

Chapter

4

**EXISTING FACILITIES AND
SERVICE COVERAGE**

4. EXISTING FACILITIES AND SERVICE COVERAGE

4.1 Water Supply

4.1.1 General

Existing water supply facilities and conditions were surveyed by municipality under the category of urban and rural areas (as of April 1998 and regarded as a figure in 1997). Facilities are classified into three service levels, of which Level I facilities are further classified into safe and unsafe for drinking purpose.

The percentages of service coverage by different service level were estimated covering urban and rural areas by municipality. The served population is defined as "population served adequately with access to safe water sources/facilities." The rest of the population with unsafe sources/facilities and without access to water supply facilities was then defined as "underserved population" and "unserved population," respectively. The service coverage was figured out using estimated population in 1997.

Service profile and operating conditions of existing facilities are summarized by service level to come up with problem areas and need of rehabilitation to reflect in the development plan.

As a provincial total, approximately 53% of the present population (of which 32% in urban area and 68% in rural area) is considered as adequately served (refer to 4.1, Supporting Report for the detailed study). Under the area classification, 67% of urban population and 47% of rural population have access to safe water sources/facilities, while the rest is underserved or unserved. About 210,300 persons or 70% of the served population depend on Level I facilities, while about 85,000 persons or 30% are served by Level III and/or Level II systems. Lower service coverage in rural area appears to be the result of a considerable numbers of unsafe Level I facilities or no provision of facilities.

4.1.2 Types of Facilities and Definition of Service Level Standard

(1) Composition of water supply system/facility

The NSMP defines service level and system components of the water supply systems/facilities as shown in Table 4.1.1. NEDA Board Resolution No. 12 (s. 1995) also provides the approved definition of terms relative to water supply including levels of service (refer to 4.1.2 Data Report). These terms are to be adopted by all government agencies including LGUs.

Table 4.1.1 Composition of Water Supply System/Facility by Service Level

Description	Level I (Point Source Facility)	Level II (Communal Faucet System)	Level III (Individual House Connection)
1. Water Source	Drilled/driven shallow well Drilled/driven deep well Dug well Spring Rain collector	Drilled shallow/deep well Spring Infiltration gallery	Drilled deep well Spring Infiltration gallery Surface water intake
2. Water Treatment	Generally none. Disinfection of wells is conducted periodically by local health authorities. Iron removal facilities are provided in problem areas.	Generally none	Disinfection is provided. Systems with surface water source have series of water treatment facilities.
3. Distribution	None	Piped system provided with reservoir/s	Piped system provided with reservoir/s and pumping facilities.
4. Delivery & Service Level	At point (within 250m radius)	Communal faucet (within 25m radius)	Individual house connection/household tap
5. Consumption Rate (Adequately Served)	At least 20 lpcd	At least 60 lpcd	At least 100 lpcd

(2) Safe and unsafe classification of water sources

DOH has classified Level I water source facilities as safe (reliable water source) and unsafe sources/facilities based on the National Standard for Drinking Water (NSDW).

Safe source: Protected deep well, protected shallow well, improved/covered dug well and developed spring

Unsafe source: Unprotected deep well, unprotected shallow well, open dug well, undeveloped/unprotected spring and rainwater collector

Water sources other than the above, such as untreated surface water of rivers, lakes and ponds are also considered unsafe sources. On the other hand, Levels II and III water supply systems are regarded to have safe/reliable sources with provision of adequate treatment.

(3) Service level standard

The NSMP and NEDA Resolution No. 12 define "adequate service level" by different water supply system. Improvement in the number of households per water source/facility may be expected for Level I service in the future. On the contrary, the number of households served by a unit of private/public source is sometimes beyond the standard on a current basis.

Level III: 1 household/connection

Level II: 5 (4 to 6) households/communal faucet

Level I: 15 households/point source
1 household/private well

4.1.3 Level III Systems

Level III (individual house connection) systems at municipal level are usually established and operated by WD under the technical and financial assistance of LWUA. Some LGUs also implement and operate Level III systems commonly at barangay level.

There are 16 Level III systems in the province operated under different kinds of ownership (authority or association) as shown in Table 4.1.2 together with their service coverage in 1997. These are:

- 3 Water Districts in the municipalities of Bunawan, Prosperidad and San Francisco;
- 1 Provincial waterworks catering the municipality of Prosperidad;
- 3 Municipal waterworks in the municipalities of Rosario, Santa Josefa and Sibagat;
- 9 Barangay waterworks in the municipalities of Bayugan (2), Esperanza (2), Prosperidad (1), San Francisco (3) and Trento (1).

San Francisco WD is the largest system in the province, covering 5 urban barangays and 7 rural barangays in the municipality of San Francisco with served population of 10,700 in provision of 9 spring sources. Presently, only 40% of the total service area are served and request for new connections/installation is suspended due to lowering water pressure. The WD submitted a position paper to DENR to assign the WD to be in charge of the protection of the watershed which would include monitoring, reporting and apprehending illegal tree cutters and reforestation of denuded areas. The conservation of the watershed is important to cope with increasing water demand. In this context, part of the income of the WD is currently used for mobile monitoring, reforestation and delineation of forest boundaries.

Aside from the WD, San Francisco has 3 other individual waterworks being operated by respective barangays. These waterworks adopt the combined system with communal faucets and their population coverage ranges from about 1,900 to 2,500 (details are referred to in Table 4.1.1, Supporting Report).

Following San Francisco WD is Rosario WSS, the second largest system in the province. The municipality of Rosario is operating the waterworks covering one urban barangay and 5 rural barangays out of the total 11 barangays in the municipality. The water source is spring. About 600 households are currently served by individual connections and an additional 200 HHs are scheduled to be served within the year (1998). In the interim, it is incumbent of the municipality to manage the waterworks, because of low-income generation in the initial operating stage. However, the municipality plans to make the waterworks a separate unit, after

Table 4.1.2 Information on Existing Level III System

Name of Municipality	Name of Operating Body	Water Consumption			Service Coverage								
		Type of Water Source	Water Consumption (cu.m/day)	Domestic Supply (%)	No. of Brgys. Served			No. of Household Served			No. of Population Served		
					Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Bayugan	Calaitan	SP	37	100		1	1		30	30		180	180
	San Juan	SP	64	100		1	1		20	20		160	160
	Municipal Total		101	100		2	2		50	50		340	340
Bunawan	Bunawan WD	SP	140	67	1		1	250		250	1,296		1,296
Esperanza	Poblacion	DW	66	100	1		1	110		110	660		660
	Santa Fe	DW	23	100		1	1		70	70		420	420
	Municipal Total		89	100	1	1	2	110	70	180	660	420	1,080
Prosperidad	Patin-ay	SP	216	97		1	1		165	165		990	990
	Prosperidad WD	SP	431	85	1	4	5	624	150	774	3,276	804	4,080
	San Jose	SP	202	100		1	1		49	49		294	294
	Municipal Total		849	91	1	6	7	624	364	988	3,276	2,088	5,364
Rosario	Rosario WSS	SP	387	100	1	6	7	373	177	550	3,029	5,605	8,634
San Francisco	Bayugan 2	SP	129	100	1		1	202		202	1,212		1,212
	Karaus	SP	173	100		1	1		212	212		1,166	1,166
	San Francisco WD	SP	1,145	79	5	7	12	1,764	222	1,986	9,579	1,157	10,736
	San Isidro	SP	188	100		1	1		205	205		1,157	1,157
	Municipal Total		1,635	85	6	9	15	1,966	639	2,605	10,791	3,480	14,271
Santa Josefa	Santa Josefa	DW	57	100	1		1	148		148	888		888
Sibagat	Sibagat	SP	98	100	1	1	2	111	52	163	623	290	913
Trento	Pulang-lupa	DW	80	100		1	1		83	83		500	500
Provincial Total			3,436	90	12	26	38	3,582	1,435	5,017	20,563	12,723	33,286

Note: 1. Type of Water Source: *DW* - Deep Well, *Surf.* - Surface Water (River), *SP* - Spring, *IG* - Infiltration Gallery.
2. * - Estimated at 100 lpcd.

full implementation of Level III coverage. Meanwhile, O&M and accounting of income and expenditures are lodged in the municipality. At the present time, O&M requirements are still subsidized by the municipality.

In the municipality of Prosperidad, the provincial capital, there are 3 systems. The Prosperidad WD covers one urban barangay and 4 rural barangays with a total served population of 4,200. Aside from the WD, there are two waterworks in Prosperidad, namely; Patin-ay waterworks and San Jose waterworks.

The Patin-ay waterworks that is presently operated by the province covers one rural barangay where the provincial government center is located. The waterworks adopts the combined system, with communal faucets at the residential area. The system practices rationing/scheduled water supply, although sufficient spring water source is tapped. This situation arises because of insufficient capacity of distribution pipes as a result of inappropriate planning/designing without considering system expansion.

San Jose waterworks supplies drinking water to 50 HHs at one rural barangay in combination with communal faucets. The waterworks adopts flat rate due to unmetered connections.

Sibagat waterworks, managed by the municipal government, covers all of the HHs at Poblacion and Barangay Mahayahay.

In the municipality of Bayugan, there are two barangay waterworks adopting the combined system with communal faucets.

In the municipality of Esperanza, there are one municipal waterworks catering to Poblacion and one barangay waterworks with population coverage of 700 and 400, respectively. These waterworks are the only cases in the province that utilize deep wells as water source.

Bunawan WD covers one urban barangay of San Teodoro in the municipality of Bunawan, supplying to 250 HHs out of the total 1,100 HHs.

In the municipalities of Santa Josefa and Trento, there are small-scale waterworks using deep wells as water source.

In all the above waterworks, disinfection is not continuously undertaken and in most cases, it is done only when the source is found positive in coliform group bacteria as a result of water quality examination. There is no regular program of disinfection even in Level III systems.

According to the result of the questionnaire, collection efficiency varies widely among the waterworks; 96% at San Francisco WD; 30% at San Jose waterworks; 75% at Prosperidad WD; 60% at Patin-ay waterworks; and 100% at Santa Fe waterworks. Generally, collection efficiency analysis is not practiced at small waterworks due to insufficient management practice.

Table 4.1.3 Information on Water District

Name of Water District	Number of Connections						Production (cu. m/mon)	Accounted for Water (cu. m/mon)
	Domestic	Institutional	Commercial	Industrial	Total	Metered		
Bunawan WD	179	8	63		250	250	9,813	4,186
Prosperidad WD	609	37	128		774	766	103,680	12,921
San Francisco WD	1,526		473		1,999	1,999	616,608	34,350

4.1.4 Level II Systems

Level II (communal faucet) systems are designed to cater for barangay level water supply with limited service coverage and supply capacity. These systems have been implemented by different agencies (DPWH, LWUA, DILG, LGUs) encouraging the use of spring sources and are operated by LGUs or RWSAs.

There are 57 Level II systems and majority of these is utilizing spring sources. The municipality of Sibagat has the largest number, 12 systems or 21% of the total as shown in Table 4.1.4 together with service coverage in 1997 (details are referred to in Table 4.1.2, Supporting Report). Some of these systems have encountered supply interruption caused by bursting of pipes due to inappropriate pipe installation and high water pressure. This supply interruption has also resulted to dirty water.

Problem areas, both in managerial and technical aspects, identified on existing Level II systems and necessary countermeasures for the improvements are discussed hereunder.

(1) Management practice

Among the 28 waterworks that responded in the questionnaire regarding water fee payment, about 60% imposes an average 10 Pesos/HH/month as flat rate, and the rest supplies water free of charge. This fact shows that even in Level II systems which are presently operational because of current management practices, the prevailing practice of flat rate water bill at the minimum level will lead to any one of these systems to become non-operational sooner or later. This is because the financial savings to cope with future repair and depreciation of existing facilities are not duly considered under the current management practice, while cost recovery by the operating bodies is a prerequisite in sector management.

To attain financial and managerial sustainability, reinforcement of RWSA or other operating body shall be promoted with reference to institutional development.

(2) Technical skill for O&M of facilities

Utilization of spring source usually leads to less attention to the daily O&M practice, owing to gravity flow of water to the service area. However, inappropriate care of spring box and pipeline results to various problems, e.g. turbid water, less water flow by clogging at spring box and pipeline, etc. Physical damage may also happen to the transmis-

Table 4.1.4 Information on Existing Level II System

Name of Municipality	Name of Operating Body	Service Coverage								
		No. of Brgys. Served			No. of Household Served			No. of Population Served		
		Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Bayugan	Berseba		1	1		112	112		608	608
	Fili		1	1		140	140		760	760
	Katipunan		1	1		98	98		532	532
	Mabuhay		1	1		193	193		1,059	1,059
	Osmeña		1	1		158	158		858	858
	Tagubay		1	1		90	90		489	489
	Wawa		1	1		158	158		858	858
	Municipal Total		7	7		951	951		5,164	5,164
Bunawan	B. Brook - Simulao, Guilas & Babadan		1	1		100	100		520	520
	Bunawan Brook		1	1		46	46		239	239
	Imelda & Libertad		2	2		416	416		2,163	2,163
	San Andres		1	1		200	200		1,040	1,040
	San Teodoro, Ascat	1		1	62		62	309		309
	San Teodoro, Binahanan	2		2	480		480	2,395		2,395
	San Teodoro, Clemente	1		1	80		80	399		399
	Municipal Total	4	5	9	622	762	1,384	3,103	3,962	7,065
Esperanza	Duagan		1	1		48	48		267	267
	Maasin		1	1		180	180		1,003	1,003
	Maliwanag		1	1		58	58		323	323
	San Jose		1	1		80	80		446	446
	Taganahaw BWSA		1	1		63	63		351	351
	Municipal Total		5	5		429	429		2,390	2,390
Loreto	Poblacion, Loreto	1		1	60		60	340		340
	Kasapa		1	1		30	30		165	165
	Sabud		1	1		79	79		435	435
	Waloe		1	1		218	218		1,201	1,201
	Municipal Total	1	3	4	60	327	387	340	1,801	2,141
Rosario	Bayugan 3		1	1		250	250		1,317	1,317
	Maligaya		1	1		104	104		570	570
	Marfil		1	1		303	303		1,660	1,660
	Municipal Total		3	3		657	657		3,547	3,547
San Luis	Mahagsay		1	1		93	93		499	499
	Mahayahay		1	1		97	97		521	521
	Muritula		1	1		56	56		301	301
	Municipal Total		3	3		246	246		1,321	1,321
Sibagat	Afga		1	1		125	125		750	750
	Banag-banag		1	1		99	99		591	591
	El Rio		1	1		215	215		1,287	1,287
	Kioya		1	1		121	121		726	726
	Kolambugan		1	1		63	63		378	378
	Magsaysay, Sibagat		1	1		36	36		216	216
	New Tubigon		1	1		140	140		840	840
	Padi-ay		1	1		249	249		1,493	1,493
	Perez		1	1		138	138		828	828
	San Vicente		1	1		124	124		744	744
	Santa Cruz, Sibagat		1	1		60	60		360	360
	Tag-uyango		1	1		101	101		607	607
	Municipal Total		12	12		1,471	1,471		8,820	8,820
Talakogon	Buena Gracia BWSA		1	1		20	20		109	109
	Culi		1	1		20	20		109	109
	Del Monte WW	1		1	850		850	4,751		4,751
	San Isidro BWSA	1		1	20		20	109		109
	San Nicolas BWSA	1		1	120		120	671		671
	Zillovia BWSA	1		1	80		80	447		447
	Municipal Total	4	2	6	1,070	40	1,110	5,978	218	6,196
Trento	Santa Maria	1		1	80		80	423		423
Veruela	Binongan		1	1		60	60		328	328
	Limot		1	1		60	60		328	328
	Masayan BWSA		1	1		20	20		109	109
	Magsaysay		1	1		180	180		983	983
	Poblacion	1		1	225		225	1,251		1,251
	Sampaguita		1	1		200	200		1,092	1,092
	Sampaguita, Kawayan		1	1		100	100		546	546
	Santa Cruz		1	1		40	40		218	218
	Sawagan BWSA		1	1		80	80		437	437
	Municipal Total	1	8	9	225	740	965	1,251	4,041	5,292
Provincial Total		11	48	59	2,057	5,623	7,680	11,095	31,264	42,359

sion line exposed on the ground in the mountainous area due to landslide, etc. associated with heavy rainfall, when proper protection of pipeline is not taken up.

Expansion of distribution line and installation of additional public faucets are usually undertaken without appropriate technical study on the capacities of water sources and distribution facilities, resulting to decrease of supply pressure and quantity.

To attain technical sustainability of existing facilities, an appropriate technical guidance and skills training for operating bodies shall be arranged by concerned agencies/LGUs.

4.1.5 Level I Facilities

Level I facilities (point source) are common in rural barangays, majority of which are privately owned. Major facilities are different types of wells equipped with handpumps or developed spring with transmission line and one communal faucet. Rain collector is also used in some areas.

Level I facilities are classified in terms of safe and unsafe sources referring to the definition of DOH and the data from PPDO as presented in Table 4.1.5 (details are referred to in Supporting Report). Served population in 1997 is also estimated as shown in the same table.

Of the 4,022 operational Level I facilities, 32% are shallow wells. According to the data from PPDO, 22.5% of the total facilities are estimated to be unsafe as the provincial average. All deep wells, covered/improved dug wells and developed springs are regarded as safe water sources. In application of the unsafe percentage to shallow wells for each municipality, 1,819 Level I facilities are classified as safe sources, while 2,203 facilities are under unsafe sources.

Problem areas observed on Level I facilities and necessary countermeasures for the improvement are summarized in terms of potable condition and functioning.

(1) Unsafe water sources

Most of the cases declared as unsafe sources are driven shallow wells which are unprotected against seepage of surface water and usually located in nearby potential pollution sources, such as septic tank and piggery. (The Code on Sanitation requires a minimum distance of 25m between water source and pollution sources.)

Table 4.1.5 Information on Existing Level I Facilities

Name of Municipality	Number of Safe Water Sources						Number of Unsafe Water Sources					Served by Safe Source			
	Deep Well	Shallow Well	Covered/Improved Dug Well	Developed Spring	Total	Shallow Well	Open Dug Well	Undeveloped Spring	Rain Water Collector	Total	Number of Household			Number of Population	
											Urban	Rural	Total	Urban	Total
Bayugan	31	596	11	37	675	47	142		9	198	6,145	4,994	11,139	32,815	59,783
Bunawan	15	5	21	11	52	3			8	11	592	943	1,535	2,990	7,901
Esperanza	46	102	11		159	30	178		2	210	303	2,865	3,168	1,701	17,689
La Paz	19	12		4	35	9	89	1	13	112	424	370	794	2,810	4,981
Loreto	31	22	4	8	65	12	55			67	461	1,329	1,790	2,621	9,956
Prosperidad (Capital)	5	16	161	22	204	5			12	17		5,021	5,021		26,913
Rosario	11	9		9	29	1	283		5	289		214	214		1,171
San Francisco	43	31	24	12	110	1	52		15	68	2,298	2,002	4,300	12,156	22,686
San Luis	34	43	42	19	138	28	76		5	109	534	1,307	1,841	3,103	10,174
Santa Josefa	13	11	3	4	31	7	148		13	168	345	687	1,032	1,861	5,476
Sibagat		60		32	92	27	18		2	47	686	1,039	1,725	3,762	9,448
Talacogon	23	19	1	7	50	1	75		3	79	1,922	464	2,386	10,493	13,096
Trento	40	98	5	7	150	61	96		1	158	1,944	1,763	3,707	10,322	19,258
Veruela	12	7		10	29	8	660		2	670		322	322		1,761
Provincial Total	323	1,031	283	182	1,819	240	1,872	1	90	2,203	15,654	23,320	38,974	84,634	210,293

These shallow wells shall be provided with concrete apron on the ground surface and proper drainage facility at the surrounding area. Relocation of wells or pollution sources may be another countermeasure. For new construction of shallow wells, proper site selection and appropriate construction method shall be applied together with periodic monitoring of water quality.

(2) Non-functioning/abandoned wells

There are a lot of non-functioning public wells in the province as shown in Table 4.1.6.

(3) Public and Private facilities for rural water supply

Percentage shares between public and private Level I facilities for rural water supplies are 65% and 35%, respectively. The share of developed springs in public facilities is 21%. (details are referred to Supporting Report).

Table 4.1.6 Operating Status of Existing Wells in the Province

Operating Status	Unit	Public Facility		Private Facility		Total
		Deep Well	Shallow Well	Deep Well	Shallow Well	
Functioning	No.	281	590	42	681	1,594
	Percent	58%	61%	98%	99%	73%
Non-Functioning	No.	207	379	1	31	73
	Percent	42%	39%	2%	1%	27%
Total Number		488	969	43	688	2,188

Note: Number of non-functioning wells includes abandoned wells, but details in number and reasons are not available.

For Level I facilities, the BWSAs or beneficiaries have responsibility on O&M, however, it is almost negligible. This can be gleaned from the presence of numerous non-functioning/abandoned wells constructed by DPWH. These conditions arise from lack of spare parts, drying up of water source and water quality problems such as colored water, etc. In some cases, they encountered problems relating to water source just a few months after turn-over of the facility. As a result of this, the beneficiaries resorted to using again their private dug wells that are considered unsafe.

Among others, deep wells usually necessitate repair/replacement of mechanical parts and redevelopment of the well itself. Apart from the same problems as deep wells, shallow wells have primary disadvantages such as the use of shallow aquifer which is easily affected by surrounding environmental conditions and the simple construction method applied (driving well point) that makes rehabilitation works difficult.

To prolong the service life of public deep wells, periodic check-up entailing preventive maintenance and redevelopment of wells are to be performed. Meanwhile, proper site selection and protection of well sources are requisites for shallow wells.

4.1.6 Water Supply Service Coverage

According to the definition of DOH in terms of safe and unsafe sources, service coverage was studied under "served", "underserved" and "unserved" categories.

The present population of the municipalities as of 1997, base year for planning purpose, was estimated referring to NSO's projection method. However, population distribution in 1995 census by urban and rural barangay prepared by NSO was adjusted to meet actual conditions in the classification of barangays. Details are referred to Section 8.3.1 Population Projection.

Water supply service coverage by service level is estimated for urban and rural areas covering all municipalities under the following conditions and assumptions:

- Service percentage/population by Level III and Level II systems was estimated based on the questionnaire survey results.
- Unserved population was estimated using the percentages of unserved households to the total number of households by urban and rural area based on questionnaire survey results and the 1990 population census data; "Households by Main Source of Drinking Water and City/Municipality" considering some modification.
- The rest of the population was considered served by Level I facilities assuming that 50% of private facilities was shared by neighbors to supplement insufficiency of public facilities.

Average number of households sharing at each Level I public/private facility was calculated at an average of 23 households/facility under the above assumptions (details are referred to in Supporting Report).

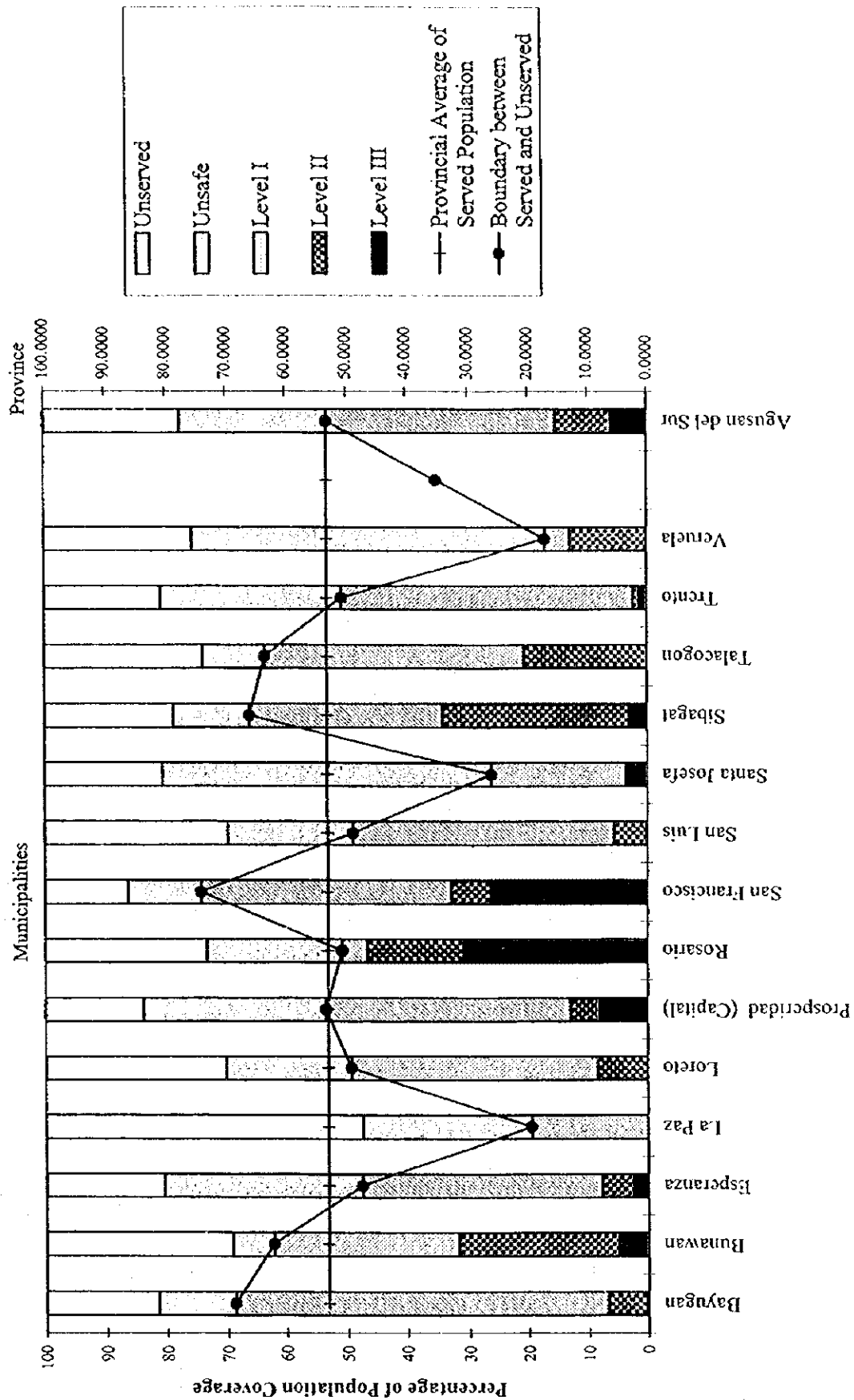
Table 4.1.7 presents the profile of the service coverage in terms of served, underserved and unserved. As a provincial total, 53% of the population is adequately served (67% of urban population and 47% of rural population).

The percentage of underserved population is estimated at 23% of the total population (17% of urban population and 26% of rural population) who are depending on unsafe sources/facilities.

Table 4.1.7 Water Supply Service Coverage by Municipality

Name of Municipality	Area	Population (1997)	Population Coverage					Percentage of Population Coverage				
			Served by Safe Source			Underserved/Unserved		Served by Safe Source			Underserved/Unserved	
			Level III	Level II	Level I	Total	Unsafe Source	Level III	Level II	Level I	Total	Unsafe Source
Bayugan	Urban	39,451			32,815	32,815	3,874			83	83	10
	Rural	57,080	340	6,200	26,968	33,508	8,641	1	11	47	59	15
	Total	96,531	340	6,200	59,783	66,413	12,515	1	7	62	69	13
Bunawan	Urban	10,706	1,296	3,103	2,990	7,389	748	12	29	28	69	7
	Rural	15,557		3,962	4,911	8,873	1,239	5	25	32	57	8
	Total	26,263	1,296	7,065	7,901	16,262	1,987	5	27	30	62	8
Esperanza	Urban	4,193	660		1,701	2,361	448	16		41	56	11
	Rural	40,342	420	2,390	15,988	18,798	14,282	1	6	40	47	35
	Total	44,535	1,080	2,390	17,689	21,159	14,730	2	5	40	48	33
La Paz	Urban	7,456			2,810	2,810	694			38	38	9
	Rural	18,046			2,171	2,171	6,311			12	12	35
	Total	25,502			4,981	4,981	7,005			20	20	27
Loreto	Urban	5,046		340	2,621	2,961	874		7	52	59	17
	Rural	20,123		1,801	7,335	9,136	4,749		9	36	45	24
	Total	25,169		2,141	9,956	12,097	5,623		9	40	48	22
Prosperidad (Capital)	Urban	21,840	3,276			3,276	16,817	15		17	15	77
	Rural	44,361	2,088	3,282	26,913	32,283	3,206	5	7	61	73	7
	Total	66,201	5,364	3,282	26,913	35,559	20,023	8	5	41	54	30
Rosario	Urban	3,031	3,029			3,029	2	2			100	
	Rural	25,080	5,605	4,501	1,171	11,277	6,279	22	18	5	45	25
	Total	28,111	8,634	4,501	1,171	14,306	6,281	31	16	4	51	22
San Francisco	Urban	25,519	10,791	1,296	12,156	24,243	1,276	42		48	95	5
	Rural	28,665	3,480	2,249	10,530	16,259	6,386	12	8	37	57	22
	Total	54,184	14,271	3,545	22,686	40,502	6,386	26	7	42	75	12
San Luis	Urban	5,038			3,103	3,103	776			62	62	15
	Rural	18,257		1,321	7,071	8,392	4,023		7	39	46	22
	Total	23,295		1,321	10,174	11,495	4,799		6	44	49	21
Santa Josefa	Urban	4,261	888		1,861	2,749	745	21		44	65	17
	Rural	20,506			3,615	3,615	12,790			18	18	62
	Total	24,767	888		5,476	6,364	13,535			22	26	55
Sibagat	Urban	7,884	623		3,762	4,385	1,765	8		48	56	22
	Rural	25,000	290	9,294	5,686	15,270	2,110	1	42	26	69	10
	Total	29,884	913	9,294	9,448	19,655	3,875	3	31	32	66	13
Talauegon	Urban	17,903		5,078	10,493	16,471	59		33	59	92	
	Rural	12,123		218	2,603	2,821	2,877		2	21	23	24
	Total	30,026		6,196	13,096	19,292	7,857		21	44	64	10
Trento	Urban	16,725		423	10,322	10,745	4,809		3	62	64	29
	Rural	22,778	500		8,936	9,436	6,964	2		39	41	31
	Total	39,503	500	423	19,258	20,181	11,773	1	1	49	51	30
Veruela	Urban	6,267		1,251	1,251	1,251	3,387		20	5	17	59
	Rural	34,802		4,041	1,761	5,802	20,648		12	5	17	99
	Total	41,069		5,292	1,761	7,053	24,035		13	4	17	59
Provincial Total	Urban	175,320	20,563	12,391	84,634	117,588	34,939	12	7	48	67	20
	Rural	379,720	12,723	39,349	125,659	177,731	100,505	3	10	33	47	26
	Total	555,040	33,286	51,740	210,293	295,319	135,444	6	9	38	53	24

Figure 4.1.1 Water Supply Coverage of the Province



The provincial service coverage at present is exhibited in Figure 4.1.1 (details are referred to Supporting Report).

Among different service levels, Level I water supply facilities have a predominant service coverage over 10 municipalities out of 14 municipalities in the province.

Percentage shares of population coverage by Level I public and private facilities in rural water supply are estimated at 78% and 22%, respectively (details are referred to in Supporting Report).

Level III systems take a major part of service coverage in urban water supply in limited municipalities, such as Rosario (100%) and San Francisco (42%).

Likewise, Level II system assumes on the majority of service coverage only in the municipality of Sibagat (42% of rural population). As of now, piped systems (Levels II and III) have not been fully developed in the province.

Taking into account the municipal service coverage, of the 14 municipalities of the province, 6 are above the average provincial service coverage of 53%. The highest coverage is seen in San Francisco at 75% followed by Bayugan (69%), Sibagat (66%), Talacogon (64%), Bunawan (62%) and Prosperidad (54%).

In contrast to the above, 8 municipalities are below the provincial average. The lowest is Veruela at 17%, followed by La Paz (21%) and Sta. Josefa (26%). The low coverage may be caused by the presence of a substantial number of non-reported/unidentified Level I facilities.

4.2 Sanitation and Sewerage

4.2.1 General

The national strategy for sanitation and sewerage is demand-oriented. It aims to stimulate sustainable improvements in sanitation service coverage, public health, and environmental pollution abatement. To achieve this goal, the Government has made investment choices based on demand and the extent to which choices contribute to efficiency and cost-effectiveness.

This sub-sector focuses on household toilets, school toilets and public toilets (public markets, bus/jEEPney terminals and parks/playgrounds). The latest data from the PHO on household

and public toilets as well as from DECS on school toilets were gathered by municipality. In case of household toilets, data were consolidated by urban and rural area. These facilities were classified into sanitary and unsanitary in terms of structure rather than the surrounding conditions.

The Code on Sanitation of the Philippines provides the minimum standards for services dealing with public health. Specifically, Chapter XVII on Sewage Collection and Disposal, Excreta Disposal and Drainage defines alternatives for on-site sanitation and sewage collection and disposal. At present, the development of sewerage systems, even in the urban centers of the province is not given priority because of the huge investment cost it entails.

In the NEDA Board Resolution No. 12 (series of 1995), definitions of approved types of sanitary toilets were outlined (refer to 4.1.2, Data Report). There were 4 approved types of sanitary toilets including the sanitary pit privy where water is not used but provided with cover to minimize the emission of foul odor and also to keep away flies and rodents. These definitions were applied in this Master Plan.

4.2.2 Types of Facilities and Definition of Service Level Standard

As set forth in the above-mentioned Resolution, the types of household toilet facilities commonly used are categorized into: 1) sanitary toilets - approved types of toilet facilities include water-sealed pour flush or flush-type toilets either with receiving pit or septic tanks/vaults, and ventilated improved pit latrines and sanitary pit privy (dry type) considering its low construction cost especially in rural areas and in areas where water is scarce; and 2) unsanitary facilities - include the types of facilities used for receiving and disposing human waste which do not fall under the category of approved types of toilet facilities such as open pit privy and over-hung latrines (refer to Figure 4.2.1 DOH standard structure of a household toilet that meets the minimum requirements of a sanitary facility, Supporting Report).

In terms of service level, households are classified into: 1) served households - households with at least one (1) sanitary toilet; 2) underserved households - households with unsanitary toilets; and 3) unserved households - households without toilet. Coverage of adequately served households (with sanitary toilets) was estimated by urban and rural area of municipalities. The remaining households were considered as underserved or unserved. The service coverage was determined using the estimated number of households in 1997.

Service level standard for both elementary and secondary school toilets is translated in terms of: 1) served students - students who are adequately covered by the DECS standard ratio of one (1) unit per 40 students with access to sanitary toilets (number of sanitary toilet units multiplied by 40); and (2) underserved or unserved students - those with unsanitary and without toilet facilities, and students unserved (based on the standard ratio) even though they have access to sanitary toilets. Service coverage of adequately served students was estimated both for public and private schools by municipality. Figure 4.2.2, Supporting Report shows a standard structure of a school toilet facility adopted by the DOH through the JICA-DPWII and DOH Rural Environmental Sanitation Project.

For public toilets, the service level is classified into: 1) served - utilities that have at least one (1) sanitary toilet, and 2) underserved or unserved - utilities that have unsanitary or without toilet facilities. Service coverage of public utilities was estimated as a percentage of sanitary facilities to the total number of utilities.

4.2.3 Sanitation Facilities and Service Coverage

(1) Household Toilets

The service coverage of sanitary toilets in the province is 61% of the total number of households. The rest is underserved or unserved. Of this, a high 23% is without toilet facilities (refer to Table 4.2.1, Supporting Report and 4.2.3 Sanitation Facilities and Service Coverage, Data Report).

Municipalities that have higher service coverage than the provincial average of 61% are Rosario (83%), Trento and Loreto (74%), Bayugan (71%), Sibagat (69%), Prosperidad (66%) and Bunawan (65%). On the other hand, the first 3 municipalities that registered the lowest service coverage are San Luis (27%), La Paz (43%) and Veruela (46%). It was observed that in municipalities that have high water supply service coverage (Bunawan, Prosperidad), high sanitation coverage occurs and correspondingly, in low water supply service coverage (Veruela, La Paz), low sanitation coverage also occurs. This can be attributed to the fact that the development of water supply almost always follows the upgrading of the household sanitation facilities because of access to water.

In urban areas, approximately 73% of the total households is served. A much lower served households of 56% exist in rural area. Table 4.2.1 shows the municipal breakdown in the number of urban and rural household toilets by category, and service cover-

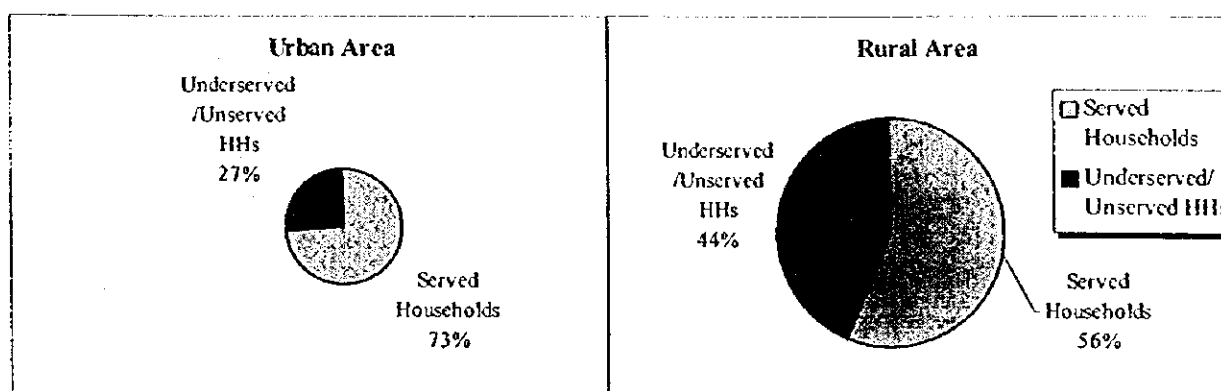
age. Figure 4.2.1 reflects the provincial service coverage of household toilet facilities for urban and rural areas.

Even if high percentages of sanitary toilets are revealed in the urban areas, problems arise from the unsatisfactory disposal of the effluent from the septic tanks or the direct discharge of wastewater to the local drains. Generally, there is little concern about the unsatisfactory disposal of wastes once it is outside their dwelling units. Practically, almost all the households dispose their wastes in the manner that poses risks to public health. Sullage waste management is unheard of.

Table 4.2.1 Sanitation Facilities and Service Coverage of Household Toilets, Urban and Rural

Municipality	Households, 1997			Household Toilets Facilities and Service Coverage											
	Urban	Rural	Total	Urban				Rural				Municipal Total			
				HHs Served by Sanitary Toilets		Underserved/Unservd HHs		HHs Served by Sanitary Toilets		Underserved/Unservd HHs		HHs Served by Sanitary Toilets		Underserved/Unservd HHs	
				Number	% of HHs	Number	% of HHs	Number	% of HHs	Number	% of HHs	Number	% of HHs	Number	% of HHs
Bayugan	7,388	10,570	17,958	6,235	84	1,153	16	6,492	61	4,078	39	12,727	71	5,231	29
Bunawan	2,120	2,986	5,106	1,019	48	1,101	52	2,291	77	695	23	3,310	65	1,796	35
Esperanza	747	7,230	7,977	473	63	274	37	3,559	49	3,671	51	4,032	51	3,945	49
La Paz	1,126	3,074	4,200	674	60	452	40	1,135	37	1,939	63	1,809	43	2,391	57
Loreto	888	3,645	4,533	589	66	299	34	2,743	75	902	25	3,332	74	1,201	26
Prosperidad (Capital)	4,160	8,276	12,436	3,322	80	838	20	4,856	59	3,420	41	8,178	66	4,258	34
Rosario	605	4,577	5,182	504	83	101	17	3,787	83	790	17	4,291	83	891	17
San Francisco	4,824	5,450	10,274	3,754	78	1,070	22	2,056	38	3,394	62	5,810	57	4,464	43
San Luis	867	3,375	4,242	475	55	392	45	675	20	2,700	80	1,150	27	3,092	73
Santa Josefa	789	3,898	4,687	526	67	263	33	1,688	43	2,210	57	2,214	47	2,473	53
Sibagat	1,439	4,022	5,461	1,050	73	389	27	2,725	68	1,297	32	3,775	69	1,686	31
Talacogon	3,279	2,161	5,440	2,080	63	1,199	37	1,037	48	1,124	52	3,117	57	2,323	43
Trento	3,150	4,493	7,643	2,545	81	605	19	3,128	70	1,365	30	5,673	74	1,970	26
Veruela	1,127	6,362	7,489	616	55	511	45	2,851	45	3,511	55	3,467	46	4,022	54
Provincial Total	32,509	70,119	102,628	23,862	73	8,647	27	39,023	56	31,076	44	62,885	61	39,743	39

Figure 4.2.1 Provincial Service Coverage of Household Toilet Facilities, 1997



(2) School and Public Toilets

Toilet facilities in elementary and secondary schools for both public and private schools were investigated. The province has a total of 1,591 toilet units found in 444 schools. Sanitary toilets adequately serve only 30% of the students. The rest, 70% is underserved or unserved. Table 4.2.2 provides the number and service coverage of school toilet facilities.

The number of sanitary school toilets is very low to meet the service level standard of 40 students per sanitary facility. At present, the average ratio is 133 students per sanitary toilet, more than 3 times the standard level. A number of school toilets constructed under FW4SP are not being used due to lack of water supply, destroyed plumbing fixtures and water tank seepage. In some areas, this problem is compounded when access to the sanitary facility is limited to only the teachers and guests.

DECS is currently promoting the practice of having one toilet within the classroom. This practice should be thoroughly reviewed with respect to maintaining sanitary condition, provision of water faucet/supply in every toilet/unit, proper design of depository to avoid groundwater pollution, and provision of regular sludge collection and disposal.

There are 32 public markets, bus/jEEPney terminals and parks/playgrounds in the province. All these public utilities have sanitary public toilets resulting to 100% service coverage. Table 4.2.3 shows the number and service coverage of public utilities.

Public toilets at markets, bus/jEEPney terminals and parks/playgrounds, although culturally acceptable, are improperly used and maintained resulting to unsanitary conditions. In most cases, no specific arrangements are made for the operation and maintenance and for the collection of fees to cover such costs. Although considered as sanitary because of the structure, most of the facilities have unsanitary conditions due to inadequate/lack of water supply and destroyed appurtenances because of vandalism.

Table 4.2.2 School Toilet Facilities and Service Coverage

Name of Municipality		Number of School	Number of Student	Number of Toilets			Service Coverage			
				Sanitary	Unsanitary	Total	Sanitary	%	Unsanitary	%
Bayugan	Public	54	33,259	352		352	14,080	42	19,179	58
	Private	15	3,778	18		18	720	19	3,058	81
	Total	69	37,037	370		370	14,800	40	22,237	60
Bunawan	Public	19	9,582	86		86	3,440	36	6,142	64
	Private									
	Total	19	9,582	86		86	3,440	36	6,142	64
Esperanza	Public	39	16,857	139	9	148	5,560	33	11,297	67
	Private									
	Total	39	16,857	139	9	148	5,560	33	11,297	67
La Paz	Public	22	6,274	56	8	64	2,240	36	4,034	64
	Private	1	283	2		2	80	28	203	72
	Total	23	6,557	58	8	66	2,320	35	4,237	65
Loreto	Public	32	11,483	86		86	3,440	30	8,043	70
	Private									
	Total	32	11,483	86		86	3,440	30	8,043	70
Prosperidad (Capital)	Public	45	24,762	132		132	5,280	21	19,482	79
	Private	3	1,009	6		6	240	24	769	76
	Total	48	25,771	138		138	5,520	21	20,251	79
Rosario	Public	15	9,769	88		88	3,520	36	6,249	64
	Private	2	472	4		4	160	34	312	66
	Total	17	10,241	92		92	3,680	36	6,561	64
San Francisco	Public	29	21,361	59		59	2,360	11	19,001	89
	Private	7	1,798	16		16	640	36	1,158	64
	Total	36	23,159	75		75	3,000	13	20,159	87
San Luis	Public	27	7,570	44		44	1,760	23	5,810	77
	Private			2		2	80			
	Total	27	7,570	46		46	1,840	24	5,810	77
Santa Josefa	Public	15	8,504	58		58	2,320	27	6,184	73
	Private									
	Total	15	8,504	58		58	2,320	27	6,184	73
Sibagat	Public	29	11,659	56		56	2,240	19	9,419	81
	Private	1	317	2	20	22	80	25	237	75
	Total	30	11,976	58	20	78	2,320	19	9,656	81
Talacogon	Public	26	11,444	90		90	3,600	31	7,844	69
	Private	1	464						464	100
	Total	27	11,908	90		90	3,600	30	8,308	70
Trento	Public	27	15,140	206		206	8,240	54	6,900	46
	Private	2	718	2		2	80	11	638	89
	Total	29	15,858	208		208	8,320	52	7,538	48
Vercuela	Public	32	10,811	48		48	1,920	18	8,891	82
	Private	1	95	2		2	80	84	15	16
	Total	33	10,906	50		50	2,000	18	8,906	82
Provincial Total	Public	411	198,475	1,500	17	1,517	60,000	30	138,475	70
	Private	33	8,934	54	20	74	2,160	24	6,854	77
	Total	444	207,409	1,554	37	1,591	62,160	30	145,329	70

Table 4.2.3 Public Toilets Facilities and Service Coverage

Name of Municipality	Number of Sanitary Toilets			Number of Unsanitary Toilets			Total Number of PU Toilets	Served		Underserved	
	Public Markets	Bus/JEEPNEY Terminals	Parks/Playgrounds	Public Markets	Bus/JEEPNEY Terminals	Parks/Playground		Number of Sanitary Toilets	%	Number of Unsanitary Toilets	%
Bayugan	1	1					2	2	100		
Bunawan	1	1					2	2	100		
Esperanza	1	1					2	2	100		
La Paz	1	1					2	2	100		
Loreto	1	1					2	2	100		
Prosperidad	1	1					2	2	100		
Rosario	3	1	1				5	5	100		
San Francisco	1	2					3	3	100		
San Luis	1	1					2	2	100		
Santa Josefa	1	1					2	2	100		
Sibagat	1						1	1	100		
Talacogon	1	1					2	2	100		
Trento	1	1	1				3	3	100		
Veruela	1	1					2	2	100		
Provincial Total	16	14	2				32	32	100		

(3) On-going Projects

A total of 5,575 toilet bowls through the PAF - 2 and FW4SP projects is currently being distributed to each of the equivalent number of rural households as follows:

<u>Municipality</u>	<u>No. of HHs</u>	<u>Municipality</u>	<u>No. of HHs</u>
Bayugan	375	San Francisco	650
Bunawan	750	San Luis	700
Esperanza	600	Santa Josefa	150
La Paz	300	Sibagat	200
Loreto	150	Talacogon	650
Prosperidad	150	Trento	200
Rosario	250	Veruela	450

The recipient households are providing the superstructure and the depository of the sanitary toilet. With the distribution, the coverage of served households will increase from 61% to 67%.

4.2.4 Sewerage Facilities

There are no existing sewerage facilities in the province. Most of the wastewater from the dwelling units with acceptable facilities finds its way to open drains and eventually to water-courses. These deficiencies are the major contributing factors to the poor condition of the water environment in some areas of the province.

Chapter

5

**EXISTING SECTOR ARRANGEMENT
AND INSTITUTIONAL CAPACITY**



5. EXISTING SECTOR ARRANGEMENT AND INSTITUTIONAL CAPACITY

5.1 General

Much has happened in the sector since 1987 when the national master plan for the sector was initially prepared. Its development targets to be attained for the medium term was renewed in 1996 through the Updated Medium term Development Plan. The water supply, sewerage and sanitation sector today is still in a transition stage. As a recent development, a national level comprehensive plan, 'the Philippine National Development Plan', directions to 21st century, was published in 1998 by the NEDA.

As for the institutional aspect, the Local Government Code (1991) has essentially re-defined the role, relationship and linkages of central, provincial, municipal and barangay institutions in the provision of social basic services, including water and sanitation. Before the issuance of the Code, the responsibilities for water supply and sanitation functions were lodged with various national agencies. The new direction mandates the Local Government Units (LGUs) to play a larger role in planning and implementing water supply and sanitation projects, however, this has raised serious institutional capacity and resource reallocation issues.

Chapter Five provides an overview of existing sector policies and arrangements as a basis for formulating modifications and improvements. It identifies current capacity building issues, which need to be addressed in the early stages of master plan implementation. Most importantly, it assesses the impact of the present devolved delivery system at the local levels.

5.2 Sector Reforms

The GOP has set the future agenda for sector reform. These initiatives followed the completion of the Water Supply Sector Reform Study and the National Urban Sewerage and Sanitation Strategy Study. The GOP has endorsed the major recommendations of these studies through the following NEDA resolutions. Furthermore, these resolutions are reflected in the above mentioned National Development Plan.

(1) NEDA Resolution No.4 (series of 1994)

LGUs, in the context of the LGC and related decentralization efforts, now play a lead role in service delivery. The resolution, NEDA Resolution No.4, allows LGUs to implement all levels of water supply projects and redefines the roles of other sector agencies.

With the purpose of ensuring common interpretation of the Clause (g) of NEDA Board Resolution No.4 (series of 1994), the Implementing Rules and Regulations (IRR) for the relevant sector was prepared by the DILG and has been approved by the NEDA in 1998. It delineates the responsibilities of government agencies involved in the sector, and defines the role of local government units in the provision of water supply and sanitation services including O&M of the facilities. The new direction mandates the LGUs to play a larger role with an emphasis on institutional strengthening needs to adequately perform their devolved functions in the sector (refer to 5.2, Data Report).

- (2) NEDA resolution No.5 (s. 1994) reaffirms the principle of provision of sewerage and sanitation services on the basis of willingness-to-pay. The resolution mandates the establishment of a Central Project Support Office (CPSO) at LWUA to assist LGUs in the formulation, preparation and implementation of sewerage/sanitation projects (refer to 5.2, Data Report).

5.3 Sector Institutions

(1) Existing Institutional Arrangements

Although the LGC mandates the LGUs major changes on sector structure and performance, the sector is still in transition. However, the new sector role and respective responsibilities of the LGUs and national agencies are defined in the IRR.

At the national government level, there are three line agencies (DPWH, DILG and DOH) and two government-owned and controlled corporations (MWSS and LWUA), responsible for sector project implementation as shown in Figure 5.3.1. A regulatory board, the National Water Resource Board (NWRB) coordinates the overall policy framework for water resources development and management. Other government agencies are concerned with macro planning, natural resources allocation decisions and environmental protection and management.

At the local level, there are national government agency field offices working for the sector. Water Districts, RWSAs and BWSAs, on the other hand, deal with the actual delivery of water in different service levels. Some LGUs continue to operate provincial and municipal water supply systems. The private sector, non-government organizations and community-based organizations also undertake water supply and sanitation activities in the rural communities.

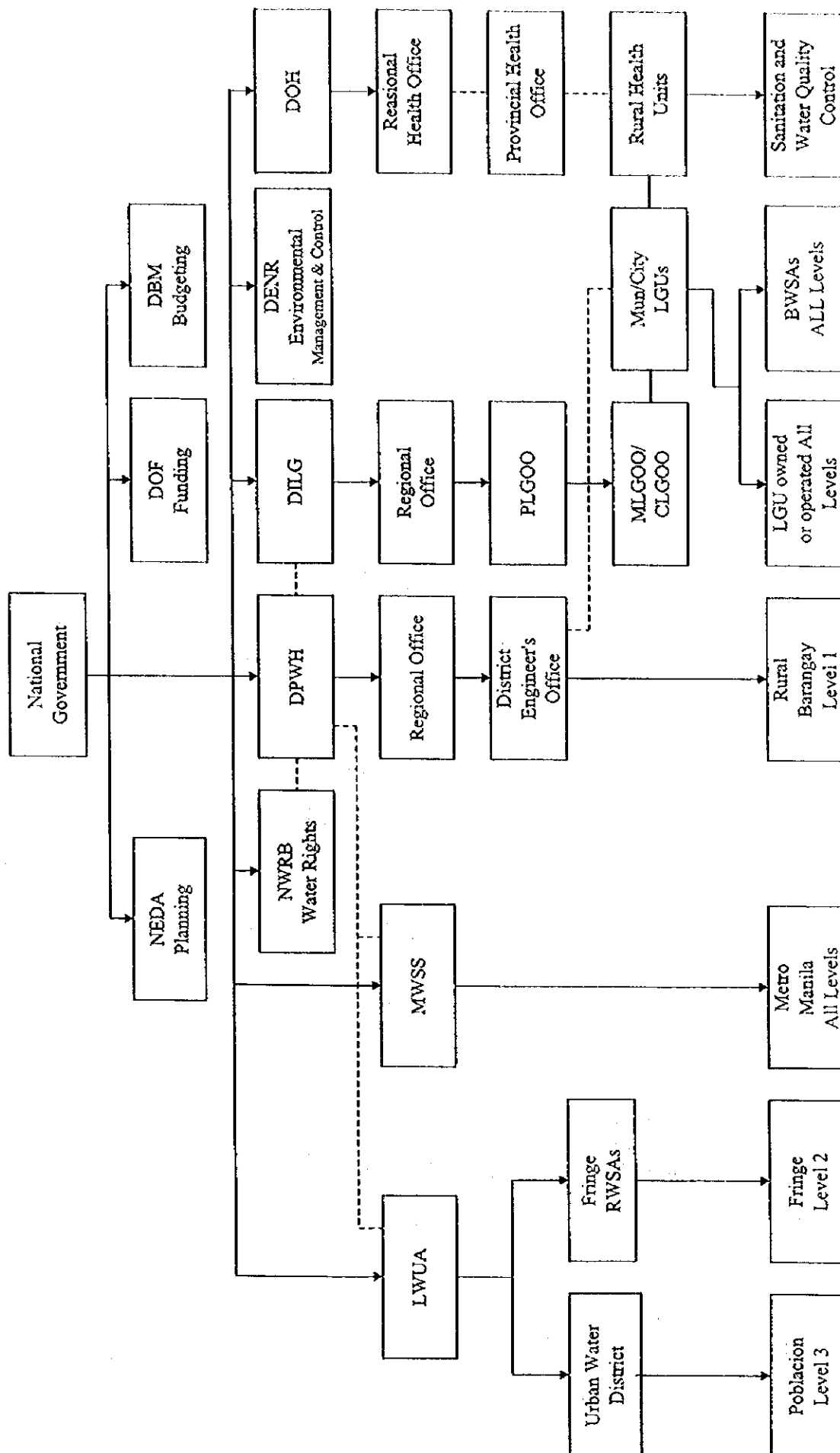


Figure 5.3.1 Functional Relationships

The drastic changes took place among the DPWH, DILG, DOH and LGUs after the government decentralization and issuance of the NEDA Board Resolution No.4. The transition functions of these agencies are presented in Table 5.3.1. As shown, those of implementing water supply projects, DPWH used to undertake, are now transferred to the LGUs. The functions of PHO under the DOH have been devolved to the LGUs. Thus, DILG now undertakes the overall coordination function for the implementation of the WATSAN projects.

Table 5.3.1 Transition Functions of the DPWH, DILG and DOH

Agency	Before NEDA Board Resolution No.4 in 1994	Present Involvement
DPWH	Identify projects	Transferred to the DILG
	Design/Construct Level-I	Transferred to PEO/MEO
	Repair/Rehabilitate Level-I	Transferred to PEO/MEO
	Formulate/Evaluate maintenance. Program	Transferred to PEO/MEO
	Organize BWSA	Trans. to PPDO with DILG assistance
	Train BWSAs on O&M	Transferred to LGUs with DILG assistance
	Procure/supply materials/spare parts	Transferred to PEO/MEO
	Sector/Project monitoring and data-management	Transferred to LGUs with DILG assistance.
DILG	From the DPWH functions	Overall coordination for project implementation (identification of project, training of BWSAs on O&M, and monitoring and data management)
	-do-	Assist LGUs to identify water supply systems, Level-I, II and III.
DOH	Develop and implement rural sanitation programs nationwide	Transferred to PHO
	Implement the sanitation component of integrated water supply and sanitation projects	Transferred to PHO
	Monitor, inspect and disinfect water supply systems	Transferred to PHO
	Provide its health workers with training on water quality surveillance, hygiene education, and water purification treatment processes	Transferred to PHO
	Conduct health education campaigns	Transferred to PHO
	Produce information, education and communication (IEC) materials on water supply	Transferred to PHO

(2) Sector Finance

1) Cost sharing arrangement

As the recent policy of the central government, programs of central government particularly for those that have social and/or environmental objectives are implemented through a cost-sharing manner between the central government agency and LGUs. National government grant will be provided for the limited municipalities in terms of socio-economic conditions.

2) Financing and management systems

The LGUs may either finance the sector projects directly or involve the participation of the private sector through concession, management or service contracts.

In financing WATSAN activities, the LGUs may tap their Internal Revenue Allotments (IRAs) and/or locally generated revenues or leverage. These are also the resources to borrow from government or private financing institutions.

LGUs can access ODA loans for devolved activities, which are being channeled through conduits. These conduits are the Municipal Development Fund (MDF) and a Government Financial Institution (GFI). Their respective policy-making bodies determine the re-lending/on-lending terms passed on to the LGUs. The Policy on accessing loans through the MDF is currently under review by the central government to make the terms and conditions more concessional towards the LGUs.

5.4 Sector Agencies at the National Level

(1) Department of the Interior and Local Government (DILG)

The DILG is responsible, through the promulgation of rules and regulations and by means of technical assistance and training, for facilitating the implementation of the LDC. Accordingly, it is the leading national coordination agency responsible for the supervision and administration of water supply and sanitation projects implemented by LGUs and is mandated to strengthen local capacity for delivery of the services

General administration and institution building supports to LGUs entail assistance in the formation and training of BWSAs, coordination of master plan preparation, provision of external funds, formulation and installation of sector management systems (including O&M) and BWSA financial management systems. It also provides assistance to LGUs in terms of technical support for evaluation of water sources and design of simple water

systems (Level I and II).

The Water Supply and Sanitation-Project Management Office (WSS-PMO), a unit within DILG, is primarily responsible for water and sanitation activities in the department. The provincial planning and development office (PPDO) and the municipal planning and development office (MPDO) are the immediate links of the DILG at the LGU level. For the purpose of ensuring coordination in implementing projects where there are other agencies involved, DILG facilitates the formation of Task Forces with the PPDO and the MPDO still assuming overall responsibility. Through the PPDO and MPDO, barangays needing improved water supply and households needing sanitation improvements are identified and water supply and sanitation associations are formed.

Likewise, the DILG is now one of the leading institutions to promote gender-responsive project management. Under the leadership of focal points, gender awareness training have been conducted at the regional and provincial levels.

(2) Local Water Utilities Administration (LWUA)

Presidential Decree 198 created the LWUA to act as a specialized lending institution for local Water Districts (WDs) and oversee the development of these water utilities based on the twin concepts of financial viability and self-reliance. In 1987, LWUA responsibilities were expanded to include assistance to Level-II Rural Waterworks and Sanitation Associations (RWSAs). The provision of Level II and III services and of wastewater disposal systems in communities outside Metropolitan Manila is largely coordinated by the LWUA. However, NEDA Resolution No.4 directed LWUA to focus on its development-banking role to finance only viable WDs.

Financial services include economic and financial analysis, tariff analysis and fund sourcing. Various types of loans are available to finance the construction of water systems; reactivation of non-operating systems, rehabilitation and expansion of facilities; and training. Among them, special loans finance watershed management projects: construction of administration buildings; purchase of service vehicles, communication and computer facilities; restoration of facilities damaged by calamities; initial or emergency operational needs. Commodity loans support generation of additional service connections.

LWUA maintains and fields a pool of management advisors, trainers, engineers and other professionals to give WDs and RWSAs proper guidance in their operation and administration. In addition, the Central Sewerage and Sanitation Program Support Office

(CPSO) was established at LWUA to coordinate the implementation of sewerage and sanitation projects at the national level and to assist LGUs and WDs plan and manage sewerage and sanitation at the local level.

(3) Department of Public Works and Highways (DPWH)

The Department was responsible for the construction and major repair/rehabilitation of rural water supply systems (Level-I) and for the planning and execution of sewerage projects in some cities and larger poblaciones in the country with participation of LGUs. However, DPWH's responsibility drastically changed with the implementation of NEDA Board Resolution No.4. Based on the new mandate, the functions of DPWH is limited to setting technical standards and assisting LGUs, upon agreement and in coordination with LGUs, in the conduct of surveys, preparation of plan, specifications, and program of work, construction management, and technical researches in WATSAN project.

The DPWH maintains about 92 District Engineering Offices (DEOs) nationwide at the field level. The DEOs were staffed with a water engineer, drilling crews and equipment. However, these days most of staff members have been transferred to the private sector and others.

(4) Department of Health (DOH)

The department is the principal health policy-making and implementing agency. The main function is to develop and implement sanitation programs nationwide and administer health education aimed at reducing morbidity due, among others, to waterborne and sanitation related illness specifically diarrhea diseases which ranked second leading cause of morbidity among the population in the past years.

Under the current sector arrangement, DOH shall assume the following responsibilities: i) sets and/or updates standards on water quality testing, treatment and surveillance and sanitary practices; ii) assists LGUs in the conduct of periodic water quality control and surveillance-related activities; iii) and monitors and evaluates health and hygiene education.

DOH, through PHO, conducts health and hygiene education campaigns that focused on women and children health improvement in rural communities. Centrally- produced information, education and communication (IEC) materials support the program. It has produced and distributed IEC materials on water supply and hygiene behavior nationwide. Through its field health worker, it gives orientation to BWSAs on protection and

disinfection of water sources and construction and maintenance of toilets.

(5) Other National Agencies

Other national agencies provide macro planning, funding and support, and regulatory guidelines for the water supply and sanitation sector.

The National Economic and Development Authority (NEDA), as the central planning office, ensures that all agencies' plans and programs are consistent with national priorities in the Medium-Term Public Investment Program and the Priority Sub-Sector Activity Layout. External grants and loan proposals are reviewed and approved at NEDA. It also coordinates the establishment of a system for national sector master planning and the monitoring system (with DILG).

The Department of Finance (DOF) is responsible for the generation and management of the financial resources of the government. It reviews and approves all public sector debt and economic growth, and sets the fiscal deficit of major government corporations, as part of the public sector-borrowing program.

The Department of Budget and Management (DBM) plans the budget allocations for the government agencies, including capital and operating expenditure, equity infusion to public corporations, grants and subsidies for congressional approval. DBM also ensures that budget releases conform to approved plans and programs.

The Department of Environment and Natural Resources (DENR) formulates and enforces policies and guidelines for environmental protection and pollution control. It is responsible for watershed protection and water resources management. It checks compliance of major projects with environmental guidelines. DENR works with all environmental management agencies and special regulatory bodies.

The Department of Education, Culture and Sports (DECS) implements hygiene education programs through schools using the Teacher-Child-Parent (TCP) approach. Health and sanitation messages are integrated in the curricula and special activities are designed to make the parents and other family members learn and put them into practice. A wide range of learning material (workbook), while prototypes of safe water sources and water sealed toilets are set up in schools supplements the program. DECS assists in the GOP school toilet building project by identifying priority schools and by supporting DOH's integrated health information, education and communication campaign using the formal

and non-formal educational system.

The National Water Resources Board (NWRB) coordinates the overall policy framework for water resources development and management. NWRB was created to guide an orderly and scientific development of all water resources in the Philippines consistent with the principles of optimum utilization, conservation and protection to meet present and future needs. NWRB also deals with water rights issues. The NWRB is tasked to regulate the use of water resources through the issuance of water rights and the tariffs of privately run water systems.

5.5 Sector Agencies at the Local Level

(1) Provincial Level

The offices involved in WATSAN activities, are the Provincial Planning and Development Office (PPDO), the Provincial Engineering Office (PEO), the Provincial Health Office (PHO), the Provincial Treasury Office (PTO), the Provincial General Services Office (PGSO), the Provincial Budget Office (PBO), and the Provincial Accounting and Internal Audit Service Office (PAIASO).

1) Provincial Planning and Development Office (PPDO)

The PPDO is in charge with the formulation of comprehensive development plans and policies for consideration of the Provincial Development Council. It conducts studies, research and training programs to support plan formulation and promotes people participation in its planning activities. It likewise integrates and coordinates sectoral plans and studies undertaken by different functional groups or agencies, and monitors and evaluates the implementation of development programs/projects and activities. The office is composed of five divisions, details of which are shown below (refer to Organization Chart Figure 5.5.1, Supporting Report).

- **Administrative** - Its function is to provide efficient administration and timely and adequate support services. It has 4 staff members.
- **Plans and Program** - The division is responsible in undertaking planning and programming of the various sector development activities: agriculture, social, water source, investments, trade and industry, tourism, capital improvements and annual implementation. It supports the Special Project Division in the implementation of the over-all fiscal plan. Eleven regular personnel man it.
- **Evaluation, Research and Statistics** - It conducts field surveys and inspection of proposed projects, prepares statistical reports and other documents necessary for

the evaluation, planning and programming and project implementation. It likewise supports the plans and programs division in the preparation of needed documents. It has a total staffing complement of 10.

- **Special Project** - The division is primarily responsible for the implementation of special projects and the infrastructure sector. It undertakes project proposal and project studies preparation, conducts ocular surveys and investigation and prepares recommendations. It also coordinates on direct labor participation and community involvement in project execution as well as coordination with the concerned regional and municipal officers. There are 5 regular staff members.
- **WATSAN Center** - The task of managing water supply and sanitation sector in the province is currently the function of the Center.

WATSAN Center (WC): A precursor of the Provincial Water Supply Task Force that was established in 1995, the WATSAN Center (division) was created and operationalized in the PPDO in May 1997 by virtue of Sangguniang Panlalawigan Ordinance No. 10, series of 1997. The ordinance aims at rationalizing the implementation of all water supply and sanitation projects in the province in coordination with the different government agencies and private entities. The main function of the Center is to undertake the whole gamut of project development process of WATSAN - from planning, designing, construction, O&M, monitoring, finance to coordination with other agencies (refer to 5.5 WATSAN Center, Supporting Report).

2) Provincial Engineering Office (PEO)

The PEO is responsible for the administration, coordination, supervision, and control of construction, maintenance, improvement, and repair of roads, bridges, and other engineering and public works projects of the provincial government. It formulates policies and objectives, plans and programs, techniques and procedures/practices in infrastructure development and provides engineering services such as investigation and survey, designs, feasibility studies, and project management. It also provides technical supervision over all engineering offices of component municipalities. The office has six divisions, Administration, Architectural, Motor Pool and the following divisions. (Refer to Organization Chart Figure 5.5.2, Supporting Report):

- **Planning, Designing and Programming** - The division is responsible in formulating and integrating general plans, programs and projects of the provincial government. It conducts designing, planning and programming of provincial/national projects assigned to the office.

- **Construction and Maintenance** - Its function is to provide technical supervision and, overall activities relating to construction and maintenance of roads and bridges and drainage system along provincial roads. It also prepares estimates of construction cost and program construction operations including equipment requirements.
- **Quality Control** - The task is to undertake and direct the conduct of laboratory tests on the durability and practicability of locally available materials and evaluate/assess the, acceptability. The Patin-ay Waterworks System (LGU-managed Level III system (for the detail refer to 5.5 Patin-ay Waterworks System, Supporting report) is attached to this division. The designated OIC of the system is the second in rank in this division.

3) Provincial Health Office (PHO)

The PHO formulates and implements policies, plans, programs and project to promote the health of the people in the province. It also provides technical assistance in the RHUs, institutionally belonging to respective municipalities, and BHSS belong to barangays and assist in the promotion and maintenance of public sanitation. The office is also tasked of conducting health information campaigns and render health intelligence service. The office undertakes 6 services: Administrative, Medical, Nursing, Ancillary, Dietary, and technical services (refer to Organization Chart Figure 5.5.3, Supporting Report). The following are referred to the technical services.

- **Technical** - This service provides health services in the hospital and supervises implementation of program activities in the field. Under this service, are 9 units, 2 of which are directly involved in the delivery of WATSAN activities.

Environmental Sanitation (EVS) Unit: The EVS is responsible in formulating plans of environmental sanitation, and collecting and analyzing data. It also supervises/validates all RSIs in the implementation of environmental sanitation activities and provides technical assistance to any environmental sanitation related problems. The unit is tasked with water quality control and surveillance. Only 2 staff mans it: a sanitary engineer and a supervising sanitary inspector.

Primary Health Care and Health Education Unit: The unit is tasked with the conduct of lecture on health education activities and IEC campaign to health providers/community. It coordinates with program managers in launching training and monitoring of health programs and monitors in the continuance of household teaching class. It also distributes IEC materials and coordinates with GOs and

NGOs. There are only 1 personnel in charge of this unit.

- 4) Provincial Treasurer's Office (PTO), Provincial Budget Office (PBO), Provincial Accounting and Internal Audit Service Office (PAIASO), and Provincial General Services Office (PGSO)

The PTO is in-charge of the disbursement of all local government funds. It collects taxes, revenues, fees and other charges that are estimated to support the general appropriation ordinance. The office maintains and updates the tax information system of the local supervision over all treasury offices of component municipalities. It also conducts periodic tax education information/collection campaign and trains barangay treasurers and officials in the methods of collecting real property taxes, other fees and charges.

The PBO provides fiscal budget administration for the provincial government. It is responsible in budget preparation, execution, control and accountability. The office reviews and consolidates the budget proposals of different offices of the LGU. It coordinates with the treasurer, the accountant, and the planning and development coordinator for the purpose of budgeting. It also provides prompt and efficient reviews of municipal budgets.

The PAIASO is tasked with the recording and review of financial transactions in accordance with generally accepted accounting principles, rules and regulations. It summarizes and prepares financial statement for submission to different offices for financial information on the financial condition and operation of the province. The office also reviews financial transactions in accordance with existing auditing rules and regulations and recommends measures necessary to improve the system in the utilization of government funds and properties.

The PGSO provides effective direction and coordination of the various administrative and support services necessary for the operation of the office including the keeping of government records, and the proper and timely dissemination of printed communication and correspondence. It is responsible in acquisition/procurement of supplies and materials as identified in the overall fiscal plan. It collates and disseminates information on prices, shipping and other costs of supplies and other items commonly used by the LGU.

(2) Municipal and Barangay Level

The municipality serves primarily as a general-purpose government for the coordination and delivery of basic, regular and direct services and effective governance of the inhabitants within territorial jurisdiction. It has much the same organization structure and legislative authority with same relationship to the Province. As for WATASAN project, the following offices are directly involved.

1) Municipal Planning and Development Office (MPDO)

The MPDO is mandated to take charge of the planning and development and shall formulate an integrated economic, social, physical, and development plans and policies for consideration of the Municipal Development Council. The regular activities include preparation of planning documents, monitoring and evaluation of projects.

2) Municipal Engineer's Office (MEO)

MEO regularly performs engineering surveys to acquire data for designs, layout or constitution of waterworks systems, sanitation facilities and other infrastructure projects. It also inspects works of contractors based on presented plans and specifications.

3) Barangay Councils (BCs)

The LGC designated barangays as independent units of local government. The barangay council acts as a legislative body of the barangay. Aside from their share in the IRA from the National Government, the barangay councils are empowered to enact tax and revenue ordinances as may be necessary to discharge the responsibilities conferred upon them by law and to promote the general welfare of the inhabitants. They are also tasked to provide solicit funds for the construction of barangay facilities, maintain and regulate their use and charge reasonable fees for the use thereof.

4) Rural Health Units/Barangay Health Stations (RHUs/BHSSs)

The RHUs/BHSSs are under the direct supervision of the respective municipality and the MHO extending health services to the barangay residents. They provide assistance in family-planning activities, emergency/relief services especially in far-flung barangays, and other similar activities that promote the general well-being and health needs of the residents. Midwives and other health workers usually schedule periodic visits to these health units/stations.

(3) Field Offices of Central Sector Agencies

1) DPWH District Engineer's Office (DEO)

The DEO is mandated to undertake and evaluate the planning, design and construction, and work supervision functions of the DPWH for all public works within the district. It coordinates with other departments, agencies, institutions and LGUs within the district in the implementation of infrastructure projects. Currently, previous water supply section, a unit under Construction Division, is maintained at some DEOs. The staff members consist of a water supply engineer, a well driller and its supervisor.

2) DILG Provincial /Municipal Local Government Operations Offices (LGOO/MLGOO)

The PLGOO/MLGOO is tasked to provide general administration and institution-building support to LGUs to strengthen local capacity for delivery of basic services. Every province has a PLGOO assigned. The Provincial Task-Force on Water Supply, Sewerage and Sanitation was headed by the DILG Provincial Action Officer assigned to the sector, but was disbanded when the Provincial Sector Planning Team (PSPT) was created.

3) NEDA Regional Office and Regional Development Council

The organizations coordinate with DILG to establish the system for regional sector master planning and the monitoring system. Acting as Secretariat of the Regional Development Council, NEDA ensures that sector plans are consistent with regional and national priorities. It requires project proposals/plans and programs to be approved and endorsed by the Provincial Development Council (PDC) whose task is to incorporate, consolidate and prioritize municipal plans, programs and projects.

(4) Water Districts (WDs)

Water district is a local government corporation formed pursuant to Presidential Degree No.198, organized for the purpose of serving the water supply requirements of the residents within its franchise area. Technical and financial assistance (loans) are provided by LWUA to WDs. LWUA also exercises regulatory functions vis a vis the districts. A WD, to be self-sufficient, is operated in a business-like manner to generate enough revenue from its water sales. The income is used to meet operational expenses, debt service and reasonable reserves for contingencies.

(5) **Barangay Waterworks and Sanitation Associations/Rural Waterworks and Sanitation Associations (BWSAs/RWSAs)**

A BWSA is an organization of water supply and sanitation beneficiaries in a barangay whose objective is to own, operate and maintain the water systems. RA 6716 requires its formation to ensure the provision of adequate, potable and accessible water supply to its members through proper operation and maintenance of the Level I facilities. The organizational size depends on the number of facilities, need, culture and situation in a particular barangay, but the structure is quite simple as consisted of the board of directors, book-keeper and caretaker/s. The formation activities of the BWSA are divided into three phases: pre-formation/social preparation, formation and post formation. During the formation phase, pre-membership training and election of BDO and Officers are held. In this phase, individual member interest and community commitments are manifested through application for membership in the association and signing of Manifesto Resolution. RWSAs are organized to operate, manage and maintain Level-II and small Level-III systems, which are not covered by Water Districts.

(6) **Other Concerns**

1) **Provincial Development Council (PDC)**

The main function of the PDC is to formulate a long term, medium term and annual socio-economic development plan and policies as well as investment program of the province. The PDC is headed by the Governor and is composed of the following: Representative of the Congressman, Chairman of Sangguniang Panlalawigan's Committee on Appropriations; municipal mayors, representatives from NGOs, President of the Association of Barangay Captains, President of the Councilors League and the Sangguniang Kabataan President (refer to 5.5 Data Report).

2) **Private Sector**

The private sector has been involved in water supply development in the form of investments, technical studies and construction of water supply and sanitation facilities. The NGOs have also demonstrated capability to undertake project development and implementation with community participation.

5.6 External Support Agencies Active in the Sector

(1) **Multilateral Agencies**

The World Bank supported the *First Water supply, Sewerage and Sanitation Sector Proj-*

ect or FW4SP. This project provided capital funds (US\$58.0M) for rural water supply in Luzon provinces and sanitation nationwide based on completed provincial master plans. The project concept called for a community based approach through BWSAs. The project was implemented from 1991 to 1995 (finally extended up to 1997), and following this project Capacity Enhancement Program (CEP) with DILG as implementing agency was conducted until the end of 1997. In addition, the Bank prepared a new loan for DILG implementation. It is the *Local Government Urban Water Supply & Sanitation Project* to assist municipalities of the lower tier income class i.e. 4th, 5th, and 6th (approximately 50 municipalities in the 20 provinces nationwide), which are not covered by water districts: to improve water supply and sanitation services. Through its various trust fund facilities, the bank has also arranged for various technical assistance grants and other support activities.

The Asian Development Bank (ADB) currently provides assistance for the *Rural Water Supply and Sanitation Sector Project or RW3SP*. The project is aiming to improve poor situation of water supply and sanitation of the 20 Social Reform Agenda (SRA) priority provinces located in Luzon, Visayas, and Mindanao. The project consists of two parts, one is the institutional development and another is construction/rehabilitation of water supply and sanitation facilities. The total project cost is estimated at \$57.4 million equivalent, including a foreign exchange component of \$20.0 million and a local cost component of \$37.4 million equivalent. Implementation period is from 1997 to 2001.

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

The United Nations Children's Fund (UNICEF) supports the sector through the *Philippines Plan of Action for Children*. Apart from hardware support in priority project site, UNICEF assisted NEDA in updating of the national master plan. UNICEF works through

the inter-agency committee on environmental health and through NGOs. With the World Health Organization (WHO), UNICEF has been assisting in the preparation of the *Information, Education and Communication* (IEC) materials and in strengthening the sector monitoring system. As a part of these various assistance, UNICEF supported in 1997 the NEDA in the assessment of *WATSAN Sector of Southern Mindanao*. This was compelled from the sudden and unexpected occurrence of water-borne epidemics that hit Region XI.

(2) Bilateral Agencies

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

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

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

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

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

Terms and conditions, priority areas, programs and projects by donor are shown in Table 5.6.1, Supporting Report.

5.7 Project Management Arrangement, and Issues and Problems

With reference to project management of the Province, current policies and practices in the implementation of WATSAN projects were investigated. The findings are discussed in terms of technical, institutional, financial and community development aspects. Problems/issues are also discussed therefrom by sub-component. Current conditions of the municipalities investigated are referred to. Furthermore, some of the discussion items covered sector management field.

5.7.1 Technical Aspect

(1) Project Identification and Prioritization

1) Project conceptualization and series of procedures to select project

Annually, the provincial government conducts project identification and prioritization based on perceived needs. The PPDO, together with Municipal Water and Sanitation Task Force (MWSTF) conducts fieldwork to identify project needs through a series of meetings with barangay people/officials. Then, they conduct the required survey in the possible barangays where the projects may be introduced.

Of the selected barangays, some barangay councils submit barangay resolutions on the project/s to the municipality requesting project/s. The project proposal/s are incorporated in the municipal development plan. The Municipal Development Council (MDC) through its four sectoral committee reviews and gives recommendations for endorsement. The MDC endorses it to the Sangguniang Bayan (SB) for adoption and

approval and have it endorsed to the Provincial Development Council (PDC) for appropriate action.

The PDC, before incorporating it into the provincial development plan, through its sectoral committee endorses the municipal development plan for consideration and prioritization. The PDC then endorses it to the Sangguniang Panlalawigan (SP) for adoption and approval and appropriate funds.

Before actual implementation starts, only barangay/s selected are informed that the requested project/s were approved and funded.

2) Concerned parties/people in the sector and their respective activities

The PPDO plays a core role in identification of project needs. According to the current development through the UNDP-assisted project for capacity building, it motivates the barangays by introducing community organizing and participation in the projects. The activities cover a series of meeting/assembly and consultation with the barangay people, conducting barangay profile survey, and identifying the needs for WATSAN facilities.

The barangay people/officials are aware of the project needs and their roles through a series of meetings and assisting the survey, and identifying the project/s. The barangay council prepares and submits the resolution requesting the project to the municipality.

At the municipal level, the MDC through its four sectoral committees, such as the Macro, Economic, Social and Infrastructure Committees, reviews and gives recommendations to the plan and endorses it to the SB, and further to the PDC. The MDC is composed of the municipal mayor, one SB member, all barangay chairmen and from accredited NGO which is 25% of the total membership. The SB member is the chairman of the committee on appropriation of the SB.

At provincial level, likewise, the PDC sectoral committee (composed of line agencies, national agencies, accredited NGO and municipal mayors) endorses the provincial development plan (incorporating the municipal development plan of the different municipalities) to the PDC for consideration. The PDC deliberates the documents and if it is in order, then endorses it to the SP for adoption and approval, and appropriate funds.

The PDC is composed of all municipal mayors, one SP member and from an accredited NGO that is 25% of the total membership. The SP member is the chairman of the committee on appropriation of the SP.

3) Priority criteria for selection of the projects

Selection criteria are based on the indicators prepared by the NEDA regional office, which guide to identify a) the existence of problems constraining the achievement of certain development objects; and/or b) the perception of certain development potentials.

4) Technical considerations applied for identification and prioritization

Technically, the barangay profile survey is conducted. The barangay profile includes technical matters regarding water supply and toilet facility fabrication: brief description of water sources, etc.

To further promote sustainability of the project, it is essential to involve the people, especially for Level I water supply, starting from demand identification and the basic survey stage. Accordingly, a simplified mechanism showing responsibilities/activities required among concerned parties is necessary. A periodic follow-up by LGUs at the barangays is also important ensuring logistic support and manpower requirements of the LGUs.

After submission of project request by the barangay, a series of procedures including identification, validation and prioritization is required in the concerned LGUs. These resulted to considerable time consumed to finalize the funding. The LGUs must seek a more simple and systematic procedure.

With reference to the implementation of medium-term target plan, review and modification of selection/prioritization criteria shall be made by LGUs considering said barangay profile. The LGUs together with barangay people shall prepare the requirements including barangay profile in an expeditious manner (referred to UNDP assisted project) as part of annual activities.

(2) Preparation of Feasibility Studies (F/S) and Detailed Design (D/D) of Facilities, and Contract Procedures

1) Experience in master plan (M/P) preparation in any sector

NEDA Regional Office of CARAGA region is currently preparing the Regional Master Plan (1998-2008). With reference to this activity, the staff of the PPDO is

undertaking part of the M/P, the portion of Agusan del Sur Province. In addition, the Provincial Development Investment Plan (1994-1998) was prepared by the PPDO as a basis for their annual action plan.

- 2) Water source development experience in survey, planning and design of facilities
Throughout the implementation of WATSAN project, the provincial government conducted water source development for both spring and ground water sources.

In case of spring development, technical-related information from barangay people is collected at first, which includes location of the untapped spring and discharge rate during dry season. Then, the preliminary topographic survey (elevation and distance) is conducted to prepare hydraulic profile of transmission pipeline. For groundwater development, its technical feasibility is evaluated based on available technical data together with information from barangay and supported by field confirmation at the existing wells.

- 3) F/S of level I, II and III systems

The F/S for the development of Level II and III systems was usually done by the PEO / PPDO. In addition to the preliminary study on the said water source development, water production and the water demand are set up to comply with the project needs. Tentative locations of communal faucets are also set up in Level II system. Hydraulic profile (pipe size, length) and size of intake box / reservoirs are determined referring to the materials prepared through ITN / DILG training seminar. BWP design standard is also applied by the case. Finally, cost estimate is made for the required facilities. Then, the F/S report is submitted to PPDC for evaluation and recommendations before approval.

- 4) Detailed Design (D/D) of facilities and tendering

The D/D of WATSAN facilities is also prepared by the PEO/PPDO based on the F/S report within available budget. Designs of pipeline and structure are based on the standard design prepared by BWP, while well design is from DPWH design standard. However, they have no experience in planning and designing large waterworks facilities including pumping station/water treatment facilities.

The provincial office, likewise, does not have any experience on contract-out to the local private sectors for facility construction. However, it has experience in the procurement of materials, such as cement, sand, reinforced bar and fittings.

There is an example on the limited water supply services (scheduled supply for 4 hours every other day in Patin-ay Waterworks), although sufficient spring source is tapped. This is because of insufficient capacity of distribution facilities. The problems are related to planning/designing in I/S and D/D. Aside from this, future water supply system/s may require water treatment facilities in use of surface water sources. Knowledge/practice not only in hydraulic analysis but also in structural calculation and water treatment technology may be necessary. Thus, countermeasures to increase the capacity of LGUs' technical staff in planning and designing shall be sought. Utilization of consulting services shall also be taken into account.

(3) Procurement of Materials and Equipment, and Facility Construction and Rehabilitation

1) Experiences in force account work for construction of facilities

Some of the materials for WATSAN projects have been procured. Terms of reference for the procurement are prepared by the PPDO and bid documents by the PGSO. After bidding the PA issued purchase order and the procurement is done by the PGSO. Likewise, Consultancy Contract is executed through bidding.

While, a huge work will be required for the implementation of medium-term development plan including the preparation of the required tender documents, evaluation of pre-qualification documents and contract procedure. Furthermore, under the present limited volume of the work/projects, the procurement procedure requires a longer process, which always affects project implementation. The provincial government shall examine the current procurement system to handle/manage the forthcoming projects.

2) Construction, Supervision and Rehabilitation

Construction of WATSAN facilities is usually done by the LGUs, either by the municipal or provincial offices. The barangay council and the users mobilize labor. The MPO and MEO manage project implementation by hiring skilled labors. In the WATSAN-UNDP project, the DEOs-DPWH provided the drilling machine for construction of wells as an inter-agency assistance. While, the PEO personnel supervised the construction work. The research, monitoring and evaluation division of PPDO conducts monitoring of the project.

In spite of the LGUs' efforts, the present implementation capability of them is limited to a certain number of projects, due to insufficiency of manpower resources as well as

shortage of supporting vehicles/equipment. Contract-out to the private sector maybe practical. At the same time, it is necessary to increase the number of experienced water supply engineers for coordination and supervision of the future projects.

With regards to rehabilitation of the Level I facilities, some works have been conducted by employing skilled labor, only upon request from waterworks /beneficiaries, however, it was not timely done due to budgetary constraints. Thus, strategy and concrete implementation mechanisms among concerned parties have to be established.

(4) Operation and Maintenance (O&M) of Facilities

1) O&M of facilities by service level

For Level I facilities, the BWSAs or beneficiaries have responsibility on O & M, however, it is almost negligible. This can be gleaned from the presence of numerous non-functioning / abandoned wells constructed by DPWH. These arise from lack of spare parts, drying up of water source and water quality problems such as colored water, salty water, etc. In some cases, they encountered problems relating to water source just a few months after turnover of the facility. Again, the beneficiaries are using their private dug wells.

Generally, O&M of level I facilities is not properly done by BWSAs/beneficiaries because of lack of sense of ownership. Nonetheless, there was a case where the users contributed money to purchase spare parts when pump facilities broken down. It is necessary for the users to consider not only repair/replacement of mechanical parts in its operation but also re-development of wells and future upgrading of the service level.

On the other hand, Level II and III system, rather small in size, are managed by RWSA/Municipal/provincial government. The required staff (permanent/casual) are designated to operate / maintain the facilities. However, there are some cases that expansion of distributions pipelines and additional service connections are undertaken without due consideration on the technical aspects, e.g., capacities of water sources and distribution facilities. Thus, F/S and D/D shall be timely prepared by the qualified engineer/s to avoid the decrease of supply pressure and quantity. The shortage of major spare parts stored/furnished, due to budgetary constraints is also the problem to maintain the system (preventive maintenance).

2) Communication mechanism practiced in case of facility breakdown

In case where major repair was required (non-functioning of hand pump parts, etc. for Level I), the BWSA or barangay council passed a resolution to the municipality / DEO - DPWH requesting immediate repair. However, most BWSAs have no communication mechanism. Majority of the BWSAs does not have an idea on the manner of communication either with LGUs or private sector in case of major facility breakdown, and the request for repair is sometimes improperly addressed. An authorized system shall be prepared and put it into practice.

Meanwhile, for major repair of Level II and III (burst pipe/leakage), the permanent / casual staff takes action to restore / repair. In case they are short in budget, the waterworks/RWSAs submit a request letter for funding to the municipal/provincial government concerned. In areas where RWSAs are not active, the barangay captain submits a request letter to the concerned agencies, or directly to the provincial government. Under the LGC, the LGUs shall seek for responsible systems for sustainable O&M.

(5) Water Quality Examination

- 1) Water quality examination is only for bacteriological content and does not include physical and chemical parameters. The Rural Sanitary Inspector (RSI) of MHO conducts the sampling. Frequency of sampling and disinfection is as follows: for Level I -- once every three months; Level II -- once every two months; and Level III -- monthly one sample. Private wells are also sampled and analyzed, and if found positive, it is either disinfected by the RSI or the SSI of PHO.

The laboratory shall increase water quality parameters (physical and chemical) necessary to determine the potability of water as indicated in the National Drinking water standards. In addition, a regular program of disinfection for all level of services is necessary, not only the occasions when the source is found positive.

2) Capacity of laboratory

Collected samples are analyzed at the provincial laboratory. The analysis of the samples is scheduled according to the limited capacity in terms of facilities and manpower. The sampling in municipalities is conducted only once a month (only on Monday) with 3 to 4 samples per municipality. The laboratory can accommodate 10-14 samples per week coming from 3-4 municipalities. In this connection, adequate level of facilities, chemicals and manpower shall be sought.

3) Water quality condition

In 1997, the PHO-Laboratory analyzed a total of 138 samples using the BGLB and E.coli method. It found fecal contamination at water sources of all service levels. Water quality problems usually occur during floods. This is intensified with poor sanitation condition in most villages – lack or inadequate toilet facilities, improper construction of depositories/latrines, lack of sludge/sullage disposal management, and absence of drainage facilities. Handling of samples to preserve them under fresh condition may also be a cause of positive results in E coli. for areas that are far from the laboratory. The PHO recommended the putting up of another laboratory with trained personnel to cover these far-flung municipalities.

4) Budgetary support

Although a budget of P 60,000 was allocated this year to PHO for water quality control, the provincial government paid very little attention to address the needs/requirements of this activity. Meanwhile, there is a high incidence of water-borne/related diseases and the percentage of contaminated sources of drinking water remains very high. A requirement of proper allocation of budget for water quality surveillance is self-explanatory for the LGUs.

(6) Private Sector Capability for the Sector Project

The capability of existing local contractors relevant to WATSAN projects is very limited. Even considering the full utilization of local based contractors, qualified and experienced contractors as a main contractor shall be employed in view of the forthcoming projects in technical requirements and project scale. These contractors usually have offices in large cities such as Davao, Cebu and Manila. It is necessary to prepare inventories on the available contractors, especially for well construction with required capacities for the project.

5.7.2 Institutional Aspect

(1) Linkages among Concerned Parties/Departments

The PPDO, a lead provincial office responsible in the implementation of WATSAN projects, works either directly or indirectly with national government local offices and municipalities as well as other provincial offices (refer to Table-5.7.1, Supporting Report).

There is no established arrangement and responsibility delineation among the agencies involved in the WATSAN sector implementation in the province wherein interrelation-

ship/linkages are clearly shown. Administrative and functional linkages are not spelled out, although in the area of PBME the province is adopting the participatory monitoring and feed back mechanism developed through UNDP-assisted project (refer to 5.10 Existing Project and Sector Monitoring).

(2) Health and Hygiene Education with Typical Program

Due to shortage of financial support and manpower to the PHO, relevant activities are quite limited at the present time, unless it is a component of DOH/UNICEF/NGO projects/program. It is suggested to put more attention to the need by LGUs to ensure sustainable implementation of the sector development.

(3) Training

1) Planning and engineering for LGU staff

The central government agencies provided technical training on a project basis. The WATSAN Center and PEO staff received technical training relative to planning and engineering, and O&M under UNDP-assisted project and BWP.

2) Institutional/community development/financial/gender specialists of LGU staff

WATSAN Trainers Training and Community Organizing Training/Workshop were provided by DILG-PMO. But, there is no experiences on gender related training.

3) Organizing the association at barangay level

The beneficiaries are provided with information on the association set-up before the construction starts. The manner is currently rather demand-driven and participatory by the beneficiaries compared to the previous supply-driven approach.

4) O&M for users

The provincial government has adopted the cascade approach in providing technical assistance (Province-Municipality-Barangay). The WATSAN Center conducts training for the staff of Municipal Water Supply Task Force about 2-3 times/year aiming at strengthening training capability of municipality down to barangay level. The Center, assisted by the municipality, also conducts a 3- day training course to BWSA officials covering technical and management matters on Level I facilities before turn-over of the facility.

Although the central government agencies extended technical training to

BWSAs/beneficiaries on the foreign assisted project basis, O&M of Level I facilities is commonly neglected. The fact that some barangay people are willing to undertake training for O&M of the facilities, effective program/s shall be implemented by LGUs to ensure demand-responsiveness with reference to community development.

5.7.3 Financial Aspect

(1) Budgetary Allocation to the Sector

The province appropriates its capital expenditures from the 20% DF of the IRA. The LGU may allocate more than 20% of the total IRA to capital projects with a condition that the income of the LGU from all sources (including IRA) must first be applied to the contractual and statutory obligations of the province. The Provincial Development Council (PDC) determines the allocation of the DF to the respective sectors in the province.

Due to the limited resources of the province, it has to prioritize projects for allocation of capital in the budget. The GOP recently issued an administrative order directing all government agencies, government corporations and units (including LGUs) to implement austerity measures, limit government spending and cut capital outlays to inhibit the negative effect of the peso devaluation. In view of the high social impact of the sector, the province, nevertheless, prioritizes allocation of funding to the sector. To attest to this, the province has provided counterpart funding bigger than the grant portion of the recently concluded UNDPWATSAN program.

The budgetary allocation for the sector is included in the reported 20% DF and in other items unless the waterworks is an economic enterprise of the LGU. In evaluating the capacity of the province in terms of financial capability, there is no database on the budgetary allocation at present. This can be remedied by computerizing the system for easy access of the information.

(2) Access to External Funds

The Provincial Government is open to finding out other means by which the province can access funds to the sources other than its IRA, local taxes and economic enterprises. The limitation that the province encounters is the lack of information by which it could access other financing options.

The province has also to explore means by which the private sector can be tapped particularly for financing in the Sector. The Province had undertaken a build-transfer

scheme in the past. It can provide incentives to the Private Sector by minimizing bureaucracy.

(3) Cost Recovery Practices by LGUs and by Users

For the period that the DPWH was constructing Level I water supply facilities, the DPWH formed many BWSAs. Some of the BWSAs collecting monthly fees are still active. However most of these BWSAs are no longer functioning, resulting to no water fee collection. As a consequence, the users have to go to the government (usually barangay or municipal) to address the problem. In some cases, the users also approach the DPWH for assistance. Although the DPWH has no budget for operations and maintenance, it extends assistance in the form of materials (such as gaskets or joint pipes) from their supplies, if these are available.

Cost recovery on capital cost for the Sector is dependent on how the community or the clientele perceives their role in the Sector. To the extent that the beneficiaries experience a sense of ownership for the facilities, will they contribute to the sustainability of the facilities. In the case of capital expenditures, provision of counterpart from the beneficiaries in terms of labor would help in giving the beneficiaries a sense of ownership for the facilities and hence, a sense of responsibility for the sustainability of the system.

Similarly, in the O&M cost recovery, the extent that the beneficiaries contribute to the sustainability of the water supply facilities, through monthly contributions, is the extent of ownership and hence, responsibility towards the system determined. To this ultimate objective should government initiate community empowerment through active participation even at the construction period.

5.7.4 Institutional Arrangements/Capability of the Municipal Government

(1) General scheme in WATSAN project implementation

The municipalities are responsible for the implementation of infrastructure facilities to service the needs of the residents of the municipality. As for WATSAN project, when the barangay is not able to finance the project from its own funds, the BDC then endorses the project to the municipality. The municipality finance said project, if fund available, usually by providing technical and material support. In case the municipality is not able to finance it, the project is once again endorsed to the province.

The municipality, through the MPDO, prepares municipal development plans and formulates an integrated economic, social and physical development plan. It identifies and prioritizes water projects and secures for funding support. MEO provides technical services including investigation and survey, engineering designs, feasibility studies and project management. It is primarily responsible for the organization and training of the BWSAs within the administrative boundary.

(2) Experiences of the project implementation

The sector related information was collected from selected municipalities; Rosario and San Luis. The following are the findings with reference to the existing capacity building (details are referred to 5.7.4 Supporting Report).

1) Municipality of Rosario

Management of Waterworks System:

The municipality is operating a waterworks (Level III with some Level II services) covering 7 barangays out of the total 11 barangays in the municipality. About 600 households are currently served (to be 800 HHs within 1998) by the system. The construction work started in 1994, partially funded by the Province and the National Wealth Share. Up to the present, it has a total investment of P9M. Along with the construction, a waterworks was established to undertake the system operation.

The waterworks is considered as a municipal economic enterprise. However, in the interim, it is incumbent of the municipality to manage the waterworks, because of the low-income generation under the initial operating stage. At the present time, O&M requirements are still subsidized by the municipality. All members of the waterworks are officials and staff of the municipality detailed from some departments to do required functions without additional compensation, except some casuals. As of now, the municipality does not yet definite whether the waterworks will be autonomous from the municipality or not in the future. However, the municipality plans to make the waterworks a separate unit after full implementation of service coverage.

O&M and Cost Recovery at the Waterworks:

The waterworks charges the tariff to those with Level II service (a total of about 20 faucets with no meters). At present users at 3 faucets pay monthly charges, while no payment from remaining faucets' users. The municipality gave an incentive of one year free of water charges to the users in provision of labor during construction. For Level III services, progressive charge system is adopted.

Level I Water Supply:

The municipality plans to construct other waterworks, where they are currently served by Level I facilities. In this connection, the municipality recognizes the need of M/P and F/S preparation in the study areas. With regard to the training to organize the association, the municipality was one of the recipients of the UNDP program provided by ITN.

2) Municipality of San Luis:

The municipality has a total of 24 barangays. Level I and Level II systems were constructed either by the LGUs, NGOs or DPWH. UNDP-WATSAN project also provided some facilities these days.

a) Level I Water Supply Service

There are 10-operating BWSAs at present, of which barangays Poblacion, San Jose and Anislagan BWSAs are collecting monthly charges. The municipal office supported by the Provincial Task Force organized the BWSAs. It had experiences on failure and success in the formation of BWSAs depending on the extent of participation by the community. The municipal officers tried to involve the community in the formation process of the BWSAs and also requested the technical assistance to the PEO in site selection, prior to get concurrence from the community.

b) Level II Water Supply Service

The Level II system was constructed in Barangay Maratula in 1995 through the assistance of NGOs called Bread for Relief. The sharing for the construction of the facilities was made among concerned parties; P100,000 from the provincial government, technical supervision by the municipal office and labor by barangay people. Currently, about 70% of the total number of HHs in the barangay are served (since 1996). The system is managed by RWSA and the officers were elected. Water charge is set at P 10/HH/month. As of now, no repair work was experienced.

5.8 Community Development

5.8.1 General

This section presents the current status or the existing condition for community development (CD) in the Province of Agusan del Sur for the WATSAN sector from the side of the government, on one hand; and the point of view of the people and the communities served, on the other. Thus, it traces the development of CD through policy measures promulgated and/or enacted on the national level and shows how CD has filtered down to the local level.

The discussions are focused on the experience of the LGUs in performing CD work with reference to the typical manner through which the participation of the community is secured for the sector, whether these be Level I, Level II or Level III projects. The experience reveals the degree of readiness of the LGUs in doing CD work by examining the structures and linkages in place in the province that may either enhance or be an obstacle to the successful execution of sector projects. It also provides the true state of information, education and communication (IEC) processes in the province in so far as these relate to the supporting sector projects.

The valuable information were taken from the following: (1) The interviews undertaken with LGU officials during the study period; (2) The answers to the *CD/GAD Questionnaire* distributed to select provincial and municipal officials involved in sector development; (3) The *Result of the Barangay Key Informant Survey for Agusan del Sur*, a survey administered to the officials of the select local communities (details are referred to the Supporting Report); and (4) Other documents researched on and provided by the national, regional, provincial, municipal and barangay level offices.

The other major part of this section present the different levels of community participation in sector projects as determined by the people or the beneficiaries themselves. As such, it reveals the type and degree of involvement of the people in past sector projects and whether or not this involvement was adequate. It also illustrates the manner through which the beneficiaries want to actively participate in future sector projects, thereby demonstrating the predisposition and willingness of the communities to commit themselves to new development projects.

The responses of the beneficiaries to the information desired are gender sensitive and were derived from the following: (1) The "Result of the Group Interview Survey for Agusan del Sur" (details are referred to the Supporting Report); and (2) The "Result of the Barangay Key Informant Survey for Agusan del Sur"; and (3) The results of studies conducted on CD by the

national/regional/provincial agencies.

Due to time limitation, only 10 barangays were made to participate in the key informant survey and five in the group interviews; but they are highly indicative of the situation prevailing in the entire province in so far as participatory community development is concerned on both the government's point of view and the side of the community. The current CD status is not without its share of problems; but this is exactly the purpose of the study, that is, to improve the WATSAN sector's performance by plugging all leaks that may get in the way of the successful implementation of sector projects, CD included.

5.8.2 Provincial CD Structure and Linkages for WATSAN Sector Projects

The 1987 Philippine Constitution recognizes and mandates the participation of every Filipino in attaining overall national development. Thus, community development is utilized as a national strategy and has been adopted in the Medium Term Philippine Development Plan-1993-1998 (MTPDP) and the Updated MTPDP (1996-1998) to address the country's problems of poverty and unemployment. As a general policy, the Plan gives the greater masses of the people a voice in charting and implementing programs in the country while encouraging the collaboration of the private sector, non-government organizations and all other sectors of society in the formulation and implementation of plans, policies and programs supportive of the development goals of the country.

The Philippine National Development Plan: Directions for the 21st Century, which was released early 1998, gives more focus to building the capacities of communities for self-reliance. By recognizing the people's self-dignity and inherent capacity to improve their own lives, community-based approaches will be utilized when delivering basic services to the people. Towards this end, a development planning system that institutionalizes the bottom-up planning process was adopted.

In the 1980s up to the early 1990s, sector projects under the Barangay Water Program (BWP) and those funded out of OECF, WB and ADB were required some level of community participation. However, according to both the project implementors and people served, community participation was generally a "one shot deal," limited to having the beneficiary communities organize themselves into a BWSA/RWSA based on a set of guidelines. During the implementation of the project, some of the BWSA/RWSA members also contributed labor as the community's counterpart in the construction of facilities, while only a few of the beneficiaries

donated cash.

Yet today, many of the BWSAs and RWSAs that had been organized under the BWP and the other sector projects are not in existence anymore and the constructed facilities are either badly deteriorated or no longer functioning. This situation has been attributed to the inadequate social preparation of the beneficiaries by sector planners and implementors; while the project beneficiaries voiced out lack of consultation prior to project implementation as one of the reasons why the community does not involve itself in running its own water and sanitation association.

By 1996, the situation has began to change when the province started to implement water supply and sanitation projects earlier identified by the barangay development councils and endorsed by their respective municipalities to the province. Another positive development for the province was its inclusion in the Institution Building for Decentralized Implementation of Community Managed Water and Sanitation Project, (WATSAN-UNDP-PHI) in 1996-1997. Community development, being a major component of the said WATSAN-UNDP-PHI project, put into a framework the processes in organizing communities for water and sanitation sector projects. Therefore, the province gained knowledge on detailed community organizing processes that are invaluable in empowering communities to be more active partners in development.

In mid-1997, the Province of Agusan del Sur passed Ordinance No. 10 - Series 1997, creating the Water Supply and Sanitation Center or WATSAN Center. This center, placed within the PPDO, institutionalizes the planning and implementation of projects for the sector thereby improving the delivery services to the people. It also mandates participatory community development by setting up the institutional development component in all Level I and Level II water supply projects and provides sustainable support to the water and sanitation associations through the conduct of training and seminars.

Only the municipalities who were beneficiaries of the WATSAN UNDP-PHI project have been given support, within financial limitations, in pursuing needed CD work to fully realize decentralized community managed WATSAN facilities. As such, chief executives of these LGUs issued an Executive Order forming the Municipal Water and Sanitation Task Force within the MPDO. The other municipalities on the waiting list are anticipating that what was learned in the WATSAN UNDP-PHI project can be replicated in their areas.

5.8.3 Assignment of CD Specialist to Sector Projects

Although the WATSAN Center has been put up in the province, it has not yet been fully operationalized. Thus, a casual employee who works solely on WATSAN projects is undertaking community development work. He holds the appointment of Project Development Specialist. Eventually, the Training Specialist will assume the functions and the responsibility of a CD Specialist.

On the municipal level, generally speaking, there is no particular individual or group assigned to conduct community development work for sector projects. Only in a few municipalities is there a Municipal Sector Task Force (MSTF) organized for special projects where CD work becomes a collaborative effort among the members of the task force, the core members of which is composed of the MPDO, MHO and MEO.

This apparent lack of identified major responsible players on CD in the LGUs creates a serious gap to the critical linkage and support of sector projects, from the provincial to the municipal and as far down as the barangay levels. Firstly, a CD framework has already been established, but this cannot be replicated because the WATSAN Center is not fully operational and because there is no permanent structure within the MPDOs for CD work on sector projects.

This leads to the second situation. CD work, to be successful, is a continuous and consistent undertaking. Without a permanent structure or identified responsible people for said undertaking, then any CD work started, no matter how good, would soon go to waste without follow-up.

The third condition is really a question of whether the provincial and municipal officials are cognizant of and committed to the true importance of CD as a foundation activity for sustainable sector projects. This awareness on the importance of CD must be translated to giving full support – financial, human and material – to sector projects in their entirety.

5.8.4 Training on CD

Various community development training programs were participated in by the provincial/municipal level staff provided mainly by the DILG with the support of the provincial government and other agencies for Levels I and II systems. But this has been limited to the

WATSAN UNDP-PHI project. The more important training was the two-year *hands-on* experience of the provincial and municipal WATSAN Task Force members during the implementation of the WATSAN UNDP-PHI project.

- 1) *WATSAN Trainors Training* (10 days; Feb. 13-23, 1996) conducted by DILG-PMO/ITN Philippines for five provincial WATSAN Task Force members.
- 2) *Community Organizing Training/Workshop* (4 days; Nov. 25-28, 1996) conducted by the Provincial Government and DILG-PMO/ITN for WATSAN Task Force (provincial/municipal) members
- 3) *Well Drilling and Water Sources Development Training/Workshop* (4 days; Sept 12-16, 1996) conducted by the Provincial Government and DILG-PMO/ITN for technical staff of WATSAN Task Force (provincial/municipal).

Water district personnel also attended various training and seminars conducted by the Local Water Utilities Administration (LWUA) and other private training institutes focused on administrative, financial and technical aspects of Level III water supply systems. The varied skills that WD staff learned can also be applicable to small systems and therefore can be replicated or transferred to LGU officials and BWSA/RWSA personnel.

5.8.5 Utilization of NGOs

Non-government organizations, community-based organizations and people's organizations have been doing work in the province for a number of years now. Many of these are regularly tapped to assist the LGUs in their various development projects.

This fact has been validated from the results of both the barangay and group surveys where the people revealed that they were familiar and comfortable with the work of NGOs, CBOs and POs. Some of these organizations also possess the necessary skills in community development work and may be tapped for the WATSAN sector (refer to Supporting Report for the list of NGOs and CBOs in Agusan del Sur).

For Agusan del Sur, three of the NGOs/CBOs have worked with the province on the WATSAN sector. These are the following:

- 1) Agusan Shepherd Management and Consultancy Group Foundation based in San Francisco and established in 1994. This NGO was contracted for a period of 10 months by ITN Philippines to undertake CO/CD work in three municipalities covering 15 barangays for pre-organization and post-formation works of BWSAs.
- 2) KALAMBUAN Foundation, based in Poblacion, Veruela. At the moment, the foundation is not active.
- 3) Agus Development Foundation (ADFI) based in Hubang, San Francisco. A people's organization, it has undertaken community-organizing work.

5.8.6 Existing Community Development Processes

(1) Manner of Participation in Sector Development

The efforts of the LGUs in encouraging community participation for sector projects were generally confined to the organization of BWSAs for Level I systems, RWSAs for Level II systems and water districts or LGU waterworks for Level III systems or combination of Level II and Level III systems. Once formed, the organized BWSA, RWSA, LGU-WS and WD became responsible for soliciting the participation and involvement of the users-beneficiaries in ensuring the sustainability of the WATSAN organization and its various projects and activities.

For the BWSA/RWSA, the users' participation was in the provision of free labor, right-of-way, land contribution, and donation/contribution of other materials needed during the construction phase of the sector project. Left to the central and local government planners was the responsibility for the other stages of project development such as planning and design, monitoring and evaluation which included activities as project identification, site selection, water rate setting, and operation and maintenance. As a result, only a few BWSAs/RWSAs are in operation because WATSAN facilities have not been properly maintained and very few users continue to pay their water bills.

With the implementation of the UNDP-assisted project, the Province and some municipalities gained knowledge on detailed community organizing processes, which helped empower the users and beneficiary communities to be more active partners in the development of the WATSAN sector. Moreover, the CD framework developed has become the blueprint for the formation of BWSAs and RWSAs in the province.

However, the Province's unique experience in CD work has not been replicated on a larger scale in the other municipalities/communities because the LGUs lack the financial, human and material resources needed in instituting an organized, well-coordinated and systematic approach to participatory community development for the WATSAN sector.

A positive factor for this study, as suggested in the results of the group interviews conducted, is the eagerness that the men and women beneficiaries have equally indicated in playing a more dynamic role in sector projects. More than 75 percent of the respondents professed their willingness to form themselves into water associations, readiness to contribute cash, materials, and even sites for the construction of WATSAN facilities. In addition, the interviewees felt that they are already primed to assume higher responsibilities in managing, operating and maintaining the WATSAN facilities.

The central and local government planners should, therefore, look for proper opportunities in opening formal or informal avenues that would allow the beneficiary communities more freedom in presenting their own ideas as well as in doing what they feel is in their best interest of the sector. This would greatly enhance the manner and quality of users' participation in the sector.

Located in provincial urban centers, water districts generally practice participatory community development. Users-beneficiaries are consulted on practically all phases of project development, that is, from the start of the water district's operation, before loans to be contracted, and before water rates are set and/or adjusted. Maintenance of the WATSAN facilities before the water meter, however, remains the responsibility of the water district.

(2) Typical CD Work

The present practice of the WATSAN Center to utilize the typical CO-CD process/manner for Levels I and II has been adopted from WATSAN-UNDP Project, which has already been modified to fit the local condition and to reflect lessons learned. Together with the members of the MWSTF, the Center undertakes a three-phase CD work.

The first phase, called Formation of Organization Phase, consists of activities intended to mobilize the members of the community and make them understand the concept, processes and importance of organizing a group responsible for securing full participation for sector activities. The second phase, Development of Organization, involves activities

aimed at building the capability of the user's group that includes training to attain maximum participation in both technical and social activities. The third phase, Consolidation of Organization, consists of activities that strengthen the capacity of the user's group to sustain the operation of the association even after the exit of the community organizer. (Detailed discussion and presentation of the Detailed Community Development Process that was developed from UNDP-assisted project is presented in Supporting Report).

At the barangay level, the BDCs organize committee on water and sanitation that can initiate the formation of the water and sanitation association. In the key informant survey conducted among the barangay officials and other community heads, it was found out that the barangay councils are willing to pay for the training of volunteers on the operation and maintenance of constructed facilities. In the areas where the people consistently pay their water fees, the collection of dues is the responsibility of either the WATSAN association treasurer or the barangay council.

It was also indicated in the same survey that the local residents are willing to contribute free labor as a manifestation of their active involvement with the water and sanitation association. Some volunteered to contribute cash while others indicated willingness to provide free labor for the repair and maintenance works.

In forming the water districts, LWUA, in coordination with the LGUs concerned, conducts a series of sectoral consultations with the community. Since water districts are formed at the option of the LGU, LWUA first consults the people, through a succession of public hearings, to arrive a consensus on whether or not to form the water district. LWUA also encourages the community to participate in the selection of the WDs' five-man board of directors, who are nominated from various sectors. Once formed and operating, the water district conducts regular dialogues with its concessionaires on issues such as water rates formulation and adjustment, expansion program and other matters that may affect the people-WD relationship.

5.8.7 Information, Education and Communication (IEC) As Foundation Activities for Community Development

A comprehensive, well-planned and executed IEC program on the sector informs and educates the people on the value of water, the benefits derived from good health and sanitation and on the programs and activities of government on the sector. This provides the proper media and venue for a sustaining mechanism to promote free, open, two-way exchange of infor-

mation and communication at all times.

The province has no existing comprehensive IEC program on sector plans and programs in order to gain the support of various publics. Efforts are minimal, unplanned and unsystematic. No other media of communication is being utilized in disseminating information on the community on sector policies, opportunities and programs. This has been confined to community assemblies and seminars.

The municipalities and the barangays likewise do not have existing IEC program to generate community participation on sector projects nor do they have any funds appropriated for the purpose. Dissemination of information on sector issues and development is limited to discussions at health centers mostly between health workers and mothers. During barangay council meetings, sector information is discussed when there are new government programs and the barangay is a recipient of such program.

In general, water districts (WDs) implement a systematic and comprehensive IEC program. Most WDs produce printed information materials such as newsletters, leaflets and posters that are disseminated to the concessionaires. Regular press releases on WD development issues are submitted to local newspapers. There are some WDs that sponsor radio programs while others conduct regular dialogues with the community. Those that do not possess enough expertise are assisted by bigger WDs within the province/region (the concept of Godfather Water District) or by the Public Affairs Office of LWUA. A region-wide Water Information Network has been established with all WDs as members. This network undertakes a regular public information drive and helps smaller WDs to disseminate information.

5.8.8 Health and Hygiene Education

On matters relating to health and hygiene education, the Department of Health (DOH) has a better organized IEC program planned at the central government level, and executed by their local offices. One of these programs is the Environmental Sanitation program that aims to educate the entire community on the need and benefits of clean water, food and sanitation facilities. This program utilizes the radio, print media (posters) and *bandillo* (mobile announcements). The provincial health officer, the municipal health officer, the rural sanitation inspector and the barangay health worker are active disseminators of health and sanitation information.

The Province, through the WATSAN Center, has conducted training to six municipalities covering 32 barangays. Health and sanitation is one of the topics in the Skills and Management Training for BWSA officers, handled by the sanitary inspector/engineer of the Center.

The group interviews conducted among barangay residents revealed that people recognize the importance of good health and hygiene practices. Most of them learned about health and sanitation matters mostly from health workers and their relatives and friends. They also learned health education from various mass media such as radio, television and newspapers.

5.9 Gender

5.9.1 General

This sub-section presents the current status or the existing condition for gender and development in the Province of Agusan del Sur for the WATSAN sector from the side of the government, on one hand; and the point of view of the people and the communities served, on the other. As such, it elucidates on the evolvement of gender policies on the national level and shows how these have filtered down to the local level where gender responsive planning has become a requirement for all development efforts on the WATSAN sector. It also reveals the extent of the awareness that the people and/or beneficiary communities have on gender matters as seen through their participation in past sector projects as well as their perceived participation in future projects.

Gender-related information were taken from the following: (1) The interviews undertaken with LGU officials during the study period; (2) The answers to the "CD/GAD Questionnaire" distributed to select provincial and municipal officials involved in sector development; (3) The "Result of the Barangay Key Informant Survey for Agusan del Sur" administered to the officials of the select local communities; and (4) The "Result of the Group Interviews for Agusan del Sur" conducted at the barangay level; and (5) Other documents researched on and provided by the national, regional, provincial, municipal and barangay level offices.

5.9.2 The Evolution of Gender and Development

The 1987 Philippine Constitution recognizes and ensures the fundamental equality of women and men before the law and cites their respective roles in nation building. The National Commission on the Role of Filipino Women (NCRFW), established in 1975, ensures the integration of gender concerns in all aspects of the project development. In 1991, Republic Act

7192, better known as "Women in Development and Nation Building" was enacted to strengthen the mandate of the NCRIW. The Act called for the allocation of a substantial portion of the official development assistance funds from foreign governments and multilateral agencies to support programs and activities for women.

The adoption of the Philippine Plan for Gender Responsive Development (1995-2025) paved the way for full participation of women and men in planning and implementation of technology for infrastructure projects, including those in the water supply and sanitation sector. In 1995, the Office of the President issued Memorandum Order No. 282 directing various government training institutions to incorporate "Gender and Development (GAD) Concerns and Programs" in their respective curricula in order to further institutionalize gender and development programs. The General Appropriations Act of 1997 mandated all departments, offices and agencies to set aside a minimum amount of 5% out of their 1997 appropriations to be used for projects designed to address gender issues. The Local Government Code includes a provision giving political empowerment to women by creating sectoral seat for women to be elected in every local legislative assembly all over the country. To facilitate the whole process, a gender conscious system of data gathering, processing and generation has been established.

The significance of RA 7192 has started to gradually filter down to the LGU levels. The DILG gives Gender Awareness Orientation and Training to its officials and employees, from the central down to the municipal level. The purpose for this is not only to establish a common awareness on gender, but also to recognize that men and women are catalysts of growth and development for LGUs. In compliance with the policies enunciated in RA 7192, all government departments and agencies were directed to revise, review all their regulations, circulars, issuances and procedures to remove any gender bias. Thus, recent projects that national government agencies have incorporated gender concepts including the projects from the water and sanitation sector.

The DILG implements gender responsive WATSAN projects. The DPWH implemented in 1991 the First Rural Water Supply and Sanitation Project which adopted the "Women in Development" (WID) approach aimed to create support mechanisms to enable women to surmount problems regarding water and sanitation thereby increasing their productivity efforts and giving them greater participation in decision-making. Most of the water and sanitation projects of the DOH are directed towards the improvement of women's health and physical condition as well as their social status in the community. As such, implementation of most health and sanitation projects, including water supply, utilizes the women's sector in the

community.

5.9.3 The LGUs and Gender

Gender and Development (GAD) is relatively new in the province. The PPDO and MPDO staffs, as well as the water district personnel, have not attended comprehensive training programs that may provide them with a better knowledge and understanding of the ramifications of GAD that they can utilize in planning and implementing sector projects.

The province gained have had some experience on gender issues affecting water and sanitation programs, such as the participation of the men and women members in managing WATSAN facilities, through the UNDP-WATSAN PIH project. Other exposure of the provincial staff on gender comes mostly from health and hygiene projects.

5.9.4 Gender in WATSAN Sector Projects

(1) Gender Participation in Sector Development Projects

Since gender has not yet filtered down to sector projects in the province, a province-wide survey and group interviews were undertaken to assess gender sensitivity of barangay officials as well as their constituents in the roles of both men and women as well as their modes of participation in sector projects.

The respondents in the key informant survey 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.

In the 10 barangays surveyed, the total number of barangay council members is 86. Of this number, 59 were males and 27 females. The barangay councils are still male-dominated; that is, there was no case that the women outnumbered men in the composition of the council. A male barangay captain also headed all these barangays.

The respondents in the group interviews, on the other hand, were almost equal numbers of men and women in selected communities, the majority of whom belong to the 31-50 age bracket. The level of education of said interviewees were fairly distributed from elementary to high school levels with women outnumbering men in the having graduated from

high school and college. The occupation of a big majority of the respondents is farming/fishing.

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 findings are:

On the formation/composition of the BWSA/RWSA/WD Board:

The boards of the existing BWSAs/RWSAs are male-dominated. To the women members were reserved the traditional roles, such as that of board secretary or treasurer. Ironically in the survey conducted, more female respondents are willing to serve as association officers. Men prefer to be just members of the association. More women are also willing to contribute cash for the construction of facilities and to undertake repair and maintenance of constructed facilities. Men, on the other hand, will just contribute free labor during the construction of the facilities. Nevertheless, the majority of both the male and female respondents indicated interest in becoming a member of BWSA/RWSA once it is formed and/or activated in their respective barangays.

There are five sectors represented in the water district's Board of Directors, one of which is the women's sector. More often than not, the educational sector almost always nominates/appoints a female educator.

On participation in WATSAN training:

Most of the respondents said they did not attend any training program in 1997. Those who did attended seminars on cooperatives, barangay administration, crime prevention, farmer's training, and malaria control. As for WATSAN-related training, all respondents indicated they were not aware of any program on sector activities. However, the majority of male and female respondents indicated keen interest to attend in training programs for the WATSAN sector such as Skills Training Program (O&M); Management Skills; and, Livelihood. The training period preferred was from one to three days.

On participation in health and hygiene:

Most of the male and female respondents equally recognized the importance of good health and hygiene practices. But the majority has not heard of any training program on health and hygiene for 1997; thus, only a few have attended health education programs. If given a chance, the respondents indicated their interest in attending training programs

on health and sanitation. It was found out that women were most afflicted with water-related diseases such as gastroenteritis, stomach pain and skin diseases.

On participation in operation and maintenance:

Both the men and women believe that they can participate in operating and maintaining the WATSAN facilities. The men said that they can serve as officers of the association, do repair of facilities, or maintain the cleanliness of the facilities. The women, on the other hand, affirmed that they can either be association officers or water fee collectors or they can maintain the surroundings of the facilities as well as monitor if the facility is defective or not. The interviewees indicated that the male household members are the ones responsible for doing minor repairs of the family/community water supply facility.

(2) Gender in Water Supply and Sanitation Practices

The same survey and interview results also indicated gender sensitivity in water supply and sanitation practices, as presented in the following findings:

Responsibility in Fetching Water

The majority of the male and female respondents said that the men (the husband and/or eldest son) are still the ones responsible for hauling drinking water for family use. Only a few of the women shared the burden where the wives or female children fetched water from somewhat distant sources. The majority of both male and female respondents indicated that families fetch drinking water up to four times a day with a duration of about 10 minutes to fetch water from the source to their house. Half of the male and female respondents surveyed revealed that they have problems with the current water source

5.10 Existing Project and Sector Monitoring

(1) Sector Monitoring

The primary sources of sector data are the field office and staff of DPWH, DOH, LWUA, DILG and NSO. Other agencies, including NEDA and LGUs, use data from these agencies. Each of these agencies runs its own project and/or activity-monitoring system largely based on required reports of its field offices. Only the NSO gathers and assesses information nationwide on a regular basis as part of its Census on Population and Housing (CPH). The CPH "long form", which includes "water supply", is administered on 10% of the households once every ten years, and "short form" every five years. Water and sanitation is not included in the short form.

(2) Project Monitoring

Project monitoring has been conducted by different government levels depending on the characteristics of the project i.e., local funded or foreign assisted projects. However, only projects handled by the local offices of central government agencies are monitored, mainly focusing on physical accomplishments and capital expenditures of projects, by respective central government line agencies.

Monitoring activities under the Regional Development Council cover four components: Macro, Economic, Social welfare and Infrastructure. Monitoring report on foreign assisted infrastructure projects, including water supply project is submitted monthly from PPDO to the regional Office of DILG, while, the reports on other sectors and non-foreign assisted projects are submitted quarterly. The monitoring report submitted to the regional office of DILG is sent to the central government (NEDA) through RDC after compilation with other monitoring reports (by the secretariat of RDC). The central government agencies also report to the foreign assistance agencies such as ADB, WB, etc.

It was field confirmed at the NEDA Regional office that there are some foreign assisted projects directly provided to the regional office, such as grass root assistance with a limited amount. The NEDA is not involved in the occasion of signing with the foreign donor for such projects. However, the reporting on the project is usually made from regional office to the central office of NEDA. In this connection, the central office of NEDA sometimes overlooks the projects. It is necessary to establish data management system to monitor all related projects.

There are no differences in the current project monitoring systems at LGU level. Aside from local practices, the monitoring reports on foreign assisted projects are submitted to the concerned central government agencies through the regional offices.

The monitoring for WATSAN related projects are conducted under the Regional Monitoring and Evaluation System. The PPDO conducts monitoring from the start until completion of the project. Projects that are getting negative feedback and require validation and verification are closely monitored. The report covers status of implementation, finance, percentage of accomplishment and slippage/problems as well as evaluation and countermeasure. Figure 5.10.1 shows an example of UNDP assisted project illustrating the linkages among concerned agencies.

Both in sector and project monitoring, the exchange of information between concerned agencies seems to be insufficient/not systematic, though there are opportunities to do so, such as through the periodic meetings done by the Regional Development Council. In addition, no data-management system causes not only increasing working burden in the monitoring but also wide dissatisfaction among project implementers themselves. Monitoring report preparation is seen as a nuisance to performing one's job, and is thus haphazardly done. This leads to the problem of reliability of information coming from the fields. A clear mechanism and data management system are required to authorize among relevant agencies.

**UNDP/PHI/93/010 PROJECT
PARTICIPATORY MONITORING FEEDFORWARD
AND FEEDBACK MANAGEMENT MECHANISM**

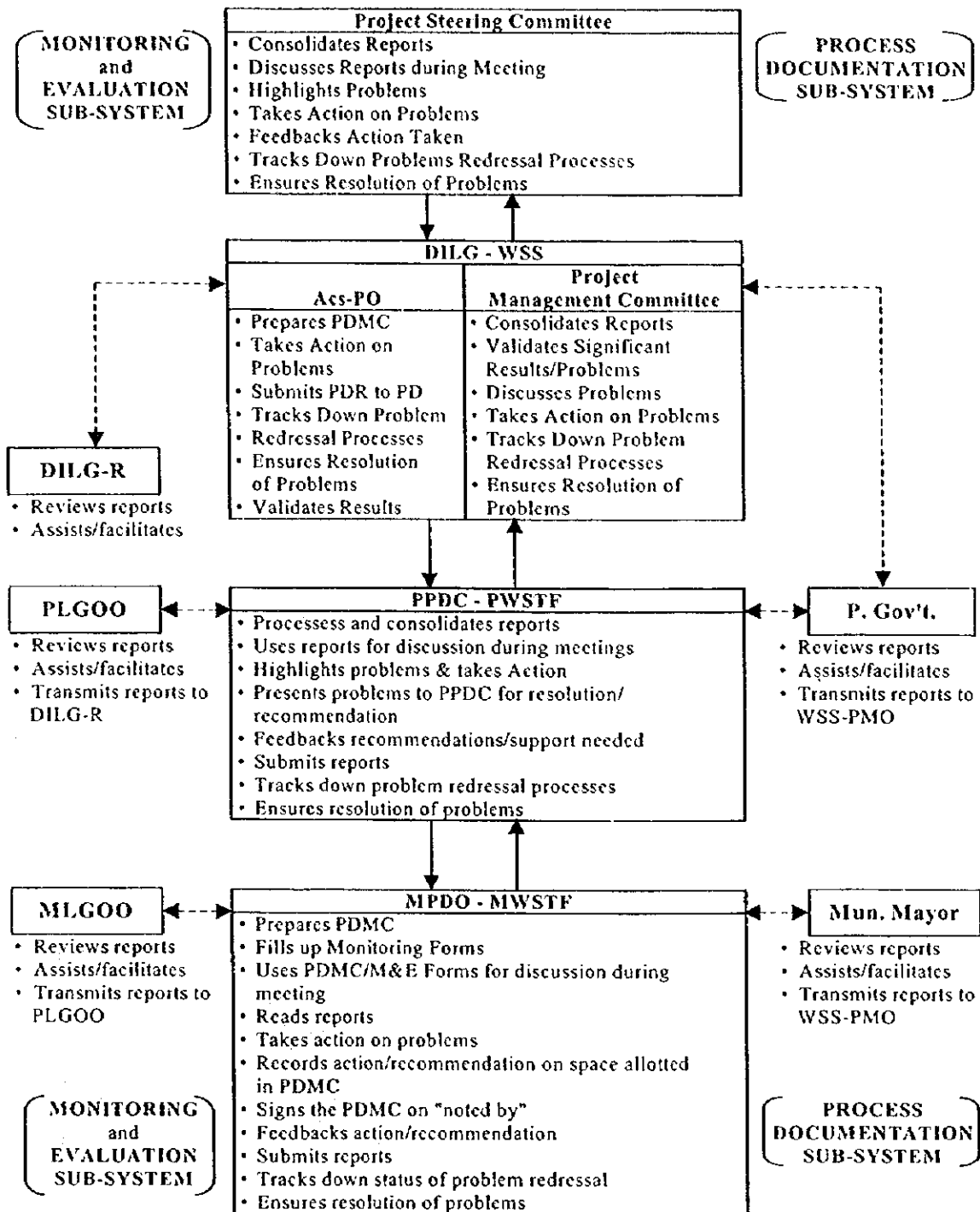


Figure 5.10.1

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