,332	18	7	25	66	33	66	33	33	159	67	159				
	Rural	8,672	109	17	126	44	488	532	22	244	266	106	1,173	1,279			
	Total	12,004	127	24	151	110	488	598	55	244	299	265	1,173	1,438			
Cabatuan	Urban	37,789	253	79	332	868	344	1,212	434	172	606	911	3,212				
	Rural																
	Total	37,789	253	79	332	868	344	1,212	434	172	606	911	3,212				

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

Name of Municipality/City	Area	Pop. Covered by Level I Facilities	Number of Facilities						Coverage of Own Use					
			Public Facilities			Private Facilities			Number of Private Facilities			(1) Population Covered		
			Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total
Calinog	Urban	2,247	51	90	141	85	61	146	42	31	73	221	160	380
	Rural	38,215	182	199	381	106	505	611	53	252	306	277	1,314	1,592
	Total	40,462	233	289	522	191	566	757	96	283	379	498	1,474	1,972
Carles	Urban	1,879	5	2	7	13	21	34	6	11	17	32	54	86
	Rural	42,266	54	23	76	11	263	273	5	131	137	27	664	691
	Total	44,146	58	25	83	23	284	307	12	142	154	58	718	777
Concepcion	Urban	3,562	13	9	22	14	8	22	7	4	11	39	22	61
	Rural	22,602	50	64	114	176	115	291	88	57	146	491	319	810
	Total	26,163	63	73	136	190	123	313	95	61	157	530	342	872
Dingle	Urban	2,773	20	6	26	237	1	238	119	0	119	586	2	588
	Rural	18,750	564	41	605	1,321	5	1,326	660	3	663	3,263	13	3,275
	Total	21,522	584	47	631	1,558	6	1,564	779	3	782	3,848	15	3,863
Duenas	Urban	2,265	89	29	118	276	52	328	138	26	164	730	137	868
	Rural	22,896	410	207	617	398	147	545	199	74	273	1,052	390	1,442
	Total	25,161	498	237	735	674	199	873	337	100	437	1,782	527	2,309
Dumangas	Urban	343	4	4	7	1	1	2	1	0	1	3	1	5
	Rural	41,272	231	317	548	62	166	228	31	83	114	152	409	561
	Total	41,616	234	321	555	63	167	230	32	83	115	155	411	566
Estancia	Urban	4,666	6	2	8	13	14	27	6	7	14	33	38	71
	Rural	25,485	44	19	63	28	81	109	14	41	55	73	215	288
	Total	30,151	50	21	71	40	96	136	20	48	68	106	253	360
Gumbal	Urban	3,137	43	18	61	73	31	104	36	16	52	203	87	290
	Rural	20,358	401	233	633	449	332	781	225	166	391	1,254	925	2,179
	Total	23,495	443	251	694	522	363	885	261	181	443	1,457	1,012	2,469
Igaras	Urban	4,268	74	32	106	135	82	217	68	41	109	345	209	553
	Rural	16,250	301	54	355	193	432	624	96	216	312	491	1,100	1,591
	Total	20,518	375	86	461	328	513	841	164	257	421	835	1,309	2,145
Janiuay	Urban	4,442	80	34	114	473	203	675	236	101	338	1,203	515	1,718
	Rural	35,165	215	92	306	892	382	1,274	446	191	637	2,270	973	3,242
	Total	39,606	294	126	420	1,364	585	1,949	682	292	975	3,472	1,488	4,960
Lambunao	Urban	3,585	67	29	95	138	786	924	69	393	462	390	2,221	2,610
	Rural	47,676	501	215	715	316	948	1,264	158	474	632	892	2,679	3,571
	Total	51,261	567	243	810	454	1,734	2,188	227	867	1,094	1,281	4,900	6,181

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

Name of Municipality/City	Area	Pop. Covered by Level I Facilities	Number of Facilities						Coverage of Own Use					
			Public Facilities			Private Facilities			Number of Private Facilities			(1) Population Covered		
			Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total
Leganes	Urban	6,594	34	49	83	195	190	385	95	98	193	502	488	989
	Rural	12,210	156	29	184	112	177	289	89	56	145	288	455	743
	Total	18,804	190	77	267	307	367	674	183	154	337	790	942	1,732
Lemery	Urban	2,513	1	1	2	174	75	249	87	87	174	410	176	585
	Rural	18,338	22	9	31	1,536	1,021	2,557	768	511	1,279	3,609	2,400	6,009
	Total	20,851	23	10	33	1,710	1,096	2,806	855	548	1,403	4,019	2,575	6,594
Leon	Urban	2,107	14	6	20	262	112	374	131	56	187	698	299	997
	Rural	29,036	291	87	378	366	85	451	183	42	226	976	226	1,202
	Total	31,143	305	93	398	628	197	825	314	98	413	1,674	525	2,199
Maasin	Urban	1,977	19	7	26	66	28	94	33	14	47	195	84	279
	Rural	20,740	73	31	104	235	101	335	117	50	168	695	298	993
	Total	22,718	92	38	130	300	129	429	150	64	215	890	382	1,272
Miagao	Urban	4,396	123	86	209	69	88	157	34	44	79	189	244	433
	Rural	38,074	548	339	887	723	408	1,131	362	204	566	1,992	1,124	3,116
	Total	42,471	671	425	1,096	792	496	1,288	396	248	644	2,181	1,367	3,548
Mina	Urban	2,062	22	20	42	119	107	225	59	53	113	318	286	604
	Rural	14,122	120	191	311	482	292	774	241	146	387	1,295	783	2,078
	Total	16,184	142	211	353	601	398	999	300	199	500	1,613	1,069	2,682
New Lucena	Urban	2,111	25	6	31	25	10	35	12	5	18	63	26	90
	Rural	12,102	218	45	263	96	39	135	48	20	68	246	100	346
	Total	14,213	243	51	294	121	49	170	60	25	85	309	126	435
Oton	Urban	56,978	204	511	715	1,022	1,812	2,834	511	906	1,417	2,667	4,729	7,397
	Rural													
	Total	56,978	204	511	715	1,022	1,812	2,834	511	906	1,417	2,667	4,729	7,397
Passi City	Urban	39,876	190	53	243	165	132	297	82	66	149			
	Rural	39,876	1,139	110	1,249	809	212	1,020	404	106	510	2,151	563	2,713
	Total	79,752	1,329	163	1,492	973	344	1,317	487	172	659	2,151	563	2,713
Pavia	Urban	2,451	26	8	34	92	46	138	46	23	69	244	123	367
	Rural	11,915	188	63	251	500	256	756	250	128	378	1,350	681	2,011
	Total	14,366	214	71	285	592	303	894	296	151	447	1,573	805	2,378
Pototan	Urban	9,963	157	67	224	349	150	499	175	75	250	941	403	1,345
	Rural	40,351	385	230	615	722	361	1,083	361	181	542	1,945	974	2,919
	Total	50,314	542	297	839	1,071	511	1,582	536	256	791	2,886	1,377	4,263

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

Name of Municipality/City	Area	Pop. Covered by Level I Facilities	Number of Facilities						Coverage of Own Use					
			Public Facilities			Private Facilities			Number of Private Facilities			(1) Population Covered		
			Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total
San Dionisio	Urban	1,016	8	4	12	22	9	31	11	5	16	56	24	79
	Rural	15,547	450	263	713	14	102	116	7	51	58	36	261	297
	Total	16,563	459	267	725	36	111	147	18	56	74	91	285	376
San Enrique	Urban	1,691	3	1	4	22	10	32	11	5	16	60	26	85
	Rural	19,561	241	163	404	676	386	1,061	338	193	531	1,804	1,029	2,833
	Total	21,252	244	164	408	698	395	1,093	349	198	547	1,863	1,055	2,918
San Joaquin	Urban	2,284	13	15	28	274	117	391	137	59	196	755	324	1,079
	Rural	27,043	253	400	653	354	152	505	177	76	253	976	418	1,394
	Total	29,327	266	415	681	627	269	896	314	134	448	1,731	742	2,473
San Miguel	Urban	12,934	348	25	373	1,445	69	1,514	722	35	757	3,771	181	3,952
	Rural	5,745	290	10	300	227	32	259	113	16	130	592	84	676
	Total	18,679	638	35	673	1,672	101	1,773	836	51	887	4,363	265	4,628
San Rafael	Urban	2,806	51	110	161	9	119	128	55	5	60	288	24	311
	Rural	8,697	143	35	178	315	176	491	138	88	246	824	460	1,284
	Total	11,503	194	35	229	425	185	610	213	93	305	1,111	484	1,595
Santa Barbara	Urban	6,458	130	76	206	71	92	163	36	46	82	187	242	429
	Rural	31,542	359	76	435									
	Total	38,000	489	76	565	71	92	163	36	46	82	187	242	429
Sara	Urban	2,792	29		29	275		275	138		138	696		696
	Rural	33,673	540		540	1,840	182	2,022	920	91	1,011	4,655	460	5,116
	Total	36,465	569		569	2,115	182	2,297	1,058	91	1,149	5,351	460	5,811
Tigbauan	Urban	7,462	66	54	120	361	196	557	181	98	279	1,004	544	1,548
	Rural	38,043	371	616	987	732	1,139	1,870	366	569	935	2,034	3,165	5,199
	Total	45,505	437	670	1,107	1,093	1,334	2,427	546	667	1,214	3,038	3,709	6,747
Tubungan	Urban	1,006	23		23	45	2	47	23	1	24	118	5	123
	Rural	13,959	264	9	273	100	44	144	50	22	72	263	115	378
	Total	14,965	287	9	296	145	46	191	73	23	96	381	120	501
Zarraga	Urban	2,918	104	56	160	65	28	93	33	14	47	169	72	241
	Rural	15,511	139	90	229	249	114	362	124	57	181	645	295	939
	Total	18,429	243	146	389	314	141	455	157	71	228	814	367	1,181
Provincial Total	Urban	220,179	2,500	1,381	3,880	8,004	4,995	12,999	4,002	2,497	6,500	20,547	12,917	33,464
	Rural	978,160	12,065	5,173	17,238	16,883	9,980	26,863	8,442	4,990	13,432	44,084	26,266	70,350
	Total	1,198,339	14,564	6,554	21,118	24,887	14,975	39,862	12,444	7,487	19,931	64,630	39,183	103,814

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

Name of Municipality/City	Area	Coverage of Shared Well						Level II Coverage (1) + (2)										
		(2) Population Covered by Private and Public			Number of Households			No. of HHs per Shared Facility	Safe		Unsafe		Total					
		Safe	Unsafe	Total	Safe	Unsafe	Total		Pop.	%	Pop.	%		Pop.	%			
Ajuy	Urban																	
	Rural	17,070	9,311	26,381	3,295	1,797	5,093	14	17,788	49	9,850	27	27,638	76				
	Total	17,070	9,311	26,381	3,295	1,797	5,093	14	17,788	45	9,850	25	27,638	70				
Alimodian	Urban	1,592	107	1,699	318	21	340	2	1,926	28	252	4	2,179	32				
	Rural	13,827	2,956	16,782	2,491	533	3,024	6	14,068	58	3,099	13	17,167	71				
	Total	15,419	3,062	18,481	2,810	554	3,364	5	15,995	52	3,351	11	19,346	63				
Anilao	Urban	152	190	342	29	37	66	2	152	8	190	10	342	19				
	Rural	8,197	9,797	17,994	1,529	1,828	3,357	5	8,271	41	9,844	49	18,115	91				
	Total	8,349	9,987	18,335	1,559	1,864	3,423	5	8,423	39	10,034	46	18,457	85				
Badiangan	Urban	942	99	1,040	184	19	203	4	991	59	103	6	1,094	65				
	Rural	20,321	721	21,042	3,931	140	4,070	7	20,771	94	754	3	21,524	98				
	Total	21,262	820	22,082	4,114	159	4,273	6	21,761	92	857	4	22,618	95				
Balasan	Urban	2,502	1,060	3,562	482	204	686	20	2,512	70	1,063	30	3,575	99				
	Rural	14,185	6,072	20,257	2,787	1,193	3,980	12	14,190	70	6,074	30	20,264	100				
	Total	16,687	7,131	23,819	3,269	1,397	4,666	12	16,702	70	7,137	30	23,839	100				
Banate	Urban	1,208		1,208	228		228	228	1,214	80			1,214	80				
	Rural	13,487	5,095	18,582	2,502	945	3,448	8	14,388	58	5,548	22	19,936	80				
	Total	14,695	5,095	19,790	2,730	945	3,675	8	15,602	59	5,548	21	21,150	80				
Barotac Nuevo	Urban	1,248		1,248	235		235	2	1,727	45	8	0	1,735	45				
	Rural	29,315		29,315	5,584		5,584	3	33,544	87	614	2	34,159	88				
	Total	30,563		30,563	5,818		5,818	3	35,271	83	622	1	35,894	85				
Barotac Viejo	Urban	2,004	1,101	3,105	384	211	595	14	2,026	51	1,131	29	3,157	80				
	Rural	15,044	5,604	20,648	2,750	1,025	3,775	9	15,667	50	5,879	19	21,546	68				
	Total	17,048	6,705	23,753	3,134	1,235	4,370	9	17,693	50	7,010	20	24,703	70				
Batad	Urban								74	6	67	6	142	12				
	Rural	8,108	3,773	11,881	1,556	724	2,280	15	8,249	55	3,867	26	12,115	80				
	Total	8,108	3,773	11,881	1,556	724	2,280	12	8,323	51	3,934	24	12,257	75				
Bingawan	Urban	2,935	238	3,173	610	49	660	11	3,094	92	238	7	3,332	99				
	Rural	2,902	4,490	7,393	569	880	1,450	4	3,009	34	5,663	65	8,672	99				
	Total	5,838	4,728	10,566	1,179	930	2,109	5	6,103	50	5,901	49	12,004	99				

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

Name of Municipality/City	Area	Coverage of Shared Well										Level I Coverage (1) + (2)					
		(2) Population Covered by Private and Public			Number of Households			No. of HHs per Shared Facility	Safe		Unsafe		Total				
		Safe	Unsafe	Total	Safe	Unsafe	Total		Pop.	%	Pop.	%	Pop.	%			
Cabatuan	Urban	27,673	6,904	34,577	5,221	1,303	6,524	7	29,974	68	7,815	18	37,789	86			
	Rural																
	Total	27,673	6,904	34,577	5,221	1,303	6,524	7	29,974	68	7,815	18	37,789	86			
Calinog	Urban	981	886	1,867	188	170	358	2	1,202	24	1,045	21	2,247	45			
	Rural	13,093	23,530	36,623	2,461	4,423	6,884	10	13,370	30	24,845	56	38,215	87			
	Total	14,074	24,416	38,490	2,649	4,593	7,242	8	14,572	30	25,890	53	40,462	82			
Carles	Urban	877	916	1,793	173	181	354	15	909	39	970	41	1,879	80			
	Rural	11,685	29,890	41,576	2,184	5,387	7,771	37	11,712	25	30,554	65	42,266	90			
	Total	12,562	30,806	43,369	2,358	5,768	8,126	34	12,621	26	31,525	64	44,146	89			
Concepcion	Urban	2,115	1,385	3,500	380	249	628	19	2,154	48	1,407	32	3,562	80			
	Rural	12,067	9,724	21,791	2,325	1,874	4,199	16	12,558	46	10,043	37	22,602	83			
	Total	14,183	11,109	25,292	2,705	2,122	4,827	17	14,713	46	11,451	36	26,163	82			
Dingle	Urban	2,185		2,185	442		442	3	2,770	47	2	0	2,773	47			
	Rural	15,474		15,474	2,999		2,999	2	18,737	61	13	0	18,750	62			
	Total	17,659		17,659	3,441		3,441	2	21,507	59	15	0	21,522	59			
Duenias	Urban	1,398		1,398	264		264	1	2,128	43	137	3	2,265	45			
	Rural	15,660	5,794	21,454	2,960	1,095	4,056	5	16,712	67	6,184	25	22,896	92			
	Total	17,058	5,794	22,852	3,225	1,095	4,320	4	18,840	63	6,321	21	25,161	85			
Dumangas	Urban	180	158	338	37	32	69	9	184	10	160	8	343	18			
	Rural	16,313	24,399	40,712	3,180	4,756	7,936	12	16,464	32	24,808	49	41,272	81			
	Total	16,493	24,557	41,050	3,216	4,788	8,005	12	16,648	32	24,968	47	41,616	79			
Estancia	Urban	2,583	2,012	4,595	488	380	869	40	2,616	33	2,050	26	4,666	59			
	Rural	12,623	12,573	25,197	2,446	2,437	4,883	42	12,696	50	12,789	50	25,485	100			
	Total	15,206	14,586	29,791	2,935	2,817	5,752	41	15,312	46	14,839	44	30,151	90			
Guimbal	Urban	2,196	651	2,847	394	117	510	5	2,399	33	738	10	3,137	44			
	Rural	12,435	5,743	18,179	2,257	1,042	3,299	3	13,689	64	6,669	31	20,358	95			
	Total	14,632	6,394	21,026	2,650	1,159	3,810	3	16,089	56	7,407	26	23,495	82			
Igbaras	Urban	2,820	894	3,714	553	175	728	3	3,165	59	1,103	21	4,268	80			
	Rural	9,671	4,988	14,659	1,919	990	2,909	4	10,162	47	6,088	28	16,250	76			
	Total	12,491	5,882	18,373	2,472	1,165	3,637	4	13,327	50	7,191	27	20,518	76			

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

Name of Municipality/City	Area	Coverage of Shared Well						Level I Coverage (1) + (2)					
		(2) Population Covered by Private and Public			Number of Households			Safe		Unsafe		Total	
		Safe	Unsafe	Total	Safe	Unsafe	Total	Pop.	%	Pop.	%	Pop.	%
					No. of HHs per Shared Facility								
Janjuy	Urban	2,724		2,724	535		535	3,926	46	515	6	4,442	52
	Rural	24,626	7,296	31,922	4,560	1,351	5,912	26,896	61	8,269	19	35,165	80
	Total	27,350	7,296	34,646	5,096	1,351	6,447	30,822	58	8,784	17	39,606	75
Lambunao	Urban	872	103	975	154	18	172	1,261	28	2,324	52	3,585	80
	Rural	23,302	20,803	44,105	4,117	3,675	7,792	24,193	42	23,482	41	47,676	83
	Total	24,173	20,906	45,079	4,271	3,694	7,965	25,455	41	25,806	42	51,261	83
Leganes	Urban	3,158	2,446	5,605	614	476	1,090	3,660	53	2,934	42	6,594	95
	Rural	7,861	3,606	11,467	1,464	672	2,135	8,149	62	4,061	31	12,210	93
	Total	11,019	6,052	17,072	2,078	1,147	3,226	11,809	59	6,995	35	18,804	94
Lemery	Urban	1,759	169	1,927	374	36	410	2,168	79	344	13	2,513	92
	Rural	11,058	1,272	12,330	2,207	254	2,461	14,667	77	3,672	19	18,338	96
	Total	12,817	1,440	14,257	2,581	290	2,871	16,835	77	4,016	18	20,851	96
Leon	Urban	1,110		1,110	208		208	1,808	37	299	6	2,107	44
	Rural	22,798	5,036	27,834	4,057	896	4,953	23,774	60	5,262	13	29,036	73
	Total	23,909	5,036	28,945	4,265	896	5,161	25,583	57	5,561	12	31,143	70
Maasin	Urban	1,400	298	1,699	236	50	286	1,596	50	382	12	1,977	62
	Rural	14,541	5,206	19,747	2,477	887	3,364	15,236	57	5,504	20	20,740	77
	Total	15,942	5,504	21,446	2,713	937	3,651	16,832	56	5,886	20	22,718	76
Miagao	Urban	2,409	1,555	3,964	437	282	719	2,597	32	1,799	22	4,396	54
	Rural	23,834	11,124	34,958	4,601	2,148	6,749	25,826	57	12,248	27	38,074	84
	Total	26,242	12,680	38,922	5,038	2,430	7,468	28,424	53	14,047	26	42,471	79
Mina	Urban	1,086	372	1,458	202	69	271	1,404	61	658	28	2,062	89
	Rural	7,310	4,734	12,044	1,341	869	2,210	8,605	58	5,517	37	14,122	96
	Total	8,395	5,106	13,502	1,543	938	2,481	10,009	59	6,175	36	16,184	95
New Lucena	Urban	1,615	407	2,021	315	79	395	1,678	64	433	16	2,111	80
	Rural	9,739	2,018	11,757	1,837	381	2,218	9,984	69	2,118	15	12,102	83
	Total	11,353	2,425	13,778	2,153	460	2,613	11,662	68	2,551	15	14,213	83
Oton	Urban	19,119	30,462	49,582	3,663	5,836	9,498	21,787	36	35,192	58	56,978	94
	Rural												
	Total	19,119	30,462	49,582	3,663	5,836	9,498	21,787	36	35,192	58	56,978	94

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

Name of Municipality/City	Area	Coverage of Shared Well										Level I Coverage (1) + (2)								
		(2) Population Covered by Private and Public					Number of Households					No. of HHs per Shared Facility	Safe			Unsafe			Total	
		Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total	Pop.		%	Pop.	%	Pop.	%	Pop.	%	
																				Pop.
Passi City	Urban	34,978	2,185	37,163	6,625	414	7,038	4	37,129	70	2,747	5	39,876	75						
	Rural	34,978	2,185	37,163	6,625	414	7,038	3	37,129	60	2,747	4	39,876	65						
	Total	1,713	371	2,084	322	70	392	4	1,957	24	494	6	2,451	30						
Pavia	Urban	8,296	1,608	9,904	1,598	310	1,908	3	9,626	46	2,289	11	11,915	57						
	Rural	10,009	1,979	11,988	1,921	379	2,300	3	11,583	40	2,783	10	14,366	49						
	Total	6,974	1,644	8,618	1,294	305	1,599	3	7,916	47	2,048	12	9,963	59						
Pototan	Urban	26,023	11,409	37,432	4,966	2,177	7,144	6	27,968	67	12,383	29	40,351	96						
	Rural	32,998	13,053	46,051	6,260	2,482	8,743	5	35,884	61	14,431	25	50,314	86						
	Total	711	225	937	139	44	183	7	767	16	249	5	1,016	22						
San Dionisio	Urban	9,217	6,033	15,250	1,762	1,154	2,916	4	9,253	42	6,294	29	15,547	71						
	Rural	9,929	6,258	16,187	1,901	1,198	3,099	4	10,020	38	6,543	25	16,563	62						
	Total	1,183	422	1,605	222	79	301	15	1,243	59	447	21	1,691	80						
San Enrique	Urban	12,115	4,614	16,729	2,277	867	3,144	3	13,918	57	5,643	23	19,561	80						
	Rural	13,298	5,036	18,334	2,499	946	3,445	4	15,162	57	6,091	23	21,252	80						
	Total	1,205	1,205	2,410	218	218	436	1	1,960	44	324	7	2,284	51						
San Joaquin	Urban	12,847	12,803	25,649	2,274	2,266	4,540	5	13,822	32	13,221	30	27,043	62						
	Rural	14,052	12,803	26,854	2,492	2,266	4,758	4	15,783	33	13,545	28	29,327	61						
	Total	8,982	8,982	17,964	1,721	1,721	3,479	2	12,753	93	181	1	12,934	94						
San Miguel	Urban	5,069	5,069	10,138	990	990	1,980	2	5,661	92	84	1	5,745	93						
	Rural	14,051	14,051	28,102	2,711	2,711	5,422	2	18,414	92	265	1	18,679	94						
	Total	2,495	2,495	4,990	477	477	954	4	2,782	88	24	1	2,806	89						
San Rafael	Urban	6,165	1,248	7,413	1,105	224	1,329	3	6,989	73	1,708	18	8,697	91						
	Rural	8,660	1,248	9,908	1,582	224	1,806	3	9,771	77	1,732	14	11,503	90						
	Total	5,053	976	6,029	961	186	1,146	5	5,240	66	1,218	15	6,458	82						
Santa Barbara	Urban	26,017	5,525	31,542	5,072	1,077	6,149	14	26,017	77	5,525	16	31,542	93						
	Rural	31,070	6,501	37,572	6,032	1,263	7,295	11	31,257	75	6,743	16	38,000	91						
	Total	2,096	2,096	4,192	414	414	828	2	2,792	72	272	7	2,792	72						
Sara	Urban	28,558	28,558	57,116	5,578	5,578	11,156	4	33,213	91	460	1	33,673	92						
	Rural	30,654	30,654	61,308	5,992	5,992	11,984	3	36,005	89	460	1	36,465	90						
	Total																			

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

Name of Municipality/City	Area	Coverage of Shared Well										Level I Coverage (1) + (2)							
		(2) Population Covered by Private and Public					Number of Households					No. of HHs per Shared Facility	Safe			Unsafe			Total
		Safe		Unsafe		Total	Safe	Unsafe	Total	Pop.	%		Pop.	%	Pop.	%	Pop.	%	
		Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total	Facility		Pop.	%	Pop.	%	Pop.	%	
Tigbauan	Urban	4,614	1,300	5,914	830	234	1,064	3	5,618	67	1,844	22	7,462	90					
	Rural	14,583	18,262	32,845	2,736	3,426	6,162	3	16,616	40	21,427	51	38,043	91					
	Total	19,197	19,561	38,758	3,566	3,660	7,226	3	22,235	44	23,271	46	45,505	91					
Tubungan	Urban	883		883	168		168	4	1,001	71	5	0	1,006	71					
	Rural	12,719	862	13,581	2,308	156	2,465	7	12,981	68	977	5	13,959	73					
	Total	13,601	862	14,464	2,476	156	2,633	7	13,982	68	983	5	14,965	73					
Zarraga	Urban	1,924	753	2,677	371	145	516	2	2,093	67	825	26	2,918	93					
	Rural	9,970	4,601	14,571	1,843	850	2,693	7	10,615	66	4,896	30	15,511	97					
	Total	11,894	5,354	17,248	2,214	995	3,209	5	12,708	66	5,721	30	18,429	96					
Provincial Total	Urban	128,678	58,101	186,780	24,487	11,057	35,544	3	149,225	48	71,019	23	220,244	71					
	Rural	613,104	294,706	907,810	115,523	55,322	170,844	6	657,187	56	320,972	27	978,160	83					
	Total	741,782	352,807	1,094,590	140,009	66,379	206,388	5	806,413	54	391,991	26	1,198,403	80					

4.2 Sanitation and Sewerage

4.2.2 Types of Facilities and Definition of Service Level Standard

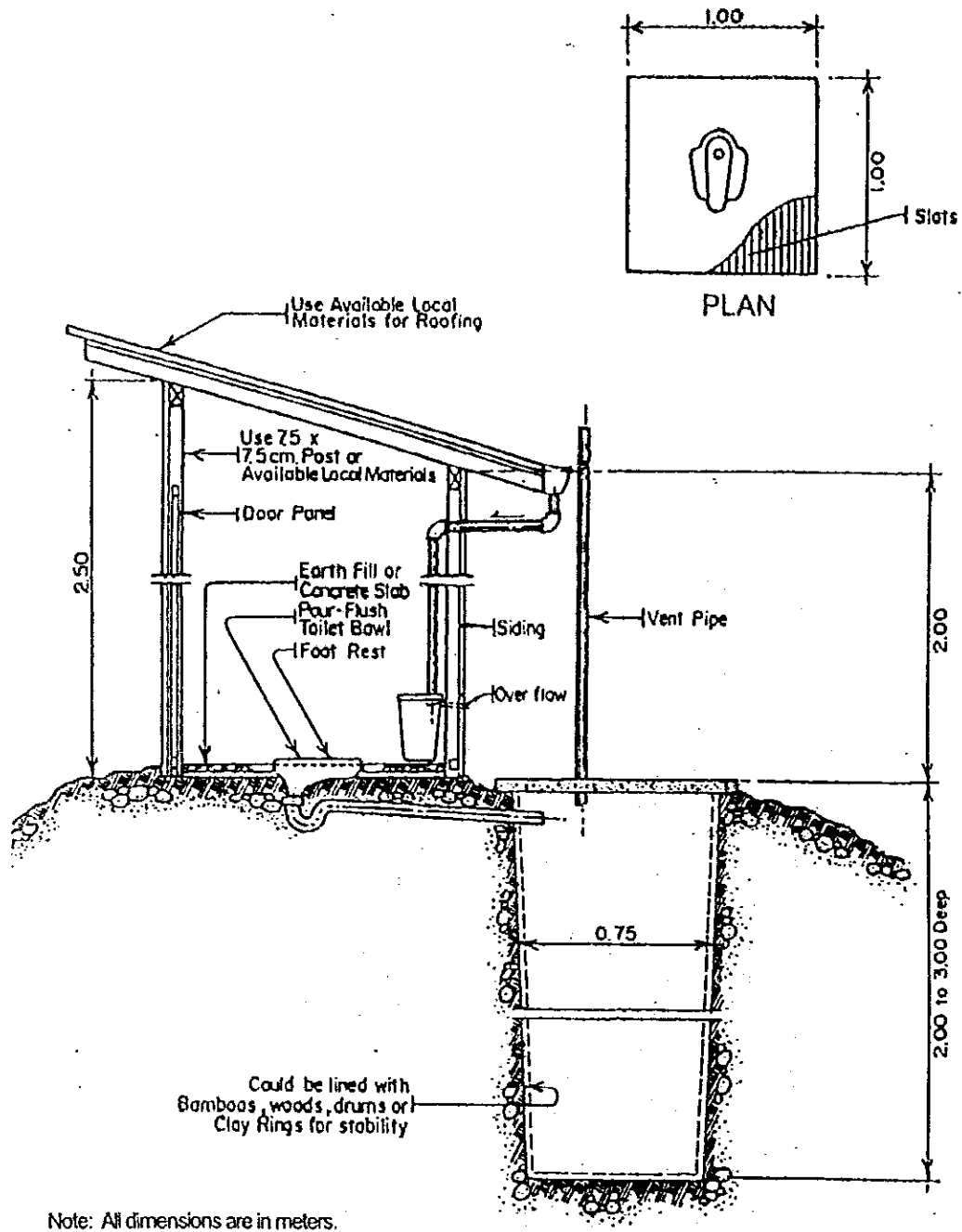
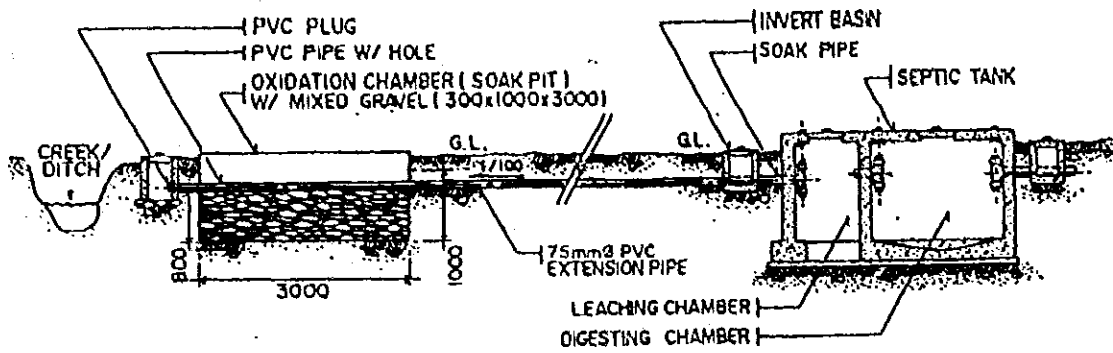


FIGURE 4.2.1
STANDARD STRUCTURE OF PRIVATE TOILET FACILITY

Source: Department of Health



LAYOUT PLAN OF HIGH GROUND WATER SITE

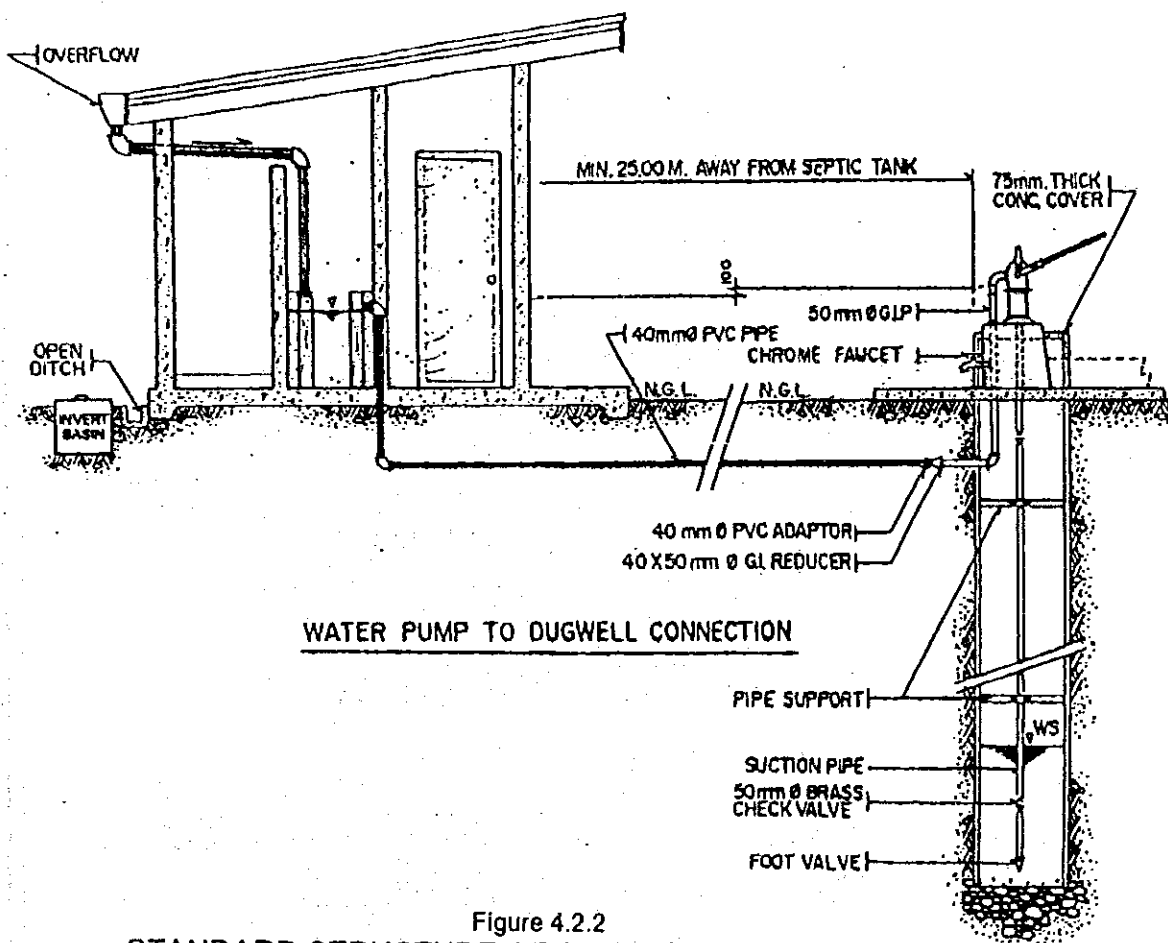
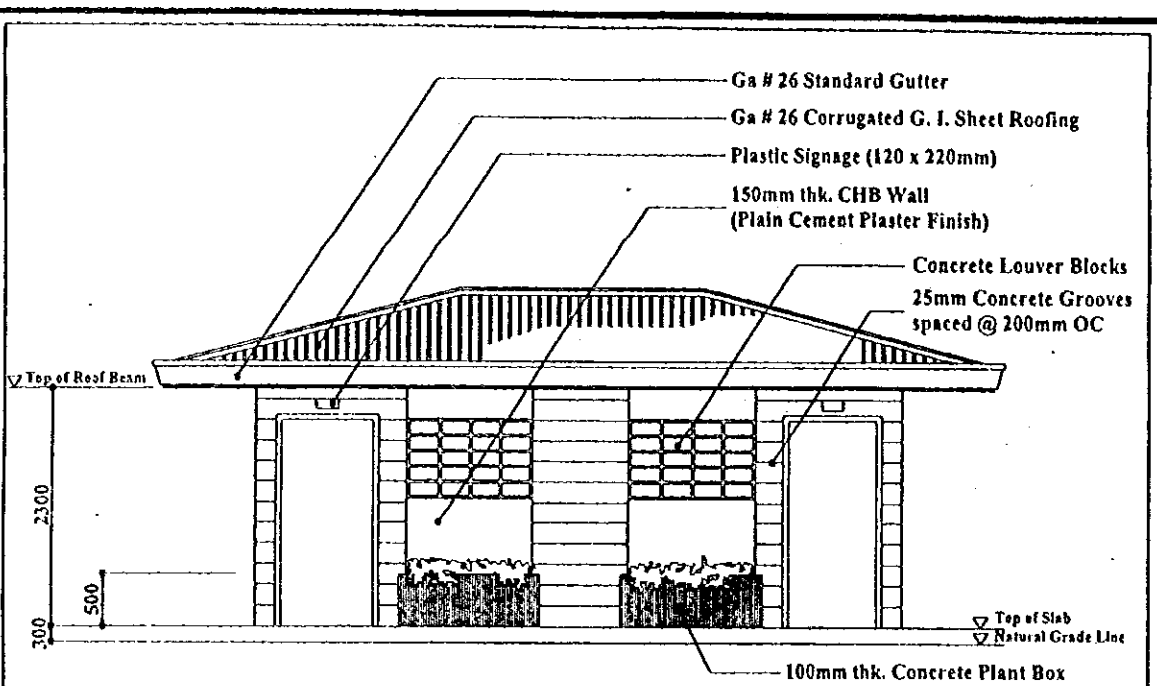
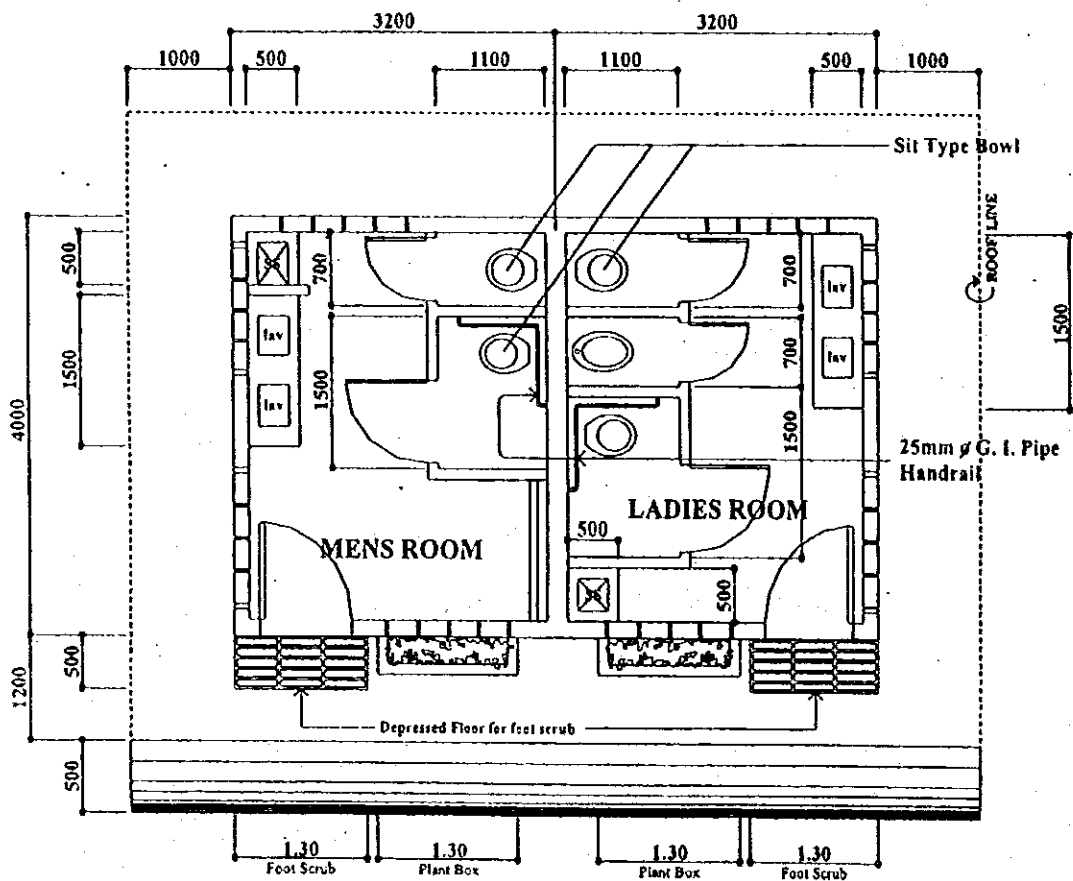


Figure 4.2.2
STANDARD STRUCTURE OF SCHOOL TOILET FACILITY

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/Unsanitary		Unsanitary/Unserviced HHs		
			Flush Toilet		Pour Flush		VIP		Total	Number	%	Number	%
			Number	%	Number	%	Number	%					
Ajuy	Urban	591	10	2	353	60	26	4	389	66	202	34	
	Rural	6,978			2,194	31	1,565	22	3,759	54	2,952	42	
	Total	7,569	10	0	2,547	34	1,591	21	4,148	55	3,154	42	
Alimodian	Urban	1,355	56	4	1,180	87			1,236	91	103	8	
	Rural	4,356	373	9	2,340	54	607	14	3,320	76	725	17	
	Total	5,711	429	8	3,520	62	607	11	4,556	80	828	14	
Anilao	Urban	349	19	5	142	41			161	46	148	42	
	Rural	3,731			922	25			922	25	2,391	64	
	Total	4,080	19	0	1,064	26			1,083	27	2,539	62	
Badiangan	Urban	327	38	12	262	80			300	92	27	8	
	Rural	4,257	23	1	1,810	43	1,320	31	3,153	74	1,104	26	
	Total	4,584	61	1	2,072	45	1,320	29	3,453	75	1,131	25	
Balasan	Urban	694	40	6	337	49	155	22	532	77	162	23	
	Rural	3,994	25	1	495	12	335	8	855	21	2,888	72	
	Total	4,688	65	1	832	18	490	10	1,387	30	3,050	65	
Banate	Urban	286			166	58			166	58	51	18	
	Rural	4,624			1,672	36			1,672	36	2,330	50	
	Total	4,910			1,838	37			1,838	37	2,381	48	
Barotac Nuevo	Urban	723	219	30	409	57			628	87	92	13	
	Rural	7,354	183	2	4,060	55	115	2	4,358	59	2,525	34	
	Total	8,077	402	5	4,469	55	115	1	4,986	62	2,617	32	
Barotac Viejo	Urban	756	8	1	118	16	471	62	597	79	112	15	
	Rural	5,770	2	0	291	5	1,278	22	1,571	27	3,495	61	
	Total	6,526	10	0	409	6	1,749	27	2,168	33	3,607	55	
Batad	Urban	247	26	11	22	9	27	11	75	30	166	67	
	Rural	2,897	60	2	634	22	1,118	39	1,812	63	904	31	
	Total	3,144	86	3	656	21	1,145	36	1,887	60	1,070	34	
Bingawan	Urban	698	28	4	603	86			631	90	67	10	
	Rural	1,712			1,038	61			1,038	61	674	39	
	Total	2,410	28	1	1,641	68			1,669	69	741	31	

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/Unservd HHs						
			Flush Toilet		Pour Flush		VIP		Total		Unsanitary		No Facility						
			Number	%	Number	%	Number	%	Number	%	Number	%	Number	%					
Cabanuan	Urban	8,274				3,326	40		4,013	49		7,339	89		812	10		123	1
	Rural																		
	Total	8,274				3,326	40		4,013	49		7,339	89		812	10		123	1
Calinog	Urban	962		194	20	244	25		438	46		876	91		71	7		15	2
	Rural	8,288		1,645	20	2,791	34		768	9		5,204	63		2,774	33		310	4
	Total	9,250		1,839	20	3,035	33		1,206	13		6,080	66		2,845	31		325	4
Carles	Urban	464		3	1	264	57					267	58		146	31		51	11
	Rural	8,781		1	0	3,369	38					3,370	38		1,777	20		3,634	41
	Total	9,245		4	0	3,633	39					3,637	39		1,923	21		3,685	40
Concepcion	Urban	800				671	84					671	84		58	7		71	9
	Rural	5,259				1,693	32					1,693	32		2,231	42		1,335	25
	Total	6,059				2,364	39					2,364	39		2,289	38		1,406	23
Dingle	Urban	1,198		59	5	1,130	94					1,189	99		9	1			
	Rural	5,905				5,255	89					5,255	89		650	11			
	Total	7,103		59	1	6,385	90					6,444	91		659	9			
Dueñas	Urban	942		40	4	537	57		249	26		826	88		116	12			
	Rural	4,685		4	0	1,296	28		1,451	31		2,751	59		1,885	40		49	1
	Total	5,627		44	1	1,833	33		1,700	30		3,577	64		2,001	36		49	1
Dumangas	Urban	383		22	6	330	86					352	92		17	4		14	4
	Rural	9,906		8	0	6,341	64					6,349	64		2,913	29		644	7
	Total	10,289		30	0	6,671	65					6,701	65		2,930	28		658	6
Estancia	Urban	1,506		193	13	534	35		249	17		976	65		315	21		215	14
	Rural	4,951		148	3	1,965	40		602	12		2,715	55		1,275	26		961	19
	Total	6,457		341	5	2,499	39		851	13		3,691	57		1,590	25		1,176	18
Guimbal	Urban	1,289		49	4	1,142	89		56	4		1,247	97					42	3
	Rural	3,897		68	2	3,084	79		387	10		3,539	91		250	6		108	3
	Total	5,186		117	2	4,226	81		443	9		4,786	92		250	5		150	3
Igaras	Urban	1,045				1,002	96					1,002	96		43	4			
	Rural	4,266				2,319	54					2,319	54		1,947	46			
	Total	5,311				3,321	63					3,321	63		1,990	37			

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/Unserviced HHs					
			Flush Toilet		Pour Flush		VIP		Unsanitary		No Facility			
			Number	%	Number	%	Number	%	Number	%	Number	%		
Januay	Urban	1,681	83	5	1,598	95								
	Rural	8,178			3,199	39	3,843	47	1,048	13	88	1		
	Total	9,859	83	1	4,797	49	3,843	39	1,048	11	88	1		
Lambunao	Urban	794			745	94			49	6				
	Rural	10,164			7,655	75	800	8	1,684	17	25	0		
	Total	10,958			8,400	77	800	7	1,733	16	25	0		
Leganes	Urban	1,346	285	21	804	60	181	13	1,270	94	56	4	20	1
	Rural	2,440	42	2	1,635	67	353	14	2,030	83	316	13	94	4
	Total	3,786	327	9	2,439	64	534	14	3,300	87	372	10	114	3
Lemery	Urban	581	18	3	298	51	128	22	444	76	99	17	38	7
	Rural	3,812	41	1	530	14	1,879	49	2,450	64	1,274	33	88	2
	Total	4,393	59	1	828	19	2,007	46	2,894	66	1,373	31	126	3
Leon	Urban	906	39	4	839	93	14	2	892	98	14	2		
	Rural	7,058	28	0	4,286	61	58	1	4,372	62	2,592	37	94	1
	Total	7,964	67	1	5,125	64	72	1	5,264	66	2,606	33	94	1
Maasin	Urban	540			540	100			540	100				
	Rural	4,577	184	4	1,582	35	1,765	39	3,531	77	961	21	85	2
	Total	5,117	184	4	2,122	41	1,765	34	4,071	80	961	19	85	2
Miagao	Urban	1,477			1,303	88			1,303	88	136	9	38	3
	Rural	8,758			6,015	69			6,015	69	2,299	26	444	5
	Total	10,235			7,318	71			7,318	71	2,435	24	482	5
Mina	Urban	432	1	0	358	83			359	83	61	14	12	3
	Rural	2,709			1,683	62			1,683	62	942	35	84	3
	Total	3,141	1	0	2,041	65			2,042	65	1,003	32	96	3
New Lucena	Urban	516			400	78			400	78	116	22		
	Rural	2,735			2,242	82			2,242	82	493	18		
	Total	3,251			2,642	81			2,642	81	609	19		
Oton	Urban	11,661	17	0	10,001	86			10,018	86	1,255	11	388	3
	Rural													
	Total	11,661	17	0	10,001	86			10,018	86	1,255	11	388	3

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/Unserviced HHs							
			Flush Toilet		Pour Flush		VIP		Total		Unsanitary		No Facility			
			Number	%	Number	%	Number	%	Number	%	Number	%	Number	%		
Passi City	Urban	1,621	11	1	1,264	78						260	16	86	5	
	Rural	10,054	6	0	3,957	39						5,549	55	542	5	
	Total	11,675	17	0	5,221	45						5,809	50	628	5	
Pavia	Urban	1,559	513	33	585	38	278	18	1,017	25	374	92	304	8		
	Rural	4,028	634	16	2,073	51	1,295	23	5,100	91	487	9				
	Total	5,587	1,147	21	2,658	48	1,295	23	2,990	96	125	4				
Pototan	Urban	3,115	269	9	1,991	64	730	23	2,990	96	125	4				
	Rural	8,016	689	9	2,626	33	2,724	34	6,039	75	1,755	22	222	3		
	Total	11,131	958	9	4,617	41	3,454	31	9,029	81	1,880	17	222	2		
San Dionisio	Urban	920	17	2	204	22	22	2	243	26	516	56	161	18		
	Rural	4,176	27	1	738	18	897	21	1,662	40	1,641	39	873	21		
	Total	5,096	44	1	942	18	919	18	1,905	37	2,157	42	1,034	20		
San Enrique	Urban	396	145	37	223	56			368	93	28	7				
	Rural	4,596	363	8	980	21	725	16	2,068	45	2,382	52	146	3		
	Total	4,992	508	10	1,203	24	725	15	2,436	49	2,410	48	146	3		
San Joaquin	Urban	812	52	6	602	74	10	1	664	82	126	16	22	3		
	Rural	7,712	54	1	4,156	54	43	1	4,253	55	2,441	32	1,018	13		
	Total	8,524	106	1	4,758	56	53	1	4,917	58	2,567	30	1,040	12		
San Miguel	Urban	2,634			2,422	92			2,422	92	192	7	20	1		
	Rural	1,205			1,042	86			1,042	86	138	11	25	2		
	Total	3,839			3,464	90			3,464	90	330	9	45	1		
San Rafael	Urban	601			251	42			251	42	275	46	75	12		
	Rural	1,717			467	27			467	27	1,167	68	83	5		
	Total	2,318			718	31			718	31	1,442	62	158	7		
Santa Barbara	Urban	1,506	882	59	521	35			1,403	93	96	6	7	0		
	Rural	6,589	2,238	34	2,215	34	611	9	5,064	77	1,448	22	77	1		
	Total	8,095	3,120	39	2,736	34	611	8	6,467	80	1,544	19	84	1		
Sara	Urban	761	2	0	337	44	137	18	476	63	257	34	28	4		
	Rural	7,168			1,647	23	2,067	29	3,714	52	3,028	42	426	6		
	Total	7,929	2	0	1,984	25	2,204	28	4,190	53	3,285	41	454	6		

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 HHs					
			Flush Toilet		Four Flush		VIP		Total		Unsanitary		No Facility	
			Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tigbauan	Urban	1,499	135	9	1,218	81					35	2	111	7
	Rural	7,829	160	2	5,186	66					1,841	24	642	8
	Total	9,328	295	3	6,404	69					1,876	20	753	8
Tubungan	Urban	269	55	20	208	77	3	1	266	99	3	1		
	Rural	3,462			2,254	65	820	24	3,074	89	268	8	120	3
	Total	3,731	55	1	2,462	66	823	22	3,340	90	271	7	120	3
Zarraga	Urban	604	152	25	368	61	38	6	558	92			46	8
	Rural	2,969	41	1	1,818	61	945	32	2,804	94	30	1	135	5
	Total	3,573	193	5	2,186	61	983	28	3,362	94	30	1	181	5
Provincial Total	Urban	59,120	3,680	6	39,852	67	7,225	12	50,757	86	6,599	11	1,764	3
	Rural	221,563	7,047	3	101,555	46	28,093	13	136,695	62	69,291	31	15,577	7
	Total	280,683	10,727	4	141,407	50	35,318	13	187,452	67	75,890	27	17,341	6

Table 4.2.2 Number of Student and School Toilet Facilities by Municipality

Name of Municipality/City		Number of School	Number of Student	Number of Toilets		
				Sanitary	Unsanitary	Total
Ajuy	Public	32	9,749	101		101
	Private					
	Total	32	9,749	101		101
Alimodian	Public	28	5,271	2		2
	Private					
	Total	28	5,271	2		2
Anilao	Public	19	5,408	52		52
	Private					
	Total	19	5,408	52		52
Badiangan	Public	22	4,420	134		134
	Private					
	Total	22	4,420	134		134
Balasan	Public	17	6,065	41		41
	Private	2	125	4		4
	Total	19	6,190	45		45
Banate	Public	15	7,083	99		99
	Private					
	Total	15	7,083	99		99
Barotac Nuevo	Public	23	7,049			
	Private	3	1,755	11		11
	Total	26	8,804	11		11
Barotac Viejo	Public	30	8,149	73		73
	Private	1	1,943	13		13
	Total	31	10,092	86		86
Batac	Public	11	2,707	81		81
	Private	1	153	7		7
	Total	12	2,860	88		88
Bingawan	Public	16	3,008	2		2
	Private					
	Total	16	3,008	2		2
Cabatuan	Public	43	7,790	128		128
	Private					
	Total	43	7,790	128		128
Calinog	Public	46	11,029	139		139
	Private	2	525	11		11
	Total	48	11,554	150		150
Carles	Public	40	11,821	140		140
	Private	2	1,092	2		2
	Total	42	12,913	142		142
Concepcion	Public	31	7,137	98		98
	Private	1	190	6		6
	Total	32	7,327	104		104
Dingle	Public	25	7,493	96		96
	Private	2	405	12		12
	Total	27	7,898	108		108
Dueñas	Public	30	7,209	123		123
	Private	2	45	8		8
	Total	32	7,254	131		131
Dumangas	Public	32	8,569	168		168
	Private	3	415	5		5
	Total	35	8,984	173		173
Estancia	Public	13	8,104	298		298
	Private	4	1,090	14		14
	Total	17	9,194	312		312
Guimbal	Public	14	6,565	23		23
	Private					
	Total	14	6,565	23		23

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

Name of Municipality/City		Number of School	Number of Student	Number of Toilets		
				Sanitary	Unsanitary	Total
Igbaras	Public	21	6,202	2		2
	Private					
	Total	21	6,202	2		2
Janiuay	Public	41	11,476	112		112
	Private	3	827	13		13
	Total	44	12,303	125		125
Lambunao	Public	48	13,033	174		174
	Private	1	29	2		2
	Total	49	13,062	176		176
Leganes	Public	14	6,070	67		67
	Private					
	Total	14	6,070	67		67
Lemery	Public	24	5,292	84		84
	Private					
	Total	24	5,292	84		84
Leon	Public	33	10,415	154		154
	Private	1	290	6		6
	Total	34	10,705	160		160
Maasin	Public	38	7,241	118		118
	Private	1	463	6		6
	Total	39	7,704	124		124
Miagao	Public	34	11,281	228		228
	Private	2	846	20		20
	Total	36	12,127	248		248
Mina	Public	12	3,768	78		78
	Private					
	Total	12	3,768	78		78
New Lucena	Public	18	4,780	64		64
	Private	1	50	1		1
	Total	19	4,830	65		65
Oton	Public	20	12,723	69		69
	Private	4	596	7		7
	Total	24	13,319	76		76
Passi City	Public	37	15,663	219		219
	Private	1	413	2		2
	Total	38	16,076	221		221
Pavia	Public	12	6,167	69		69
	Private					
	Total	12	6,167	69		69
Pototan	Public	31	11,532	6		6
	Private	4	1,370	39		39
	Total	35	12,902	45		45
San Dionisio	Public	25	7,072	95		95
	Private	1	25	2		2
	Total	26	7,097	97		97
San Enrique	Public	21	5,209	39		39
	Private					
	Total	21	5,209	39		39
San Joaquin	Public	40	9,571	45		45
	Private	1	111	2		2
	Total	41	9,682	47		47
San Miguel	Public	10	5,332	73		73
	Private					
	Total	10	5,332	73		73
San Rafael	Public	11	3,588	37		37
	Private					
	Total	11	3,588	37		37

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

Name of Municipality/City		Number of School	Number of Student	Number of Toilets		
				Sanitary	Unsanitary	Total
Santa Barbara	Public	34	7,070	199		199
	Private					
	Total	34	7,070	199		199
Sara	Public	25	9,107	81		81
	Private	4	1,660	16		16
	Total	29	10,767	97		97
Tigbauan	Public	29	6,409	37		37
	Private	1	293	9		9
	Total	30	6,702	46		46
Tubungan	Public	18	3,718	57		57
	Private					
	Total	18	3,718	57		57
Zarraga	Public	9	1,800	11		11
	Private	2	1,480	10		10
	Total	11	3,280	21		21
Provincial Total	Public	1,092	319,145	3,916		3,916
	Private	50	16,191	228		228
	Total	1,142	335,336	4,144		4,144

Table 4.2.3 Number of Public Toilets Facilities in 1998

Name of Municipality/City	Public Markets			Bus/Jeepney Terminals			Parks/Playground			Total Number of Toilets
	No. of Sanitary Toilets	No. of Unsanitary Toilets	Sub-total	No. of Sanitary Toilets	No. of Unsanitary Toilets	Sub-total	No. of Sanitary Toilets	No. of Unsanitary Toilets	Sub-total	
Ajuy										
Alimodian	4		4	2		2			2	8
Amilao	2		2							4
Badjangan	2		2							5
Balasan	2		2							4
Banate	6		6							6
Barotac Nuevo	4		4							6
Barotac Viejo	6		6	7		7				15
Basad	8		8							14
Bingetwan	2		2							4
Cabatuan	6		6							8
Cainog	6		6							6
Carles		2	2					2		4
Concepcion	6		6							10
Dingle	2		2							4
Duehas	3		3							3
Dumangas	2		2							7
Estancia	4		4	1		1				4
Guimbal	2		2							4
Igbaras	2		2							2
Jaraway	10		10	2		2				19
Lambunao	2		2							2
Lexanes	2		2	2		2				4
Lemery										
Leon	4		4							8
Maasin	8		8							8
Miagao	6		6	2		2				10
Mina	2		2							2
New Luteña	6		6							12
Oton	4		4	2		2				10
Passi City	10	6	16	7		7				39
Pavia	2		2							4
Potoan	4		4	2		2				8
San Dionisio	2		2							4
San Enrique	2		2							2
San Joaquin	4		4	2		2				10
San Miguel	2		2							4
San Rafael	2		2							2
Santa Barbara	2		2							12
Sara	2		2	2		2				8
Trigbawan	2		2							4
Tubungan	4		4							6
Zarraga	2		2							3
Provincial Total	153	8	161	31		31	107	2	109	301



5. EXISTING SECTOR ARRANGEMENT AND INSTITUTIONAL CAPACITY
 5.5 Sector Agencies at the Local Level

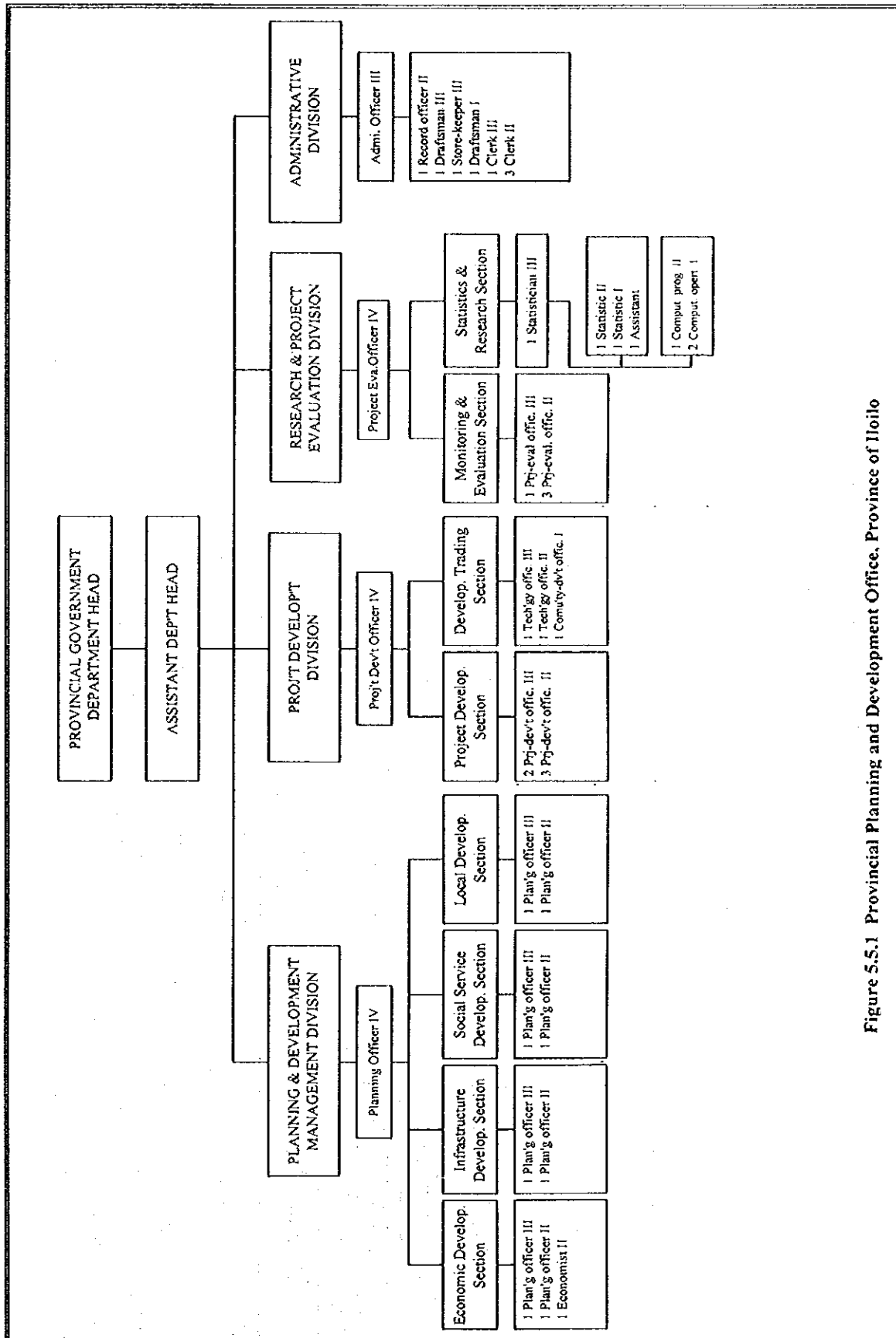


Figure 5.5.1 Provincial Planning and Development Office, Province of Iloilo

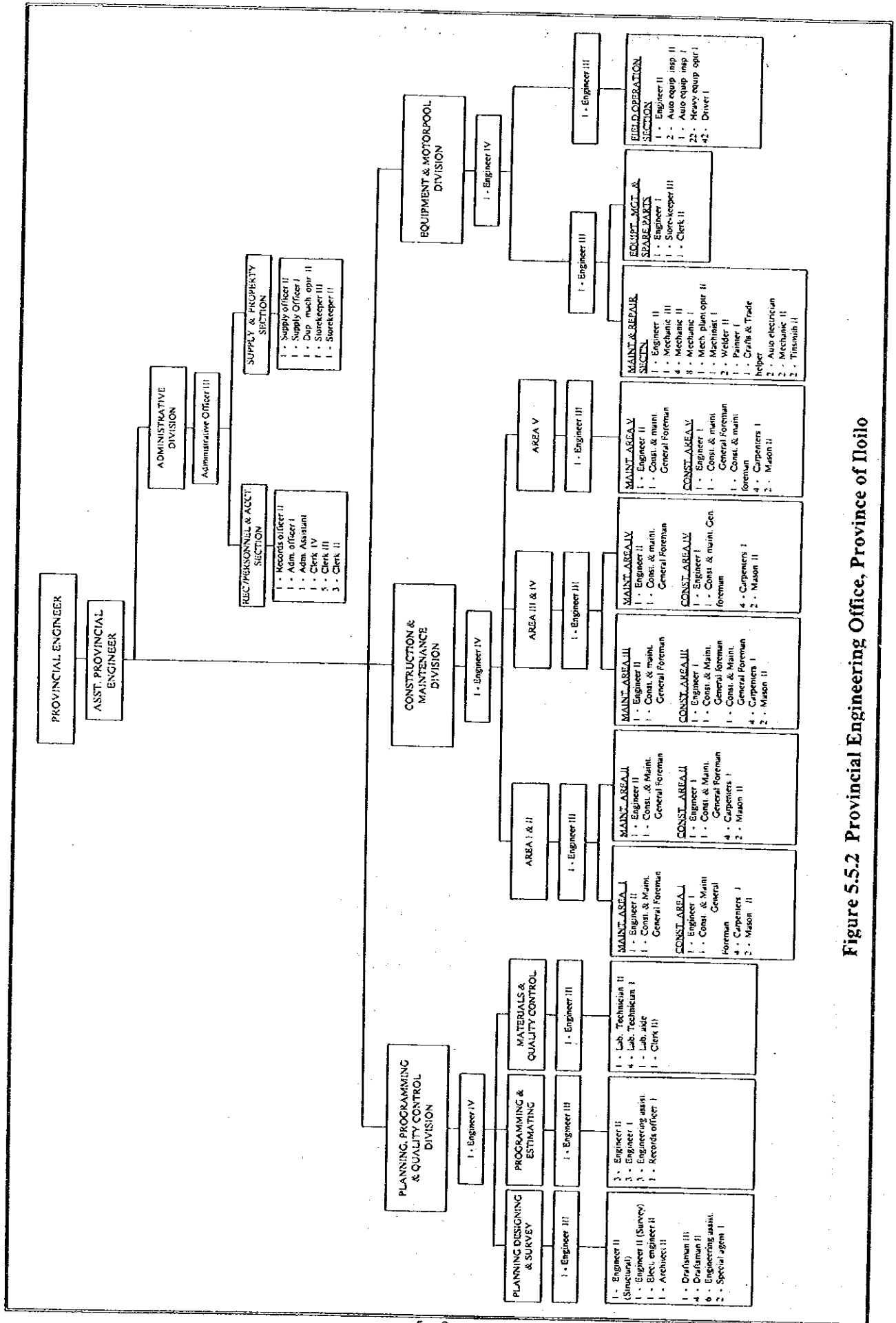


Figure 5.5.2 Provincial Engineering Office, Province of Noilo

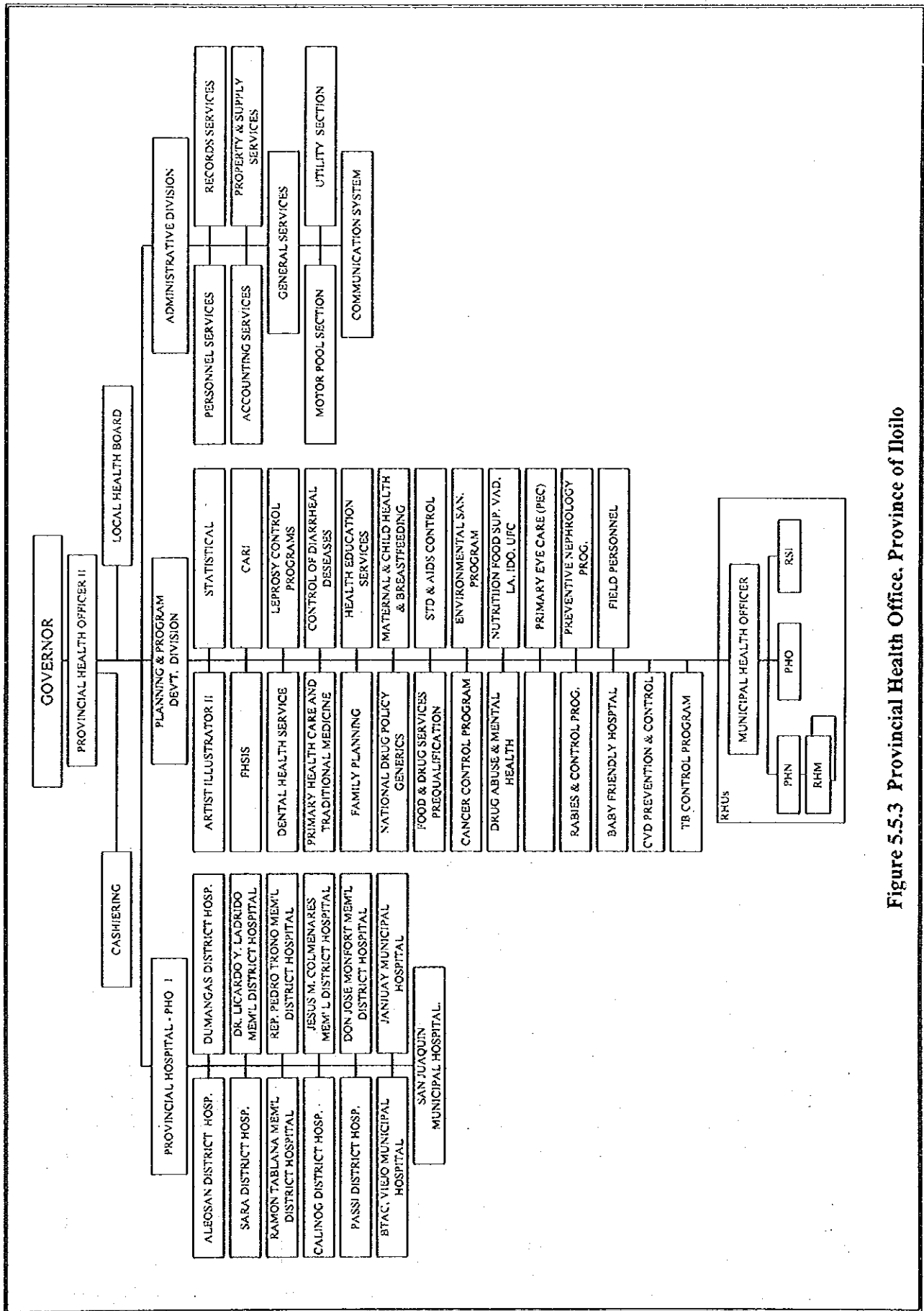


Figure 5.5.3 Provincial Health Office, Province of Iloilo

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
OECD	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.	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 (drilling, etc.).	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 projects, fishery and cold storage and post-harvest facilities; Can finance up to 100% of foreign exchange goods and services of Danish origin. 10% local cost on a case-to-case basis. Technical assistance can be negotiated for conduct of feasibility studies if implementation of the project will require Danish financing in the future.	Water supply projects for 10 towns/LWUA; Feasibility Study for control of pollution in the Pasig River-Metro Manila; Water Supply and Sanitation Data Bank.
Government of France	Grants for feasibility studies and detailed design for projects in priority areas, e.g. 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 equipment/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. Environmental Sanitation Project (DPWH/DOR) for rural water systems development and school toilet facilities construction. With DPWH, rural water supply systems at Pinarube evacuation centers. PW4SPs (DILG) for 9 (previously done, in Luzon) and 21 provinces in Mindanao/Bisayas.

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	<p>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.</p>	<p>WATSAN Program for LGUs and selected BWSAs/DILG. Institution Building for Decentralized Implementation of Community-Managed Water Supply and Sanitation Project (1994-1997). or IBWSSP known as UNDP PH/93/010 Project under the Fifth Country Program (1994-1997).</p>
UNICEF	<p>Providing grant aids for technical assistance. Priority area: social services, particularly for children.</p>	<p>Community-based water supply program in Palawan Province; Water supply and sanitation Study for Southern Mindanao.</p>
USAID	<p>Providing grant aid within its strategic objectives. Six strategic objectives and one special objectives are: Accelerate the economic transformation of Mindanao; Improve national systems for trade and investment; Reduce population growth and improve maternal and child health; Enhance management of renewable national resources; reduce emissions of greenhouse gas; broaden participation in public, formulation/implementation (selected areas); prevent rapid increase of HIV/AIDS.</p>	<p>Barangay Water Program (BWP) for communities with populations of less than 10,000; TA for private sector participation in the sector.</p>
World Bank	<p>Providing capital assistance in the form of under IBRD and IDA, IBRD (Project/Program) Loans: Interest rate = less than 7%; 20 years amortization with 5 years grace period; IDA Loans: interest free with 30 to 40-year amortization period. Providing also technical assistance in the form of ESW, IDF, Poverty and Human Resource Development Project Preparation and Policy Notes. Can finance 100% of foreign exchange costs of the project. Priority areas: power and energy, roads and railways, telecommunications, ports, water supply and sanitation, agriculture and social services.</p>	<p>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. Local Government Units - Urban Water Supply and Sanitation Project (LGU-UWSSP) covering about 250 secondary towns and cities.</p>

5.7 Project Management Arrangement, and Issues and Problems

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

Areas	Institutional	Technical	Financial	Community Development
<p>Provincial Government Offices of Aklan, Antique, Capiz, Iloilo, and Negros Occidental</p>	<ul style="list-style-type: none"> • Sector implementation is project-based arrangement by setting up a multi-agency team/task force. There is no overall mechanism and responsibility delineation among members wherein interrelationships/ linkages are clearly shown. • Management is a process requiring input at every level. At the barangay level, facilities are supposed to be managed by the community. Management at higher levels is also necessary to effectively and efficiently implement a plan and requires administration abilities, and technical, negotiation, finance and economic skills. In all levels, management and skills are underdeveloped. • Capacity and/or experiences of the provincial office's WATSAN concerned are sometimes inadequate for their allotted responsibilities. Strengthening its capability in WATSAN sector is important as the municipal government requires support from the provincial government. • Technical training for O&M of Level I to beneficiaries has not been provided since 1980. Likewise, as for Level II system, technical training to the municipalities has not yet been provided. The trainer's training for provincial staff shall be firstly provided. 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Income of the province comes from local taxes, IRA, national wealth share (3 provinces), and revenues from economic enterprises. • Budgeting is guided by DILG circulars and approval is by the SP • Budgetary allocation to the sector comes from 20% development fund capital expenditures for projects. However, the allocation by sector is lumped under general headings, so that allocation for WATSAN projects cannot be readily identified in the listing. • Counterpart fund of LGUs for sector projects is usually for material purchase and the community is providing their labor. Sometimes, the provincial government allocates funds for WATSAN projects and the municipal government put up its counterpart fund provided by the province. • Cost recovery mechanisms by LGUs and the users are not in place. BWSAs and RWSAs charge water fees for O&M purposes only and do not consider capital costs. Rates are usually based on agreement among association members. • Logistics and incentives for water associations are 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 	<ul style="list-style-type: none"> • Limited involvement of local communities/end-users particularly in the planning and maintenance of facilities. • Active involvement of religious NCOs as community organizers. • No established arrangement on gender-responsiveness. • There is little investigation of socio-cultural issues related to WATSAN; there is not enough commonsense understanding of the community it is working with. Little attention is given to or understanding of ethnic groups which is a serious constraint on sustainability. • BWSAs formed by the DPWH-DEO are mostly not functioning now. A case of one BWSA which was formed thrice, the first by the DEO, then the last two times by themselves is finally working and earning income from water fee collection. The failure for the first two times was due to low collection efficiency and money mismanagement. • No formal system for community participation in site selection and project request; participation at the grassroots level is only considered if willingness from the beneficiaries is required for project request from the provincial government. Process is for barangay government to submit request to MDC/PDC, but no regular process for barangay to formulate projects from consultation and community participation. • DILG's experimented with social

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

Areas	Institutional	Technical	Financial	Community Development
<ul style="list-style-type: none"> Monitoring activities are quite limited to specific projects in terms of physical performance. Project funded solely by municipalities and/or barangay are not reported to the province, thus the province is not able to illustrate the complete sector condition. No sector monitoring has been conducted. It is necessary to conduct periodically the sector monitoring for developing the sector properly. PHO undertakes water quality surveillance thru RHU, however, the capacity of provincial laboratories are very limited in terms of equipment and number of staff. There are few BWSA undertaking Level I O&M, and beneficiaries still rely on LGUs even for a simple replacement of parts. In case of major repair of Level II, BC collects money for repair work. Considering current situation of beneficiaries, LGUs shall lead them to recognize the need of formation of association and participation for sound O&M of the facilities. 	<ul style="list-style-type: none"> Toilets in schools are not used because there is no water. FW4SP design has to be redesign. 	<ul style="list-style-type: none"> IRA is not sufficient. 20% development fund is used for other sectors as well. LGU managed waterworks can directly source funds from the Land Bank for initial capitalization and operation. They can request funds from the Province, particularly the barangay-based waterworks. 	<ul style="list-style-type: none"> Preparation by requiring beneficiaries to put up its equity contribution through certain amount of money or labor. Until now, the system is still functioning. In some BWSAs, the practice is to ban those who get water but are not paying. Participation of NGOs in the planning process is through their membership in the MDC/ PDC. 	
2. NEDA Regional Offices	<ul style="list-style-type: none"> Communication between central and regional offices is deficient. Not all information on the on-going projects is reported to central office. Some multi/bilateral assistance are directly extended to the regional offices under certain amount, such as funds from 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. Project monitoring and evaluation system in regional level is a requisite including information on infrastructure status and investment. 			
3. DILG Regional Offices	<ul style="list-style-type: none"> The DILG has field offices down to municipal level. Increasing responsibilities of the DILG as a result of devolution and decentralization of authority to the LGUs, would require greater logistic support, i.e., administrative support, not only technical support. 			
4. DPWH - DEO			<ul style="list-style-type: none"> The DEO has no more budget for WATSAN activities because this has been devolved to the LGUs. However, the people still approach the office and request for financial help for its O&M. 	

5.7.2 Institutional Aspect

Table 5.7.2 Offices/Agencies involved in WATSAN project

Offices/Agencies	Nature of Involvement
Provincial Planning & Development Office	<ul style="list-style-type: none"> • Incorporates WATSAN proposed projects in the provincial plan
Provincial Engineering Office	<ul style="list-style-type: none"> • Assists in the construction, operation and maintenance of the WATSAN facilities
Provincial Health Office	<ul style="list-style-type: none"> • Conducts water quality examination (thru MHO) • Provide toilet facilities
Barangay/Municipal governments (thru MPDO)	<ul style="list-style-type: none"> • Identifies projects • Provides counterpart support
Water Districts	<ul style="list-style-type: none"> • Provides water supply coverage in urban areas
Provincial General Services Office	<ul style="list-style-type: none"> • Responsible in procurement of materials
Provincial Accounting, Budget, Treasury Offices	<ul style="list-style-type: none"> • Undertakes administrative works in budgeting and funds releasing
Sangguniang Panlalawigan	<ul style="list-style-type: none"> • Approves projects implementation and appropriates funds (Provincial level)
Provincial Development Council	<ul style="list-style-type: none"> • Initiates a comprehensive multi-sectoral plan of the province
NGOs	<ul style="list-style-type: none"> • Provides consultancy services especially in CO/CD works
DILG, Provincial Director's Office	<ul style="list-style-type: none"> • Conducts/assists training especially on topics related to human resource development
DPWH, District Engineering Offices	<ul style="list-style-type: none"> • Provides technical assistance

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 planing 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 it 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 water 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 finance Level II or III systems, they are constrained to pursue the loan due to high interest rates imposed by the financing institutions, requirements need 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 encouraged 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 Arrangement/Capacity of Municipal Government

(1) Municipality of Sta. Barbara (4th class municipality)

The municipal offices that are relevant to the sector are the MPDO, MEO and MHO. Other offices such as Accounting and Budget are also involved in the sector projects. However, there has been no major project in the sector undertaken by these offices. They have not had opportunities to work with provincial offices concerned, since they have no water supply engineer. The LWUA extended assistance to the Metro Iloilo WD which serves part of this municipality.

There are 60 barangays (about 41,000 population) broken down into 6 urban and 54 rural barangays. The current water supply broken down by urban and rural areas is as follows:

1) Urban water supply

The Metro Iloilo WD serves a total of 12 barangays of the municipality (6 barangays each for urban and rural area). The WD started services in 1926. However, there are still many households in the urban barangays where service is not available, but the WD has an expansion plan at present. The water rate at present is ₱8/cu.m. It is affordable to the users if the charge is less than 5% of monthly household income, but their willingness to pay must be ensured. The municipal government pays ₱7,000/month for water consumption at communal faucets (public use).

There is one barangay-operated Level III system. However, it is not currently operated due to the difficulty in maintaining the submersible pump.

The current problems of the WD are insufficient water supply and inadequate service coverage in the municipality.

2) Rural water supply

The rural areas are served either by Level I or II systems (majority are Level I with deep well/shallow well). The depth of deep wells ranges from 400 to 450 feet. Public Level I facilities are usually managed by the users assisted by Barangays/ municipality on an as-required basis. The DEO also provides assistance upon request from the people.

The water quality of deep wells (free flowing) has a problem with blown color caused by humic-acid related organic substances in the confined aquifer. However, the residents have been drinking this water for more than 50 years. The MHO provides chlorination for shallow wells/open dug wells without prior water quality examination covering 166 private and 308 public wells through the year. The MHO has an annual budget of ₱80,000 under the health program for this purpose.

3) Financial arrangement in the relevant sector:

Currently, priority is not given to the relevant sector in the allocation of the municipal IRA. A minimal amount is allocated to the sanitation sub-sector.

(2) Municipality of Zarraga

The municipal offices that are relevant to the sector are the MPDO, MEO and MHO. A municipal Nutrition Council is active in the field of sanitation improvement.

There are 24 barangays broken down into 5 urban barangays and 19 rural barangays. The present population of the municipality is about 19,000.

1) Urban water supply

A new WD to cover 2 barangays (500 HHs at initial stage) was created, but it has not yet started operation. The water source is two deep wells (3lps, 27m and 8lps, 35m). It is expected to start operating by the end of this year (1999).

2) Rural water supply

Level I and II systems are managed by BWSAs/RWSAs in 19 barangays. There are 726 public and 278 private wells. The Social Welfare office guides the people in establishing community organization (DILG supports these activities). However, O&M of the facilities is done by users with assistance from LGUs and DEO in the same manner as before.

Sanitation: In 1994, 120 units of toilet bowls were distributed to selected third grade households using P50,000 of the Congressman's fund. It has been confirmed that 85-90% of the households have constructed toilet superstructures and use water sealed toilets. The LGU prepared a counterpart fund for the same purpose in 1995 as a part of the municipal development plan (20% development fund). The project was implemented and monitored by the Municipal Nutrition Council.

Financial resources for the sanitation sub-sector are minimal in the municipality. To remedy this, a scope of annual work shall be identified and the necessary budget/manpower shall be secured.

3) Financial arrangements

No allocation of the municipal IRA is given to the relevant sector.

(3) Iloilo City

1) Urban Water Supply

Water supply service is provided by the Metro Iloilo Water District (MIWD). There

are 437 barangays within the MIWD (population in 1995 was 548,161). Seventy two percent of the population (230 urban and 207 rural barangays) is within urban barangays. The Iloilo City urban population of 334,539 represents 84% of the total urban population in the MIWD area. More than half of the urban population in Iloilo City is currently served by the WD.

Water sources of the system are river water from Tigum River (Maasin weir; 8,739 cu.m/d), and eight wells and two infiltration galleries (14,700 cu.m/d). Water charge at present is ₱8 for first 10m³. The City government does not have any activities for urban water supply.

2) Rural Water Supply

The rural population is served by Level I facilities/Level II systems. The City government assists them through the provision of construction materials with a minimal budget allocation.

3) Institutional arrangements

There are 3 major organizations; CPDO, CEO and CHO. There is no permanent section for the water supply sector (no water supply engineer).

4) Community Development and Gender Consideration

There is no specific experience in community development. The City office is not yet aware of the gender matter.

5) Technical Capability

The city offices do not have much experience in investigation/survey, F/S, D/D, bidding/procurement, contract with private sector and construction supervision.

NGOs were mobilized because this is a requirement when getting assistance. However, there is no list of available NGOs.

6) Financial Arrangements

A minimal budget was allocated to the sector and there is no established annual arrangement.

7) Sector Monitoring

There is no monitoring system at present.

(4) Metro Iloilo Water District

The Level III system of Iloilo City was designed in 1926 to service 20,000 people (10,000 cu.m/day) was constructed. There have been many improvements/expansions up to the year 1985. The WD was established in 1978.

Upon establishment of the WD, the existing water source was supplemented to ensure a total of 25,000 cu.m/day. However, the shortage of the water supply has been a chronic problem of the WD due to the increase of the population in the service area and lack of pipeline capacity/deterioration of old pipes.

Currently the WD has arrears of only 5% on its 13 million loan from the LWUA. The water charge collection efficiency at present is 85-90% (charges for 180 communal faucets are paid by LGUs; P8/faucet/month). The WD has an expansion plan to meet future needs in the service area using the BOT scheme. The service will cover 1 City and 6 neighboring municipalities. To serve 588,000 people in the year 2000, 18,000 cu.m/day will be insufficient (46,400 cu.m/day is ensured in combination of surface and ground water).

There are about 200 staff members of the WD at present 10-15% of these are engineers (civil, electrical and mechanical), accountants, lawyers and business administration staff members. The WD has a laboratory for the conduct of water quality examination. The private sector can request the laboratory for examination at a fee of P350/water sample.

The WD can extend technical assistance to LGUs.

5.8 Community Development

5.8.1 General

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

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 pro-

ductivity, as well to improved economic activities in the community.

The key informant survey was conducted in ten barangays representing two municipalities in Iloilo. 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: Catubig, Malublub, San Julian, Tina, and Iniligan, all in the municipality of Badiangan, and Namatay, Lincud, Moroboro, Licuan and Libo-o, all located in the municipality of Dingle.

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 barangay's 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. 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

The BWSA is still the WATSAN organization that provides water service in the barangays surveyed, although the barangay councils have demonstrated active participation in the provision of safe, potable water to their constituents.

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 financial assistance to the BWSA.

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 is P2, 000.00. The list of economic activities shows the following: livestock raising (poultry and pig-gery), copra trading, cottage industry, vegetable gardening, and operating a sari-sari-store for which the people earn an average of P 1,000 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 all the barangays surveyed. Most prevalent diseases are intestinal disorder, skin disease, typhoid fever, diarrhea, and kidney trouble. This is compounded by the lack of sufficient garbage disposal system 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 also 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

Four of the ten barangays surveyed have existing BWSA which were organized by their barangay councils in cooperation with the municipal government. However, only two of the existing BWSAs were functional and have their respective officers and members.

2. Status of NGOs/CBOs/POs

Almost all of the respondents were aware of the existing NGOs/CBOs that do work in their communities. The areas of concern are in community development, livelihood, health and sanitation, educational and consumer cooperative.

E. O&M Practices by Beneficiaries

1. Facility Conditions

Groundwater is widely used as source of water in the barangays surveyed although some Barangays (Moroboro and Lincud (Dingle) also utilized surface water. Water facilities found in the barangays were mostly shallow and deep wells and which were mostly constructed in as early as in 1950. Almost all of the systems/facilities are still functional although they occasionally have problems. Majority of the respondents indicated that the water is fit for drinking.

2. Common Difficulties and O&M Problems Encountered

Common problems cited by the respondents range from defective pumps to lack of funds for the maintenance work. This can be attributed to the fact that not all beneficiaries pay water dues to be used for the maintenance of the water systems.

F. Water Charges Adopted and Collection Efficiency

1. Sufficiency of Collected Charges for O&M

The respondents reported that majority of the beneficiaries do not pay for the operation and maintenance of their water supply facilities. Those who do pay an average of P 30.00 a month. Half of the respondents believed that the fee being collected is already sufficient for the O&M of the WATSAN facilities. The respondents further affirmed that the people are willing to pay for their water supply.

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

A designated collector either by the association or the barangay council was responsible for collecting the fees, according to the respondents.

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

1. Government Subsidies Requested by End Users

All barangays were recipients of technical, financial and institutional assistance from the provincial and municipal governments. They received training assistance from the Provincial DILG. The province, likewise distributed jetmatic pumps to the barangays. Most of the assistance came from the province.

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 92. Of this number, 59 were males and 33 females. Nine out of ten barangay captains are male.

C. Gender in the Composition of the BWSA

Four of the barangays have BWSA but two were not fully operational because there was no facility to operate. These BWSAs have set of officers not all were actively involved. Females outnumber male members of BWSA.

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

Most of the key informants indicated that women participate in the O&M of the water facilities. Women monitors overall condition of the water supply handle collection and maintaining the cleanliness of the facilities

(2) RESULT OF GROUP INTERVIEWS (ILOILO)

A. General

Group interviews were conducted in two selected barangays representing ten municipalities in the province of Ilo-Ilo. 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 10 participants. None of the respondents belonged to the same household. Answers to interview questionnaires were made by raising of hands. The group interviews were conducted in the following barangays: Catubig (Badiangan), Namatay (Dingle), Licuan (Dingle), San Julian (Badiangan), Malublub (Badiangan), Moroboro (Dingle), Lincub (Dingle), Iniligan (Badiangan), Tina (Badiangan), and Libo-o (Dingle).

B. Demographic Profile

(1) Population

The aggregate population in the ten barangays was 13,121 broken down as follows: Catubig (Badiangan) 592, Namatay (Dingle) 2,245, Licuan (Dingle) 1,450, San Julian (Badiangan) 591, Malublub (Badiangan) 876, Moroboro (Dingle) 1,300, Lincub (Dingle) 2,152, Iniligan (Badiangan) 1,837, Tina (Badiangan) 928, and Libo-o (Dingle) 1,450.

(2) Households

As indicated by the respondents, there were 2,338 households in the ten barangays, that is: Catubig (Badiangan) 106, Namatay (Dingle) 230, Licuan (Dingle) 290, San Julian (Badiangan) 108, Malublub (Badiangan) 178, Moroboro (Dingle) 258, Lincub (Dingle) 358, Iniligan (Badiangan) 267, Tina (Badiangan) 193, and Libo-o (Dingle) 350.

The figure represents an average of 5 members per household.

TABLE 1: TOTAL POPULATION OF BARANGAYS AND NUMBER OF HOUSEHOLDS

BARANGAY (MUNICIPALITY)	M	F	T	NO. OF HH
1. Catubig (Badiangan)	297	294	591	108
2. Namatay (Dingle)	378	498	876	178
3. Licuan (Dingle)			1,300	258
4. San Julian (Badiangan)				
5. Malublub (Badiangan)	969	1,183	2,152	358
6. Moroboro (Dingle)				
7. Lincub (Dingle)	756	757	1,537	267
8. Iniligan (Badiangan)	458	470	928	193
9. Tina (Badiangan)				
10. Libo-o (Dingle)	653	797	1,450	350
TOTAL			13,121	2,338

(3) Composition of Barangay Councils

There were 92 barangay council members in the ten barangays. Of the barangay council members, fifty-nine (64%) were males and thirty-three (36%) were females. The barangay captains in both barangays were male and female.

C. Respondents' Profile

(1) Number and Gender of Respondents

There were 200 respondents in the group interviews. Of these, 100 (50%) were males and 100 (50%) were females. Table 2 presents the number of respondents by gender for each barangay.

TABLE 2: NUMBER OF RESPONDENTS

BARANGAY(MUN.)	M	F	T	%
1. Catubig (Badiangan)	10	10	20	10
2. Namatay (Dingle)	10	10	20	10
3. Licuan (Dingle)	10	10	20	10
4. San Julian (Badiangan)	10	10	20	10
5. Malublub (Badiangan)	10	10	20	10
6. Moroboro (Dingle)	10	10	20	10
7. Lincub (Dingle)	10	10	20	10
8. Iniligan (Badiangan)	10	10	20	10
9. Tina (Badiangan)	10	10	20	10
10. Libo-o (Dingle)	10	10	20	10
TOTAL	100	100	200	100

(2) Age Bracket

About 30.5% of the respondents (33 males, 28 females) was under the 26 to 45 age bracket; 19% (24 males, 14 females) constituted the 61 and above age bracket; 4.5% was

under the 25 and below age bracket; and 46% (37 males, 55 females) belonged to 46-60 age bracket.

TABLE 3: AGES OF THE RESPONDENTS

AGE BRACKET	M	F	T	%
25 and Below	6	3	9	4.5
26-45	37	55	92	46
46-60	33	28	61	30.5
61 and above	34	14	38	19
TOTAL	100	100	200	100

(3) Level of Education

Seventy-six respondents reached elementary education. Sixty-nine respondents (33 males, 36 females) graduated from the high school level. Meanwhile, forty-five respondents (9 males, 36 females) completed college. Ten interviewees took vocational courses.

TABLE 4: RESPONDENTS' LEVEL OF EDUCATION

EDUCATION LEVEL	M	F	T	%
1. Elementary Level	-	-	-	-
2. Elementary Graduate	51	25	76	38.0
3. High School Level	-	-	-	-
4. High School Graduate	33	36	69	34.5
5. College Level	-	-	-	-
6. College Graduate	9	36	45	22.5
7. Vocational	7	3	10	5
8. Post Graduate	-	-	-	-
TOTAL	100	100	200	100

(4) Occupation

At the time of the interview, the majority of the respondents (52 males, 16 females) was engaged in either farming or fishing. Others were also engage in different occupation not listed in the table.

TABLE 5: OCCUPATION OF RESPONDENTS

OCCUPATION	M	F	T	%
1. Farmer/Fisherfolk	52	16	68	34
2. Laborer	28	21	49	24.5
3. Service Worker	6	6	12	6
4. Businessman/woman	2	8	10	5
5. Professional	3	7	10	5
6. Office Worker	-	3	3	1.5
7. Tech. Equipment Operator	1	-	1	.5
8. Others	8	39	47	23.5
TOTAL	100	100	200	100

D. Socio Economic Profile**(1) Level of Education of Household Members**

The majority of the respondents indicated that most of their household members were elementary graduates. A good number also graduated from high school and college. There were also some household members, mostly male, who pursued a vocational course and some were post graduate.

TABLE 6: LEVEL OF EDUCATION OF HH MEMBERS

EDUCATIONAL LEVEL	EDUCATED HOUSEHOLD MEMBERS	
	M	F
1. Elementary Level	-	-
2. Elementary Graduate	122	123
3. High School Level	-	-
4. High School Graduate	81	90
5. College Level	-	-
6. College Graduate	60	55
7. Vocational	11	8
8. Post Graduate	4	1

(2) Employed Household Members

Some male and female household members were employed during the time of the interview. Most of those employed were from the 15 to 45 age group. This was followed by those belonging to the 46 to 60 age bracket, with thirty-three employed. There was only eleven employed 61 years and above category.

TABLE 7: EMPLOYED HH MEMBERS

RESPONSE	RESPONDENTS	
	Employed Male Members	Employed Female Members
15 and below	6	6
16-45	92	63
46-60	38	26
61 and above	14	8

(3) Occupation of Household Heads and Other Members

As indicated by the respondents, majority of the male and female was engaged in farming and/or fishing, and as laborers. The occupations held by the remaining respondents were: business; service and office worker.

Around 69.5% of the household members who were gainfully employed earned a monthly income of P 5,000.00 and below. Forty-nine members earned P 5,000.00 to P 14,999; while 8 members earned about P 15,000 to P 24,999 and 4 members earned above P 25,000.

TABLE 8: OCCUPATION OF HH MEMBERS

OCCUPATION	M	F	T
1. Farmer/Fisherfolk	49	13	62
2. Laborer	46	17	33
3. Service Worker	18	9	27
4. Businessman/woman	6	23	29
5. Professional	7	15	12
6. Office Worker	7	14	21
7. Technician	6	-	6
8. Others	13	16	29
TOTAL	-	-	-

TABLE 9: AVERAGE MONTHLY INCOME OF HH MEMBERS

ITEM	M	F	T	%
Below P 5,000.00	76	63	139	69.5
P 5,000 to 14,999	21	28	49	24.5
P 15,000 to 24,999	2	6	8	4
Above P 25,000	1	3	4	2
TOTAL	100	100	200	100

(4) Average Expenditures of Household

Majority of the respondents (139) reported that their average monthly expenditure was below P 5,000.00. Forty-nine respondents reported they spent an average of P 5,000.00 to P 14,999.00 a month; eight respondents spent about P 15,000 to P 24,999 and four reported their monthly expenditure was above P 25,000.

TABLE 10: AVERAGE MONTHLY EXPENSES OF HH MEMBERS

ITEM	M	F	T	%
Below P 5,000	68	61	129	64.5
P 5,000 to 14,999	31	34	65	32.5
P 15,000 to 24,999	1	4	5	2.5
Above P 25,000	-	1	1	.5
TOTAL	100	100	200	100

(5) Practices

Source of Drinking Water. Most of the respondents identified that their drinking water came from communal deep wells and private deep well. Other sources mentioned were: communal shallow wells (22); communal dug well (6); communal faucet (17); private shallow well (10); private dug well (19) and piped water supply (15).

TABLE 11: SOURCES OF DRINKING WATER

SOURCES	USER RESPONDENT		T	%
	M	F		
1. Communal Shallow Well	11	11	22	11
2. Communal Deep Well	17	39	56	28
3. Communal Dug Well	3	3	6	3
4. Communal Faucet	9	8	17	8.5
5. Private Shallow Well	7	3	10	5
6. Private Deep Well	36	17	53	26.5
7. Piped Water Supply	7	8	15	7.5
8. Private Dug Well	10	9	19	9.5
9. Others	-	2	2	1
TOTAL	100	100	200	100

Responsible for Fetching Water. From the answers of 115 respondents (76 males, 39 females), it was the husband who was responsible for hauling water from the source to the home. Tied in for second place as water “fetchers,” at 50 respondents was the wife. Forty-five respondents reported, it was the male children and fifteen female respondents did the task of fetching water for the use of the household.

TABLE 12: RESPONSIBLE FOR FETCHING DRINKING WATER

FAMILY MEMBER	USER RESPONDENT		TOTAL
	M	F	
1. Husband	76	39	115
2. Wife	3	47	50
3. Male Children	12	33	45
4. Female Children	-	15	15
5. Others	-	5	5
TOTAL	-	-	-

Frequency of Fetching Water. The majority of the respondents (60 males, 61 females) fetched water once a day. Twenty-five respondents indicated that they fetched drinking water twice a day. Nine respondents indicated that they fetched drinking water three times a day, four respondents indicated four times a day, while 31 fetched more than five times a day.

TABLE 13: FREQUENCY OF FETCHING DRINKING WATER

DURATION	RESPONDENTS		T	%
	M	F		
1. Once a Day	60	61	121	60.5
2. Twice a Day	10	15	25	12.5
3. 3x a Day	2	7	9	4.5
4. 4x a Day	-	4	4	2
5. More than 5x days	28	3	31	15.5
6. No Response	-	10	10	5
TOTAL	100	100	200	100

Duration of Fetching Water. Around 73% of the respondents budgeted 10 for the hard task of fetching water. For a total of 23, it took about 20 to 30 minutes to haul water from the source to their house. For 7 respondents, fetching water took more than 30 minutes.

TABLE 14: DURATION FOR FETCHING DRINKING WATER

DURATION	RESPONDENTS		T	%
	M	F		
1. Less than 5 Minutes	-	-	-	-
2. About 10 Minutes	76	71	147	73.5
3. About 20 Minutes	13	10	23	11.5
4. About 30 Minutes	10	13	23	11.5
5. More Than 30 Minutes	1	6	7	3.5
TOTAL	100	100	200	100

Problems with Source. Majority of respondents (65 males and 82 females) reported to having problems with the current water source. Ten female respondents did not reply.

TABLE 15: PROBLEM WITH SOURCE OF WATER

RESPONSE	RESPONDENTS		T	%
	M	F		
1. No Problem	28	15	43	21.5
2. There are problems	65	82	147	73.5
3. No Response	7	3	10	5
TOTAL	100	100	200	100

E. Institutional

(1) Presence of BWSA

Only fifty (50) respondents (20 males, 30 females) had knowledge of the existence of a BWSA in their respective barangays. Majority of the respondents (140) have no knowledge of the existence of a BWSA in their barangays. Ten respondents did not reply.

TABLE 16: KNOWLEDGE OF THE EXISTENCE OF BWSA

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	20	30	50	25
2. No	70	70	140	70
3. No Response	10	-	10	5
TOTAL	100	100	200	100

(2) Membership to BWSAs

For twenty-three respondents (10 males, 13 females) indicated that he or she was a member of BWSA. Fifty-eight respondents (20 males, 38 females) were not members of the BWSA and majority did not respond.

Sixteen respondents were actively involved in the affairs of the BWSA. Four served as BWSA officers, two were involved as collection officer, and ten assisted in repair and maintenance work.

TABLE 17: MEMBERSHIP TO THE BWSA

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	10	13	23	11.5
2. No	20	38	58	29
3. No Response	70	49	119	59.5
TOTAL	100	100	200	100

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

RESPONSE	RESPONDENTS		T	%
	M	F		
1. As BWSA Officer	2	2	4	2
2. As Collection Officer	-	2	2	1
3. Assist in the repair maintenance of facilities	-	10	10	5
4. Attend/ Facilitate Training	-	-	-	-
5. Not active	1	-	1	.5
6. No response	97	86	183	91.5
TOTAL	100	100	200	100

(3) Who maintains the facilities of the BWSA?

Twelve interviewees reported it was someone from the BWSA who maintained the WATSAN facilities; eleven reported someone in the barangay; while 177 respondents did not know who was responsible for maintaining the WATSAN facilities.

TABLE 19: RESPONSIBLE FOR MAINTAINING BWSA FACILITIES

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Someone in the Barangay	10	1	11	5.5
2. Professional caretaker	-	-	-	-
3. Someone from the BWSA	-	12	12	6
4. No one	-	-	-	-
5. Don't know	90	87	177	88.5
TOTAL	100	100	200	100

(4) Interested to be a member of BWSA

Majority of the respondents indicated interest in becoming a more active member of BWSA in their respective barangays. The other interviewees did not respond to this question.

TABLE 20: INTEREST OF RESPONDENTS TO JOIN BWSA

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Interested	90	78	168	84
2. Not Interested	10	2	12	6
3. No Response	-	20	20	10
TOTAL	100	100	200	100

(5) How can respondents become actively involve in BWSA affairs?

The female and male respondents exhibited varying degrees of interest in wanting to be actively involved in WATSAN projects, such as contributing cash and labor; be an officer; being in charge of collection of fees; doing repair and maintenance work; just a plain member.

TABLE 21: HOW RESPONDENTS CAN BECOME ACTIVELY INVOLVED IN WATSAN PROJECTS

RESPONSE	RESPONDENTS		T
	M	F	
1. Contribute Cash	22	57	79
2. Contribute labor	80	68	148
3. Be Officer	4	38	42
4. Collection of Fees	-	36	36
5. Do Repair/Maintenance	70	46	116
6. Just Member	28	20	48

(6) Responsible for minor repairs of water facilities

One hundred twenty seven respondents (90 males, 37 females) pointed to a male member as the one responsible for minor repairs of the WATSAN facilities and 10 male respondents pointed to female member of the family as the one responsible for minor repair. For six respondents, they said that it was "someone" in the barangay who took care of minor repairs. Forty female respondents were uncertain as the one responsible for minor repairs.

TABLE 22: RESPONSIBLE FOR MINOR REPAIRS

SOURCE OF WATER	RESPONDENTS		T	%
	M	F		
1. Female Member	10	-	10	5
2. Male Member	90	37	127	63.5
3. Somebody in the Brgy.	-	6	6	3
4. Professional Caretaker	-	4	4	2
5. Others	-	13	13	6.5
6. No Response	-	40	40	20
TOTAL	100	100	200	100

F. Training Activities**(1) Training Program attended in 1998**

Seventy-one respondents indicated they attended training program in 1998. Seventy-four interviewees did not attend any training programs, while 55 did not respond to this question.

TABLE 23: TRAINING ATTENDED BY RESPONDENTS IN 1998

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	21	50	71	35.5
2. No	47	27	74	37
3. No Response	32	23	55	27.5
TOTAL	100	100	200	100

(2) Kinds of Training Program

Table 24 summarizes the training programs/seminars of those who attended training programs for 1998.

TABLE 24: TRAINING COURSES ATTENDED BY RESPONDENTS IN 1998

BARANGAY	MALE	FEMALE
1. Catubig (Badiangan)	CVO Training Coop Training	Training on Cooperative
2. Namatay (Dingle)		Barangay Administration Training Program
3. Licuan (Dingle)	Army Reserve Training Brgy. Tanod Training	Training on Cooperative Barangay Administration Health and Sanitation
4. San Julian (Badiangan)	CVO Training Coop Training Barangay Administration	BHW Training, Basic First Aid Cooperative, Herbal Barangay Administration Medicine Preparation Budgeting Training, Taxation Teachers Institute
5. Malublub (Badiangan)		
6. Moroboro (Dingle)	Police Training	Barangay Health Workers Training Barangay Administration
7. Lincub (Dingle)	Brgy. Tanod Training BHW Training	BHW Training
8. Iniligan (Badiangan)		Save the children-Parents Education Cooperative Training Daycare Workers Budgeting Training
9. Tina (Badiangan)	Peace and Order Training	Teachers In-Service Training Brgy. Human Right Training Brgy Health Worker Training Cooperative Training Managerial Training
10. Libo-o (Dingle).		Save the Children Teachers Training

(3) On BWSA Training

Majority of the respondents were not aware of any training program for BWSA members. Only 21 respondents were aware of the training programs for BWSA. While an overwhelming majority of respondents were willing to attend BWSA-related training programs.

TABLE 25: AWARENESS ON VARIOUS TRAINING FOR BWSA

TRAINING PROGRAM	YES	
	M	F
1. Caretaker's Training	-	-
2. Collection/Finance	-	-
3. Repair/O&M	11	10

TABLE 26: WILLINGNESS TO ATTEND BWSA-RELATED TRAINING PROGRAMS

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	100	89	189	94.5
2. No	-	1	1	.5
3. No Response	-	10	10	5
TOTAL	100	100	200	100

(4) Training on Health Education

Only 63 respondents participated in health education and training programs. Most of those who attended were females.

If given a chance, the respondents wanted to attend WATSAN related training programs such as: Training on plumbing, JICA-Organization of BWSA, Training on Water & Sanitation, Agriculture, Livestock Livelihood Program Food Processing, Handicraft, and First Aid Training.

TABLE 27: PARTICIPATION IN HEALTH EDUCATION AND TRAINING

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	20	43	63	31.5
2. No	80	28	108	54
3. No Response	-	29	29	14.5
TOTAL	100	100	200	100

TABLE 28: TYPES OF TRAINING RESPONDENTS WISH TO ATTEND

BARANGAY	MALE	FEMALE
1. Catubig (Badiangan)	Agriculture / Health Training	Health and Education
2. Namatay (Dingle)		Training on Water Supply Accessibility
3. Licuan (Dingle)	Plumbing Training	Organization of BWSA Food Technology Health and Sanitation Livelihood Training
4. San Julian (Badiangan)	Livelihood Training	BWSA and Water Analysis
5. Malublub (Badiangan)	Livestock Training Plumbing Training Agriculture Training First Aid Training	Livelihood Training BWSA Training
6. Moroboro (Dingle)	Plumbing Training	JICA-Organization of BWSA
7. Lincub (Dingle)		Training on Water & Sanitation
8. Iniligan (Badiangan)	Plumbing Water & Sanitation Agriculture Livestock	Training on BWSA & Health & Sanitation
9. Tina (Badiangan)	Plumbing Livestock	Organization of BWSA BWSA Training Health & Sanitation Training Food Processing Training
10. Libo-o (Dingle).	Water and Sanitation Training Livelihood Program	Save the Children Water, Health and Sanitation Training Cooperative Training Livelihood Training Food Processing Training Handicraft

(5) Desirable Training Period

In relation to this, majority of the respondents desired for more than two-day training period. The rest opted for one day (29 respondents); for three-day training period (36 respondents) and thirty respondents desired more than three days worth of training.

TABLE 29: DESIRABLE TRAINING PERIOD

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Less Than 1 Day	-	-	-	-
2. One (1) Day	-	29	29	14.5
3. Two (2) Days	50	54	104	52
4. Three (3) Days	20	16	36	18
5. More Than Three Days	30	-	30	15
6. No Response	-	1	1	.5
TOTAL	100	100	200	100

G. Community Development**(1) CBOs and contact person**

Forty percent (40%) of the respondents were aware of NGOs working in their communities while 50% were not aware. All of them indicated that there were community-based organizations 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	20	70	90	45
2. No	70	30	100	50
3. No Response	10	-	10	5
TOTAL	100	100	200	100

TABLE 31: NGOS/CBOS IN THE BARANGAYS

BARANGAY	AREAS OF CONCERN	CONTACT PERSON
1. Catubig (Badiangan)	FEMALE Brgy. Health Workers Association	Evelyn Magno
2. Namatay (Dingle)	FEMALE Catholic Women League	Kgd. Estrella Lance
3. Licuan (Dingle)		
4. San Julian (Badiangan)		
5. Malublub (Badiangan)	MALE Couples for Christ	Mr. Bartolome Espesor
6. Moroboro (Dingle)	FEMALE Pastoral Council Couples for Christ Catholic Women League	Dida Lumbayan Dene Ortiz & Mrs. E. Osario Virginia Dao-Ang
7. Lincub (Dingle)	Rural Improvement Club	Nimfa Bedinio
8. Iniligan (Badiangan)	MALE Save the Children FEMALE Save the Children Taytay sa Kauswagan Couples for Christ	Cipriano Deli-Deli, Jr. Dory Aldadon Nemia Ramos Marina Pescadera
9. Tina (Badiangan)	FEMALE Couples for Christ Loan Waver's Association Cooperative Association of Senior Citizen BWH Association	Luna Cenicida Cedinia Porras Delia Parño Julian Gaca Dorethea Sumbillo
10. Libo-o (Dingle)	MALE Save the Children FEMALE Save the Children	Teacher Evelyn Sol

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

Some of the respondents indicated they were consulted and/or briefed on their proposed roles and responsibilities on all aspects: the planning and design of facilities, the construction of the facilities, on the operation and maintenance of the BWSA and finance of the system.

TABLE 32: RESPONDENTS CONSULTED IN PAST WATSAN PROJECTS

BWSA ACTIVITIES	YES		T
	M	F	
1. Planning & Design	10	11	21
2. Construction Facilities	20	1	21
3. O&M of the System	20	1	21
4. Financing of the System	-	2	2

(3) Were the respondents consulted when BWSA was formed?

Some of the male and female respondents were consulted in varying degrees on the different activities prior, during, and after the BWSA was formed.

TABLE 33: WERE YOU CONSULTED WHEN:

ACTIVITIES	YES		T
	M	F	
1. BWSA was formed in the Brgy.	11	11	22
2. Water fee was decided upon	11	11	22
3. Level or type of service was agreed upon	11	13	24
4. Facilities were constructed	10	12	22

(4) How did the respondents participate in past construction projects?

Thirty-eight male respondents' participation in past construction activities of the BWSA was through cash contribution and provision of labor. Only twelve female respondents' participation was through provision of labor and materials. Sixty-two male and eighty-eight female respondents did not contribute.

TABLE 34: PARTICIPATION IN PAST CONSTRUCTION PROJECTS

TYPE OF PARTICIPATION	RESPONDENTS		T	%
	M	F		
1. Contributed Cash	11	-	11	5.5
2. Provided labor	27	12	39	19.5
3. Donated Site	-	-	-	-
4. Provided Materials	-	-	-	-
5. No Contribution	62	88	150	75
TOTAL	100	100	200	100

(5) Will the respondents participate in future projects?

For future projects, however, the majority of the respondents indicated that they would participate and/or contribute for all activities such as: on the formation of BWSA, on the formulation of water rates, in the selection of sites and levels of services, construction of facilities and in the operation and maintenance.

TABLE 35: WILLINGNESS/TYPE OF PARTICIPATION IN FUTURE PROJECTS

PROJECT ACTIVITIES	YES		T
	M	F	
1. Formation of BWSA	69	109	178
2. Formulation of water rates	49	89	138
3. Selection of sites and levels of services	30	60	90
4. Construction of facilities	89	60	149
5. Operation and maintenance	79	60	139

H. Financial Aspects

(1) Are respondents presently paying for their water supply?

One hundred thirty eight respondents (70 males, 68 females) admitted not paying their water fees. Only 45 interviewees claimed that they are paid the water fees charged them. Seventeen did not answer the question.

TABLE 36: NUMBER OF RESPONDENTS PRESENTLY PAYING WATER FEE

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	21	24	45	22.5
2. No	70	68	138	69
3. No Response	9	8	17	8.5
TOTAL	100	100	200	100

(2) If so, how much per household per month?

Of those presently paying, (1) respondent each indicated that they paid about P 6.00 to P 10.00 an P 11.00 to P 20.00 a month, (17) respondents indicated from P 21.00 to P 30.00, (2) said P 31.00 to P 40.00; (5) male respondents indicated P 41.00 to P 50.00; while (20) paid above P 50.00 for water fees. The 155 non-paying respondents did not answer the question.

TABLE 37: PRESENT WATER FEES PAID

WATER FEES	RESPONDENTS		T	%
	M	F		
Below P 5.00	-	-	-	-
P 6.00 to P 10.00	-	1	1	.5
P 11.00 to P 20.00	-	1	1	.5
P 21.00 to P 30.00	10	7	17	8.5
P 31.00 to P 40.00	-	2	2	1
P 41.00 to P 50.00	5	-	5	2.5
Above P 50.00	6	13	19	9.5
No Pay/No Response	79	77	155	77.5
TOTAL	100	100	200	100

(3) Is the water fee enough for O&M?

Fifty-two respondents claimed that the water fees being collected were not adequate to cover for the operation and maintenance of the facilities. Again, majority respondents were uncertain on the matter.

TABLE 38: ADEQUACY OF WATER FEE FOR O&M

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	30	22	52	26
2. No	-	-	-	-
3. Uncertain	70	78	148	74
TOTAL	100	100	200	100

Eighteen respondents said that the water fee is low, operation and maintenance cost is too high and not all water users pay their water fee, were all reasons why fees being collected were not adequate.

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

REASON/S	M	F	T	%
1. Water fee is low	N/A			
2. O&M cost is too high				
3. Not all water users pay their water fee				
4. No Response/Uncertain				
TOTAL				

(4) Who shoulders the O&M of Facilities?

Only fifteen female respondents claimed it was the private owner; while fifteen said it could be "others." Majority did not answer the question.

TABLE 40: RESPONSIBILITY FOR SHOULDERING THE O&M COSTS

PERSON	RESPONDENTS		T	%
	M	F		
1. Barangay Council	-	-	-	-
2. WATSAN Association	-	-	-	-
3. Private Owner	-	15	15	7.5
4. Don't know	-	-	-	-
5. Others	-	15	15	7.5
6. No Response	100	70	170	85
TOTAL	100	100	200	100

(5) Are the people willing to pay for O&M of future facilities?

99.5% of the respondents expressed willingness to pay for the O&M of future facilities.

TABLE 41: RESPONDENTS' WILLINGNESS TO PAY FOR FUTURE FACILITIES

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	100	99	199	99.5
2. No	-	-	-	-
3. No Response	-	1	1	.5
TOTAL	100	100	200	100

(6) How much are respondents willing to pay?

Of those who were willing to pay, (42) claimed they could pay below P5.00; (28) could pay P6.00 to P 10.00; (31) from P 11.00 to P 20.00; (10) male respondents claimed could pay P 21.00 to P 30.00; (50) P 41.00 to P 50.00; while 32 respondents could pay water fees above P 50.00. Seven female respondents did not reply.

TABLE 42: AMOUNT RESPONDENTS ARE WILLING TO PAY

RESPONSE	RESPONDENTS		T	%
	M	F		
Below P 5.00	20	22	42	21
P 6.00 to P 10.00	1	18	28	14
P 11.00 to P 20.00	20	11	31	15.5
P 21.00 to P 30.00	10	-	10	5
P 31.00 to P 40.00	-	-	-	-
P 41.00 to P 50.00	30	70	50	25
Above P 50.00	10	22	32	16
No Response	-	7	7	3.5
TOTAL	100	100	200	100

(7) Are you willing to contribute for future projects?

Almost all of the respondents, except for one female respondents, who did not respond, indicated their willingness to contribute in cash or in kind for the construction of WATSAN facilities in their respective barangays.

TABLE 43: WILLINGNESS TO CONTRIBUTE FOR FUTURE FACILITIES

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	100	99	199	99.5
2. No	-	-	-	-
3. No Response	-	1	1	.5
TOTAL	100	100	200	100

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

REASON/S	M	F	T
1. Cannot afford to pay	-	1	1
2. Gov't must provide water for free	-	-	-
3. Water service is not good.	-	-	-
4. Others (Specify)	-	-	-

(8) If so, what kind?:

Should they be required to contribute, the majority of the respondents preferred to give free labor and materials during the construction.

TABLE 45: TYPES OF CONTRIBUTION

RESPONSE	RESPONDENTS		T
	M	F	
1. Will free provide labor	100	76	176
2. Will donate site	57	1	58
3. Will provide materials	42	-	42
4. Others	-	3	3

(9) Reason/s for not Contributing

Almost the respondents were willing to contribute except for one respondent who can not afford to pay.

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

REASONS	RESPONDENTS		T
	M	F	
1. Cannot afford to contribute	N/A		
2. No land/site to contribute			
3. Government should provide water for free			

I. Health and Sanitation

(1) Type of toilet

The majority used toilets which flush to a septic tank on site. The rest used private pit/latrine (23), and for eleven respondents used bush and other open outdoor site.

TABLE 47: TYPES OF TOILETS RESPONDENTS USE

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Toilet w/ flushes to septic tank on the site	73	87	160	80
2. Toilet w/ flushes/ drops straight to sea	-	-	-	-
3. Private pit latrine	23	-	23	11.5
4. Shared flush toilet w/ septic tank	-	-	-	-
5. Public toilet	-	-	-	-
6. Bush or other open outdoor site	4	7	11	5.5
7. Pour Flush Water	-	-	-	-
8. No Response	-	6	6	3
TOTAL	100	100	200	100

(2) Who got sick during the past year? What sickness?

Majority of the respondents was uncertain as to the types of illnesses that afflicted their family members in the past year. The rest pointed to diarrhea (29); gastro-enteritis (16); kidney trouble (7); cholera (1); typhoid fever (13) and skin disease (20). Nineteen reported other illnesses not listed in the table. More women (wife, female children, and mothers) were afflicted with various ailments and illness compared to the male group.

TABLE 48: WATER ILLNESSES

DISEASE	RESPONDENTS		T	%
	M	F		
1. Diarrhea	4	25	29	14.5
2. Kidney trouble	1	6	7	3.5
3. Gastro-enteritis	-	16	16	8
4. Cholera	1	-	1	.5
5. Typhoid fever	1	12	13	6.5
6. Malaria	-	-	-	-
7. Skin Disease	-	20	20	10
8. Schistosomiasis	-	-	-	-
9. Others	-	19	19	9.5
10. Uncertain	93	2	95	47.5
TOTAL	100	100	200	100

TABLE 49: HOUSEHOLD MEMBERS FREQUENTLY GOT SICK IN 1998

RESPONSE	RESPONDENTS		T
	M	F	
1. Husband	5	7	12
2. Wife	2	13	15
3. Father	2	1	3
4. Mother	1	5	6
5. Male Children	1	16	17
6. Female Children	3	13	16
7. Grandmother	-	-	-
8. Grandfather	-	-	-
9. Others/Uncertain	-	-	-

(3) Health and hygiene practices

All of the respondents recognized the importance of good health and hygiene practices. They learned about health and sanitation matters from the following: radio television; NGOs; health sanitation/clinics/hospitals; health workers/inspectors; schools; and from family and friends.

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

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Yes	100	100	200	100
2. No	-	-	-	-
TOTAL	100	100	200	100

TABLE 51: WHERE PEOPLE LEARNED HEALTH AND HYGINE EDUCATION

RESPONSE	RESPONDENTS		T	%
	M	F		
1. Radio	100	100		
2. Newspapers	50	80		
3. Television	50	100		
4. NGOs	10	50		
5. Family and Friends	70	100		
6. Health Sanitation/Clinics/Hospitals	90	100		
7. Health workers/ inspectors	90	100		
8. School	90	100		
9. Others	20	20		
TOTAL				

J. 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 are knowledgeable on these information as seen from the answers to the questions, particularly on the assistance extended by LGUs, facility conditions, and O&M practices.