

**2.6.2 Data Management**

**2.6.2.1 QUESTIONNAIRE FORMS**

## STRUCTURE OF QUESTIONNAIRE

Grouping of Questionnaire	Data Level						
	Nat. R	Reg. R	Prov. P	Mun. M	Bar. B	Sys./Fac. SF	Ind. I
<b>1 SOCIO ECONOMIC DATA</b>							
1.1 Administrative Composition				M 1.1	B 1.1		
1.2 Past Population				M 1.2.1	B 1.2.1		
				M 1.2.2	B 1.2.2		
1.3 Projected Population				M 1.3	B 1.3		
1.4 Household Number				M 1.4	B 1.4		
1.5 Services				M 1.5	B 1.5		
1.6 Occupation Category				M 1.6	B 1.6		
1.7 Family Income, Education and Literacy				M 1.7	B 1.7		
<b>2 LAND USE DATA</b>							
2.1 Existing Land Use				M 2.1	B 2.1		
2.2 Future Land Use				M 2.2	B 2.2		
<b>3 HEALTH DATA</b>							
3.1 Morbidity and Mortality				M 3.1	B 3.1		
3.2 Facility and Practitioner				M 3.2	B 3.2		
<b>4 WATER SOURCE DATA</b>							
4.1 General Information				M 4.1	B 4.1		
4.2 Water Source				M 4.2	B 4.2		
<b>5 WATER SUPPLY SYSTEMS</b>							
5.1 Level II Systems						S 5.1.1	
						S 5.1.2	
5.2 Level III Systems						S 5.2.1	
						S 5.2.2	
						S 5.2.3	
5.3 Level I Facilities						F 5.3.1	
						F 5.3.2	
						F 5.3.3	
<b>6 ENVIRONMENTAL SANITATION</b>							
6.1 Private Toilet				M 6.1	B 6.1		
6.2 School/Public Toilet				M 6.2	B 6.2		
6.3 Drainage Facility				M 6.3	B 6.3		
6.4 Solid Waste Collection and Disposal				M 6.4	B 6.4		
<b>7 INVESTMENT DATA</b>							
7.1 Previous annual Investment			P 7.1				
7.2 Planned Annual Investment			P 7.2				

Note: Barangay level questionnaire forms are for reference purpose only

## 1. SOCIO-ECONOMIC DATA





































## 2. LAND USE DATA











### 3. HEALTH DATA

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Health - Morbidity and Mortality			Date:	Page Number:		
Data Collection Level: Municipal		Region Number:	Filename: health.xls			
Prov. Number:		Mun. Number:	Sheetname: (M) Morbidity and Mortality			
Prov. Name:		Mun. Name:	Form Number: M 3.1			
Cause Group Diseases of:	Disease No.	Name of Diseases (Group)	Water Related Diseases	Number of Cases		
				Morbidity	Mortality	Infant Mortality
Infective and Parasitic (001-136)	A.01	2-4/ Typhoid/Paratyphoid	X			
	A.02	5-7/ Dysentery	X			
	A.03	8-10/ Intestinal Parasites	X			
	A.04	11-13/ Diarrhea	X			
	A.05	14-16/ Tuberculosis				
	A.06	17-19/ Conjunctivitis	X			
	A.07	20-22/ Whooping Cough				
	A.08	23-25/ Throat Ear/Nose				
	A.09	26-28/ Tetanus				
	A.10	29-31/ Septicemia				
	A.11	32-34/ Cholera	X			
	A.12	35-37/ Varicella, Chickenpox				
	A.13	38-40/ Measles				
	A.14	41-43/ Dengue Fever	X			
	A.15	44-46/ Viral Hepatitis	X			
	A.16	47-49/ Malaria	X			
	A.17	50-52/ Schistosomiasis	X			
	A.18	53-55/ Filariasis	X			
	A.19	56-58/ Venereal Diseases				
	A.20	59-61/ Other Bacter./ Viral Dis.				
Neoplasms (140-239)	B.01	62-64/ Malignant Neoplasms				
	B.02	65-67/ Leukemia				
Endocrine, Nutritional & Metabolic (250-279)	C.01	68-70/ Diabetes Mellitus				
	C.02	71-73/ Nutritional Deficiencies				
	C.03	74-76/ Endocrine Disorder				
Blood & Blood Forming Organs (280-289)	D.01	77-79/ Anemias				
Mental Disorder (290-319)	E.01					
Nervous System and Sense Organs (320-389)	F.01	80-82/ Meningitis				
	F.02	83-85/ Nervous System				
Circulatory Systems (390-459)	G.01	86-88/ Heart Diseases				
	G.02	89-91/ Vascular Diseases				
	H.01	92-94/ Bronchitis				
Respiratory Systems (460-519)	H.02	95-97/ Pneumonia				
	H.03	98-100/ Influenza				
	H.04	101-103/ Obstructive Pulmonary				
	H.05	104-106/ ARI				
	I.01	107-109/ Appendicitis				
Digestive System (520-579)	I.02	110-112/ Gastroint. Colitis				
	I.03	113-115/ Chronic Liver Disease				
	I.04	116-118/ Other Diges. Diseases				
	J.01	119-121/ Kidney/ Nephritis				
Genito-Urinary Systems (580-629)	J.02	122-124/ Urinary Infections				
	K.01	125-127/ Prematurity				
Complication of Pregnancy & the Puerperium (630-676)						
Skin & Subcutaneous Tissue (680-709)	L.01	128-130/ Skin Diseases	X			
	L.02	131-133/ Scabies	X			
Musculoskeletal & Connective Tissue (710-739)	M.01	134-136/ Arthrop., Rheumatism				
Congenital Anomalies (740- 759)	N.01	137-139/ Congenital Anomalies				
Certain Causes of Prenatal Morbidity & Mortality (760-779)	P.01	140-142/ Birth Trauma				
	P.02	143-145/ Birth Injuries & Difficult Labor				
	P.03	146-148/ Resp. Fetus/New born				
	P.04	149-151/ Other Prenatal Causes				
Symptoms & Ill-defined Condition (780-799)	Q.01	152-154/ Sensibility				
	Q.02	155-157/ Ill-Defined Condition				
Accidents, Poisoning & Violence (800-999)	R.01	158-160/ Burns				
	R.02	161-163/ Suffoc. Foreign Body				
	R.03	164-166/ Other Accidents				



PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Health - Morbidity and Mortality			Date:	Page Number:		
Data Collection Level: Barangay			Region Number:	Filename: health.xls		
Prov. Number:	Mun. Number:	Bgy. Number:	Sheetname: (B) Morbidity and Mortality			
Prov. Name:	Mun. Name:	Bgy. Name:	Form Number: B 3.1			
Cause Group Diseases of:	Disease No.	Name of Diseases (Group)	Water Related Diseases	Number of Cases		
				Morbidity	Mortality	Infant Mortality
Infective and Parasitic (001-136)	A.01	2-4/ Typhoid Paratyphoid	X			
	A.02	5-7/ Dysentery	X			
	A.03	8-10/ Intestinal Parasites	X			
	A.04	11-13/ Diarrhea	X			
	A.05	14-16/ Tuberculosis				
	A.06	17-19/ Conjunctivitis	X			
	A.07	20-22/ Whooping Cough				
	A.08	23-25/ Throat Ear/Nose				
	A.09	26-28/ Tetanus				
	A.10	29-31/ Sepsisemia				
	A.11	32-34/ Cholera	X			
	A.12	35-37/ Varicella, Chickenpox				
	A.13	38-40/ Measles				
	A.14	41-43/ Dengue Fever	X			
	A.15	44-46/ Viral Hepatitis	X			
	A.16	47-49/ Malaria	X			
	A.17	50-52/ Schistosomiasis	X			
	A.18	53-55/ Filariasis	X			
	A.19	56-58/ Venereal Diseases				
	A.20	59-61/ Other Bacter / Viral Dis.				
Neoplasms (140-239)	B.01	62-64/ Malignant Neoplasms				
	B.02	65-67/ Leukemia				
Endocrine, Nutritional & Metabolic (250-279)	C.01	68-70/ Diabetes Mellitus				
	C.02	71-73/ Nutritional Deficiencies				
	C.03	74-76/ Endocrine Disorder				
Blood & Blood Forming Organs (280-289)	D.01	77-79/ Anemias				
Mental Disorder (290-319)	E.01					
Nervous System and Sense Organs (320-389)	F.01	80-82/ Meningitis				
	F.02	83-85/ Nervous System				
Circulatory Systems (390-459)	G.01	86-88/ Heart Diseases				
	G.02	89-91/ Vascular Diseases				
Respiratory Systems (460-519)	H.01	92-94/ Bronchitis				
	H.02	95-97/ Pneumonia				
	H.03	98-100/ Influenza				
	H.04	101-103/ Obstructive Pulmonary				
	H.05	104-106/ ARI				
Digestive System (520-579)	I.01	107-109/ Appendicitis				
	I.02	110-112/ Gastroint. Colitis				
	I.03	113-115/ Chronic Liver Disease				
	I.04	116-118/ Other Diges. Diseases				
Genito-Urinary System (580-629)	J.01	119-121/ Kidney/ Nephritis				
	J.02	122-124/ Urinary Infections				
Complication of Pregnancy & the Puerperium (630-676)	K.01	125-127/ Prematurity				
Skin & Subcutaneous Tissue (680-709)	L.01	128-130/ Skin Diseases	X			
	L.02	131-133/ Scabies	X			
Musculoskeletal & Connective Tissue (710-739)	M.01	134-136/ Arthrop., Rheumatism				
Congenital Anomalies (740- 759)	N.01	137-139/ Congenital Anomalies				
Certain Causes of Prenatal Morbidity & Mortality (760-779)	P.01	140-142/ Birth Trauma				
	P.02	143-145/ Birth Injuries & Difficult Labor				
	P.03	146-148/ Resp. Fetus/Newborn				
	P.04	149-151/ Other Prenatal Causes				
Symptoms & Ill-defined Condition (780-799)	Q.01	152-154/ Senility				
	Q.02	155-157/ Ill-Defined Condition				
Accidents, Poisoning & Violence (800-999)	R.01	158-160/ Burns				
	R.02	161-163/ Suffoc. Foreign Body				
	R.03	164-166/ Other Accidents				



#### **4. WATER SOURCE DATA**

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page:	Date:	Filename: h20-res.xls			
Data Collection Level: Municipal		Prov. No.	Shtname: (M) General Information				
Region Number:		Prov. Name:	Form No. : M 4.1				
Municipal Number/Municipal Name		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring
Type of Source							
General Information	1/ Total Number of Source	#					
	Implementation						
	2/ Government Agency	#					
	3/ Private	#					
	Usage						
	4/ Drinking	#					
	5/ Washing/Bathing	#					
	6/ Gardening	#					
	7/ Irrigation	#					
	8/ Industrial	#					
	Water Quality						
	9/ High Iron/Manganese Content	#					
	10/ High Chloride Content	#					
11/ Turbidity/Color/Smell	#						
Production							
12/ Less/No Water in dry season	#						
13/ Usable through the year	#						
Well Information	Technical						
	14/ Diameter < 100 mm (4")	#					
	15/ Diameter >= 100 mm (4")	#					
	16/ SWL < 5 m below ground	#					
	17/ SWL >= 5 m below ground	#					
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#					
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#					
	20/ B-Value < 1,000 s/m <sup>3</sup>	#					
	21/ B-Value < 1,000 s/m <sup>3</sup>	#					
	22/ C-Value < 60,000 s <sup>3</sup> /m <sup>6</sup> (Well Loss Const.)	#					
23/ C-Value >= 60,000 s <sup>3</sup> /m <sup>6</sup>	#						
Aquifer Information	Technical						
	24/ T-Value < 0.001 m <sup>2</sup> /s	#					
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#					
	26/ S-Value < 0.01	#					
	27/ S-Value >= 0.01	#					
	Geology						
	28/ Alluvial Formation	#					
29/ Volcanic Formation	#						
30/ Limestone Formation	#						
31/ Sandstone Formation	#						
32/ Other Sediment Formation	#						
Spring Info.	Technical						
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#					
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#					
	Other						
	35/ Tapped Using Gravity	#					
36/ Undeveloped Spring	#						
37/ Untapped Spring	#						

LEGEND: # - Specify figure

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page:	Date:	Filename: h20-res.xls			
Data Collection Level: Barangay	Prov. No.:	Mun. No.	Shtname: (B) General Information				
Region Number:	Prov. Name:	Mun. Name:	Form No. : B 4.1				
Barangay Number/Barangay Name							
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring
General Information	1/ Total Number of Source	#					
	Implementation						
	2/ Government Agency	#					
	3/ Private	#					
	Usage						
	4/ Drinking	#					
	5/ Washing/Bathing	#					
	6/ Gardening	#					
	7/ Irrigation	#					
	8/ Industrial	#					
	Water Quality						
	9/ High Iron/Manganese Content	#					
	10/ High Chloride Content	#					
11/ Turbidity/Color/Smell	#						
Production							
12/ Less/No Water in dry season	#						
13/ Usable through the year	#						
Well Information	Technical						
	14/ Diameter < 100 mm (4")	#					
	15/ Diameter >= 100 mm (4")	#					
	16/ SWL < 5 m below ground	#					
	17/ SWL >= 5 m below ground	#					
	18/ Specific Cap. < 3 m <sup>3</sup> /hr/m	#					
	19/ Specific Cap. >= 3 m <sup>3</sup> /hr/m	#					
	20/ B-Value < 1,000 s/m <sup>3</sup>	#					
	21/ B-Value < 1,000 s/m <sup>3</sup>	#					
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>4</sup> (Well Loss Const.)	#					
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>4</sup>	#						
Aquifer Information	Technical						
	24/ T-Value < 0.001 m <sup>2</sup> /s	#					
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#					
	26/ S-Value < 0.01	#					
	27/ S-Value >= 0.01	#					
	Geology						
	28/ Alluvial Formation	#					
29/ Volcanic Formation	#						
30/ Limestone Formation	#						
31/ Sandstone Formation	#						
32/ Other Sediment Formation	#						
Spring Info.	Technical						
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#					
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#					
	Other						
	35/ Tapped Using Gravity	#					
36/ Undeveloped Spring	#						
37/ Untapped Spring	#						

LEGEND: # - Specify figure



**PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN**

<b>Content: Water Sources - Untapped Spring Information</b>		<b>Page No.:</b>
<b>Data Collection Level: Barangay</b>	<b>Mun. No.:</b>	<b>Date:</b>
<b>Region Number:</b>	<b>Mun. Name:</b>	<b>Filename: h2o-res.xls</b>
<b>Prov. No.:</b>	<b>Brgy. No.</b>	<b>Shtname: (B) Spring</b>
<b>Prov. Name:</b>	<b>Brgy. Name:</b>	<b>Form no.: B 4.2</b>
<b>Description of Information</b>	<b>Number</b>	<b>Data</b>
Owner of the Untapped Spring Site		
Production during dry Season (Liter/minute)		
Distance from the spring source to entrance of the service area.		
Number of Households in the service area.		
Elevation Difference between the spring source and the service area ensuring gravity		
<b>SKETCH (Location of Spring, Service and Transmission Route)</b>		

**PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN**

<b>Content: Water Sources - Well Information</b>		<b>Page No.:</b>
<b>Data Collection Level: Barangay</b>	<b>Mun. No.:</b>	<b>Date:</b>
<b>Region Number:</b>	<b>Mun. Name:</b>	<b>Filename: h2o-res.xls</b>
<b>Prov. No.:</b>	<b>Brgy. No.</b>	<b>Shtname: (B) Well</b>
<b>Prov. Name:</b>	<b>Brgy. Name:</b>	<b>Form no.: B 4.3</b>
<b>Description of Information</b>	<b>Number</b>	<b>Data</b>
Owner of the Well		
Well Depth		
Water Level		
Use		
Abstract		
Water Quality		
Production		
Year Constructed		
Number of Household		
<b>SKETCH (Location of Well, Service and Transmission Route)</b>		

## **5. WATER SUPPLY SYSTEMS**

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: WATER SUPPLY - Level II System		Date:	Page:	Filename: h20supp.xls
Data Collection Level: System		Prov. No.:	Mun. No.:	Shtname(S): Level II PI-2
Region No.:	Province Name:	Mun. Name:	Form No.: S 5.1.1	
INFO. GROUP	INFO DESCRIPTION	CODE	DATA	
System Identification	2/ Identification (Source No.)	#		
	3/ Name/Owner of System	ch		
	4/ Coordinates Scheme Cntr.	#		
System Coverage	5/ Barangay a	#		
	6/ Barangay b	#		
	7/ Barangay c	#		
	8/ Barangay d	#		
	9/ Barangay e	#		
	10/ Barangay f	#		
Original Design Assumption Fill in: 14 -15 or 16-17	11/ Construction Year	#		
	12/ Population in Service Area	#		
	13/ No. of Households in Service Area	#		
	14/ Rural Pop. Served by Communal Faucets	#		
	15/ Urban Pop. Served by Communal Faucets	#		
	16/ No. of Rural HH Served by Communal Faucets	#		
	17/ No. of Urban HH Served by Communal Faucets	#		
	18/ Number of Communal Faucets	#		
Actual System Including Extension Fill in: 22-23 or 24-25	19/ Year of Update	#		
	20/ Pop. in Service Area	#		
	21/ No. of Households in Service Area	#		
	22/ Rural Pop. Served by Communal Faucets	#		
	23/ Urban Pop. Served by Communal Faucets	#		
	24/ No. of Rural HH Served by Communal Faucets	#		
Water Sources	25/ No. of Urban HH Served by Communal Faucets	#		
	26/ Number of Communal Faucets	#		
Distribution System	27/ Type of Source	#		
	28/ Source Capacity (m <sup>3</sup> /h)	#		
	29/ Length of Transmission Main (m)	#		
	30/ Length of Distribution Main (m)	#		
	31/ Number of Reservoirs	#		
	32/ Total Volume of Reservoirs (m <sup>3</sup> )	#		
Service Level during Dry Season	33/ No. of Metered Communal Faucets	#		
	34/ No. of Unmetered Communal Faucets	#		
	35/ Supply Period (hrs/d)	#		
	Dirty Water	#		
	36/ a) Everyday	#		
	37/ b) Once a Week	#		
	38/ c) Once a Month	#		
	39/ d) Occasionally	#		
	Taste / Smell	#		
	40/ a) Good Taste	#		
	41/ b) Salty Taste	#		
	42/ c) Woody Taste	#		
	43/ d) Metallic Taste	#		
	44/ e) Others	#		
	Supply Interruption	#		
45/ - Power Failure (times/month)	#			
46/ - Pump Breakdown (times/month)	#			
47/ - Pipe Burst (times/month)	#			
48/ - Other (times/month)	#			
Water Pressure	#			
49/ - No. of Faucets w. Adeq. Pres. (% of total)	#			
50/ - No. of Faucets w. Inadeq. Pres. (% of total)	#			

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: WATER SUPPLY - Level II System		Date:	Page:	Filename: h20supp.xls
Data Collection Level: System		Prov. No.:	Mun. No.:	Shname (S): Level II P2-2
Region No.:	Province Name:	Mun. Name:	Form No.: S 5.1.2	
INFO. GROUP	INFO DESCRIPTION	CODE	DATA	
Staff	51/ No. of Technical Professionals	#		
	52/ No. of Administrative Staff	#		
	53/ No. of Collectors	#		
	54/ Total No. of Staff	#		
Repair	Who does the repair ?			
	55/ a) Local Tradesman	X		
	56/ b) MEO/CEO	X		
	57/ c) PEO	X		
	58/ d) DEO	X		
Expenditures	59/ Annual Expenditures (Pesos/Yr)	#		
	60/ - Wages (Pesos/Yr)	#		
	61/ - Fuel, Chemicals, Materials (Pesos/Yr)	#		
	62/ - Transport (Pesos/Yr)	#		
	63/ - Repairs (Pesos/Yr)	#		
	64/ - Loan Repayment (Pesos/Yr)	#		
	65/ - Others (Pesos/Yr)	#		
Tariff Structure	66/ Consumers Payment (Pesos/year)	#		
	67/ a) Per pail (Pesos/pail)	#		
	68 b) Per volume (Pesos/m <sup>3</sup> )	#		
	69/ c) Per household (Pesos/HH)	#		
	70/ d) Others	X		
Billing	71/ Average Collection Efficiency (%)	#		
	72/ Annual Billings	#		
	73/ Billings to P.F. Consumers (Pesos/Yr)	#		
	74/ Billings to H.C. Consumers (Pesos/Yr)	#		
	75/ Expected Subsidies (Pesos/Yr)	#		
	76/ Others (Pesos/Yr)	#		
Revenues	77/ Annual Income (Pesos/Yr)	#		
	78/ - Payment by P.F. Consumers (Pesos/Yr)	#		
	79/ - Payment by H.C. Consumers (Pesos/Yr)	#		
	80/ - Subsidies (Pesos/Yr)	#		
	81/ - Others (Pesos/Yr)	#		

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: WATER SUPPLY - Level III System		Date:	Page:	Filename: h20supp.xls
Data Collection Level: System		Prov. No.:	Mun. No.:	Shtname: (S)Level III P1-2
Region No.:	Province Name:	Mun. Name:	Form No.: S 521	
INFO. GROUP	INFO DESCRIPTION	CODE	DATA	
System Identification	2/ Identification (Source No.)	#		
	3/ Name/Owner of System	ch		
	4/ Coordinates Scheme Cntr.	#		
System Coverage	Municipalities Covered by System			
	5/ Municipality a	#		
	6/ No. of Cov. Rural Bgys. in Mun. a	#		
	7/ No. of Cov. Urban Bgys. in Mun. a	#		
	8/ Municipality b	#		
	9/ No. of Cov. Rural Bgys. Mun. b	#		
	10/ No. of Cov. Urban Bgys. Mun. b	#		
	11/ Municipality c	#		
	12/ No. of Cov. Rural Bgys. Mun. c	#		
	13/ No. of Cov. Urban Bgys. Mun. c	#		
Original Design Assumption Fill in: 22 -25 or 26-30	14/ Construction Year	#		
	15/ Size of Service Area (ha)	#		
	16/ Population in Service Area	#		
	17/ Households in Service Area	#		
	18/ Area with Level III Services (ha)	#		
	19/ Area with Level II Services (ha)	#		
	20/ Area with Level I Services (ha)	#		
	21/ Area with No Services (ha)	#		
	22/ Rural Pop. with Level III Services	#		
	23/ Urban Pop. with Level III Services	#		
	24/ Population with Level II Services	#		
	25/ Population with Level I Services	#		
	26/ Population with No Services	#		
	27/ Rural Households w/ Level III Services	#		
	28/ Urban Households w/ Level III Services	#		
	29/ Households with Level II Services	#		
	30/ Households with Level I Services	#		
31/ Households with No Services	#			
32/ House Connections	#			
33/ Population per House Connection	#			
34/ Households per House Connection	#			
35/ Communal Faucets	#			
36/ Population per Communal Faucets	#			
37/ Households per Communal Faucets	#			
Actual System Including Extension Fill in: 46-49 or 51-54	38/ Year of Update	#		
	39/ Size of Service Area (ha)	#		
	40/ Population in Service Area	#		
	41/ Households in Service Area	#		
	42/ Area with Level III Services (ha)	#		
	43/ Area with Level II Services (ha)	#		
	44/ Area with Level I Services (ha)	#		
	45/ Area with No Services (ha)	#		
	46/ Rural Pop. with Level III Services	#		
	47/ Urban Pop. with Level III Services	#		
	48/ Population with Level II Services	#		
	49/ Population with Level I Services	#		
	50/ Population with No Services	#		
51/ Rural Households with Level III Services	#			
52/ Urban Households with Level III Services	#			
53/ Households with Level II Services	#			
54/ Households with Level I Services	#			
55/ Households with No Services	#			
56/ House Connections	#			
57/ Population per House Connection	#			
58/ Communal Faucets	#			
59/ Pop. per Communal Faucet	#			
60/ HH per Communal Faucet	#			

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: WATER SUPPLY - Level III System		Date:	Page:	Filename: h2osupp.xls	
Data Collection Level: System		Prov. No.:	Mun. No.:	Sheetname: (S)Level III P2-4	
Region No.:	Province Name:	Mun. Name:	Form No.: S 5.2.2		
INFO. GROUP	INFO DESCRIPTION	CODE	DATA		
Water Sources	61/ Main Source A: (Source Type)	#			
	62/ Source No.	#			
	63/ Source Capacity (m <sup>3</sup> /h)	#			
	64/ Operating Time (hrs/d)	#			
	65/ Main Source B: (Source Type)	#			
	66/ Source No.	#			
	67/ Source Capacity (m <sup>3</sup> /h)	#			
	68/ Operating Time (hrs/d)	#			
	69/ Main Source C: (Source Type)	#			
	70/ Source No.	#			
	71/ Source Capacity (m <sup>3</sup> /h)	#			
	72/ Operating Time (hrs/d)	#			
	73/ Main Source D: (Source Type)	#			
	74/ Source No.	#			
	75/ Source Capacity (m <sup>3</sup> /h)	#			
	76/ Operating Time (hrs/d)	#			
	77/ Main Source E: (Source Type)	#			
	78/ Source No.	#			
	79/ Source Capacity (m <sup>3</sup> /h)	#			
	80/ Operating Time (hrs/d)	#			
	81/ Main Source : F (Source Type)	#			
	82/ Source No.	#			
	83/ Source Capacity (m <sup>3</sup> /h)	#			
	84/ Operating Time (hrs/d)	#			
	Other Well Sources				
	85/ -Number	#			
	86/ -Total Capacity (m <sup>3</sup> /h)	#			
	87/ -Total Production (m <sup>3</sup> /d)	#			
	Other Surface Water Sources				
	88/ -Number	#			
	89/ -Total Capacity (m <sup>3</sup> /h)	#			
	90/ -Total Production (m <sup>3</sup> /d)	#			
	Other Spring Sources				
	91/ -Number	#			
92/ -Total Capacity	#				
93/ -Total Production	#				
Water Production					
94/ Grand Total Production	#				
Last Year's Production					
Production Statistics	95/ -January (m <sup>3</sup> /month)	#			
	96/ -February (m <sup>3</sup> /month)	#			
	97/ -March (m <sup>3</sup> /month)	#			
	98/ -April (m <sup>3</sup> /month)	#			
	99/ -May (m <sup>3</sup> /month)	#			
	100/ -June (m <sup>3</sup> /month)	#			
	101/ -July (m <sup>3</sup> /month)	#			
	102/ -August (m <sup>3</sup> /month)	#			
	103/ -September (m <sup>3</sup> /month)	#			
	104/ -October (m <sup>3</sup> /month)	#			
	105/ -November (m <sup>3</sup> /month)	#			
	106/ -December (m <sup>3</sup> /month)	#			
Transmission/ Distribution	107/ Length of Transmission Mains (m)	#			
	108/ Length of Distribution Mains (m)	#			
	109/ Number of Reservoirs	#			
	110/ Total Volume of Reservoirs (m <sup>3</sup> )	#			

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: WATER SUPPLY - Level III System		Date:	Page:	Filename: h20supp.xls
Data Collection Level: System		Prov. No.:	Mun. No.:	Shtname: (S)Level III P3-4
Region No.:	Province Name:	Mun. Name:	Form No.: S 523	
INFO. GROUP	INFO DESCRIPTION	CODE	DATA	
Service Level (Dry Season)	111/ Supply Period (hrs/d)	#		
	Dirty Water	#		
	112/ a) Everyday	#		
	113/ b) Once a Week	#		
	114/ c) Once a Month	#		
	115/ d) Occasionally	#		
	Taste / Smell	#		
	116/ a) Good Taste	#		
	117/ b) Salty Taste	#		
	118/ c) Woody Taste	#		
	119/ d) Metallic Taste	#		
	120/ e) Others	#		
	Supply Interruption	#		
	121/ - Power Failure (times/month)	#		
	122/ - Pump Breakdown (times/month)	#		
	123/ - Pipe Burst (times/month)	#		
	124/ - Other (times/month)	#		
Water Pressure	#			
125/ - Supply, 2nd floor (% of Total)	#			
126/ - Supply, Ground floor (% of Total)	#			
127/ - Inadequate Pressure (% of Total)	#			
Consumer	Domestic H.C. Consumers	#		
	128/ - Number of Metered Connections	#		
	129/ - Consumption (m <sup>3</sup> /d)	#		
	130/ - Number of Unmetered Connections	#		
	Domestic P.F. Consumers	#		
	131/ - Number of Metered Public Faucets	#		
	132/ - Consumption (m <sup>3</sup> /d)	#		
	133/ - Number of Unmetered Public Faucets	#		
	Institutional Consumers	#		
	134/ - Number of Metered Connections	#		
	135/ - Consumption (m <sup>3</sup> /d)	#		
	136/ - Number of Unmetered Connections	#		
	Commercial Consumers	#		
	137/ - Number of Metered Connections	#		
	138/ - Consumption (m <sup>3</sup> /d)	#		
	139/ - Number of Unmetered Connections	#		
	Industrial Consumers	#		
140/ - Number of Metered Connections	#			
141/ - Consumption (m <sup>3</sup> /d)	#			
142/ - Number of Unmetered Connections	#			
Staff	143/ No. of Technical Professionals	#		
	144/ No. of Operators	#		
	145/ No. of Technical Support Staff	#		
	146/ No. of Administrative Staff	#		
	147/ No. of Collectors	#		
	148/ Total No. of Staff	#		
Consumption	149/ Metered Consumption (m <sup>3</sup> /year)	#		
	150/ - January (m <sup>3</sup> /month)	#		
	151/ - February (m <sup>3</sup> /month)	#		
	152/ - March (m <sup>3</sup> /month)	#		
	153/ - April (m <sup>3</sup> /month)	#		
	154/ - May (m <sup>3</sup> /month)	#		
	155/ - June (m <sup>3</sup> /month)	#		
	156/ - July (m <sup>3</sup> /month)	#		
	157/ - August (m <sup>3</sup> /month)	#		
	158/ - September (m <sup>3</sup> /month)	#		
	159/ - October (m <sup>3</sup> /month)	#		
	160/ - November (m <sup>3</sup> /month)	#		
	161/ - December (m <sup>3</sup> /month)	#		
	162/ Last Year's Consumption (m <sup>3</sup> /year)	#		



PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: WATER SUPPLY - Level III System		Date:	Page:	Filename: h20supp.xls
Data Collection Level: System		Prov. No.:	Mun. No.:	ShName (S): Level III P4-4
Region No.:	Province Name:	Mun. Name:	Form No.: S 5.2.4	
INFO. GROUP	INFO DESCRIPTION	CODE	DATA	
Consumption (continued)	163/ - Domestic (Pesos/m <sup>3</sup> )	#		
	164/ - Institutional (Pesos/m <sup>3</sup> )	#		
	165/ - Commercial (Pesos/m <sup>3</sup> )	#		
	166/ - Industrial (Pesos/m <sup>3</sup> )	#		
	167/ - Others (m <sup>3</sup> /yr)	#		
Expenditures	168/ Annual Expenditures (Pesos/yr)	#		
	169/ - Wages (Pesos/yr)	#		
	170/ - Fuel, Chem., Materials (Pesos/yr)	#		
	171/ - Transport (Pesos/yr)	#		
	172/ - Repairs (Pesos/yr)	#		
	173/ - Loan Repayment (Pesos/yr)	#		
	174/ - Others (Pesos/yr)	#		
Tariff Structure	Residential Consumption:			
	175/ 0 - 10 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	176/ 11 - 20 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	177/ 21 - 30 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	178/ 31 - 40 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	179/ 41 & Up m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	180/ Flat Rate per Month (Pesos/m <sup>3</sup> )	#		
	Institutional Consumption:			
	181/ 0 - 10 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	182/ 11 - 20 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	183/ 21 - 30 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	184/ 31 - 40 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	185/ 41 & Up m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	186/ Flat Rate per Month (Pesos/m <sup>3</sup> )	#		
	Commercial Consumption:			
	187/ 0 - 10 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	188/ 11 - 20 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	189/ 21 - 30 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	190/ 31 - 40 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	191/ 41 & Up m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	192/ Flat Rate per Month (Pesos/m <sup>3</sup> )	#		
	Industrial Consumption:			
	193/ 0 - 10 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	194/ 11 - 20 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	195/ 21 - 30 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	196/ 31 - 40 m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	197/ 41 & Up m <sup>3</sup> /month (Pesos/m <sup>3</sup> )	#		
	198/ Flat Rate per Month (Pesos/m <sup>3</sup> )	#		
199/ Avg. Collection Efficiency (%)	#			
Revenues	200/ Annual Revenues (Pesos/yr)	#		
	201/ - Residential (Pesos/yr)	#		
	202/ - Institutional (Pesos/yr)	#		
	203/ - Commercial (Pesos/yr)	#		
	204/ - Industrial (Pesos/yr)	#		
	205/ - Others (Pesos/yr)	#		
	Policy on Non-Payment			
	206/ - Time Before Disconnect (days)	#		
	207/ - Annual No. of Disconnect	#		
208/ - Reconnection Fee (Pesos)	#			



**6. ENVIRONMENTAL SANITATION DATA**























## 7. INVESTMENT DATA

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Finance - Past Investment in 1994 (the latest single year)		Date:	Page:	Filename: finance.xls								
Data Collection Level: Provincial		Prov. No.:	Sheetname: (P) Past Invest 1994									
Region Number:		Form Number: P 7.2										
FUNDING CATEGORY		INVESTMENT IN 1000 (THOUSAND) PESOS										
Agency	Funds/Programs	Shallow Wells	Deep Wells	Spring Develop.	Well Rehab.	Rain Collector	Level II System	Level III System	Sewer System	Private Latrine	School Toilet	Public Toilet
DILG		#	#	#	#	#	#	#	#	#	#	#
DPWH												
LWUA												
DOH												
PROVINCE	General Fund											
	IRA											
	Other (specify )											
	Other (specify )											
MUNICIPALITIES (Total in the province)	General Fund											
	IRA											
	Other (specify )											
	(specify )											
	(specify )											
	(specify )											
NGO	CDF											
	Other (specify )											
CONGRESSMAN'S OFFICE	(specify )											
	(specify )											
	(specify )											
OTHERS	(specify )											

Notes:  
 1) IRA : Internal Revenue Allocation  
 2) CDF: Countryside Development Fund

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Finance - Past Investment in 1990-1994		Date:	Page:	Filename: invest.xls									
Data Collection Level : Provincial		Prov. No. :	Sheetname : (P) Past Invest 90-94										
Region Number:		Prov. Name:	Form Number: P 7.1										
INVESTMENT IN 1000 (THOUSAND) PESOS													
FUNDING CATEGORY	Agency	Funds/Programs	Shallow Wells	Deep Wells	Spring Develop.	Well Rehab.	Rain Collector	Level II System	Level III System	Sewer System	Private Latrine	School Toilet	Public Toilet
			#	#	#	#	#	#	#	#	#	#	#
	DILG												
	DPWH												
	LWUA												
	DOH												
PROVINCE		General Fund											
		IRA											
		Other (specify )											
		Other (specify )											
MUNICIPALITIES (Total in the province)		General Fund											
		IRA											
		Other (specify )											
		(specify )											
		(specify )											
		(specify )											
NGO		CDF											
		Other (specify )											
CONGRESSMAN'S OFFICE		(specify )											
		(specify )											
		(specify )											
OTHERS		(specify )											

Notes :  
 1) IRA : Internal Revenue Allotment  
 2) CDF: Countryside Development Fund





## 8. INSTITUTIONAL DATA

Province: \_\_\_\_\_

**Introduction:**

One of the important elements of the provincial water supply and sanitation sector masterplan is the formulation of the institutional arrangements for managing the sector in the future. The following information are required to come up with the institutional arrangements, including training and financing mechanisms. Please do not be constrained by the space provided in the format; use additional sheets, as needed. Institutional information, by its very nature cannot be standardized into set tables.

**1. Institutional Structure**

- a. Attach a copy of the current organizational structure of the Province (Annex A). Additional information about special (or ad hoc or interim) bodies relevant to water, environment or health organized by the Provincial Government may be included.
- b. Attach a detailed organization chart of the PPDO (Annex A-1), the PEO (Annex A-2) and the IPHO (Annex A-3), including staff positions (name of incumbent not needed; indicate whether position is regular, contractual or casual).
- c. Attach typical municipal government organization chart (Annex B).
- d. Attach typical barangay organization chart including special committees (Annex C).

**2. Table S.1: Current Practices and Policies. How are the following project activities presently done by the LGU for locally-funded water supply and sanitation projects? Assess positive/negative aspects and strong/weak points.**

	How done?	Assessment
a. Sector Monitoring		
b. Project Identification		
c. Priority Determination		
d. Budget Allocation		

e.	Feasibility Studies		
f.	Detailed Design		
g.	Community Mobilization		
h.	Bid Documents Preparation		
i.	Procurement of Goods		
j.	Procurement of Services		
k.	Drilling		
l.	Construction		
m.	Rehabilitation		
n.	Health & Hygiene Education		
o.	Operation & Maintenance		
p.	Cost Recovery Policy. Collection of Fees.		
q.	Spare Parts Sourcing		

r.	Technical Training		
s.	Management Training		
t.	Preventive Maintenance		
u.	Minor Repairs		
v.	Major Repairs		
w.	Water Quality Testing		
x.	Project Monitoring		

3. Table S.2: LGU-funded Projects. How much have the LGUs (provincial and municipal) actually spent for water and sanitation projects and services in the last three years?

Project Name	Implementor	Date Started	Date Finished	Total Cost	Brief Scope of Work

\* Mark with \* if done by administration.

4. Community (or Beneficiary) Participation in Financing.

- a. What are the experiences with projects which require a financial contribution from the beneficiaries? Are there successful and unsuccessful experiences?  
(2-4/1/73)
- b. Are there any successful home improvement credit facilities which may be tapped in the future for water and sanitation? Can future project funds be channelled through the rural banks or other mechanisms?

5. Table 5.3: Non-Government Organizations. List down the NGOs who deal with water, environment or health activities. Enclose brief description, including contact person and address, of the NGO and of their project/s, if available.

Name of NGO (Include name of contact, positions, address, telephone)	Natl or Local? / Year Established	Major Areas of Activity or Expertise	Example of Recent Projects

6. Table 5.5: Existing Training Institutes (with faculty) who can be tapped for future sector management and technical training activities. This may include technical/vocational schools, colleges and universities, NMYC centers, etc. List name of institute, existing courses, interest and potentials for collaboration in future training activities. Collect brochures, if available.

Name of Institute (include name of contact, position, address, tel.)	Private or Public?	Year Established	Relevant Courses or Workshops Conducted	How many regular teaching staff (mgmt and technical)?	Brief description of facilities	Interested in future collaboration?

7. Table 5.5: Other Existing Community-based Organization or Projects whose project experiences and approaches can help in determining future implementation strategies (Examples, Women's Clubs, Youth Clubs, civic clubs, etc.)

Name of CBO (include name of contact, position, address, tel.)	Location of activities	Primary objective	Year established	Example of current projects or activities

8. What local strategies could be considered to increase private sector participation in the sector?
  - a. How many local, province-based well drillers are there? How can we optimize their participation in future sector projects?
  - b. How many hardware stores selling plumbing and sanitary fixtures are there in the province? Do we have hardware stores in all municipalities?
  - c. How many "pakiaw" contractors are there in the province?
9. Are there other examples of successful community-based projects (any sector) from which the project can learn from?
10. Any other information, comments or suggestions which can help in formulating the sector institutional arrangements at the LGU level for the future?



## **(9) OTHER INFORMATION REQUIREMENTS**

The following information are required separately from the questionnaires:

### **(1) Boundary of Urban and Rural Areas**

The boundary of urban and rural areas in each municipality shall be indicated on the provincial map to be provided.

### **(2) Provincial Development Plan**

### **(3) Socio-Economic Profile**

### **(4) List of Major Industries**

The list of major factories by municipality shall be prepared showing their name, type of industry, location, number of employees, water resource/s and consumption, existence of wastewater treatment facility.

### **(5) List of Priority Project Site/s**

The list of priority project sites for the following sub-sectors being proposed or planned by the provincial and municipal governments shall be submitted together with the basis justifying priority:

- 1) Water Supply - Levels I, II and III
- 2) Sanitation
  - a. Public School Toilets
  - b. Household Toilets

### **(6) Unit Cost Base**

## 2.6.2.2 DEFINITION OF TERMS

### AIDE MEMOIRE

**SUBJECT : ESTABLISHMENT OF A COMMON DEFINITION OF TERMS RELATING TO WATER SUPPLY, SEWERAGE AND SANITATION**

**DATE : 12 January, 1995**

---

1. From December 1993 up to June 1994, the NEDA conducted a series of nationwide orientation workshops to cover Phase I of the UNICEF-Assisted Updating of the 1988-2000 Water Supply, Sewerage and Sanitation Master Plan of the Philippines.
2. Based on the discussions during the workshops and based on the data gathered from the local government units (LGUs), regional line agencies and other entities concerned with the sector, the need to establish a common definition of terms relating to water supply, sewerage and sanitation was brought to light.
3. A consensus on a common definition of terms in the sector to be adopted by all sector agencies needs to be reached in order to facilitate uniformity in data collection and sector monitoring.
4. On April 22, 1994, the NEDA conducted a one-day small-group workshop held in Quezon City, the objective of which was to come-up with a position paper for submission to higher authorities and for subsequent adoption as the official definition of terms by the government. The workshop was attended by representatives from LWUA, NSCB, NSO, MWSS, DPWH, DILG, DENR, UNICEF, NWRB, ITN and NEDA.
5. A succeeding workshop was held in Cavite on 28-29 June 1994 to finalize and agree on the definition of terms to be used in the sector.
6. Annexes A and B contain the definition of terms relating to water supply and sanitation & sewerage as agreed upon during the two (2) workshops held for the purpose. The Annexes likewise include other additional definition of terms submitted by concerned agencies to NEDA after the Cavite workshop.
7. For consideration/adoption.

## ANNEX A

### DEFINITION OF TERMS IN WATER SUPPLY

#### Levels of Service

1. **Level I (point source)** - a protected well or a developed spring with an outlet but without a distribution system, generally adaptable for rural areas where the houses are thinly scattered. A Level I facility normally serves an average of 15 households.
2. **Level II (communal faucet system or standposts)** - a system composed of a source, a reservoir, a piped distribution network, and communal faucets. Usually, one faucet serves 4 to 6 households. Generally suitable for rural and urban fringe areas where houses are clustered densely to justify a simple piped system.
3. **Level III (waterworks system or individual house connection)** - a system with a source, a reservoir, a piped distribution network and household taps. It is generally suited for densely populated urban areas.

**Urban Area** - definition includes the criteria on the economic and social functions of barrios, poblaciones and central districts as follows:

1. In their entirety, all municipal jurisdictions which, whether designated as chartered cities, provincial capital or not, have a population density of at least 1,000 persons per square kilometer.
2. Poblaciones or central districts of municipalities and cities which have a population density of at least 500 persons per square kilometer.
3. Poblaciones or central districts (not included in nos. 1 and 2) regardless of population size which have the following:
  - a. Street pattern, i.e., network of streets in either at parallel or right angle orientation;
  - b. At least six establishments (commercial, manufacturing, recreational and/or personal services); and
  - c. At least three of the following:
    - i) a town hall, church or chapel with religious services at least once a month;
    - ii) a public plaza, park or cemetery;
    - iii) a market place or building where trading activities are carried on at least once a week;and

iv) a public building like school, hospital, puenericulture and health center or library.

4. Barrios/Barangays having at least 1,000 Inhabitants which meet the conditions setforth in no. 3 above, and predominantly non-farming/fishing.

**Rural Area** - all areas not falling under the urban classification.

**Rural Waterworks and Sanitation Associations (RWSAs)** - non-stock, non-profit organizational envisioned to operate and manage Level II water supply facilities.

**Barangay Waterworks and Sanitation Associations (BWSAs)** - non-stock, non-profit organiza-tions envisioned to operate and manage Level I water supply facilities.

**Water Supply** - the supply of water for domestic, municipal, industrial/commercial uses.

**Water Supply Coverage** - refers to the number of people in a given community or geographical areas who have access to safe water. The extent to which the population of a geographical area is covered (expressed in terms of the number of people served compared to the total population of that community or area).

**Adequately Served** - refers to those with access to safe water in accordance with the following rate of consumption:

Level I . . . at least 20 liters/capita/day

Level II . . . at least 60 liters/capita/day

Level III . . . at least 100 liters/capita/day

**Service Coverage** - the no. of people a facility can serve.

### **Water Systems**

A. **Groundwater** - is that portion of the rainwater which has percolated into the earth to form un-derground deposits called aquifers (water-bearing soil formations).

Groundwater as a source of water supply can be extracted through the following:

1. **Wells** - groundwater can be tapped by digging a hole or sinking pipes into the ground and installing water-drawing equipment such as pumps. Wells can be classi-fied according to the following:

- a. **Deepwell** - are wells with depths greater than 20 meters constructed in areas characterized by aquifers or water-bearing formations generally located at a depth of more than 20 meters below ground surface (mbgs).
- b. **Shallow Well** - are wells with depth of not more than 20 meters and are recommended for rural water supply development, particularly levels I and II services. Static water level in these areas are generally within 6 meters below ground surface.
- c. **Dug Well** - normally circular or rectangular in shape, with diameter ranging from 1 to 1.5 meters. After the well is dug, it is necessary to put a masonry, brickwork or reinforced concrete which serve as protection against surface or outside contamination.

2. **Springs** - spring water occurs when water in water-bearing stratum reaches the surface of the ground. Spring can be developed by enlarging the water outlet and constructing an intake structure for water catchment and storage.

B. **Surface Water** - is a mixture of surface run-off and groundwater. Surface sources includes rivers, lakes, streams, ponds and impounding reservoirs.

**Aquifer** - water-bearing strata.

**Water Right** - is the privilege granted by the government to use and appropriate water.

**Water Permit** - is a document to appropriate water rights.

**Salt Intrusion** - encroachment of salt water upon fresh water.

**Contaminated Water** - water that contains microorganisms, chemicals, industrial or other wastes and is hence unfit for its intended use.

**Population Underserved** - population inadequately served.

**Population Unserved** - population without access to water supply facility.

**Population Served** - no. of population adequately served by a water system.

Level I - no. of Level I systems x 15 HH x 6 persons/HH

Level II - no. of Level II facility x 5 HH x 6 persons/HH

Level III - no. of connections x no. of persons served/connection

**Rainwater Cisterns/Collectors/Catchers** - reservoirs, tanks or vessels for the storage of rainwater.

**Reliable Water Supply** - efficient delivery of water supply in terms of quantity and quality.

**Safe Drinking Water/Potable Water** - water that is free of microorganisms or disease-producing bacteria (pathogens). In addition, the water should not possess undesirable tastes, odors, color, levels of radioactivity, turbidity or chemicals and it should pass the standards of the Philippine National Standards for Drinking Water (NSDW).

**Service Area** - geographic jurisdiction of water utilities.

**Non-revenue Water** - unbilled water.

**Appropriate Technology** - suited to local conditions and resources.

**Infiltration Galleries** - horizontal wells which collect water over the entire length.

**Accounted-for-Water** - billed water.

**Access to Water Supply Facilities** - access to water supply is categorized as follows:

Level I - the farthest user is not more than 250 meters from the point source.

Level II - the farthest house is not more than 25 meters from the communal faucet system.

Level III - the house has service connection from the system.

**Private Water System** - privately-owned water supply system.

**Public Water System** - system owned by the government.

## ANNEX B

### DEFINITION OF TERMS IN SEWERAGE AND SANITATION

**Environmental Sanitation** - the control of all those factors in man's physical environment which exercise or may exercise a deleterious effect on his physical development, health and survival.

**Sanitation** - the development and practical application of sanitary measures for the sake of cleanliness and protecting health.

**Sanitary Toilet** - is an approved type of toilet facility used for receiving and disposing human waste (feces and urine).

### APPROVED TYPES OF TOILET FACILITIES

#### Type I

- a. Facilities requiring small amount of water to wash excreta into the receiving space/pit.
- b. Non-water carriage toilet facility requiring no water to wash excreta into the receiving space/pit.  
e.g. ventilated improved pit latrine, sanitary pit privy

#### Type II

Water carriage type having a pour-flush or flush-type toilet facility and a septic vault/tank as the disposal facility.

#### Type III

Water carriage type with pour-flush or flush-type toilet facilities connected to septic tanks and/or to sewerage system to treatment plants.

1. **Flush** - type of toilet facility with a water-sealed toilet bowl or water closet and a mechanical device used to wash excreta into the receiving public sewer or any private sewage disposal plants/units by the use of flushing water with traps to provide "water seal."
2. **Pour Flush** - type of toilet facility with a water-sealed toilet bowl that is flushed by manually pouring water to wash excreta into the receiving space/pit.
3. **Ventilated Improved Pit** - refers to an on-site toilet facility wherein the pit receives excreta directly from the user and therefore does not require water for flushing; it com-

prises a lined pit, vent pipe with a fly screen., cover slab and a superstructure which allows entry of fresh air into the pit.

4. **Sanitary Pit Privy** - type of toilet facility without using any amount of water, with a pit of at least 1-2 meters depth, a hole of one square-meter, provided with a floor covering, a riser, seat with cover which are all fly and rodent proof and a building for privacy.

**Unsanitary Toilet** - a type of facility used for receiving and disposing human waste which does not fall under the category of approved types of toilet facilities.

#### **UNAPPROVED/UNSANITARY TYPES**

1. **Open Pit Privy** - a pit of at least the same dimension as the sanitary pit privy, provided with pit flooring, with or without riser and seat and without cover to protect from flies and rodents.
2. **Overhang** - a structure provided with flooring and with an opening built above the body of water or above the ground without pit under it, used for defecation or the disposal of human waste. It may be a part of the house or a separate structure outside the house.

#### **LEVELS OF TOILET USE**

1. **Communal** - a toilet facility shared by two or more households.
2. **Public** - a toilet facility located at public places like markets, bus stations, etc. intended for public use.
3. **School** - a toilet facility located in a school essentially for the use of students.
4. **Household** - a toilet facility being used by an individual household.

**Sewerage** - facilities that collect human waste and sullage from residences and establishments usually piped and conveyed in structures (sewers, pump stations) for eventual treatment and safe disposal. Piped sewerage includes a collection system (street laterals), a conveyance system (truck sewers and pump stations), and a treatment plant/disposal system.



**Human Waste** - solid (fecal matter) and liquid (urine) wastes which originate from human.

**Sullage** - liquid wastes that do not carry excreta and which normally results from washing, bathing and laundry.

**Storm Drainage System** - a system comprising of conduits, pipes and other appurtenances for effecting drainage and used for conveying rain water, surface water or similar wastes.

**Unsanitary Drainage System** - an open ditch system of conveying domestic wastes and rainwater into a final disposal site without treatment. Includes open canals.

**Households Without Toilet** - households without any toilet facility but uses other areas for defecation like bodies of water like rivers, lakes, open fields, coastal areas, etc.

**Access** - availability of toilet facility within the household premises which can be used anytime by any member of the household.

**On-site** - human waste is deposited and treated where the toilet facility is located.

**Off-site** - human waste is transported for treatment away from where the toilet facility is located.