

10 COST ESTIMATES FOR FUTURE SECTOR DEVELOPMENT

10.2 Assumption for Cost Estimates

10.2.1 Unit Construction Cost

(1) Calculation method

The base information in previous PW4SP, such as bill of quantities and unit cost of respective components facilities was fully utilized, which was referred to the standard of relevant sector agencies. Escalation rates experienced between 1995 and 1998 in terms of major construction materials and equipment rental were studied using NSO statistics (whole price index). Market prices of these items were also canvassed to compare with the calculated prices in 1998 from those in 1995 in application of the escalations rates.

In general, escalated prices meet canvassed prices in the most of the materials. Escalation rates between 1995 and 1998 were employed in round figures. Some of them (water closet, etc.) were, however, replace by current price due to considerable increase in the last two years.

The Table 10.2.1 shows the prices of the major materials by facility.

Table 10.2.1 Price of Major Materials by Facility

Major Materials	Water Supply			Sanitation			Projection by major materials				Canvassed & collected price		Comparison (1), (2) & (3)	
	L-I	L-II	L-III	ST, PT	Flush Type	VIP, Pit	NSO wholesale price index		Escalation	Price		DPWH ⁽²⁾		CIA ⁽³⁾
							1995	1998		1995	1998 ⁽¹⁾			
1. Aggregate	x	x	x	x	x	x	311.6	367.5	5.7%					Almost same with (2) & (3).
Sand										304	359	330	350	
Gravel										385	454	418	500	
2. Cement	x	x	x	x	x	x	197.4	214.1	2.7%	117	127	126	105	ditto
3. Fuel	x	x	x				601.6	742.6	7.3%	1,100	1,358	1306		ditto
4. Metal pipe	x	x	x				208.7	226.3	2.7%					Price of GI casing is almost same with (2) and screen is 12% lower than (2).
4" x 3m, GI										2,625	2,846	2763		
4" x 3m, Screen										4,313	4,667	5291		
5. PVC pipe	x	x	x	x	x	x	199.2	223.4	3.9%					Price of PVC pipe is almost same with (2) and 7% higher than (3).
2" x 3m										813	912	882	852	
1-1/2" elbow										13	15		40	
6. Reinforcing	x	x	x	x	x	x	201.4	221.9	3.3%					Almost same with (3).
12mm x 6m										68	75		75	
10mm x 6m										49	54		45	
7. Lumber				x	x	x	268.5	296.8	3.4%					
8. Paint				x			128.0	140.1	3.1%					Almost same with (3).
Enamel, ODE										266	291		310	
9. Machinery	x		x				254.8	254.8	0.0%					

L-I: Deep well/shallow well, L-II: Major materials are same as those of L-I spring development,
 ST: School toilet, PT: Public toilet, Flush type: Flush water sealed w/ septic tank and Pour flush w/ double latrine,
 CIA: Construction Industry Authority of the Philippines, prevailing prices for the month of December 1998
 GI: Galvanized iron steel pipe for well casing, Screen: Low carbon steel and wound wire type

Table 10.2.2 (a) Unit Cost of Level I (Gravel Packed Deep Well - 40m Depth)

(Cost: Peso)

Description	Qty.	Unit	Unit Cost	Amount
A. Mobilization/Demobilization/Site Preparation		LS		52,000
B. Drilling of Well & Installation of Steel Casing/Screen				
1. Materials				
(1) 100mm x 3m Steel Casing with coupling	11	pcs.	2,846	31,306
(2) 100mm x 3m Steel Casing with one end closed	1	pc.	2,997	2,997
(3) 100mm x 3m Low Carbon Steel Screen	2	pcs.	4,667	9,334
(4) Casing Centralizer	2	set	1,925	3,850
2. Labor, Fuel, Lubricant and others				
Well Drilling for 40 m depth at 200mm borehole	40	m	2,500	100,000
3. Borehole Logging	1	no	16,000	16,000
4. Freight Cost (8% of Materials)		LS		3,799
Sub-Total of B				167,286
C. Well Development and Pumping Test				
Well Development	24	hr.	5,500	132,000
Pumping Test	6	hr.	5,000	30,000
Sub-Total of C				162,000
D. Gravel Packing, Installation of Handpump and Construction of Platform				
1. Materials				
(1) Improved Deep Well Cylinder Pump (Afridev Type)	1	set	11,815	11,815
(2) 63mm x 6m Riser Pipe and Pump Rod	6	pcs.	1,880	11,280
(3) #10 Sieved Gravel	1	cu.m	1,026	1,026
(4) Coarse Sand	1	cu.m	359	359
(5) Cement for Sanitary Seal	4	bags	127	508
(6) Pump Base and Platform				
1) Cement	4	bags	127	508
2) Gravel	2	cu.m	454	908
3) Sand	1	cu.m	359	359
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	294
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	52	312
6) Nail	1	kg.	40	40
Sub-Total of D-1				27,409
2. Labor (40% of D-1.)				10,964
3. Freight Cost (8% of Materials)		LS		2,193
Sub-Total of D				40,566
E. Indirect Cost				
Profit (10% of A, B, C & D)				42,185
Overhead Expense (13% of A, B, C & D)				54,841
VAT (10% of Labor, Profit & Overhead Expense)				20,799
Sub-Total of E				62,984
Total of Construction Cost (A+B+C+D+E)				352,836
F. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost		LS		3,600
2. Construction Supervision		LS		2,400
3. Water Quality Analysis		LS		1,400
Sub-Total of F				7,400
GRAND TOTAL				360,236
SAY				360,200

Note: LS - Lump Sum

Source: DPWH standard price in 1994 & LWUA Water Supply Feasibility Study Methodology Manual 1998

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.2 (b) Unit Cost of Level I (Natural Gravel packed Deep Well - 40m Depth)

(Cost: Peso)

Description	Qty.	Unit	Unit Cost	Amount
A. Mobilization/Demobilization		LS		52,000
B. Drilling of Well & Installation of Steel Casing/Screen				
1. Materials				
(1) 100mm x 3m Steel Casing with coupling	11	pcs.	2,846	31,306
(2) 100mm x 3m Steel Casing with one end closed	1	pc.	2,997	2,997
(3) 100mm x 3m Low Carbon Steel Screen	2	pcs.	4,667	9,334
(4) Casing Centralizer	0	set	1,925	0
2. Labor, Fuel, Lubricant and others				
Well Drilling for 40 m depth at 150mm borehole	40	m	1,600	64,000
3. Borehole Logging	1	no	16,000	16,000
4. Freight Cost (8% of Materials)		LS		3,491
Sub-Total of B				127,128
C. Well Development and Pumping Test				
Well Development	12	hr.	5,500	66,000
Pumping Test	6	hr.	5,000	30,000
Sub-Total of C				96,000
D. Gravel Packing, Installation of Handpump and Construction of Platform				
1. Materials				
(1) Improved Deep Well Cylinder Pump (Afridev Type)	1	set	11,815	11,815
(2) 63mm x 6m Riser Pipe and Pump Rod	6	pcs.	1,880	11,280
(3) #10 Sieved Gravel	0	cu.m	1,026	0
(4) Coarse Sand	1	cu.m	359	359
(5) Cement for Sanitary Seal	3	bags	127	381
(6) Pump Base and Platform				
1) Cement	4	bags	127	508
2) Gravel	2	cu.m	454	908
3) Sand	1	cu.m	359	359
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	294
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	52	312
6) Nail	1	kg.	40	40
Sub-Total of D-1				26,256
2. Labor (40% of D-1.)				10,502
3. Freight Cost (8% of Materials)		LS		2,100
Sub-Total of D				38,858
E. Indirect Cost				
Profit (10% of A, B, C & D)				31,399
Overhead Expense (13% of A, B, C & D)				40,818
VAT (10% of Labor, Profit & Overhead Expense)				14,672
Sub-Total of E				46,071
Total of Construction Cost (A+B+C+D+E)				294,057
F. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost		LS		3,600
2. Construction Supervision		LS		2,400
3. Water Quality Analysis		LS		1,400
Sub-Total of F				7,400
GRAND TOTAL				301,457
SAY				301,500

Note: LS - Lump Sum

Source: DPWH standard price in 1994 & LWUA Water Supply Feasibility Study Methodology Manual 1998

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.2(c) Unit Cost of Level I (Gravel Packed Deep Well - 40m Depth) for Acid Water

(Cost: Peso)

Description	Qty.	Unit	Unit Cost	Amount
A. Mobilization/Demobilization/Site Preparation		LS		52,000
B. Drilling of Well & Installation of Steel Casing/Screen				
1. Materials				
(1) 100mm x 3m PVC Casing with Socket	11	pcs.	2,038	22,418
(2) 100mm x 3m PVC Casing with Plug	1	pc.	980	980
(3) 100mm x 3m Stainless Steel Screen	2	pcs.	12,700	25,400
(4) Casing Centralizer	2	set	1,925	3,850
2. Labor, Fuel, Lubricant and others				
Well Drilling for 40 m depth at 200mm borehole	40	m	2,500	100,000
3. Borehole Logging	1	no	16,000	16,000
4. Freight Cost (8% of Materials)		LS		4,212
Sub-Total of B				172,860
C. Well Development and Pumping Test				
Well Development	24	hr.	5,500	132,000
Pumping Test	6	hr.	5,000	30,000
Sub-Total of C				162,000
D. Gravel Packing, Installation of Handpump and				
1. Materials				
(1) Improved Deep Well Cylinder Pump (Afridev Type)	1	set	11,815	11,815
(2) 63mm x 3m PVC Riser Pipe and SUS Pump Rod	12	pcs.	2,450	29,400
(3) #10 Sieved Gravel	1	cu.m	1,026	1,026
(4) Coarse Sand	1	cu.m	359	359
(5) Cement for Sanitary Seal	4	bags	127	508
(6) Pump Base and Platform				
1) Cement	4	bags	127	508
2) Gravel	2	cu.m	454	908
3) Sand	1	cu.m	359	359
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	294
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	52	312
6) Nail	1	kg.	40	40
Sub-Total of D-1				45,529
2. Labor (40% of D-1.)				18,212
3. Freight Cost (8% of Materials)		LS		3,642
Sub-Total of D				67,383
E. Indirect Cost				
Profit (10% of A, B, C & D)				45,424
Overhead Expense (13% of A, B, C & D)				59,052
VAT (10% of Labor, Profit & Overhead Expense)				22,269
Sub-Total of E				67,693
Total of Construction Cost (A+B+C+D+E)				389,936
F. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost		LS		3,600
2. Construction Supervision		LS		2,400
3. Water Quality Analysis		LS		1,400
Sub-Total of F				7,400
GRAND TOTAL				397,336
SAY				397,300

Note: LS - Lump Sum

Source: DPWH standard price in 1994 & LWUA Water Supply Feasibility Study Methodology Manual 1998

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.3 (a) Unit Cost of Level I (Gravel Packed Deep Well - 80m Depth)

(Cost: Peso)

Description	Qty.	Unit	Unit Cost	Amount
A. Mobilization/Demobilization/Site Preparation		LS		54,000
B. Drilling of Well & Installation of Steel Casing/Screen				
1. Materials				
(1) 100mm x 3m Steel Casing with coupling	24	pcs.	2,846	68,304
(2) 100mm x 3m Steel Casing with one end closed	1	pc.	2,997	2,997
(3) 100mm x 3m Low Carbon Steel Screen	2	pcs.	4,667	9,334
(4) Casing Centralizer	2	set	1,925	3,850
2. Labor, Fuel, Lubricant and others				
Well Drilling for 40 m depth at 200mm borehole	80	m	2,500	200,000
3. Borehole Logging	1	no	18,000	18,000
4. Freight Cost (8% of Materials)		LS		6,759
Sub-Total of B				309,244
C. Well Development and Pumping Test				
Well Development	24	hr.	5,500	132,000
Pumping Test	6	hr.	5,000	30,000
Sub-Total of C				162,000
D. Gravel Packing, Installation of Handpump and Construction of Platform				
1. Materials				
(1) Improved Deep Well Cylinder Pump (Afridev Type)	1	set	11,815	11,815
(2) 63mm x 6m Riser Pipe and Pump Rod	8	pcs.	1,880	15,040
(3) #10 Sieved Gravel	1	cu.m	1,026	1,026
(4) Coarse Sand	1	cu.m	359	359
(5) Cement for Sanitary Seal	4	bags	127	508
(6) Pump Base and Platform				
1) Cement	4	bags	127	508
2) Gravel	2	cu.m	454	908
3) Sand	1	cu.m	359	359
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	294
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	52	312
6) Nail	1	kg.	40	40
Sub-Total of D-1				31,169
2. Labor (40% of D-1.)				12,468
3. Freight Cost (8% of Materials)		LS		2,494
Sub-Total of D				46,131
E. Indirect Cost				
Profit (10% of A, B, C & D)				57,138
Overhead Expense (13% of A, B, C & D)				74,279
VAT (10% of Labor, Profit & Overhead Expense)				34,389
Sub-Total of E				91,527
Total of Construction Cost (A+B+C+D+E)				530,902
F. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost		LS		3,600
2. Construction Supervision		LS		2,400
3. Water Quality Analysis		LS		1,400
Sub-Total of F				7,400
GRAND TOTAL				538,302
SAY				538,300

Note: LS - Lump Sum

Source: DPWH standard price in 1994 & LWUA Water Supply Feasibility Study Methodology Manual 1998

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.3 (b) Unit Cost of Level I (Natural Gravel Packed Deep Well - 80m Depth)

(Cost, Peso)

Description	Qty.	Unit	Unit Cost	Cost
A. Mobilization/Demobilization/Site Preparation		LS		54,000
B. Drilling of Well & Installation of Steel Casing/Screen				
1. Materials				
(1) 100mm x 3m Steel Casing with coupling	24	pcs.	2,846	68,304
(2) 100mm x 3m Steel Casing with one end closed	1	pc.	2,997	2,997
(3) 100mm x 3m Low Carbon Steel Screen	2	pcs.	4,667	9,334
(4) Casing Centralizer	0	set	1,925	0
2. Labor, Fuel, Lubricant and others				
Well Drilling for 80 m depth at 150mm borehole	80	m	1,600	128,000
3. Borehole Logging	1	no	18,000	18,000
4. Freight Cost (8% of Materials)		LS		6,451
Sub-Total of B				233,086
C. Well Development and Pumping Test				
Well Development	12	hr.	5,500	66,000
Pumping Test	6	hr.	5,000	30,000
Sub-Total of C				96,000
D. Gravel Packing, Installation of Handpump and Construction of Platform				
1. Materials				
(1) Improved Deep Well Cylinder Pump (Afridev Type)	1	set	11,815	11,815
(2) 63mm x 6m Riser Pipe and Pump Rod	8	pcs.	1,880	15,040
(3) #10 Sieved Gravel	0	cu.m	1,026	0
(4) Coarse Sand	1	cu.m	359	359
(5) Cement for Sanitary Seal	3	bags	127	381
(6) Pump Base and Platform				
1) Cement	4	bags	127	508
2) Gravel	2	cu.m	454	908
3) Sand	1	cu.m	359	359
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	294
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	52	312
6) Nail	1	kg.	40	40
Sub-Total of D-1				30,016
2. Labor (40% of D-1.)				12,006
3. Freight Cost (8% of Materials)		LS		2,401
Sub-Total of D				44,423
E. Indirect Cost				
Profit (10% of A, B, C & D)				42,751
Overhead Expense (13% of A, B, C & D)				55,576
VAT (10% of Labor, Profit & Overhead Expense)				23,833
Sub-Total of E				66,584
Total of Construction Cost (A+B+C+D+E)				428,093
F. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost		LS		3,600
2. Construction Supervision		LS		2,400
3. Water Quality Analysis		LS		1,400
Sub-Total of F				7,400
GRAND TOTAL				435,493
SAY				435,500

Note: LS - Lump Sum

Source: DPWH standard price in 1994 & LWUA Water Supply Feasibility Study Methodology Manual 1998

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.3 (c) Unit Cost of Level I (Gravel Packed Deep Well - 80m Depth) for Acid Water

(Cost: Peso)

Description	Qty.	Unit	Unit Cost	Cost
A. Mobilization/Demobilization/Site Preparation		LS		54,000
B. Drilling of Well & Installation of Steel Casing/Screen				
1. Materials				
(1) 100mm x 3m PVC Casing with Socket	24	pcs.	2,038	48,912
(2) 100mm x 3m PVC Casing with Plug	1	pc.	980	980
(3) 100mm x 3m Stainless Steel Screen	2	pcs.	12,700	25,400
(4) Casing Centralizer	2	set	1,925	3,850
2. Labor, Fuel, Lubricant and others				
Well Drilling for 40 m depth at 200mm borehole	80	m	2,500	200,000
3. Borehole Logging	1	no	18,000	18,000
4. Freight Cost (8% of Materials)		LS		6,331
Sub-Total of B				303,473
C. Well Development and Pumping Test				
Well Development	24	hr.	5,500	132,000
Pumping Test	6	hr.	5,000	30,000
Sub-Total of C				162,000
D. Gravel Packing, Installation of Handpump and Construction of Platform				
1. Materials				
(1) Improved Deep Well Cylinder Pump (Afridev Type)	1	set	11,815	11,815
(2) 63mm x 3m PVC Riser Pipe and SUS Pump Rod	16	pcs.	2,450	39,200
(3) #10 Sieved Gravel	1	cu.m	1,026	1,026
(4) Coarse Sand	1	cu.m	359	359
(5) Cement for Sanitary Seal	4	bags	127	508
(6) Pump Base and Platform				
1) Cement	4	bags	127	508
2) Gravel	2	cu.m	454	908
3) Sand	1	cu.m	359	359
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	294
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	52	312
6) Nail	1	kg.	40	40
Sub-Total of D-1				55,329
2. Labor (40% of D-1.)				22,132
3. Freight Cost (8% of Materials)		LS		4,426
Sub-Total of D				81,887
E. Indirect Cost				
Profit (10% of A, B, C & D)				60,136
Overhead Expense (13% of A, B, C & D)				78,177
VAT (10% of Labor, Profit & Overhead Expense)				36,045
Sub-Total of E				96,181
Total of Construction Cost (A+B+C+D+E)				565,541
F. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost		LS		3,600
2. Construction Supervision		LS		2,400
3. Water Quality Analysis		LS		1,400
Sub-Total of F				7,400
GRAND TOTAL				572,941
SAY				572,900

Note: LS - Lump Sum

Source: DPWH standard price in 1994 & LWUA Water Supply Feasibility Study Methodology Manual 1998

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.4 (a) Unit Cost of Level I (Gravel Packed Deep Well - 120m Depth)

(Cost, Peso)

Description	Qty.	Unit	Unit Cost	Amount
A. Mobilization/Demobilization/Site Preparation		LS		56,000
B. Drilling of Well & Installation of Steel Casing/Screen				
1. Materials				
(1) 100mm x 3m Steel Casing with coupling	37	pcs.	2,846	105,302
(2) 100mm x 3m Steel Casing with one end closed	1	pc.	2,997	2,997
(3) 100mm x 3m Low Carbon Steel Screen	2	pcs.	4,667	9,334
(4) Casing Centralizer	2	set	1,925	3,850
2. Labor, Fuel, Lubricant and others				
Well Drilling for 120 m depth at 200mm borehole	120	m	2,500	300,000
3. Borehole Logging	1	no	20,000	20,000
4. Freight Cost (8% of Materials)		LS		9,719
Sub-Total of B				451,202
C. Well Development and Pumping Test				
Well Development	24	hr.	5,500	132,000
Pumping Test	6	hr.	5,000	30,000
Sub-Total of C				162,000
D. Gravel Packing, Installation of Handpump and Construction of Platform				
1. Materials				
(1) Improved Deep Well Cylinder Pump (Afridev Type)	1	set	11,815	11,815
(2) 63mm x 6m Riser Pipe and Pump Rod	10	pcs.	1,880	18,800
(3) #10 Sieved Gravel	1	cu.m	1,026	1,026
(4) Coarse Sand	1	cu.m	359	359
(5) Cement for Sanitary Seal	4	bags	127	508
(6) Pump Base and Platform				
1) Cement	4	bags	127	508
2) Gravel	2	cu.m	454	908
3) Sand	1	cu.m	359	359
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	294
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	52	312
6) Nail	1	kg.	40	40
Sub-Total of D-1				34,929
2. Labor (40% of D-1.)				13,972
3. Freight Cost (8% of Materials)		LS		2,794
Sub-Total of D				51,695
E. Indirect Cost				
Profit (10% of A, B, C & D)				72,090
Overhead Expense (13% of A, B, C & D)				93,717
VAT (10% of Labor, Profit & Overhead Expense)				47,978
Sub-Total of E				120,068
Total of Construction Cost (A+B+C+D+E)				708,965
F. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost		LS		3,600
2. Construction Supervision		LS		2,400
3. Water Quality Analysis		LS		1,400
Sub-Total of F				7,400
GRAND TOTAL				716,365
SAY				716,400

Note: LS - Lump Sum

Source: DPWH standard price in 1994 & LWUA Water Supply Feasibility Study Methodology Manual 1998

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.4 (b) Unit Cost of Level I (Natural Gravel Packed Deep Well - 120m Depth)

(Cost: Peso)

Description	Qty.	Unit	Unit Cost	Cost
A. Mobilization/Demobilization/Site Preparation		LS		56,000
B. Drilling of Well & Installation of Steel Casing/Screen				
1. Materials				
(1) 100mm x 3m Steel Casing with coupling	37	pcs.	2,846	105,302
(2) 100mm x 3m Steel Casing with one end closed	1	pc.	2,997	2,997
(3) 100mm x 3m Low Carbon Steel Screen	2	pcs.	4,667	9,334
(4) Casing Centralizer	0	set	1,925	0
2. Labor, Fuel, Lubricant and others				
Well Drilling for 120 m depth at 150mm borehole	120	m	1,600	192,000
3. Borehole Logging	1	no	20,000	20,000
4. Freight Cost (8% of Materials)		LS		9,411
Sub-Total of B				339,044
C. Well Development and Pumping Test				
Well Development	12	hr.	5,500	66,000
Pumping Test	6	hr.	5,000	30,000
Sub-Total of C				96,000
D. Gravel Packing, Installation of Handpump and Construction of Platform				
1. Materials				
(1) Improved Deep Well Cylinder Pump (Afridev Type)	1	set	11,815	11,815
(2) 63mm x 6m Riser Pipe and Pump Rod	10	pcs.	1,880	18,800
(3) #10 Sieved Gravel	0	cu.m	1,026	0
(4) Coarse Sand	1	cu.m	359	359
(5) Cement for Sanitary Seal	3	bags	127	381
(6) Pump Base and Platform				
1) Cement	4	bags	127	508
2) Gravel	2	cu.m	454	908
3) Sand	1	cu.m	359	359
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	294
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	52	312
6) Nail	1	kg.	40	40
Sub-Total of D-1				33,776
2. Labor (40% of D-1.)				13,510
3. Freight Cost (8% of Materials)		LS		2,702
Sub-Total of D				49,988
E. Indirect Cost				
Profit (10% of A, B, C & D)				54,103
Overhead Expense (13% of A, B, C & D)				70,334
VAT (10% of Labor, Profit & Overhead Expense)				32,995
Sub-Total of E				87,098
Total of Construction Cost (A+B+C+D+E)				562,130
F. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost		LS		3,600
2. Construction Supervision		LS		2,400
3. Water Quality Analysis		LS		1,400
Sub-Total of F				7,400
GRAND TOTAL				569,530
SAY				569,500

Note: LS - Lump Sum

Source: DPWH standard price in 1994 & LWUA Water Supply Feasibility Study Methodology Manual 1998

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.4(c) Unit Cost of Level I (Gravel Packed Deep Well - 120m Depth) for Acid Water

(Cost: Peso)

Description	Quantity	Unit	Unit Cost	Cost
A. Mobilization/Demobilization/Site Preparation		LS		56,000
B. Drilling of Well & Installation of Steel Casing/Screen				
1. Materials				
(1) 100mm x 3m PVC Casing with Socket	37	pcs.	2,038	75,406
(2) 100mm x 3m PVC Casing with Plug	1	pc.	980	980
(3) 100mm x 3m Stainless Steel Screen	2	pcs.	12,700	25,400
(4) Casing Centralizer	2	set	1,925	3,850
2. Labor, Fuel, Lubricant and others				
Well Drilling for 120 m depth at 200mm borehole	120	m	2,500	300,000
3. Borehole Logging	1	no	20,000	20,000
4. Freight Cost (8% of Materials)		LS		8,451
Sub-Total of B				434,087
C. Well Development and Pumping Test				
Well Development	24	hr.	5,500	132,000
Pumping Test	6	hr.	5,000	30,000
Sub-Total of C				162,000
D. Gravel Packing, Installation of Handpump and Construction of Platform				
1. Materials				
(1) Improved Deep Well Cylinder Pump (Afridev Type)	1	set	11,815	11,815
(2) 63mm x 3m PVC Riser Pipe and SUS Pump Rod	20	pcs.	2,450	49,000
(3) #10 Sieved Gravel	1	cu.m	1,026	1,026
(4) Coarse Sand	1	cu.m	359	359
(5) Cement for Sanitary Seal	4	bags	127	508
(6) Pump Base and Platform				
1) Cement	4	bags	127	508
2) Gravel	2	cu.m	454	908
3) Sand	1	cu.m	359	359
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	294
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	52	312
6) Nail	1	kg.	40	40
Sub-Total of D-1				65,129
2. Labor (40% of D-1.)				26,052
3. Freight Cost (8% of Materials)		LS		5,210
Sub-Total of D				96,391
E. Indirect Cost				
Profit (10% of A, B, C & D)				74,848
Overhead Expense (13% of A, B, C & D)				97,302
VAT (10% of Labor, Profit & Overhead Expense)				49,820
Sub-Total of E				124,668
Total of Construction Cost (A+B+C+D+E)				741,146
F. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost		LS		3,600
2. Construction Supervision		LS		2,400
3. Water Quality Analysis		LS		1,400
Sub-Total of F				7,400
GRAND TOTAL				748,546
SAY				748,500

Note: LS - Lump Sum

Source: DPWH standard price in 1994 & LWUA Water Supply Feasibility Study Methodology Manual 1998

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.5 Unit Cost of Level I (Deep Well Rehabilitation)

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
A. Mobilization/Demobilization		LS		8,000
B. Well Rehabilitation				
1. Materials				
(1) Cylinder Pump Set	1	set	9,570	9,570
(2) Cement for Surface Sealing	4	bags	127	508
(3) Pump Base and Platform				
1) Cement	4	bags	127	508
2) Gravel	2	cu.m	454	908
3) Sand	1	cu.m	359	359
4) Plywood (4' x 8' x 1/4")	1	pc.	294	294
5) Form Lumber (2" x 3" x 6")	6	pcs.	52	312
6) Nail	1	kg.	40	40
Sub-Total of B-1				12,499
2. Labor (40% of B-1)				5,000
3. Freight Cost (8% of Materials)				1,000
Sub-Total of B				18,499
C. Well Development		LS		31,000
D. Indirect Cost				
Profit (10% of A, B & C)				5,750
Overhead Expense (13% of A, B & C)				7,475
VAT (10% of Profit & Labor)				4,175
Sub-Total of D				17,400
Total of Construction Cost (A+B+C+D)				74,899
E. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost		LS		1,300
2. Supervision		LS		800
3. Water Quality Analysis		LS		1,400
Sub-Total of E				3,500
GRAND TOTAL				78,399
SAY				78,400

Note: LS - Lump Sum

Source: DPWH standard price in 1994

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.6 Unit Cost of Level I (Shallow Well - 18m Depth)

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
A. Mobilization/Demobilization		LS		20,000
B. Drilling of Well & Installation of Steel Casing/Screen				
1. Materials				
(1) 63mm x 6m PVC Pipe with socket	2	pcs.	912	1,824
(2) 63mm x 3m PVC Pipe with plug	1	pc.	452	452
(3) 63mm PVC Socket	1	pc.	12	12
(4) 63mm x 3m PVC Screen	1	pc.	1,443	1,443
(5) Casing Centralizer	2	set	725	1,450
2. Labor, Fuel, Lubricant and others				
Well Drilling for 18 m depth at 150mm borehole	18	m	1,600	28,800
3. Freight Cost (8% of Materials)		LS		298
Sub-Total of B				34,279
C. Well Development	4	hr.	2,000	8,000
D. Gravel Packing, Installation of Handpump and Construction of Platform				
1. Materials				
(1) 50mm Jetmatic Handpump	1	set	2,807	2,807
(2) 50mm Riser Pipe and Foot Valve	1	pc.	118	118
(3) #10 Sieved Gravel	0.1	cu.m	1,026	103
(4) Coarse Sand	0.07	cu.m	359	25
(5) Cement for Sanitary Seal	4	bag	127	508
(6) Pump Base and Platform				
1) Cement	4	bags	127	508
2) Gravel	1	cu.m	454	454
3) Sand	1	cu.m	359	359
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	294
5) Form Lumber (50mm x 75mm x 1,800 mm)	1	pc.	52	52
6) Nail	1	kg.	40	40
Sub-Total of D-1				5,268
2. Labor (40% of D-1.)				2,107
3. Freight Cost (8% of Materials)		LS		421
Sub-Total of D				7,796
E. Indirect Cost				
Profit (10% of A to D)				7,007
Overhead Expense (13% of A to D)				9,110
VAT (10% of Profit & Overhead Expense)				1,612
Sub-Total of E				8,619
Total of Construction Cost (A+B+C+D+E)				78,694
F. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost		LS		2,400
2. Construction Supervision		LS		1,800
3. Water Quality Analysis		LS		1,400
Sub-Total of F				5,600
GRAND TOTAL				84,294
SAY				84,300

Note: LS - Lump Sum

Source: DPWH standard price in 1994 & LWUA Water Supply Feasibility Study Methodology Manual 1998

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.7 Unit Cost of Level I (Spring Development)

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
A. Mobilization/Demobilization		LS		24,000
B. Construction of Spring Box				
1. Materials		LS		42,700
2. Labor (35% of 1.)		LS		14,945
3. Freight Cost (8% of Materials)		LS		3,416
Sub-Total of B				61,061
C. Installation of Pipelines & Fittings				
1. Transmission Materials				
63mm dia. PVC Pipe (Class 12.5 with socket)	330	pcs.	959	316,470
63mm dia. Tee	1	no.	172	172
Solvent Cement	26	cans	140	3,640
63mm dia. Elbow (90 deg.)	3	nos.	89	267
63mm dia. Elbow (45 deg.)	1	pc.	99	99
50mm dia. Gate Valve	2	pcs.	900	1,800
50mm dia. x 1m Stand Pipe	1	pc.	177	177
63mm x 50mm GI Nipple	1	pc.	123	123
50mm dia. Union Patent	3	pcs.	192	576
63mm x 50mm dia. Reducing Socket	2	pcs.	113	226
50mm dia. GI Elbow (90 deg.)	2	pcs.	79	158
63mm x 50mm dia. Socket Adapter	2	pcs.	167	334
50mm dia. GI Gate Valve	2	pcs.	791	1,582
13mm dia. Brass Faucet	2	pcs.	59	118
Sub-Total of Materials				325,624
Labor (35% of Material Cost)		LS		113,968
Freight Cost (8% of Materials)		LS		26,050
Sub-Total of C				465,642
D. Indirect Cost				
1. Transmission Main				
Profit (10% of C)				46,564
Overhead Expense (13% of C)				60,533
VAT (10% of Profit, Overhead Expense & Labor)				22,107
2. Source Facilities				
Profit (10% of A, B)				25,518
Overhead Expense (13% of A, B)				8,506
VAT (10% of Profit, Overhead Expense & Labor)				4,897
Sub-Total of D				168,125
Total Construction Cost (A+B+C+D)				718,828
E. Estimated Government Expenses				
1. Preliminary & Detailed Engineering and RWSA Formation		LS		2,400
2. Supervision		LS		15,000
3. Water Quality Analysis		LS		1,400
Sub-Total of E				18,800
GRAND TOTAL				737,628
SAY				737,600

Note: LS - Lump Sum

Source:

DPWH standard price in 1994

LWUA Water Supply Feasibility Study Methodology Manual 1998.

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.8 Unit Cost of Level II (600 Service Population)

Sheet 1 of 2

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
A. Mobilization/Demobilization		LS		36,000
B. Construction of Spring Box & Ground Reservoir				
1. Materials		LS		128,000
2. Labor (35% of 1.)		LS		44,800
3. Freight Cost (8% of Materials)		LS		10,240
Sub-Total of B				183,040
C. Installation of Pipelines & Fittings				
1. Transmission Pipeline Materials				
63mm dia. PVC Pipe (Class 12.5 with socket)	500	pcs.	959	479,500
63mm dia. Tee	1	no.	172	172
Solvent Cement	40	cans	140	5,600
63mm dia. x 50mm Nipple	3	nos.	159	477
63mm dia. Union Patent	1	pc.	203	203
63mm dia. x 50mm dia. Reducing Socket	2	pcs.	123	246
63mm dia. Elbow (90 deg.)	1	pc.	89	89
63mm dia. Elbow (45 deg.)	1	pc.	99	99
63mm dia. Gate Valve	3	pcs.	1,320	3,960
Sub-Total of Materials				490,346
Labor (35% of Material Cost)		LS		171,621
Freight Cost (8% of Materials)		LS		39,228
Sub-Total of Transmission Main				701,195
2. Distribution Pipeline Materials				
50mm dia. PVC Pipe (Class 12.5 with socket)	20	pcs.	531	10,620
38mm dia. PVC Pipe (Class 12.5 with socket)	30	pcs.	353	10,590
20mm dia. PVC Pipe (Class 40 with socket)	10	pcs.	118	1,180
13mm dia. x 1 m Stand Pipe	10	pcs.	110	1,100
Solvent Cement	4	cans	140	560
Fittings				
a. 50mm dia. x 150mm PVC Nipple	3	pcs.	147	441
b. 32mm dia. x 150mm PVC Nipple	3	pcs.	89	267
c. 13mm dia. x 150mm GI Nipple	40	pcs.	29	1,160
d. 50mm dia. Union Patent	1	pcs.	192	192
e. 32mm dia. Union Patent	2	pcs.	83	166
f. 13mm dia. Union Patent	10	pcs.	29	290
g. 50mm dia. x 32mm dia. Reducing Socket	6	pcs.	106	636
h. 32mm dia. x 20mm dia. Reducing Socket	10	pcs.	82	820
i. 20mm dia. x 13mm dia. Reducing Socket	10	pcs.	64	640
j. 50mm dia. PVC Elbow (90 deg.)	2	pcs.	64	128
k. 13mm dia. GI Elbow (90 deg.)	20	pcs.	15	300
l. 20mm dia. x 13mm dia. Socket Adapter	10	pcs.	48	480
m. 50mm dia. GI Gate Valve	2	pcs.	791	1,582
n. 32mm dia. GI Gate Valve	2	pcs.	447	894
o. 13mm dia. GI Gate Valve	24	pcs.	271	6,504
p. 13mm dia. Brass Faucet	24	pcs.	59	1,416
q. 50mm dia. Tee	4	pcs.	153	612
r. 32mm dia. Tee	6	pcs.	129	774
s. Water Meter	24	pcs.	1,004	24,096
t. Water Meter Box	24	pcs.	1,297	31,128
Sub-Total of Materials				96,576

Table 10.2.8 Unit Cost of Level II (600 Service Population)

Sheet 2 of 2

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
Labor (35% of Material Cost)		LS		33,802
Freight Cost (8% of Materials)		LS		7,726
Sub-Total of Distribution Pipeline				138,104
Sub-Total of C				839,299
D. Indirect Cost				
1. Transmission Main				
Profit (10% of C-1)		LS		70,120
Overhead Expense (13% of C-1)		LS		91,155
VAT (10% of Profit, Overhead Expense and Labor)		LS		33,290
2. Source Facilities and Distribution Pipeline				
Profit (10% of A, B, C-2)		LS		35,714
Overhead Expense (13% of A, B and C-2)		LS		46,429
VAT (10% of Profit, Overhead Expense and Labor)		LS		16,075
Sub-Total of D				292,783
Total Construction Cost (A+B+C+D)				1,351,122
E. Estimated Government Expenses				
1. Preliminary & Detailed Engineering and RWSA Formation		LS		2,400
2. Supervision		LS		15,000
3. Water Quality Analysis		LS		1,400
Sub-Total of E				18,800
Total Estimated Cost				1,369,922
Unit Cost per Person Served				2,283
SAY				2,300

Note: LS - Lump Sum

Source:

DPWH standard price in 1994

LWUA Water Supply Feasibility Study Methodology Manual 1998

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.9 Unit Cost of Level III (5,000 Service Population)

(Cost. Peso)

Description	Q'ty	Unit	Unit Cost	Amount
A. Mobilization/Demobilization		LS		360,000
B. Source Development and Storage				
1. Deep Well	1	No.	2,001,000	2,001,000
2. Deep Well Pump	1	No.	832,000	832,000
3. Chlorinator House & Equipment	1	LS	632,000	632,000
4. Storage Tank (250 cu.m)	1	No.	1,300,000	1,300,000
Sub-Total of B				4,765,000
C. Transmission Main				
1. 160mm dia.	500	LM	1,320	660,000
Sub-Total of C				660,000
D. Distribution Main				
1. 160mm dia.	1,000	LM	1,320	1,320,000
2. 110mm dia.	3,000	LM	1,090	3,270,000
3. 90mm dia.	3,000	LM	684	2,052,000
4. 75mm dia.	6,000	LM	637	3,822,000
Sub-Total of D				10,464,000
E. Service Connections	1,000	Nos.	2,288	2,288,000
F. Miscellaneous				
1. Vehicle	1	No.	649,000	649,000
2. Office & Workshop Bldg.	1	No.	645,000	645,000
3. Office Equipment	1	LS	118,000	118,000
4. Tools and Spare Parts	1	LS	110,000	110,000
Sub-Total of F				1,522,000
Total Direct Cost (A+B+C+D+E+F)				20,059,000
G. Indirect Cost (25% of Direct Cost)				5,014,750
Total Estimated Cost				25,073,750
Unit Cost per Person Served				
For New Construction				5,015
			SAY	5,000
For Expansion of Existing System (Exclude F.)				4,634
			SAY	4,600

Note: LS - Lump Sum

Cost of spring development includes additional transmission main, but it shall be confirmed by survey in the implementation stage.

Source: LWUA standard price in 1994

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.10 Unit Cost of Level III (10,000 Service Population)

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
A. Mobilization/Demobilization		LS		360,000
B. Source Development and Storage				
1. Deep Well	1	No.	2,001,000	2,001,000
2. Deep Well Pump	1	No.	832,000	832,000
3. Chlorinator House & Equipment	1	LS	632,000	632,000
4. Storage Tank (250 cu.m)	1	No.	1,300,000	1,300,000
Sub-Total of B				4,765,000
C. Transmission Main				
1. 160mm dia.	500	LM	1,320	660,000
Sub-Total of C				660,000
D. Distribution Main				
1. 160mm dia.	2,000	LM	1,320	2,640,000
2. 110mm dia.	5,000	LM	1,090	5,450,000
3. 90mm dia.	6,000	LM	684	4,104,000
4. 75mm dia.	9,000	LM	637	5,733,000
Sub-Total of D				17,927,000
E. Service Connections	2,000	Nos.	2,288	4,576,000
F. Miscellaneous				
1. Vehicle	1	No.	649,000	649,000
2. Office & Workshop Bldg.	1	No.	645,000	645,000
3. Office Equipment	1	LS	118,000	118,000
4. Tools and Spare Parts	1	LS	110,000	110,000
Sub-Total of F				1,522,000
Total Direct Cost (A+B+C+D+E+F)				29,810,000
G. Indirect Cost (25% of Direct Cost)				7,452,500
Total Estimated Cost				37,262,500
Unit Cost per Person Served				
For New Construction				3,726
				3,700
For Expansion of Existing System (Exclude F.)				3,536
				3,500

Note: LS - Lump Sum

Cost of spring development includes additional transmission main, but it shall be confirmed by survey in the implementation stage.

Source: LWUA standard price in 1994

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.11 Unit Cost of Level III (15,000 Service Population)

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
A. Mobilization/Demobilization		LS		360,000
B. Source Development and Storage				
1. Deep Well	2	No.	2,001,000	4,002,000
2. Deep Well Pump	2	No.	832,000	1,664,000
3. Chlorinator House & Equipment	2	LS	632,000	1,264,000
4. Storage Tank (250 cu.m)	2	No.	1,300,000	2,600,000
Sub-Total of B				9,530,000
C. Transmission Main				
1. 160mm dia.	1,000	LM	1,320	1,320,000
Sub-Total of C				1,320,000
D. Distribution Main				
1. 160mm dia.	3,000	LM	1,320	3,960,000
2. 110mm dia.	7,000	LM	1,090	7,630,000
3. 90mm dia.	8,000	LM	684	5,472,000
4. 75mm dia.	10,000	LM	637	6,370,000
Sub-Total of D				23,432,000
E. Service Connections	3,000	Nos.	2,288	6,864,000
F. Miscellaneous				
1. Vehicle	1	No.	649,000	649,000
2. Office & Workshop Bldg.	1	No.	645,000	645,000
3. Office Equipment	1	LS	118,000	118,000
4. Tools and Spare Parts	1	LS	110,000	110,000
Sub-Total of F				1,522,000
Total Direct Cost (A+B+C+D+E+F)				43,028,000
G. Indirect Cost (25% of Direct Cost)				10,757,000
Total Estimated Cost				53,785,000
Unit Cost per Person Served For New Construction				3,586
For Expansion of Existing System (Exclude F.)				3,600
				3,459
				3,500

Note: LS - Lump Sum

Cost of spring development includes additional transmission main, but it shall be confirmed by survey in the implementation stage.

Source: LWUA standard price in 1994

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.12 Unit Cost of Flush Water Sealed with Septic Tank Toilet

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
A. Demolition		LS		1,100
B. Earthwork				
1. Materials				
(1) Gravel Fill	1	cu.m	454	454
Sub-Total of B-1				454
2. Labor				
(1) Excavation	6	cu.m	140	840
(2) Backfill	2	cu.m	127	254
(3) Gravel Fill	1	cu.m	166	166
Sub-Total of B-2				1,260
Sub-Total of B				1,714
C. Concrete Work				
1. Materials				
Slab on wood planks				
(1) 16 - 2" x 8" x 6' Coco Lumber	128	bd.ft	8	1,024
(2) 10mm dia x 6.0m Rebar	3	pc.	58	174
(3) #16 Tie Wire	0.5	kg	58	29
(4) Cement	10	bag	137	1,370
(5) Sand	1.5	cu.m	359	539
(6) Gravel	2	cu.m	454	908
(7) Stone Lining with Mortar	1	LS	1,250	1,250
Sub-Total of C-1				5,294
2. Labor (30% of C-1)				1,588
Sub-Total of C				6,882
D. Carpentry Work				
1. Materials				
(1) Nipa	60	pc.	2	120
(2) 1.5m x 1.8m, amakan	3	pc.	75	225
(3) 2" x 3" x 10' Coco Lumber	20	bd.ft	11	220
(4) 2" x 2" x 10' Coco Lumber	33.3	bd.ft	10	333
(5) 3" dia. Bamboo	3	light	21	63
(6) Assorted CWN	4	kg	43	172
(7) Rattan wire	20	pc.	1	20
Sub-Total of C-1				1,153
2. Labor (30% of C-1)				346
Sub-Total of C				1,499
E. Plumbing				
1. Materials				
(1) Water Closet	1	set	4,900	4,900
(2) Water line and sanitary fixtures	1	LS	1,650	1,650
Sub-Total of E-1				6,550
2. Labor (30% of E-1)				1,965
Sub-Total of E				8,515
F. Transportation Cost (excluding indigenous materials)	1	LS	540	540
G. Indirect Cost				
Profit (10% of A - F)				2,025
VAT (10% of Profit & Labor)				718
Sub-Total of F				2,743
Total of Construction Cost (A+B+C+D+E+F+G)			SAY	22,993 23,000

Note: LS - Lump Sum

Source: DOH standard price in 1993

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.13 Unit Cost of Pour Flush with Double Pit Latrine

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
A. Earthwork				
1. Materials				
(1) Gravel Fill	1	cu.m	454	454
Sub-Total of A-1				454
2. Labor				
(1) Excavation	6	cu.m	140	840
(2) Backfill	2	cu.m	127	254
(3) Gravel Fill	1	cu.m	166	166
Sub-Total of A-2				1,260
Sub-Total of A				1,714
B. Concrete Work				
1. Materials				
Slab on wood planks				
(1) 16 - 2" x 8" x 6' Coco Lumber	128	bd.ft	8	1,024
(2) 10mm dia x 6.0m Rebar	3	pc.	58	174
(3) #16 Tie Wire	0.5	kg	58	29
(4) Cement	10	bag	137	1,370
(5) Sand	1.5	cu.m	359	539
(6) Gravel	2	cu.m	454	908
(7) Stone Lining with Mortar	1	LS	1,250	1,250
Sub-Total of B-1				5,294
2. Labor (25% of B-1)				1,323
Sub-Total of B				6,617
C. Carpentry Work				
1. Materials				
(1) Nipa	60	pc.	2	120
(2) 1.5m x 1.8m, amakan	3	pc.	75	225
(3) 2" x 3" x 10' Coco Lumber	20	bd.ft	11	220
(4) 2" x 2" x 10' Coco Lumber	33.3	bd.ft	10	333
(5) 3" dia. Bamboo	3	light	21	63
(6) Assorted CWN	4	kg	43	172
(7) Rattan wire	20	pc.	1	20
(8) Pale (medium)	1	pc.	203	203
(9) 3" dia. PVC x 3m	1	pc.	665	665
(10) 3" dia. PVC Elbow	2	pc.	70	140
(11) PVC solvent	1	pint	54	54
(12) Ga. 31" x 8' plain GI sheet	1	sheet	214	214
Sub-Total of C-1				2,429
2. Labor (25% of C-1)				607
Sub-Total of C				3,036
D. Plumbing				
1. Material				
(1) Toilet Bowl-Squat Type	1	pc.	220	220
(2) 75mm dia x 6.0m PVC Pipe	1	pc.	152	152
Sub-Total of D-1				372
2. Labor (25% of D-1)				93
Sub-Total of D				465
E. Transportation Cost (excluding indigenous materials)	1	LS	340	340
F. Indirect Cost				
Profit (10% of A - D)				1,487
VAT (10% of Profit & Labor)				477
Sub-Total of F				1,964
Total Construction Cost (A+B+C+D+E+F)			SAY	14,136 14,100

Note: LS - Lump Sum

Source: DOH standard price in 1993

Unit Cost: Adjusted to 1998 Price Level

Unit Cost of Toilet Bowl: ferrerd to ADB-assisted RW3SP

Table 10.2.14 Unit Construction Cost of Ventilated Improved Pit Latrine

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
A. Earthwork				
1. Materials				
(1) Gravel Fill	0.5	cu.m	454	227
Sub-Total of A-1				227
2. Labor				
(1) Excavation	3	cu.m	140	420
(2) Backfill	1	cu.m	127	127
(3) Gravel Fill	0.5	cu.m	166	83
Sub-Total of A-2				630
Sub-Total of A				857
B. Concrete Work				
1. Materials				
Slab on wood planks				
(1) 2" x 8" x 6' Coco Lumber	64	bd.ft	8	512
(2) 10mm dia x 6.0m Rebar	2	pc.	58	116
(3) #16 Tie Wire	0.5	kg	58	29
(4) Cement	4	bag	137	548
(5) Sand	0.5	cu.m	359	180
(6) Gravel	0.5	cu.m	454	227
(7) Stone Lining with Mortar	1	LS	1,200	1,200
Sub-total of B-1				2,812
2. Labor (25% of B-1)				703
Sub-Total of B				3,515
C. Carpentry Work				
1. Materials				
(1) Nipa	60	pc.	2	120
(2) 1.5m x 1.8m, amakan	3	pc.	75	225
(3) 2" x 3" x 10' Coco Lumber	20	bd.ft	11	220
(4) 2" x 2" x 10' Coco Lumber	33.3	bd.ft	10	333
(5) 3" dia. Bamboo	3	light	21	63
(6) Assorted CWN	4	kg	43	172
(7) Rattan wire	20	pc.	1	20
(8) 3" x 3" hinges	2	pc.	32	64
Sub-Total of C-1				1,217
2. Labor (25% of C-1)				304
Sub-Total of C				1,521
D. Plumbing				
1. Material				
(1) 50mm dia. PVC Pipe	1	pc.	76	76
(2) Fly Screen	1	pc.	59	59
Sub-Total of D-1				135
2. Labor (25% of D-1)				41
Sub-Total of D				176
E. Transportation Cost (excluding indigenous materials)	1	LS	170	170
F. Indirect Cost				
Profit (10% of A - E)				624
VAT (10% of Profit & Labor)				230
Sub-Total of F				854
Total Construction Cost (A+B+C+D+E+F)			SAY	7,093
				7,100

Note: LS - Lump Sum

Source: DOH standard price in 1993

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.15 Unit Construction Cost of Pit Latrine

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
A. Earthwork				
1. Materials				
(1) Gravel Fill	0.3	cu.m	454	136
Sub-Total of A-1				136
2. Labor				
(1) Excavation	2	cu.m	140	280
(2) Backfill	0.6	cu.m	127	76
(3) Gravel Fill	0.3	cu.m	166	50
Sub-Total of A-2				406
Sub-Total of A				542
B. Concrete Work				
1. Materials				
Slab on wood planks				
(1) 2" x 8" x 6' Coco Lumber	38	bd.ft	8	304
(2) 10mm dia x 6.0m Rebar	1	pc.	58	58
(3) #16 Tie Wire	0.5	kg.	58	29
(4) Cement	3	bag	137	411
(5) Sand	0.3	cu.m	359	108
(6) Gravel	0.3	cu.m	454	136
(7) Stone Lining with Mortar	1	LS	700	700
Sub-total of B-1				1,746
2. Labor (25% of B-1)				436
Sub-Total of B				2,182
C. Carpentry Work				
1. Materials				
(1) Nipa	30	pc.	2	60
(2) 1.0m x 1.8m, amakan	3	pc.	75	225
(3) 2" x 3" x 10' Coco Lumber	14	bd.ft	11	154
(4) 2" x 2" x 10' Coco Lumber	24	bd.ft	10	240
(5) 3" dia. Bamboo	3	light	21	63
(6) Assorted CWN	3	kg	43	129
(7) Rattan wire	14	pc.	1	14
(8) 3" x 3" hinges	2	pc.	32	64
Sub-Total of C-1				949
2. Labor (25% of C-1)				237
Sub-Total of C				1,186
D. Transportation Cost (excluding indigenous materials)	1	LS	170	170
E. Indirect Cost				
Profit (10% of A -D)				391
VAT (10% of Profit & Labor)				164
Sub-Total of E				555
Total Construction Cost (A+B+C+D+E)			SAY	4,635
				4,600

Note: LS - Lump Sum

Source: DOH standard price in 1993

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.16 Unit Cost of School Toilet

Sheet 1 of 5

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
A. Mobilization and Demobilization		LS		6,000
B. Earthwork				
1. Materials				
(1) Gravel Fill	3	cu.m	454	1,362
Sub-Total of B-1				1,362
2. Labor				
(1) Excavation	16	cu.m	140	2,240
(2) Backfill	5	cu.m	127	635
(3) Gravel Fill	3	cu.m	166	498
Sub-Total of B-2				3,373
Sub-Total of B				4,735
C. Concrete Work				
1. Materials				
(1) Cement	61	bags	137	8,357
(2) Sand	4	cu.m	359	1,436
(3) Gravel	8	cu.m	454	3,632
(4) Rebars: 12mm dia x 6m	38	pcs.	79	3,002
10mm dia x 6m	57	pcs.	58	3,306
(5) #16 Tie Wire	8	kg.	58	464
(6) Formworks:				
1/4" Plywood	6	pes.	477	2,862
2" x 2" x 10', Coco Lumber	200	bd.ft.	10	2,000
Sub-Total of C-1				25,059
2. Labor (30% of C-1)		LS		7,518
Sub-Total of C				32,577
D. Masonry Work				
1. Materials				
(1) 6" CHB	800	pcs.	6	4,800
(2) 4" CHB	260	pcs.	5	1,300
(3) Cement	97	bags	137	13,289
(5) Sand	10	cu.m	359	3,590
(6) Rebars: 12mm dia x 6m	30	pcs.	79	2,370
10mm dia x 6m	11	pcs.	58	638
(7) #16 Tie Wire	4	kg.	58	232
(8) Scaffolding:				
2" x 4" x 8' x 10pcs., Coco Lumber	53	bf.	8	424
Sub-Total of D-1				26,643
2. Labor (30% of D-1)		LS		7,993
Sub-Total of D				34,636
E. Roofing Work				
1. Materials				
(1) GA #26 Corr. GI (1 = 10')	20	pcs.	310	6,200
(2) GA #24 Pln. GI Flashing	3	pcs.	300	900
(3) GA #24 Pln. GI Gutter (Pre-Fab)	9	pcs.	300	2,700
(4) Umbrella Nails 2-1/2"	12	kg.	50	600
(5) Rafter - 2" x 5" x 18' = 5pcs.	75	bf.	35	2,625
(6) Purlins - 2" x 2" x 12' = 18pcs.	72	bf.	35	2,520
(7) WD Cleats - 2" x 2" x 10" = 6pcs.	20	bf.	35	700
(8) Nailers - 2" x 2" x 12' = 30pcs.	120	bf.	35	4,200
- 2" x 2" x 10' = 36pcs.	120	bf.	35	4,200

Table 10.2.16 Unit Cost of School Toilet

Sheet 2 of 5

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
(9) Fascia Board				
1" x 12" x 12' = 4pcs.	48	bf.	35	1,680
1" x 12" x 18' = 2pcs.	36	bf.	34	1,224
(10) Wood Plate				
2" x 4" x 20' = 2pcs.	27	bf.	34	918
(11) 1/4" Thk. Mar. Plywood 4'x8'	14	pcs.	32	448
(12) C.W.N. Assorted	15	kg.	43	645
(13) 3" dia x 3m Downspout (PVC)	3	pcs.	91	273
(14) 3" dia Elbow (PVC)	2	pcs.	70	140
(15) 3" dia Coupling (PVC)	1	pcs.	26	26
(16) Ceiling Vent				
1" x 1" x 8' = 4pcs.	3	bf.	29	87
(17) Screen (1/8" x 1/8")	1	yd.	91	91
Sub-Total of E-1				30,177
2. Labor (30% of E-1)		LS		9,053
Sub-Total of E				39,230
F. Carpentry Work				
1. Materials				
(1) D - 1 Hollow Core Tanguile Flush Type Door w/ Louver (.80x2.20)	2	sets	1,620	3,240
(2) D - 2 Hollow Core Tanguile Flush Type Door (.60x2.10)	1	sets	1,216	1,216
(3) D - 3 Louver Door (.60x1.40)	5	sets	1,013	5,065
(4) Door Jambs (Apitong)				
2" x 6" x 14" = 1pc.	14	bf.	37	518
2" x 6" x 10" = 2pcs.	20	bf.	36	720
2" x 6" x 10" = 1pc.	18	bf.	35	630
2" x 4" x 12" = 5pcs.	40	bf.	34	1,360
(7) Wooden Jalousie Window With 5 Blades (.40x.50)	14	set	338	4,732
(8) Window Jambs (Apitong)				
2" x 6" x 16" = 5pcs.	80	bf.	36	2,880
2" x 6" x 14" = 1pc.	14	bf.	35	490
2" x 6" x 10" = 1pc.	10	bf.	34	340
(9) Cabinet				
3/4" x 4' x 8' = 1pc. (plyboard)	1	pc.	878	878
Sub-Total of F-1				22,069
2. Labor (30% of F-1)		LS		6,621
Sub-Total of F				28,690
G. Tile Work				
1. Materials				
(1) 4-1/4" x 4-1/4", Glazed Tiles	1,950	pcs.	5	9,750
(2) 0.10m x 0.20m, Floor Tiles	900	pcs.	7	6,300
(3) Cement	4	bags	137	548
(4) White Cement	1	bag	742	742
Sub-Total of G-1				17,340
2. Labor (30% of G-1)		LS		5,202
Sub-Total of G				22,542

Table 10.2.16 Unit Cost of School Toilet

Sheet 3 of 5

(Cost: Peso)

Description		Q'ty	Unit	Unit Cost	Amount
II. Plumbing Work					
1. Materials					
	(1) Toilet Bowl - Squat Type	3	sets	703	2,109
	(2) Toilet Bowl - Sit Type	2	sets	703	1,406
	(3) Lavatory	2	sets	3,300	6,600
	(4) 4" dia x 3m PVC San. Pipe	4	pcs.	175	700
	(5) 3" dia x 3m PVC San. Pipe	7	pcs.	98	686
	(6) 1-1/2" dia x 3m, PVC San. Pipe	4	pcs.	59	236
	(7) 2" dia. x 3m, PVC San. Pipe	4	pcs.	62	248
	(8) 6" x 4", Floor Drain	5	pcs.	98	490
	(9) 2" dia. Elbow PVC	4	pcs.	53	212
	(10) 4" dia WYB PVC	2	pcs.	38	76
	(11) 4" dia. x 3" dia. WYB PVC	12	pcs.	35	420
	(12) 4" dia. x 2" dia. TEE PVC	4	pcs.	36	144
	(13) 4" dia. TEE PVC	3	pcs.	47	141
	(14) 1-1/2" dia. WYB PVC	1	pcs.	20	20
	(15) 4" dia. Clean Out PVC	3	pcs.	41	123
	(16) 3" dia. Clean Out PVC	1	pcs.	32	32
	(17) Faucet	3	pcs.	59	177
	(18) 3" dia. x 2" dia. WYB PVC	2	pcs.	32	64
	(19) 1-1/2" dia. Elbow PVC	6	pcs.	40	240
	(20) PVC Cement	1	can	142	142
	(21) Check Valve 1-1/2"	1	pcs.	214	214
	(22) 4" P-Trap	5	pcs.	77	385
	Sub-Total of H-1				14,865
	2. Labor (30% of H-1)		LS		4,460
	Sub-Total of H				19,325
I. Painting					
1. Materials					
	(1) Acrylic, Semi Gloss	8	gals.	295	2,360
	(2) Concrete Sealer	4	gals.	233	932
	(3) Acri Color: Wood	4	gals.	200	800
	(4) Enamel, QDE	6	gals.	310	1,860
	(5) Wood Putty	1	gals.	342	342
	(6) Paint Thinner	1	gals.	67	67
	(7) Tinting Color	4	pint	45	180
	(8) Sand Paper (Assorted)	15	pcs.	8	120
	(9) Miscellaneous	1	LS	1,200	1,200
	(10) Roof Paint (green, ready-mix)	2	gals.	319	638
	Sub-Total of I-1				8,499
	2. Labor (30% of I-1)		LS		2,550
	Sub-Total of I				11,049
J. Electrical Work					
1. Materials					
	(1) 40 Watts Fluorescent Lamp	2	sets	289	578
	(2) Elect. Wire TW #12	24	M	7	168
	(3) Elect. Conduit - 1/2" dia x 10"	4	pcs.	88	352
	(4) Entrance Cap. 1/2" dia	1	pc.	32	32
	(5) Switch Outlet, Flush Type	2	pcs.	44	88
	(6) Utility Box 2"x3"	2	pcs.	12	24

Table 10.2.16 Unit Cost of School Toilet

Sheet 4 of 5

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
(7) Porcelain Receptacle 2" dia	2	pcs.	7	14
(8) Safety Switch 60A, 250V	1	set	555	555
(9) Electrical Tape	1	roll	25	25
Sub-Total of J-1				1,836
2. Labor (30% of J-1)		LS		551
Sub-Total of J				2,387
K. Hardware				
1. Materials				
(1) 3" x 3" Butt Hinges (Loose Pin)	10	pcs.	20	200
(2) 4" x 4" Butt Hinges (Loose Pin)	12	pcs.	36	432
(3) Door Lockset (Schlage US)	3	pcs.	650	1,950
(4) Barrel Bolt (4")	5	pcs.	45	225
(5) Cabinet Pull (4")	5	pcs.	7	35
(6) Water Storage Cover				
Checked Plate 1/4" thick				
1-7/16" x 5/8", L-bar & flat bar	1	set	1,116	1,116
5/8" x 9/16", L-bar & flat bar	2	set	629	1,258
(7) Padlock	1	pcs.	429	429
Sub-Total of K-1				5,645
2. Labor (30% of K-1)		LS		1,694
Sub-Total of K				7,339
L. Septic Tank and Sewage Basin				
1. Materials				
(1) 4" CHB	180	pcs.	5	900
(2) Cement	18	bags	137	2,466
(3) Sand	2	cu.m	359	718
(4) Gravel	1	cu.m	454	454
(5) Rebars: 10mm dia x 6m	29	pcs.	58	1,682
(6) #16 Tie Wire	2	kg.	58	116
(7) Formworks: Coco Lumber				
2" x 3" x 10' = 12pcs.	60	bf.	11	660
1/4" x 4' x 8', Plywood ord.	2	pcs.	477	954
C.W.N. (Assorted)	2	kg.	43	86
Sub-Total of L-1				8,036
2. Labor (30% of L-1)		LS		2,411
Sub-Total of L				10,447
M. Shallow Well (18 depth)				
a. Drilling of Well & Installation of Steel Casing/Screen				
1. Materials				
(1) 63mm x 6m PVC Pipe with socket	2	pcs.	912	1,824
(2) 63mm x 3m PVC Pipe with plug	1	pc.	452	452
(3) 63mm PVC Socket	1	pc.	12	12
(4) 63mm x 3m PVC Screen	1	pc.	1,443	1,443
Sub-Total of M-a-1				3,731
2. Labor, Fuel, Lubricant and others				
Well Drilling for 18m depth at				
150mm borehole	18	m	1,600	28,800
Sub-Total of M-a				32,531
b. Well Development	1	LS	600	600

Table 10.2.16 Unit Cost of School Toilet

Sheet 5 of 5

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
M. c. Gravel Packing, Installation of Hand-Pump and Construction of Platform				
1. Materials				
(1) 50mm Jetmatic Handpump	1	set	2,807	2,807
(2) 50mm x 1m GI Pipe (Sch. 40)	1	pc.	118	118
(3) #10 Sieved Gravel	0.1	cu.m	1,026	103
(4) Coarse Sand	0.07	cu.m	359	25
(5) Cement for Sanitary Seal	1	bag	127	127
(6) Pump Base and Platform				
1) Cement	4	bags	127	508
2) Gravel	1	cu.m	454	454
3) Sand	1	cu.m	359	359
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	294
5) Form Lumber (50mmx75mmx1,800mm)	1	pc.	52	52
6) Nail	1	kg.	40	40
Sub-Total of M-c-1				4,887
2. Labor (40% of M-c-1)		LS		1,955
Sub-Total of M-c				6,842
Sub-Total of M				39,973
N. Freight Cost (8% of Materials for A - M excluding sand and gravel)		LS		13,121
O. Indirect Cost				
Profit (10% of A - N)				27,205
VAT (10% of Profit & Labor)				8,059
Sub-Total of O				35,264
Total of Construction Cost (A to O)				307,315
P. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost	1	LS	2,400	2,400
2. Construction Supervision	1	LS	1,800	1,800
Sub-Total of P				4,200
GRAND TOTAL				311,515
			SAY	311,500

Note: LS - Lump Sum

Source: DOH standard price in 1993

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.17 Unit Cost of Public Toilet

Sheet 1 of 5

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
A. Mobilization and Demobilization (2.4% of B - M)		LS		7,000
B. Earthwork				
1. Materials				
(1) Gravel Fill	3	cu.m	454	1,362
Sub-Total of B-1				1,362
2. Labor				
(1) Excavation	15.88	cu.m	140	2,223
(2) Backfill	4.97	cu.m	127	631
(3) Gravel Fill	3	cu.m	166	498
Sub-Total of B-2				3,352
Sub-Total of B				4,714
C. Concrete Work				
1. Materials				
(1) Cement	61	bags	137	8,357
(2) Sand	4	cu.m	359	1,436
(3) Gravel	8	cu.m	454	3,632
(4) Rebars: 12mm dia x 6m	38	pcs.	79	3,002
10mm dia x 6m	57	pcs.	58	3,306
(5) #16 Tie Wire	8	kg.	58	464
(6) Formworks:				
1/4" Plywood	6	pcs.	477	2,862
2" x 2" x 10" (Coco Lumber)	200	bd.ft.	10	2,000
Sub-Total of C-1				25,059
2. Labor (30% of C-1)				7,518
Sub-Total of C				32,577
D. Masonry Work				
1. Materials				
(1) 6" CHB	800	pcs.	6	4,800
(2) 4" CHB	260	pcs.	5	1,300
(3) Cement	97	bags	137	13,289
(5) Sand	10	cu.m	359	3,590
(6) Rebars: 12mm dia x 6m	30	pcs.	79	2,370
10mm dia x 6m	11	pcs.	58	638
(7) #16 Tie Wire	4	kg.	58	232
(8) Scaffolding:				
2" x 4" x 8" = 10pcs. (Coco Lumber)	53.33	bf.	8	427
Sub-Total of D-1				26,646
2. Labor (30% of D-1)				7,994
Sub-Total of D				34,640
E. Roofing Work				
1. Materials				
(1) GA #26 Corr. GI (1 = 10')	20	pcs.	310	6,200
(2) GA #24 Pln. GI Flashing	3	pcs.	300	900
(3) GA #24 Pln. GI Gutter (Pre-Fab)	9	pcs.	300	2,700
(4) Umbrella Nails 2-1/2"	12	kg.	50	600
(5) Rafter - 2" x 5" x 18' = 5pcs.	75	bf.	35	2,625
(6) Purlins - 2" x 2" x 12' = 18pcs.	72	bf.	35	2,520
(7) WD Cleats - 2" x 2" x 10" = 6pcs.	20	bf.	35	700

Table 10.2.17 Unit Cost of Public Toilet

Sheet 2 of 5

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
(8) Nailers - 2" x 2" x 12' = 30pcs.	120	bf.	35	4,200
- 2" x 2" x 10' = 36pcs.	120	bf.	35	4,200
(9) Fascia Board				
1" x 12" x 12' = 4pcs.	48	bf.	35	1,680
1" x 12" x 18' = 2pcs.	36	bf.	34	1,224
(10) Wood Plate				
2" x 4" x 20' = 2pcs.	26.66	bf.	34	906
(11) 1/4" Thk. Mar. Plywood 4' x 8'	14	pcs.	32	448
(12) C.W.N. Assorted	15	kg.	43	645
(13) 3" dia x 3m Downspout (PVC)	3	pcs.	91	273
(14) 3" dia Elbow (PVC)	2	pcs.	70	140
(15) 3" dia Coupling (PVC)	1	pcs.	26	26
(16) Ceiling Vent, 1" x 1" x 8' x 4pcs.	2.67	bf.	29	77
(17) Screen (1/8" x 1/8")	1	yd.	91	91
Sub-Total of E-1				30,156
2. Labor (30% of E-1)				9,047
Sub-Total of E				39,203
F. Carpentry Work				
1. Materials				
(1) D - 1 Hollow Core Tanguile Flush Type Door w/ Louver (0.80 x 2.2)	2	sets	1,620	3,240
(2) D - 2 Hollow Core Tanguile Flush Type Door (0.60 x 2.10)	1	sets	1,216	1,216
(3) D - 3 Louver Door (0.60 x 1.40)	5	sets	1,013	5,065
(4) Door Jambs (Apitong)				
2" x 6" x 14" = 1pc.	14	bf.	37	518
2" x 6" x 10" = 2pcs.	20	bf.	36	720
2" x 6" x 10" = 1pc.	18	bf.	35	630
2" x 4" x 12" = 5pcs.	40	bf.	34	1,360
(7) Wooden Jalousie Window With 5 Blades (0.40 x 0.50)	14	set	338	4,732
(8) Window Jambs (Apitong)				
2" x 6" x 16" = 5pcs.	80	bf.	36	2,880
2" x 6" x 14" = 1pc.	14	bf.	35	490
2" x 6" x 10" = 1pc.	10	bf.	34	340
(9) Cabinet 3/4" x 4' x 8' = 1pc. (plyboard)	1	pc.	878	878
Sub-Total of F-1				22,069
2. Labor (30% of F-1)				6,621
Sub-Total of F				28,690
G. Tile Work				
1. Materials				
(1) 4-1/4" x 4-1/4" Glazed Tiles	1,950	pcs.	5	9,750
(2) 0.10 x 0.20m Floor Tiles	900	pcs.	7	6,300
(3) Cement	4	bags	137	548
(4) White Cement	1	bag	742	742
(5) Tiles Fittings		LS		5,650
Sub-Total of G-1				22,990
2. Labor (30% of G-1)				6,897
Sub-Total of G				29,887

Table 10.2.17 Unit Cost of Public Toilet

Sheet 3 of 5

(Cost: Peso)

Description		Q'ty	Unit	Unit Cost	Amount
H. Plumbing Work					
1. Materials					
(1)	Urinal	3	sets	1,253	3,759
(2)	Toilet Bowl - Squat Type	6	sets	703	4,218
(3)	4" dia x 3m PVC San. Pipe	6	pcs.	175	1,050
(4)	3" dia x 3m PVC San. Pipe	4	pcs.	98	392
(5)	2" dia x 3m PVC San. Pipe	3	pcs.	62	186
(6)	3/4" dia x 6m GI Pipe Sch. 40	5	pcs.	288	1,440
(7)	1/2" dia x 6m GI Pipe Sch. 40	1	pcs.	213	213
(8)	4" x 4" WYE PVC	1	pcs.	38	38
(9)	3" dia Elbow PVC	10	pcs.	70	700
(10)	3" dia 45 degrees Bend PVC	2	pcs.	85	170
(11)	2" dia Elbow PVC	6	pcs.	53	318
(12)	2" dia 45 degrees Bend PVC	2	pcs.	68	136
(13)	1/2" dia Elbow GI	5	pcs.	40	200
(14)	4" dia 3" dia WYE PVC	8	pcs.	52	416
(15)	3/4" dia TEE GI	7	pcs.	70	490
(16)	1/2" dia TEE GI	5	pcs.	55	275
(17)	4" dia x 2" dia TEE PVC	6	pcs.	36	216
(18)	4" dia Clean Out PVC	3	pcs.	41	123
(19)	2" dia Clean Out PVC	1	pcs.	29	29
(20)	Faucet	10	pcs.	59	590
(21)	3" dia x 2" dia Elbow Reducer PVC	1	pcs.	85	85
(22)	3" dia x 2" dia WYE PVC	3	pcs.	29	87
(23)	2" dia x 2" dia WYE PVC	3	pcs.	17	51
(24)	PVC Cement	1	can	142	142
(25)	4" dia x 2" dia WYE PVC	2	pcs.	47	94
(26)	Gate Valve 3/4" dia	1	pcs.	142	142
(27)	Gate Valve 1/2" dia	1	pcs.	112	112
(28)	Water Meter 3/4" dia	1	pcs.	1,488	1,488
(29)	3/4" dia x 1/2" dia Elbow Reducer GI	1	pcs.	21	21
Sub-Total of H-1					17,181
2. Labor (30% of H-1)					5,154
Sub-Total of H					22,335
I. Painting					
1. Materials					
(1)	Acrylic, Semi Gloss	8	gals.	295	2,360
(2)	Concrete Sealer	4	gals.	233	932
(3)	Acri Color: Wood	4	gals.	200	800
(4)	Enamel, QDE	6	gals.	310	1,860
(5)	Wood Putty	1	gals.	342	342
(6)	Paint Thinner	1	gals.	67	67
(7)	Tinting Color	4	pint	45	180
(8)	Sand Paper (Assorted)	15	pcs.	8	120
(9)	Miscellaneous		LS		1,200
(10)	Roof Paint (green, ready-mix)	2	gals.	319	638
Sub-Total of I-1					8,499
2. Labor (30% of I-1)					2,550
Sub-Total of I					11,049

Table 10.2.17 Unit Cost of Public Toilet

Sheet 4 of 5

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
J. Electrical Work				
1. Materials				
(1) 40 Watts Fluorescent Lamp	2	sets	289	578
(2) Elect. Wire TW #12	24	m	7	168
(3) Elect. Conduit - 1/2" dia x 10"	4	pcs.	88	352
(4) Entrance Cap. 1/2" dia	1	pc.	32	32
(5) Switch Outlet, Flush Type	2	pcs.	44	88
(6) Utility Box 2" x 3"	2	pcs.	12	24
(7) Porcelain Receptacle 2" dia	2	pcs.	7	14
(8) Safety Switch 60A, 250V	1	set	555	555
(9) Electrical Tape	1	roll	25	25
Sub-Total of J-1				1,836
2. Labor (30% of J-1)				551
Sub-Total of J				2,387
K. Hardware				
1. Materials				
(1) 3" x 3" Butt Hinges (Loose Pin)	10	pcs.	20	200
(2) 4" x 4" Butt Hinges (Loose Pin)	12	pcs.	36	432
(3) Door Lockset (Schlage US)	3	pcs.	650	1,950
(4) Barrel Bolt (4")	5	pcs.	45	225
(5) Cabinet Pull (4")	5	pcs.	7	35
(6) Water Storage Cover Checkered Plate 1/4" thick 1.44x0.633 w/ L bar & flat bar	1	set	1,116	1,116
(7) 0.645x0.633 w/ L bar & flat bar	2	set	629	1,258
(8) Padlock	1	pcs.	429	429
Sub-Total of K-1				5,645
2. Labor (30% of K-1)				1,694
Sub-Total of K				7,339
L. Septic Tank and Sewage Basin				
1. Materials				
(1) 4" CHB	180	pcs.	5	900
(2) Cement	18	bags	137	2,466
(3) Sand	1.50	cu.m	359	539
(4) Gravel	1	cu.m	454	454
(5) Rebars: 10mm dia x 6m	29	pcs.	58	1,682
(6) #16 Tire Wire	2	kg.	58	116
(7) Formworks: Coco Lumber 2" x 3" x 10' = 12pcs.	60	bf.	11	660
1/4" plywood ord. 4' x 8'	2	pcs.	477	954
C.W.N. (Assorted)	2	kg.	43	86
Sub-Total of L-1				7,857
2. Labor (30% of L-1)				2,357
Sub-Total of L				10,214
M. Concrete Water Tank (Elevated)				
1. Earth Work				
(1) Materials				
1) Gravel Fill	1	cu.m	454	454
Sub-Total of M-1 (1)				454

Table 10.2.17 Unit Cost of Public Toilet

Sheet-5

(Cost: Peso)

Description	Q'ty	Unit	Unit Cost	Amount
(2) Labor				
1) Excavation	14.70	cu.m	140	2,058
2) Backfill	13.08	cu.m	127	1,661
3) Gravel Fill	1	cu.m	166	166
Sub-Total of M-1 (2)				3,885
Sub-Total of M-1				4,339
2. Materials				
(1) Cement	62	bags	137	8,494
(2) Sand	4.50	cu.m	359	1,616
(3) Gravel	8	cu.m	454	3,632
(4) Rebars: 12mm dia x 6m	160	pcs.	79	12,640
(5) #16 Tie Wire	4	kg.	58	232
(6) Formworks:				
1/4" plywood	12	pcs.	477	5,724
2" x 3" x 16' = 60pcs.	480	bf.	9	4,320
(7) C.W.N. (Assorted)	5	kg.	43	215
Sub-Total of M-2				49,890
3. Labor (30% of M-2)				14,967
Sub-Total of M				69,196
N. Freight Cost (8% of Materials for A - M excluding sand and gravel)				16,234
O. Indirect Cost				
Profit (10% of A - M)				31,546
VAT (10% of Profit & Labor)				10,413
Sub-Total of O				41,959
Total of Construction Cost (A to O)				357,424
P. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost		LS		2,400
2. Construction Supervision		LS		1,800
Sub-Total of P				4,200
GRAND TOTAL			SAY	361,624
				361,600

Note: LS - Lump Sum
 Source: DOH standard price in 1993
 Unit Cost: Adjusted to 1998 Price Level

Table 10.2.18. Cost for New Laboratory

(Cost: Peso)

Item	Unit	Unit Cost	Q'ty	Amount
1. Building				
New Building	m ²	15,000	57	855,000
2. Instruments				
Turbidity meter	set	37,500	1	37,500
Color meter	set	10,500	1	10,500
pH/Residual chlorine checker	set	16,000	1	16,000
Incubator	set	105,000	1	105,000
Refrigerator	set	26,800	2	53,600
Sterilizer	set	54,000	1	54,000
Water quality testing kits	set	320,000	1	320,000
Electric stove	set	1,100	1	1,100
Range hood	set	11,000	1	11,000
Sub-total				608,700
3. Accessories				
Sink	LS			
Working table	LS			
Shelf	LS			
Office desk	LS			
Chair	LS			
Sub-total				65,000
4. Glassware/Chemicals				
Glassware/Chemicals	LS			110,000
Total				1,638,700

Note: LS - Lump Sum

Source: DOH standard price in 1993

Unit Cost: Adjusted to 1998 Price Level

Table 10.2.19 Cost for Upgrading Laboratory

(Cost: Peso)

Item	Unit	Unit Cost	Q'ty	Amount
1. Instruments				
Turbidity meter	set	37,500	1	37,500
Color meter	set	10,500	1	10,500
pH/Residual chlorine checker	set	16,000	1	16,000
Incubator	set	105,000	0	0
Refrigerator	set	26,800	1	26,800
Sterilizer	set	54,000	0	0
Water quality testing kits	set	320,000	1	320,000
Electric stove	set	1,100	1	1,100
Range hood	set	11,000	1	11,000
Sub-total				422,900
2. Glassware/Chemicals				
Glassware/Chemicals	LS			55,000
Total				477,900

Note: LS - Lump Sum

Source: DOH standard price in 1993

Unit Cost: Adjusted to 1998 Price Level

10.2.2 Unit Cost of Equipment

Unit cost (CIF Manila) of equipment was referred to the market price in 1997 as follows.

(1) Medium size rotary drilling rig

Type: Truck-mounted top head drive mud circulation type

Rated drilling capacity: 150 m depth for ϕ 250 bore hole

Equipment composition:

One unit of truck-mounted drilling rig

Each one set of operating accessories, drilling tools, casing tools and fishing tools

One set of spare parts (equivalent to 10% of above equipment/tool cost)

Unit cost: Peso 32,314,000 per set

(2) Medium size percussion drilling equipment

Type: Truck-mounted cable percussion type

Rated drilling capacity: 150 m depth for ϕ 250 mm bore hole

Equipment composition:

One unit of truck-mounted drilling rig

Each one set of operating accessories, drilling tools, pipe handling tools and fishing tools

One set of spare parts (equivalent to 10% of above equipment/tool cost)

Unit cost: Peso 25,582,000 per set

(3) Well rehabilitation equipment

Equipment composition:

One unit of diesel engine driven air compressor (7.5 kg/sq.cm, 500 liter/min.)

One set of air hose and hose fittings

Unit cost: Peso 280,000 per set

(4) Service truck

Type: Diesel engine driven 4 tons truck equipped with crane

Unit cost: Peso 1,200,000 per unit

(5) Support Vehicle

Type: Diesel engine driven pick-up truck with electric winch

Unit cost: Peso 590,000 per unit

(6) Refuse collection truck

Type: Closed type compactor truck with 5 cu.m of payload capacity

Unit cost: Peso 2,057,000 per unit including spare parts

(7) Maintenance tools

One set of maintenance tools for O&M of Level I facility shall be provided to respective municipality.

Unit cost: Peso 10,000 per unit

(8) Water quality testing kits

One set of water quality testing kits for O&M of Level I facility shall be provided to respective municipality.

Type: Ammonia testing kit

Unit cost: Peso 15,300 per unit

10.2.3 Cost of Laboratory and Equipment

Required cost for new laboratory including building/facility and instruments/chemicals and additional cost for upgrading of existing laboratory are shown in Table 10.2.18 and Table 10.2.19, respectively.

10.3 Cost of Required Facilities and Equipment

10.3.1 Cost of Required Facilities

Table 10.3.1 Construction Cost of Water Supply Facilities Required for Phase I (2005)

Unit: P 1,000

Name of Municipality/City	Urban Water Supply Level III	Rural Water Supply							Level I Rehabilitation	Total	Grand Total
		New System						Subtotal			
		Level II	Level I			Spring Dev.					
			40 m	80 m	120 m		Shallow Well				
Ajuy											
Alimodian	4,742	8,189							8,189	12,931	
Anilao	1,241		6,341				738	7,079	133	8,453	
Badiangan											
Balasan	2,627		5,595			253	738	6,586	118	9,330	
Banate			7,833			84	738	8,655	165	8,820	
Barotac Nuevo											
Barotac Viejo	2,726		2,238			1,855		4,093	47	6,866	
Batad			1,865			759	738	3,361	39	3,401	
Bingawan				4,959				4,959	71	5,030	
Cabatuan	22,320									22,320	
Calinog	3,661			15,979		1,012	1,475	18,466	227	22,354	
Carles	1,811	4,901	6,714			927	1,475	9,117	141	15,969	
Concepcion	3,335		1,119			1,855	738	3,711	24	7,070	
Dingle											
Dueñas			8,206					8,206	172	8,378	
Dumangas	1,236		17,158					17,158	361	18,755	
Estancia	5,969		1,865			1,686	738	4,289	39	10,297	
Guimbal			7,833					7,833	165	7,998	
Igbaras	3,810		5,222			422	738	6,381	110	10,301	
Janituy	5,884			10,469		1,602	1,475	13,546	149	19,579	
Lambunao	3,361			15,979		1,517	2,213	19,709	227	23,297	
Leganes	4,634	4,248								4,248	
Lemery										8,882	
Leon	3,558		6,714			1,433	1,475	9,622	141	13,321	
Maasin	2,063			5,510		843	738	7,091	78	9,232	
Miagao	5,236		10,071			927	1,475	12,474	212	17,921	
Mina	1,683			7,163				7,163	102	8,948	
New Lucena	1,669									1,669	
Oton	33,383									33,383	
Passi City											
Pavia											
Pototan			14,174					14,174	298	14,472	
San Dionisio	3,224	1,198	2,984			674	738	4,396	63	8,881	
San Enrique	1,525			9,367		337	738	10,442	133	12,100	
San Joaquin	3,295	2,588	10,817			253	1,475	12,545	227	18,655	
San Miguel											
San Rafael			1,492			422		1,914	31	1,945	
Santa Barbara											
Sara											
Tagbayan	6,339		14,547					14,547	306	21,192	
Tubungan	1,193		2,984			843	738	4,565	63	5,821	
Zarraga	2,565		5,968					5,968	125	8,659	
Provincial Total	133,090	21,123	141,740	69,426		17,703	19,178	248,047	3,967	406,227	

Table 10.3.2 Construction Cost of Water Supply Facilities Required for Phase II (2010)

Unit: P 1,000

Name of Municipality/City	Urban Water Supply Level III	Rural Water Supply							Level I Rehabilitation	Total	Grand Total
		New System									
		Deep Well			Shallow Well	Spring Dev.	Subtotal				
		40 m	80 m	120 m							
Ajuy	2,173	29,840			1,686		31,526	627	32,153	34,326	
Alimodian	16,600	11,190			2,445		13,635	235	13,870	30,470	
Anilao	3,483	30,213			337	738	31,288	635	31,923	35,406	
Badiangan	7,262		8,816				8,816	125	8,941	16,204	
Balasan	15,313	12,309			674	738	13,721	259	13,980	29,292	
Banate	8,757	30,586			337	738	31,661	643	32,304	41,060	
Barotac Nuevo	9,858	8,579					8,579	180	8,759	18,618	
Barotac Viejo	18,683	7,460			6,407		13,867	157	14,024	32,706	
Batad	2,647	4,476			2,360	738	7,574	94	7,668	10,315	
Bingawan	19,977		21,489		169		21,658	306	21,963	41,940	
Cabatuan	135,027									135,027	
Calinog	16,934		100,833		6,575	1,475	108,884	1,435	110,318	127,252	
Carles	11,374	61,545			9,273	1,475	72,293	1,294	73,587	84,961	
Concepcion	18,162	4,476			8,514	738	13,728	94	13,822	31,984	
Dingle	21,287	11,563			84		11,647	243	11,890	33,178	
Dueñas	18,370	15,666					15,666	329	15,995	34,365	
Dumangas	2,388	72,362					72,362	1,521	73,883	76,271	
Estancia	20,477	9,698			8,767	738	19,203	204	19,407	39,883	
Guimbal	20,360	27,229					27,229	572	27,801	48,162	
Igaras	18,770	16,412			1,517	738	18,667	345	19,012	37,782	
Janiuay	21,326		6,061		927	1,475	8,464	86	8,550	29,876	
Lambunao	21,004		83,201		8,430	2,213	93,844	1,184	95,028	116,032	
Leganes	23,292	11,190					11,190	235	11,425	34,717	
Lenery	16,453	14,547			759		15,306	306	15,611	32,064	
Leon	15,609	22,007			4,889	1,475	28,372	463	28,834	44,443	
Maasin	10,406		14,877		2,276	738	17,891	212	18,102	28,508	
Miagao	19,436	25,364			2,360	1,475	29,200	533	29,733	49,169	
Mina	11,144		24,795				24,795	353	25,148	36,292	
New Lucena	11,463		20,387				20,387	290	20,677	32,140	
Oton	216,034									216,034	
Passi City	5,253		56,753		2,108		58,861	808	59,668	64,921	
Pavia	19,076	25,737					25,737	541	26,278	45,354	
Pototan	43,776	33,943					33,943	713	34,656	78,432	
San Dionisio	12,361	13,801			3,035	738	17,573	290	17,863	30,224	
San Enrique	9,132		31,958		1,180	738	33,876	455	34,331	43,463	
San Joaquin	16,234	58,561			1,433	1,475	61,469	1,231	62,700	78,934	
San Miguel	57,290		6,061				6,061	86	6,147	63,438	
San Rafael	17,998	4,476			1,349		5,825	94	5,919	23,917	
Santa Barbara	28,941	36,181					36,181	760	36,941	65,882	
Sara	17,967	17,531			1,686		19,217	368	19,585	37,553	
Tigbauan	31,302	82,806					82,806	1,740	84,546	115,848	
Tubungan	8,018	9,325			3,035	738	13,097	196	13,293	21,312	
Zanaga	16,497	25,364					25,364	533	25,897	42,394	
Provincial Total	1,037,914	734,437	375,231		82,614	19,178	1,211,460	20,776	1,232,236	2,270,150	

Table 10.3.3 Cost for Sanitation Facilities Required for Phase I (2005)

Unit: P 1,000

Name of Municipality/City	Urban Sanitation						Rural Sanitation								
	Household Toilets			Public School Toilets	Total Construction Cost	Total Public Investment Cost	Household Toilets			Public School Toilets	Total Construction Cost	Total Public Investment Cost			
	Flush	Pour Flush	VIP/Dry				Flush	Pour Flush	VIP/Dry				Sub-total of Construction Cost	Sub-total of Public Investment	
Ayuy	1,748	1,495	21	3,264	23	1,085	4,582	1,342	12,581	16,412	28,993	256	3,970	32,963	4,226
Almodian	3,680	578	9	4,258	9	1,085	5,810	1,561	5,711	5,711	5,711	39	2,102	7,812	2,191
Anilao	328	2,101	128	3,057	33	1,085	4,142	1,118	7,199	22,349	2,229	349	2,335	34,112	2,684
Badhangsan	276	42	114	432	1	1,085	1,517	1,085	7,314	29,948	7,314	467	2,335	39,252	2,802
Balsani	1,537	1,058	426	3,055	24	1,085	4,607	1,570	6,969	20,812	36,917	467	3,036	29,435	3,360
Barotac Nuevo	1,368	1,368	21	3,057	21	1,085	2,686	1,340	9,476	9,912	22,803	155	3,269	26,072	3,424
Barotac Viejo	2,553	1,170	18	3,723	18	1,085	5,275	1,570	11,155	39,706	50,861	619	3,503	54,369	4,122
Bandad	299	2,439	38	2,738	38	1,085	3,823	1,123	4,301	6,669	10,970	104	10,970	10,970	104
Bingawan	1,325	1,325	21	2,650	21	1,085	2,877	1,572	1,551	2,038	3,589	24	934	4,523	958
Cabatuan	22,862	2,665	42	27,449	42	1,085	27,449	4,587	30,921	8,531	30,921	482	4,904	35,825	5,386
Calnog	1,472	1,904	178	3,737	30	2,531	6,268	2,561	8,142	38,423	3,300	599	5,604	60,468	6,203
Carles	2,875	564	9	3,439	9	1,085	4,991	1,561	10,212	26,170	3,145	408	2,802	42,329	3,210
Concepcion	2,277	42	1	2,319	1	1,085	3,404	1,085	8,487	8,531	17,018	133	3,970	27,777	3,971
Dumanigas	644	644	147	1,091	147	1,085	1,729	1,085	18,078	99	5,630	2	2,777	28,400	332
Estancia	3,887	296	5	4,304	5	1,085	6,089	1,790	7,038	21,362	28,400	333	2,335	2,473	2,335
Gumbal	943	943	943	1,933	943	1,085	2,495	1,552	7,889	6,035	2,442	94	2,102	18,468	2,196
Igaras	1,955	1,955	1	3,910	1	1,085	3,652	2,019	2,637	2,852	2,852	19	1,635	4,904	4,904
Januya	1,354	1,354	21	2,708	21	1,085	3,139	1,806	9,969	9,969	9,969	156	2,102	12,070	2,257
Lambunao	2,143	2,143	33	2,143	33	1,085	3,462	1,352	13,961	11,210	4,097	175	4,437	33,704	4,611
Leganes	2,599	85	1	2,684	1	1,085	1,318	1,318	1,702	1,702	1,702	41	2,569	4,271	2,569
Leon	3,174	197	3	3,371	3	2,170	5,344	2,170	15,347	2,637	18,484	41	1,635	18,484	41
Maasin	1,495	1,495	5	2,990	5	1,085	3,083	1,089	5,083	1,241	1,576	19	1,635	9,535	1,654
Miagao	1,702	296	27	2,294	27	1,085	3,083	1,089	36,082	36,082	5,779	563	5,838	66,306	6,400
Mina	43,263	1,734	4,494	49,491	27	6,071	56,647	7,183	18,607	7,882	7,882	123	2,102	2,102	2,102
New Lucena	5,359	536	8	6,477	8	934	3,616	11,027	4,558	7,429	60,468	333	2,802	11,618	3,859
Oton	5,513	5,513	86	11,026	86	1,085	7,532	2,105	7,882	7,882	7,882	304	2,102	25,877	2,469
Passi City	4,370	4,370	123	8,740	123	1,085	12,764	1,903	7,429	23,575	38,789	304	3,970	42,759	4,274
Pavia	2,898	786	7	3,684	7	1,085	1,522	1,092	19,500	19,500	4,615	701	701	701	701
Povtan	1,932	1,706	249	3,887	249	1,635	5,800	1,940	14,674	14,674	14,674	19	1,635	18,484	1,635
San Dionisio	8,211	8,211	57	16,422	57	1,085	10,930	2,719	9,953	9,953	2,080	155	1,168	13,202	1,323
San Enrique	3,652	3,652	36	7,304	36	3,616	5,900	3,652	6,486	6,486	6,486	101	6,486	6,486	101
San Joaquin	2,668	2,750	43	5,418	43	1,085	7,693	2,318	13,386	23,660	37,046	369	3,970	41,015	4,359
San Miguel	2,392	790	561	3,743	12	701	1,085	5,528	11,753	2,538	4,757	40	3,269	22,317	3,309
Santa Barbara	1,875	649	36	2,564	36	1,085	1,769	1,095	5,060	5,060	5,060	934	1,868	6,928	1,868
Sara	1,316	61,927	7,995	201,091	966	25,452	57,433	283,675	83,550	229,333	460,661	55,692	7,186	847,960	109,459
Tigbauan	1,875	1,875	29	3,750	29	1,085	2,960	1,114	229,333	460,661	55,692	7,186	102,273	847,960	109,459
Tubungan	1,875	1,875	29	3,750	29	1,085	2,960	1,114	229,333	460,661	55,692	7,186	102,273	847,960	109,459
Zarraga	1,316	61,927	7,995	201,091	966	25,452	57,433	283,675	83,550	229,333	460,661	55,692	7,186	847,960	109,459
Provincial Total	131,169	61,927	7,995	201,091	966	25,452	57,433	283,675	83,550	229,333	460,661	55,692	7,186	847,960	109,459

Table 10.3.4 Cost for Sanitation Facilities Required for Phase II (2010)

Name of Municipality/City	Urban Sanitation						Rural Sanitation						Total Public Investment Cost	Total Construction Cost	
	Household Toilets			Public School Toilets	Total Public Investment Cost	Urban Sewerage	Household Toilets			Public School Toilets	Sub-total of Public Investment	Sub-total of Construction Cost			Public School Toilets
	Flush	Pour Flush	VIP/Dry				Flush	Pour Flush	VIP/Dry						
Ayuy	7,360			1,446	8,806	1,446		19,435	41,849	61,284	653	11,442	72,725	12,094	
Alimodian	16,951			1,688	19,927	2,976		43,400	43,400	43,400	677	6,305	49,704	6,982	
Amiiao	4,669			1,085	5,754	1,085		391	34,108	34,499	532	6,772	41,270	7,304	
Badiangan	4,255			1,085	5,340	1,085			31,908	31,908	498	5,604	37,512	6,102	
Balasan	8,188			467	9,740	1,552			31,965	31,965	499	7,065	38,970	7,504	
Banate	4,830			1,446	6,276	1,446			46,572	46,572	727	8,873	55,445	9,600	
Barroac Nuevo	6,072			1,446	8,219	2,147		21,183	45,343	66,726	710	9,807	76,533	10,517	
Barroac Viejo	10,097			467	12,010	1,913		20,033	66,629	86,662	727	10,741	97,403	11,468	
Barad	2,760			1,085	3,845	1,085			25,479	25,479	397	3,736	29,215	4,133	
Binyawan	10,396			701	12,543	2,147			12,902	12,902	201	2,802	15,704	3,003	
Cabatuan	104,282			934	1,808	107,024	2,742	181,617							
Calinog	12,834			467	2,531	15,832	2,998		104,439	104,439	1,629	14,244	118,682	15,873	
Carles	6,095			2,170	8,265	2,170			89,577	89,577	1,397	17,513	107,090	18,910	
Concepcion	13,179			234	14,460	1,680			46,756	46,756	729	8,406	55,162	9,135	
Dingle	15,916			1,446	17,362	1,446		26,680	18,556	45,236	289	7,706	52,941	7,995	
Duhas	12,443			1,085	13,528	1,085			36,167	36,167	564	4,904	41,070	5,468	
Dumangas	4,140			1,808	5,948	1,808			27,577	27,577	86,120	913	13,310	99,430	14,223
Dumangas	4,140			1,808	5,948	1,808			52,720	52,720	822	10,274	62,994	11,096	
Estancia	22,885			934	24,265	2,380	39,296		42,032	42,032	656	7,005	49,037	7,661	
Gumbal	20,516			1,401	21,363	2,347			28,397	28,397	443	6,071	34,468	6,514	
Igbaras	13,202			1,168	15,816	2,614			69,443	69,443	1,083	13,777	83,220	14,860	
Janjua	20,930			934	24,024	3,104	36,814		105,398	105,398	1,644	16,579	121,976	18,223	
Lambunao	11,569			1,808	13,377	1,808			20,530	20,530	320	4,203	24,733	4,523	
Leganes	15,272			467	17,547	2,275			29,370	29,370	458	6,305	35,675	6,763	
Lemery	8,671			1,446	10,117	1,446			16,445	16,445	1,049	12,843	17,892	2,443	
Leon	12,926			2,170	15,096	2,170			37,055	37,055	578	7,472	44,527	7,050	
Maasin	9,108			1,446	10,584	1,446			61,293	61,293	956	11,909	73,201	12,865	
Miagao	19,320			467	22,318	2,998			25,267	25,267	394	4,670	29,937	5,064	
Mina	6,095			1,446	7,541	1,446			6,210	6,210	251	4,203	26,473	4,454	
New Lucena	6,164			1,446	7,610	1,446									
Oton	163,553			9,340	175,063	11,510	282,868								
Passa City	21,367			234	23,770	2,403	36,807		63,929	63,929	997	16,345	80,274	17,342	
Pavia	18,791	1,058		934	22,229	2,997	41,749		8,553	36,731	70,430	1,099	12,142	82,572	13,241
Pototan	41,170			3,269	46,970	5,800	71,160								
San Dionisio	13,800			467	15,713	1,913			33,586	33,586	524	7,706	41,292	8,229	
San Enrique	2,990			1,446	4,718	1,451			40,495	40,495	632	6,772	47,267	7,403	
San Isaquim	12,236			701	2,893	15,829	3,593		28,589	28,589	66,735	1,041	11,909	107,233	12,950
San Miguel	37,490			701	2,170	40,360	2,870		11,224	11,224	175	2,102	13,325	2,277	
San Rafael	9,936			234	11,978	2,042			21,460	21,460	335	3,716	25,176	4,071	
Santa Barbara	4,347	5,457		467	12,440	2,722			72,700	72,700	1,134	3,640	81,339	9,774	
Sara	8,832			467	2,531	2,998			71,233	71,233	1,111	12,609	83,842	13,720	
Tigbauan	22,471			1,168	1,808	25,447	2,976	38,186							
Tubungan	4,209			3,254	7,463	3,254			85,065	85,065	1,327	11,442	96,507	12,769	
Zarraga	7,797			467	1,808	10,072	2,275		41,821	41,821	652	5,371	47,191	6,023	
Provincial Total	780,910	6,796	106	28,954	75,936	89,180	104,986	792,773	219,328	1,919,927	29,951	353,751	2,493,607	381,703	

10.4 Costs of Sector Management

10.4.1 Breakdown of Community Development and Training Cost

Cost of community development and training was estimated at 12% of the total construction cost of Level I & II water supply facilities and public toilets and at 3% of the total construction cost of Level III water supply systems. This was formulated based on the following:

- (1) The 12% was derived on the basis of DILG's past experience in BWSA formation; and
- (2) The 3% was derived on the basis of LWUA's past experience in the institutional strengthening needs of W.Ds.

These ratios adopted for estimating community development and training cost will allow the province to meet with its needs for community development in the sector management. The following breakdown provides a view of the components under this category.

Table 10.4.1 Breakdown of Community Development and Training Cost

Component	% Share of Cost
1. Preparation for Training Activities	10
1.1 Transportation	1
1.2 Technical Assistance	1
1.3 Food	1
1.4 Supplies and Materials including Production of Training Kits	6
1.5 Generation of Training Aids	1
2. Conduct of Training Activities	53
2.1 Transportation	5
2.2 Food	12
2.3 Accommodation	33
2.4 Training Room Rental	1
2.5 Miscellaneous	2
3. Field Visits to Support BWSA Formation	37
3.1 Transportation	5
3.2 Food	15
3.3 Accommodation	12
3.4 Field	4
Total	100



11. FINANCIAL ARRANGEMENTS FOR MEDIUM-TERM DEVELOPMENT PLAN

11.3 Additional Funding Requirements

Percentages for Annual Investment

Percentages of annual investment for different fields of implementation activities are assumed for each sub-sector as general indication and summarized in Table 11.3.1. Assumptions on investment timing shall be subject to change, especially for individual projects depending on fund availability and relevant conditions such as land acquisition and institutional set-up.

Table 11.3.1 Percentages for Annual Investment

Sub-Sector	Component	2001	2002	2003	2004	2005	Total
Urban Water Supply	Level III System						
	Feasibility Study and Detail Design	50	50	0	0	0	100
	Construction & Supervision	0	20	30	30	20	100
	Institutional Development	30	20	20	20	10	100
Rural Water Supply	Level I Facility						
	Detail Design	50	50	0	0	0	100
	Construction & Supervision	0	20	30	30	20	100
	Institutional Development	30	30	20	10	10	100
	Level II System						
	Detail Design	100	0	0	0	0	100
	Construction & Supervision	50	50	0	0	0	100
	Institutional Development	50	50	0	0	0	100
Sanitation	Urban Household Toilet	12	22	22	22	22	100
	Rural Household Toilet	12	22	22	22	22	100
	Public School Toilet	12	22	22	22	22	100
	Public Toilet	12	22	22	22	22	100
	Disinfection of Level I Wells	12	22	22	22	22	100
	Detail Design	100	0	0	0	0	100
	Construction & Supervision	0	20	30	30	20	100
Institutional Development	30	30	20	10	10	100	

Note: Institutional development includes:

1. Capacity enhancement program
2. Community management program,
3. Health and hygiene education
4. Water quality surveillance, and
5. Administrative support.

Urban water supply:

- Engineering services for feasibility study and detailed design will be undertaken in the first two years.

- Construction work accompanied by supervisory services will be commenced partially in 2nd year and in full operation from 3rd year to 4th year.
- Community development will take place from the first year.

Rural water supply (Level I):

- Engineering services for detailed design will be undertaken during the first two years for Level I and completed within the first year for Level II.
- Construction work accompanied by supervisory services will be partially commenced from the first year and in full operation from 2nd year for Level I, while Level II will be completed within first two years.
- Community development and training will take place from the first year for Level I, while Level II will be completed within the first two years.

Sanitation:

- Engineering services for detailed design will be completed within the first year.
- Construction work accompanied by supervisory services will be partially commenced in the first year and in full operation from 2nd year.
- Community development and training will be in full operation from the first year.

11.4 Medium-Term Implementation Arrangements

11.4.2 Alternative Countermeasures

Comprehensive Investment Need Ranking for the Municipalities

Table 11.4.1 presents the comprehensive investment need ranking for the municipalities.

11.5 National Government Assisted Level I Water Supply and Sanitation Project

Presented in Table 11.5.1 are the available IRA for GOP-Assisted Level I Water Supply and Rural Sanitation Project for Eligible Municipalities. Allotment of IRA for rural water supply and rural sanitation comprise of provincial available IRA and municipal available IRA.

Table 11.5.2 presents the urban sanitation project for eligible municipalities, while Table 11.5.3 presents the summary of the total available IRA for GOP-assisted Level I Water Supply and Sanitation project.

The FIRR for Level I water supply project is calculated using a discount rate of 0.09 percent, as presented in Table 11.5.4.

Table 11.6.1 presents the investment program of GOP-assisted Level I Water supply and Sanitation Project.

O&M for Rural Water Supply

Table 11.6.2 shows the O&M cost for Level I facilities which include the reconstruction cost, rehabilitation cost and recurrent cost per household per year for O&M. Table 11.6.3 presents the O&M cost per HH per month by facility and proportion to monthly family income while Table 11.6.4 shows the family income.

O&M for Sanitation

Table 11.6.5 presents the O&M cost for rural sanitation while Table 11.6.6 presents the O&M cost for urban sanitation.

Table 11.5.2 Available IRA for COP-Assisted Urban Sanitation Project for Eligible Municipalities

Name of City or Municipality	ID (Nos. of Reg. in Urban)	Nos. of Clink Related	Urban Sanitation		Number of Toilets		TII		Prov.		Sub-total	
			Avail.	Num.	Publ. Mkt.	School	Bus Term.	Relig.	Avail.	IRA	Avail.	IRA
Ajuy	1	4th	302	1,691	1	1	3	3	302	1,691	2,083	2,083
Alimodian	1	4th	443	599	1	2	4	4	443	599	1,043	1,043
Amilao	1	5th	339	440	1	1	0	2	339	440	779	779
Badjangan	1	5th	0	1,599	1	1	0	2	0	1,599	1,599	1,599
Balasan	2	5th	447	532	1	1	2	4	447	532	979	979
Banate	1	4th	316	440	1	1	0	2	316	440	776	776
Baroque Nuevo	2	3rd	76	1,952	1	1	1	3	76	1,952	2,028	2,028
Baroque Viejo	1	4th	446	845	1	1	2	4	446	845	1,291	1,291
Basad	1	5th	341	953	1	1	0	2	341	953	1,293	1,293
Bingawan	1	5th	446	760	1	1	2	4	446	760	1,206	1,206
Cabataan	68	4th	1,154	1,324	1	15	17	17	1,154	1,324	2,477	2,477
Calinog	4	3rd	451	480	1	1	2	4	451	480	931	931
Carles	1	4th	678	761	3	1	0	4	678	761	1,439	1,439
Concepcion	1	4th	443	745	1	1	2	4	443	745	1,188	1,188
Dingle	4	4th	0	2,286	1	1	2	4	0	2,286	2,286	2,286
Duhas	5	4th	332	671	1	1	0	2	332	671	1,003	1,003
Dumangas	5	3rd	332	379	1	1	0	2	332	379	711	711
Estancia	3	4th	366	554	1	1	0	2	366	554	921	921
Gumbal	11	5th	497	767	1	1	3	5	497	767	1,264	1,264
Iligabas	6	4th	441	669	1	1	2	4	441	669	1,110	1,110
January	16	3rd	551	672	1	1	4	6	551	672	1,223	1,223
Lambuno	2	3rd	696	867	2	2	2	5	696	867	1,563	1,563
Leganes	5	4th	501	656	1	1	3	5	501	656	1,157	1,157
Lernery	2	5th	256	1,895	1	1	1	3	256	1,895	2,151	2,151
Leon	1	4th	526	784	2	1	2	5	526	784	1,310	1,310
Maasin	4	4th	386	634	1	1	1	3	386	634	1,021	1,021
Miagao	7	3rd	586	1,072	2	2	0	4	586	1,072	1,658	1,658
Mina	2	5th	247	259	0	1	0	1	247	259	506	506
New Lucena	1	5th	333	1,075	1	1	0	2	333	1,075	1,408	1,408
Oton	37	3rd	1,763	1,483	1	25	28	28	1,763	1,483	3,246	3,246
Passi City	2	2nd	0	6,714	7	2	4	6	0	6,714	6,714	6,714
Pavia	5	4th	571	2,439	1	1	4	6	571	2,439	3,010	3,010
Pototan	10	3rd	885	1,403	1	2	7	10	885	1,403	2,288	2,288
San Dionisio	1	4th	525	747	1	1	3	5	525	747	1,272	1,272
San Enrique	2	4th	333	380	1	1	0	2	333	380	713	713
San Joaquin	6	4th	532	698	2	1	2	5	532	698	1,230	1,230
San Miguel	19	5th	715	3,287	1	1	7	9	715	3,287	4,003	4,003
San Rafael	1	5th	455	1,185	1	1	2	4	455	1,185	1,640	1,640
Santa Barbara	6	4th	0	5,179	2	2	0	4	0	5,179	5,179	5,179
Sara	3	4th	621	2,600	2	2	2	6	621	2,600	3,221	3,221
Tigbauan	9	4th	499	521	1	1	3	5	499	521	1,020	1,020
Tubungan	3	5th	334	622	1	1	0	2	334	622	956	956
Zarraga	2	5th	338	453	1	1	0	2	338	453	792	792
Total	266	1st	19,616	84,274	56	49	109	201	19,616	47,559	67,176	67,176

Table 11.5.3 Total Available IRA for COP-Assisted Level I Water Supply and Sanitation Project

Name of City or Municipality	Water Supply	Sanitation		Total
		Urban	Rural	
Ajuy	0	2,083	0	2,083
Alimodian	0	1,043	0	1,043
Amilao	4,532	779	1,496	7,108
Badjangan	0	1,599	0	1,599
Balasan	3,837	979	1,714	6,530
Banate	0	776	2,243	3,019
Baroque Nuevo	0	2,028	4,988	7,016
Baroque Viejo	0	1,291	3,298	4,589
Basad	3,084	1,293	223	5,200
Bingawan	3,611	1,206	798	5,614
Cabataan	0	2,477	0	2,477
Calinog	0	931	2,998	3,929
Carles	0	1,439	3,409	4,848
Concepcion	0	1,188	2,196	3,384
Dingle	0	2,286	3,783	6,069
Duhas	0	1,003	224	1,227
Dumangas	0	711	2,430	3,140
Estancia	0	921	1,259	2,180
Gumbal	5,304	1,264	1,659	8,227
Iligabas	0	1,110	1,573	2,683
January	0	1,223	2,894	4,117
Lambuno	0	1,563	3,269	4,831
Leganes	0	1,157	948	2,106
Lernery	0	2,151	3,165	5,316
Leon	0	1,310	3,080	4,391
Maasin	0	1,021	1,949	2,969
Miagao	0	1,658	140	1,798
Mina	4,294	506	1,088	5,888
New Lucena	0	1,408	1,822	3,230
Oton	0	3,246	0	3,246
Passi City	0	0	0	0
Pavia	0	3,010	3,039	6,049
Pototan	0	2,288	2,589	4,877
San Dionisio	0	1,272	2,074	3,346
San Enrique	0	713	1,550	2,263
San Joaquin	0	1,230	2,652	3,882
San Miguel	0	4,003	1,034	5,037
San Rafael	1,889	1,640	1,075	4,524
Santa Barbara	0	5,179	149	5,328
Sara	0	3,221	5,996	9,217
Tigbauan	0	1,020	1,846	2,866
Tubungan	3,715	956	1,610	6,280
Zarraga	3,971	792	710	5,473
Total	34,776	67,176	84,452	186,404

Table 11.5.4 FIRR for Level I Water Supply

Year	No. of Deep Well	No. of Shallow Well	Spring Devt.	Construction Cost	Rehab. & Replacement Cost	O&M Cost	Total Costs (Outflow)	No. of Households	Water Rate per month per household	Loans and Subsidies	Cash Inflow	Net Value
1	22	5	1	11,243,900	0	0	11,243,900	420	147.23		742,039.20	(10,501,860.80)
2	32	8	1	16,080,800	0	112,439	16,193,239	1,035	147.23		1,828,596.60	(14,364,642.40)
3	32	8	1	16,080,800	0	273,247	16,354,047	1,650	147.23		2,915,154.00	(13,438,893.00)
4	22	6	1	11,328,200	0	434,055	11,762,255	2,085	147.23		3,683,694.60	(8,078,560.40)
5					0	547,337	547,337	2,085	147.23		3,683,694.60	3,136,357.60
6					0	547,337	547,337	2,085	147.23		3,683,694.60	3,136,357.60
7					0	547,337	547,337	2,085	147.23		3,683,694.60	3,136,357.60
8					0	547,337	547,337	2,085	147.23		3,683,694.60	3,136,357.60
9					0	547,337	547,337	2,085	147.23		3,683,694.60	3,136,357.60
10					0	547,337	547,337	2,085	147.23		3,683,694.60	3,136,357.60
11					2,146,300	547,337	2,693,637	2,085	147.23		3,683,694.60	990,057.60
12					3,183,200	547,337	3,730,537	2,085	147.23		3,683,694.60	(46,842.40)
13					3,183,200	547,337	3,730,537	2,085	147.23		3,683,694.60	(46,842.40)
14					2,230,600	547,337	2,777,937	2,085	147.23		3,683,694.60	905,757.60
15					0	547,337	547,337	2,085	147.23		3,683,694.60	3,136,357.60
16					0	547,337	547,337	2,085	147.23		3,683,694.60	3,136,357.60
17					0	547,337	547,337	2,085	147.23		3,683,694.60	3,136,357.60
18					0	547,337	547,337	2,085	147.23		3,683,694.60	3,136,357.60
19					0	547,337	547,337	2,085	147.23		3,683,694.60	3,136,357.60
20					0	547,337	547,337	2,085	147.23		3,683,694.60	3,136,357.60

Province of Italo

Total: -6,945,535.00
 FIRR: -1.56%
 NPV@9%: -23,025,341.22

Table 11.6.1 Investment Program of GOP-Assisted Level I Water Supply and Sanitation Project

Unit: Peso

Category	Total Amount	1st year	2nd year	3rd year	4th year	5th year
A. Const. & Civil Works						
1. Water Supply	49,426,500	0	9,885,300	14,827,950	14,827,950	9,885,300
2. Sanitation	154,943,400	0	30,988,680	46,483,020	46,483,020	30,988,680
3. Land Acquisition	715,000	0	143,000	214,500	214,500	143,000
B. Equip./Logistic Support	1,097,700	0	1,097,700	0	0	0
C. Consultancy Services						
1. Hydrogeological Survey	1,148,000	1,148,000	0	0	0	0
2. D/D and Const. Sv.	22,559,339	9,023,736	4,511,868	4,511,868	2,255,934	2,255,934
D. Institutional Devt.						
1. Capacity Enhanc. Prog.	3,200,000	960,000	960,000	640,000	320,000	320,000
2. Commu. Manag. Prog.	1,486,260	445,878	445,878	297,252	148,626	148,626
3. Health & Hygiene Educ.	248,400	74,520	74,520	49,680	24,840	24,840
4. Water Quality Surveil.	96,600	28,980	28,980	19,320	9,660	9,660
5. NGO Assistance	165,600	49,680	49,680	33,120	16,560	16,560
6. Administrative Support	1,200,000	360,000	360,000	240,000	120,000	120,000
E. Physical Contingency (10% of sub-total A+B+C+D)	23,628,680	1,209,079	4,854,561	6,731,671	6,442,109	4,391,260
Total (A+B+C+D+E+F)	259,915,479	13,299,873	53,400,166	74,048,381	70,863,199	48,303,860
F. Others						
1. Price Contingency	89,615,728	4,585,636	18,411,735	25,530,990	24,432,778	16,654,589
2. Value Added Tax (VAT)	11,174,654	571,807	2,295,855	3,183,593	3,046,651	2,076,748
Grand Total	360,705,861	18,457,316	74,107,756	102,762,964	98,342,628	67,035,197

Note: Item A includes equity of users.

O&M Cost for GOP Assisted Level I Water Supply Project

Table 11.6.2 O&M Cost for Level I Facilities

	Deep Well	Shallow Well	Spring Dev't
Nos. of Facilities to be Constructed	108	27	4
Nos. of HHs to be Served	1,620	405	60
Reconstruction Cost (Peso)			
Unit Cost	458,400	84,300	737,600
Ttl. Reconst. Cost	49,507,200	2,276,100	
Ttl. Reconst. Cost/year	2,475,360	227,610	
Cost per HH/year	1,528	562	
Rehabilitation Cost (Peso)			
Unit Cost	78,700		
Ttl. Rehab. Cost	8,499,600		
Ttl. Rehab. Cost/year	849,960		
Cost per HH/year	525		
Recurrent Cost for O&M (Peso)			
Cost per HH/year	100	50	50
O&M Cost Total (Peso)			
Cost per HH/year	2,053	612	50

Note: 1) Reconstruction of deep and shallow wells shall be conducted every 20 and 10 years, respectively.

Spring development is excluded due to more than 20 years facility life.

2) Rehabilitation is applicable to deep wells every 10 years.

Table 11.6.3 O&M Cost per HH/month by Facility and Proportion to Monthly Family Income

	Deep Well	Shallow Well	Spring Dev't
O&M Cost per HH/month	108	27	4
Proportion (Mean)	1.1%	0.3%	0.0%
Proportion (Median)	1.5%	0.4%	0.1%

Table 11.6.4 Family Income (Unit: Pesos)

Annual ¹⁾		Monthly ²⁾	
Mean	Median	Mean	Median
56,883	41,968	9,978	7,361

Note: 1) 1994 NSO Family Income and Expenditure Survey

2) Estimated value in 2005 applying 7% inflation rate/year

O&M Cost for GOP Assisted Sanitation Project

Table 11.6.5 O&M Cost for Rural Sanitation (Unit: Pesos)

Nos. of Facilities to be Constructed		Unit Construction Cost		Yearly O&M Cost
Public Toilets	School Toilets	Public Toilets	School Toilets	
0	413	361,600	233,500	4,821,775

Note: O&M cost includes the salaries of maintenance staff, cost of pumping sludge from septic tanks, and rehabilitation cost, which is assumed to be equivalent to 5% of construction cost.

Table 11.6.6 O&M Cost for Urban Sanitation (Unit: Pesos)

Nos. of Facilities to be Constructed		Unit Construction Cost		Yearly O&M Cost
Public Toilets	School Toilets	Public Toilets	School Toilets	
94	105	361,600	233,500	2,925,395



12. MONITORING FOR MEDIUM-TERM DEVELOPMENT PLAN

12.4 Evaluation of Plan Implementation and Updating the PW4SP

Table 12.4.1 Draft Formats for Annual Sector Performance Summary Report (Provincial and Municipal Levels)

Province of _____ Form P-1
 Provincial Water & Sanitation Monitoring System
 Annual Sector Performance Summary Report
 Period Covered : _____ to _____

I. Service Coverage

Municipality (1)	LAST YEAR				THIS YEAR			
	Population (2)	Persons with Safe Water & Sanitary Toilets (3)	Persons with Safe Water Only (4)	Persons with Sanitary Toilets Only (5)	Population (6)	Persons with Safe Water & Sanitary Toilets (7)	Persons with Safe Water Only (8)	Persons with Sanitary Toilets Only (9)
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
Total								
% Served								
		Targets						

II. Sources & Uses of Capital Development Funds

Source of Fund (1)	Budget for Water Supply & Sanitation (2)	Actual Disbursement (3)	Uses of Funds								
			Water Source Development (4)	Water Supply Transmission (5)	Water Storage/ Treatment & Distribution (6)	Household Toilets (7)	School Toilets (8)	Public Toilets (9)	Others (10)		
A. Local Funds.											
Provincial Funds											
Municipal Funds											
A.											
B.											
C.											
D.											
E.											
F.											
G.											
H.											
I.											
J.											
SUB-TOTAL											
B. National Funds											
DPWH											
DOH											
LWUA											
SUB-TOTAL											
C. External Funds											
NGO											
NGO											
NGO											
SUB-TOTAL											
TOTAL											

III. School Sanitation (Source, DECS)

School (Location) (1)	No. of Students Enrolled (2)	Water Supply Adequate ? (Y/N) (3)	No. of Functioning Toilet Units (4)	Facility: Student Ratio (5)

IV. Incidence of Diarrhea (Source IPHO)

Month (1)	Last Year (2)	This Year (3)
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

V. Water Resources: Report any major changes in the availability and quality of water in the province. Attach map.

VI. Unit Cost Summary : Based on projects actually implemented and paid for during the reporting period, indicate the following average unit costs

1. Shallow Well (w/o hand pump) = _____ / Meter Depth
2. Deep Well (w/o pump) = _____ / Meter Depth
3. Pipeline = _____ / meter
4. Storage Tanks =
5. Others,

Municipality of _____
 Provincial Water & Sanitation Monitoring System

Annual Sector Performance Summary Report
 Period Covered : _____ to _____

I. Service Coverage

Name of Barangay (1)	LAST YEAR				THIS YEAR			
	Population (2)	Persons with Safe Water & Sanitary Toilets (3)	Persons with Safe Water Only (4)	Persons with Sanitary Toilets Only (5)	Population (6)	Persons with Safe Water & Sanitary Toilets (7)	Persons with Safe Water Only (8)	Persons with Sanitary Toilets Only (9)
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								
Total								
% Served								

II. Sources & Uses of Capital Development Funds.

Source of Funds (1)	Budget (2)	Actual Disbursement (3)	Uses of Funds							Others (10)	
			Water Source Development (4)	Water Supply Transmission (5)	Water Storage/ Treatment & Distribution (6)	Household Toilets (7)	School Toilets (8)	Public Toilets (9)			
Municipal Funds											
Barangay Funds											
A.											
B.											
C.											
D.											
E.											
F.											
G.											
H.											
I.											
J.											
K.											
L.											
M.											
N.											
O.											
P.											
Q.											
R.											
S.											
T.											
U.											
W.											
SUB-TOTAL											
NGO											
NGO											
NGO											
SUB-TOTAL											
TOTAL											





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