

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.	703	703
(2) 75mm dia x 6.0m PVC Pipe	1	pc.	152	152
Sub-Total of D-1				855
2. Labor (25% of D-1)				214
Sub-Total of D				1,069
E. Transportation Cost (excluding indigenous materials)	1	LS	340	340
F. Indirect Cost				
Profit (10% of A - D)				1,547
VAT (10% of Profit & Labor)				495
Sub-Total of F				2,042
Total Construction Cost (A+B+C+D+E+F)			SAY	14,818
				14,800

Note: LS - Lump Sum

Source: DOH standard price in 1993

Unit Cost: Adjusted to 1998 Price Level

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	Qty	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	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)		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 (l = 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

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(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 Checkered 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

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(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 (11% of Materials for A - M excluding sand and gravel)		LS		18,042
O. Indirect Cost				
Profit (10% of A - N)				27,697
VAT (10% of Profit & Labor)				8,108
Sub-Total of O				35,805
Total of Construction Cost (A to O)				312,777
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			SAY	316,977
				317,000

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
II. 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	pes.	88	352
(4) Entrance Cap. 1/2" dia	1	pc.	32	32
(5) Switch Outlet, Flush Type	2	pes.	44	88
(6) Utility Box 2" x 3"	2	pes.	12	24
(7) Porcelain Receptacle 2" dia	2	pes.	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. 1/4" plywood ord. 4' x 8' C.W.N. (Assorted)	60	bf.	11	660
	2	pcs.	477	954
	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	Qty	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 (11% of Materials for A - M excluding sand and gravel)				22,322
O. Indirect Cost				
Profit (10% of A - M)				32,155
VAT (10% of Profit & Labor)				10,474
Sub-Total of O				42,629
Total of Construction Cost (A to O)				364,182
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				368,382
			SAY	368,400

Note: LS - Lump Sum

Source: DOH standard price in 1993

Unit Cost: Adjusted to 1993 Price Level

(3) Sector Management 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:

- a. The 12% was derived on the basis of DILG's past experience in BWSA formation; and
- b. The 3% was derived on the basis of LWUA's past experience in the institutional strengthening needs of WDs.

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 10.2.18 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

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 (2004)

Unit: P 1,000

Name of Municipality/City	Urban Water Supply Level III	Rural Water Supply										Level I Rehabilitation	Total	Grand Total
		New System					Level I							
		Level II		Deep Well		Shallow Well	Spring Dev.	Subtotal	Level I		Subtotal			
		40 m	80 m	120 m	Well				Well	Rehabilitation				
Abuyog	8,699		3,997			1,236	2,241			7,474	55	7,529	16,228	
Alangalang	8,480					989	1,494			4,850	47	4,898	8,480	
Albuera	5,010	2,368				412	747			2,769	31	2,800	9,908	
Babatuyan	5,078	1,578					1,494			6,624	102	6,726	11,068	
Barugo	4,342	5,130											10,339	
Bato	4,655												5,683	
Baybay													9,773	
Burauen	10,378					412	2,241			14,644	165	14,810	25,210	
Calubian	400		11,991										12,391	
Capocan	3,634												3,634	
Canigam	8,248												8,248	
Dagami														
Dulag	15,148		4,568							747	63	5,315	20,526	
Hilongos	5,713	8,236				165	2,241			10,692	165	12,010	17,723	
Hindang														
Inopacan	1,235												4,570	
Isabel	9,393					165	1,494			5,999	87	7,215	9,393	
Jaro	4,554	4,241											11,769	
Javier (Bugho)	1,969												1,969	
Julita	3,510		3,426							747	47	4,220	7,730	
Kananga														
La Paz	3,260	3,574											3,574	
Levite	2,604	6,708				82	1,494			8,285	134	8,418	11,022	
MacArthur	2,920	2,443	2,284			82	747			3,113	31	3,144	5,503	
Mabaplag	2,710	2,364				5,252	747			5,979	55	6,034	11,108	
Matag-ob	2,811												2,811	
Matalom		5,488											5,488	
Mayorga	1,655												1,655	
Merida	2,245												2,245	
Palo														
Palompon	8,128	7,103				989	2,241			10,333	142	10,474	18,602	
Pastreña	2,121	3,157					747			3,904	63	3,967	6,087	
San Isidro	4,090	7,994				659	2,241			10,894	110	11,004	15,095	
San Miguel	2,365	395				82				477	8	485	5,269	
Santa Fe	1,660	1,184				412	747			2,343	24	2,367	4,026	
Tabango	3,550	3,450	1,142			577	747			2,466	16	2,482	9,482	
Tabontabon	1,601	1,578								1,578	31	1,610	3,211	
Tacloban City (Capital)	100,639	789				989	1,494			3,272	16	3,288	103,927	
Tanauan	9,803	7,103				82	1,494			8,679	142	8,821	18,621	
Tolosa														
Tunga	3,252	789								789	16	805	4,057	
Villaba	2,130												2,130	
Provincial Total	258,488	42,046	35,403	5,232	7,334	26,145	24,622	1,550	168,219	426,707			684,924	

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												
		Level I					Level II							
		Deep Well		Shallow Well		Spring Dev.	Subtotal		Subtotal		Spring Dev.			
40 m	80 m	120 m	120 m	40 m	80 m		120 m	40 m	80 m					
Abuyog	25,232	19,415	6,427	2,241	28,083	268	28,350	53,582						
Alangalang	43,614	44,589	989		45,578	889	46,467	90,081						
Albuera	22,278	8,286	3,955	1,494	13,736	165	13,901	36,178						
Babamnon	9,766	8,286	2,554	747	11,588	165	11,753	21,519						
Barugo	16,726	35,119		1,494	36,613	700	37,313	54,039						
Bato	20,283	37,881			37,881	756	38,637	58,919						
Baybay	32,434	45,773	989		46,702	913	47,615	80,109						
Burnuen	16,597	49,679	7,169		56,848	685	57,532	74,129						
Calubian	1,688	79,943	2,802	2,241	84,985	1,102	86,087	87,775						
Capocan	22,319	7,423	4,120		11,543	102	11,645	33,965						
Canigara	36,551	31,982	659		32,621	637	33,259	69,809						
Dagami	22,015	22,492	494		22,986	449	23,435	45,430						
Dulag	72,786	17,131	247	747	18,125	236	18,361	91,147						
Hilongos	22,341	35,119	742	2,241	38,102	700	38,802	61,142						
Hindang	6,620	3,946	494		4,440	79	4,519	11,139						
Inopacan	11,063	16,968	3,461		20,428	338	20,767	31,830						
Isabel	38,248	10,654	3,296		13,950	212	14,163	52,411						
Jaro	12,535	44,195	2,207	1,494	47,996	381	48,377	61,412						
Javier (Bugho)	10,488	22,841	2,142		24,983	315	25,298	35,786						
Jolita	18,249	23,983	747		24,730	331	25,060	43,309						
Kananga	5,770	58,815	2,060		60,875	811	61,686	67,456						
La Paz	21,319	23,412	1,401		24,813	323	25,135	46,634						
Leyte	12,921	31,962	742	1,494	34,188	637	34,835	47,757						
MacArthur	22,094	52,534	1,813	747	55,094	724	55,818	77,911						
Mahaplag	16,095		742		68,757	708	69,465	85,561						
Matag-ob	17,793	3,426	4,285		7,711	47	7,758	25,551						
Matalom	3,560	24,465	494		24,959	488	25,447	29,007						
Mayorga	9,720	10,278	82		10,361	142	10,502	20,222						
Merida	3,616	5,919	2,802		8,721	118	8,839	12,454						
Palo	39,600	13,022	1,730		14,752	260	15,012	54,612						
Palompon	31,357	54,434	7,498	2,241	64,194	1,086	65,280	96,636						
Pastrana	14,909	27,227		747	27,974	543	28,517	43,426						
San Isidro	20,486	74,804	7,169	2,241	84,213	1,031	85,244	105,730						
San Miguel	14,416	4,735	2,142		6,878	94	6,972	21,388						
Santa Fe	10,782	5,919	2,802	747	9,468	118	9,586	20,368						
Tabango	21,385	11,991	6,592	747	19,330	165	19,496	40,881						
Tabonabon	9,356	8,681			3,681	173	3,854	18,211						
Tacloban City (Capital)	229,275	4,341	8,075	1,494	13,910	87	13,996	243,271						
Tanauan	48,342	33,541	742	1,494	35,776	669	36,445	84,787						
Tolosa	570	3,946	824		4,770	79	4,849	5,419						
Lunga	17,549	7,497			7,497	150	7,647	25,196						
Viriata	6,619		5,521		5,521		5,521	12,140						
Provincial Total	1,039,564	570,979	455,674	67,268	100,363	26,145	1,220,429	18,376	1,238,806	2,278,309				

Table 10.3.3 Cost for Sanitation Facilities Required for Phase I (2004)

Unit: P. 1,000

Name of Municipality/ City	Urban Sanitation						Rural Sanitation						Total Public Invest- ment Cost
	Household Toilets			Public School Toilets	Public Toilets	Total Constr- uction Cost	Household Toilets			Sub-total of Public Invest- ment	Public School Toilets	Total Constr- uction Cost	
	Flush	Pour Flush	VIP/Dry				Sub-total of Cons- truction Cost	Sub-total of Cons- truction Cost	Pour Flush				
Abuyog			320	1,168	1,487	1,168	13,542	2,024	15,566	672	3,269	18,835	3,946
Alangalang	14,007		241	14,248	14,248	29,011	27,336	1,676	29,011	1,367	29,011	29,011	1,367
Alibera	9,177		170	9,347	10,048	701	4,632	1,605	6,237	332	2,302	9,039	3,034
Babamgon	9,453		178	9,631	934	934	8,776	838	9,614	439	1,635	11,249	2,073
Barrigo	3,369		149	2,518	3,219	701	16,324	1,172	17,496	816	2,335	23,626	3,151
Bato			199	899	899	701	12,980	1,321	14,300	649	2,569	16,869	3,217
Baybay	24,058		554	24,612	26,713	2,102	14,881	2,300	17,181	1,135	2,802	42,298	3,937
Bumuen	19,228		362	19,590	19,590	852	27,703	2,073	29,496	1,135	2,802	42,298	3,937
Calubian	250		622	872	616	467	8,993	1,385	10,378	892	2,102	12,480	2,993
Capocan	4,692		312	5,138	5,605	474	11,845	1,910	13,587	992	1,635	15,222	2,626
Cangara			2,250	2,349	2,349	112	8,924	1,377	10,301	567	2,102	12,403	3,67
Dagami			660	660	1,594	934	21,978	767	22,745	1,099	2,335	24,313	3,434
Dulag			234	234	1,118	273	833	833	1,666	833	1,666	3,332	1,666
Hinigog			35	35	3,093	40	7,074	1,079	8,154	354	1,401	9,555	1,755
Hindang	3,036		57	3,093	12,484	2,287	48,248	1,534	49,782	2,412	2,335	52,117	4,747
Inopacan			10,360	10,715	9,841	368	14,948	1,477	16,425	747	2,569	18,993	3,316
Isabel	8,970		170	9,140	3,820	701	8,326	40,685	49,011	2,034	49,011	49,011	2,034
Jover (Bugho)	3,749		71	3,820	4,597	467	4,425	563	4,988	221	934	5,922	1,155
Julita	4,002		128	4,130	737	701	7,797	11,337	19,090	2,102	2,802	23,895	3,369
Kananga	4,416			4,416	6,324	467	6,324	852	7,176	852	1,635	8,811	1,635
La Paz	5,750		107	5,857	7,941	841	60,665	696	61,361	3,033	3,736	64,401	6,769
Layac	7,474			7,474	5,064	234	8,850	696	9,546	443	1,635	11,181	2,077
MacArthur	4,830			4,830	4,451	467	35,387	607	36,000	30	1,401	37,488	3,871
Mahaplag	1,794		2,190	3,984	5,792	557	5,727	607	6,334	30	1,401	7,735	1,431
Matagob	3,519		1,806	5,325	2,350	234	6,923	1,596	8,222	86	934	9,156	2,102
Matalom	2,024		92	2,116	4,756	81	1,717	1,717	3,434	86	934	4,368	1,020
Mavonga	3,128		1,628	4,756	5,827	9	4,163	1,356	5,519	1,356	2,802	8,321	5,519
Merida	5,543		178	5,721	41,588	3,381	1,541	1,541	3,082	1,541	1,401	4,483	1,401
Palo	39,603		582	40,185	1,980	1,980	25,752	2,670	28,422	1,288	2,335	30,757	3,623
Palompon			334	334	1,034	701	746	746	1,492	746	1,401	2,893	1,401
Pasirana			71	71	305	234	18,530	2,031	20,561	926	2,569	23,129	3,495
San Isidro	8,326		156	8,482	9,068	473	5,239	660	5,900	362	1,401	7,301	1,603
San Miguel			78	78	545	467	577	753	1,330	39	1,401	2,731	1,430
Santa Fe	2,921		1,643	4,564	6,621	82	25,101	1,633	26,734	1,255	2,802	29,536	3,333
Tabango	6,578		121	6,699	6,699	318	1,317	312	1,630	66	467	2,097	533
Taboratabon	3,128		57	3,185	19,979	13,889	46,146	1,264	47,410	2,307	467	47,877	2,774
Tacloban City (Capital)	189,055		4,487	193,542	9,453	4,437	10,603	1,954	12,557	98	467	14,232	98
Tanauan			355	355	1,886	355	4,669	3,685	8,354	184	834	8,538	184
Toleso	1,886			1,886	3,238	107	814	170	984	41	984	984	41
Tunza	2,146		92	2,238	6,769	128	1,742	1,095	2,837	55	2,569	3,402	2,603
Villaba	4,309		2,500	6,769	48,062	36,416	124,108	541,428	49,615	715,151	27,071	66,548	781,699
Provincial Total	161,021		262,567	1,190	434,779	13,128	1,105	488,062	36,416	49,615	715,151	27,071	95,619

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	Public School Toilets	Total Public Investment Cost	
	Household Toilets			Public School Toilets	Total Public Investment Cost	Urban Sewerage	Household Toilets			Sub-total of Public Investment	Sub-total of Construction Cost	Public School Toilets					Total Construction Cost
	Flush	Pour Flush	VIP/Dry				Flush	Pour Flush	VIP/Dry								
Abuyog	38,571			1,635	40,206	52,626			42,180	1,065	43,245	2,109	10,274	53,519	12,383		
Alangalang	25,185	6,453		934	32,572	54,392			64,306	1,626	65,932	3,215	8,640	74,571	11,455		
Albuera	11,569	1,332		234	13,135	300			33,048	831	33,879	1,652	7,939	41,818	9,591		
Babayon	15,571	3,744		934	20,249	1,121			25,012	632	25,644	1,251	5,137	30,781	6,268		
Dampyo	12,742	2,930		1,168	16,840	1,314			31,894	930	32,824	1,648	7,005	46,821	8,653		
Bato	18,768			18,768	37,536				31,894	809	32,703	1,595	7,239	39,942	8,833		
Baybay	37,490	4,573		2,802	44,865	3,031			36,097	1,519	37,616	1,805	18,447	56,063	13,247		
Burauen	30,429	6,808		1,168	38,405	6,781			11,592	63,433	1,789	76,814	3,172	11,442	88,256	14,613	
Calubian	17,618	326		16	17,618				6,095	33,315	937	40,347	1,666	7,239	47,586	3,904	
Capaocan	22,241	3,286		467	25,994	631			4,761	26,078	738	31,577	1,304	6,772	38,349	8,075	
Cangara	9,867			467	68,984	467			14,000	355	14,355	702	1,808	16,253	2,570		
Dagami	68,517				9,340	349			8,671	47,404	1,342	57,417	2,370	9,574	66,991	11,944	
Dulay	2,369	6,971			6,036	28			9,235	234	9,470	462	3,503	12,972	3,964		
Hiligonog	5,474	562			30,436	1,819			4,807	26,225	738	31,801	1,313	7,239	39,039	8,551	
Hindang	25,116	3,685		1,635	13,280	995			29,260	738	29,998	1,463	7,005	37,003	8,468		
Isabel	11,132	1,214		934	7,705	75			5,773	36,423	1,015	43,211	1,821	6,538	49,749	8,359	
Javier (Bugho)	6,210	1,495		701	12,495	795			16,413	412	16,825	821	3,269	20,094	4,090		
Jutha	9,890	1,894		701	17,520	841			8,924	48,884	1,385	59,193	2,444	9,107	68,299	11,551	
Kananga	14,007	2,812		701	11,400	107			24,405	618	25,023	1,220	5,371	30,393	6,591		
La Paz	9,269	2,131		467	10,518	467			42,165	1,065	43,230	2,108	10,508	53,738	12,616		
Levite	10,051				13,845	628			44,814	1,136	45,950	2,241	5,838	51,788	8,078		
Mae'Arthur	10,166	3,212		467	9,037	547			28,756	731	29,487	1,438	6,305	35,792	7,742		
Mahaplag	6,992	1,598		467	10,216	546			3,864	21,348	596	23,595	1,057	4,437	30,031	5,493	
Matang-ob	8,165	1,584		467	5,459	10			4,278	23,369	653	24,022	1,168	6,538	34,838	7,706	
Mt. Alim	5,267	192		10	4,323	251			10,863	270	11,133	543	2,802	13,935	3,345		
Mayorga	3,746	340		17	4,784				23,680	596	24,276	1,184	6,305	30,581	7,489		
Meranda	4,784				63,314	3,336			37,030	937	37,967	1,851	5,137	43,104	6,988		
Palo	49,427	11,085		554	33,920	1,168			54,064	1,420	55,484	2,703	7,939	66,423	10,642		
Palompon	32,752			467	10,288	467			9,062	19,980	653	20,633	999	4,670	34,365	5,669	
Parana	9,821				12,350	760			50,764	1,385	52,149	2,538	8,173	60,222	10,711		
San Isidro	10,485	1,184		701	10,166				18,322	462	18,784	916	3,970	22,753	5,562		
San Miguel	10,166				10,166				22,511	568	23,079	1,934	8,173	47,818	10,106		
Santa Fe	4,623	1,021		51	9,650	56			38,672	973	39,645	1,934	1,635	8,140	1,952		
Tabango	8,510	1,110		56	4,559	24			6,349	156	6,505	317	2,569	53,893	5,071		
Tacloban	4,071	488			635,938	19,290			50,054	1,271	51,325	2,503	2,569	53,893	5,071		
Tacloban City (Capital)	476,399	147,650		7,382	44,772	934			5,727	31,361	888	37,976	1,568	6,538	44,514	8,106	
Tanauan	43,838			934	16,878	239			2,438	13,453	383	16,275	673	3,970	20,244	4,642	
Tolosa	2,783	370		19	16,878	239			1,334	7,356	213	8,903	368	1,401	10,304	1,769	
Tunga	12,303	4,573		42	6,502	42			1,038	42,417	1,086	44,503	2,121	9,340	53,001	11,461	
Villaba	5,658	844			1,378,380	45,181			147,508	1,354,536	36,351	1,533,584	67,726	275,997	1,809,581	343,723	
Provincial Total	1,118,053	226,470		11,033	33,858												

10.3.2 Unit Cost of Required Equipment and Vehicles

Unit cost (CIF Manila) of equipment was referred to the market price in 1998 as follows.

(1) Medium size rotary drilling rig

Type: Truck-mounted top head drive mud circulation type

Rated drilling capacity: 150m depth for 250mm diameter of borehole

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: 150m depth for 250mm diameter of borehole

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/cm² x 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 5m³ 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 11,000 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-nitrogen/Iron testing kit

Unit cost: Peso 16,400 per unit

10.3.3 Cost for Laboratory

Required cost for new laboratory including building/facility and instruments/chemicals and additional cost for upgrading of existing laboratory are shown in Table 10.3.5 and Table 10.3.6, respectively.

Table 10.3.5 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 10.3.6 Cost for Upgrading Laboratory

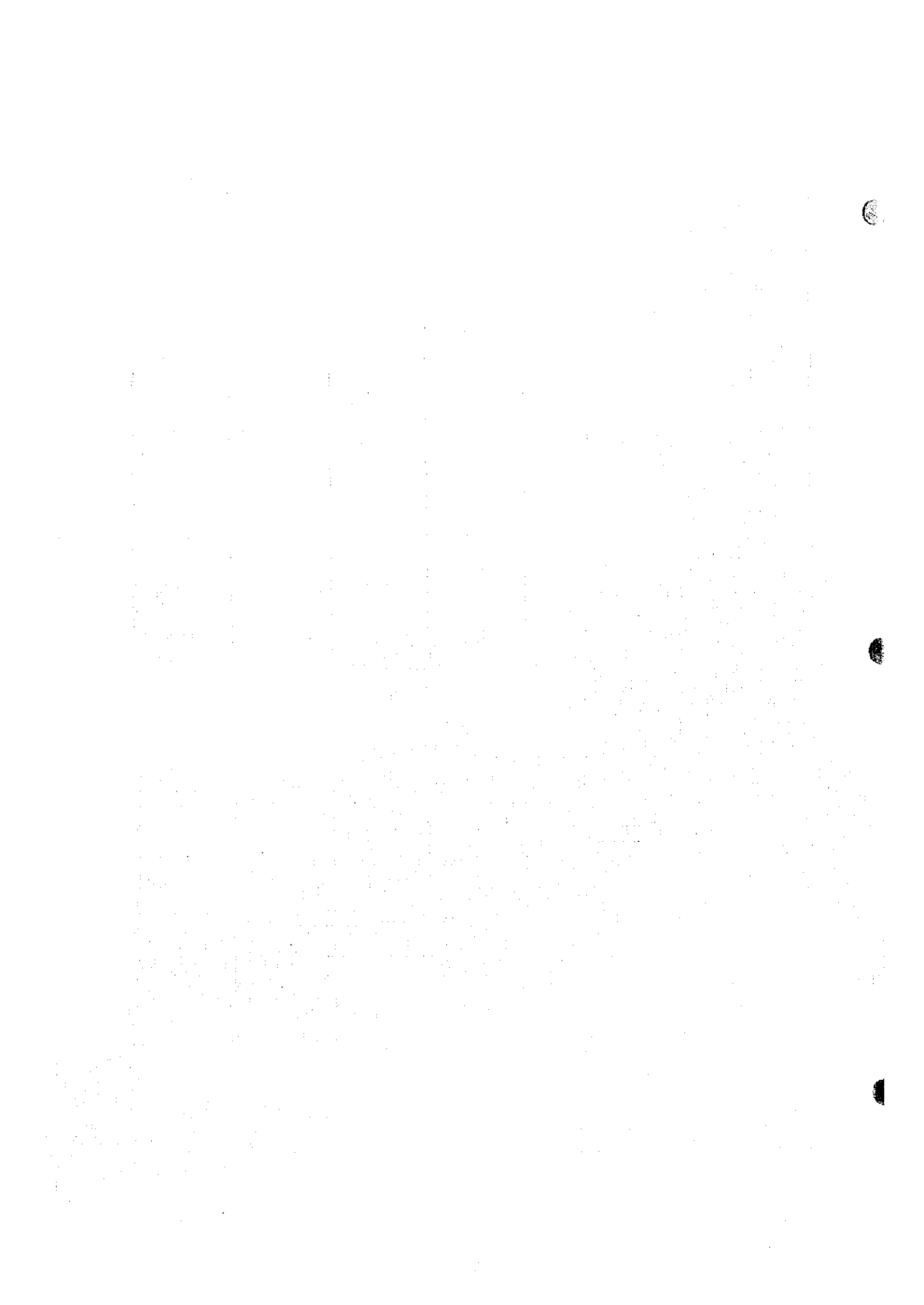
(Cost: Peso)

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



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	2000	2001	2002	2003	2004	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.

(Unit 1,000 Pesos)

Table 11.5.1 Available IRA for GOP-Assisted Level I Water and Rural Sanitation Project for Eligible Municipalities

Name of City or Municipality	Td Nos. of Bg. in Rural Area	Class	Rural Water Supply							Rural Sanitation							Rural Sanitation				Sub-total Avail. IRA							
			No. of Related Bg.	R. Water Supply		No. of LEVEL I Facilities			Prov. Avail. IRA		Min. Avail. IRA	Sub-total Avail. IRA	No. of Related Bg.	Rural Sanitation		Public			Number of Toilets			Prov. Avail. IRA	Min. Avail. IRA	Sub-total Avail. IRA				
				Prov.	Munl.	Deep Wells	Shallow Wells	Spring Dev't	TU Related	Avail. IRA				IRA	Prov.	Munl.	Mbrs.	Terms.	Bus	School Toilet					TU	TU Related	Prov. Avail. IRA	Min. Avail. IRA
Abuyog	53	2nd	0	1,776	3,962	7	15	3	0	0	0	0	0	0	0	0	0	14	14	0	0	0	0	0	0	0	0	
Alangalang	44	4th	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Albuera	15	4th	0	1,155	2,379	6	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Babatingon	21	5th	10	653	1,136	4	5	1	10	653	1,136	1,789	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Barugo	30	5th	15	1,587	2,242	13	0	2	15	1,587	2,242	3,829	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Barugo	27	4th	0	1,343	2,018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buybay	68	1st	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burauen	68	3rd	0	2,306	4,309	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calubian	52	5th	29	3,494	4,343	21	5	3	29	3,494	4,343	7,837	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carpocora	19	4th	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Catiguan	44	4th	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dagami	56	5th	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dalag	19	4th	1	1,269	1,479	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hiligon	48	3rd	0	2,833	4,491	21	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hundang	18	5th	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Iloosan	19	5th	0	1,078	2,319	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ipsabel	20	1st	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jaro	42	4th	0	1,702	2,962	11	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Javier (Bugho)	26	5th	7	996	1,481	6	0	1	7	996	1,481	2,477	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Julita	21	5th	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kananga	22	2nd	0	843	1,578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
La Paz	31	5th	0	1,986	2,754	17	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Leyte	29	4th	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MacArthur	28	5th	6	1,318	1,978	4	1	1	6	1,318	1,978	3,297	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mahinlag	27	5th	8	1,981	2,563	7	0	1	8	1,981	2,563	4,545	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manogob	15	4th	0	1,295	3,748	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maatam	26	4th	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mayorga	13	5th	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Merida	21	5th	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Palo	17	3rd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Palafox	41	4th	0	2,471	3,378	18	12	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pastana	25	5th	9	936	1,946	8	0	1	9	936	1,946	2,882	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Isidro	16	5th	16	2,596	3,136	14	8	3	25	2,596	3,136	5,732	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Miguel	19	5th	2	635	1,591	1	1	1	2	685	1,591	2,277	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Fe	17	5th	9	558	1,462	3	5	1	9	558	1,462	2,020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tanaga	12	4th	0	1,399	2,807	2	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tarabagon	12	6th	4	380	1,114	4	0	0	4	380	1,114	1,493	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tarabagon City (Capital)	0	1st	0	776	1,468	2	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tanauan	48	4th	0	2,081	3,106	18	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Toleza	13	5th	0	190	423	2	0	0	2	190	423	613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tunga	29	4th	2	190	423	2	0	0	2	190	423	613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Villaba	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1,176		117	39,687	66,178	197	89	35	126	153,74	23,414	39,789	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

90,292

Total Available IRA Fund

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

Name of City or Municipality	Water Supply		Sanitation		Total
	Rural	Urban	Rural	Urban	
Abayog	0	0	0	0	0
Alampang	0	0	0	0	0
Alibon	0	0	567	2,280	2,847
Alibon	1,789	0	665	1,431	3,885
Baburgon	3,829	0	460	1,885	6,174
Bato	0	0	476	1,993	2,469
Baybay	0	0	0	0	0
Burauen	0	0	0	0	0
Calubian	7,837	0	0	2,175	10,011
Carapean	0	0	520	3,029	3,549
Catigara	0	0	457	2,284	2,741
Dagami	0	0	0	0	0
Dulag	0	0	539	350	889
Hilongos	0	0	346	2,186	2,532
Hindang	0	0	391	1,669	2,060
Inopacan	0	0	0	1,895	1,895
Isabel	0	0	0	0	0
Jaro	0	0	514	2,235	2,749
Javier (Bugho)	0	0	0	0	0
Julita	2,477	0	356	769	3,491
Kananga	0	0	0	0	0
La Paz	0	0	378	1,198	1,576
Leyte	0	0	585	3,854	4,439
Macthur	3,297	0	199	1,317	4,813
Mababag	4,545	0	374	2,186	7,104
Matag-ob	0	0	660	1,629	2,289
Marilom	0	0	276	2,022	2,298
Mayuga	0	0	0	1,458	1,458
Merida	0	0	0	0	0
Palo	0	0	4,853	2,003	6,856
Palompon	0	0	453	2,114	2,567
Pastana	2,882	0	231	1,109	4,222
San Isidro	5,732	0	308	1,922	7,962
San Miguel	2,277	0	428	1,395	4,099
Santa Fe	2,020	0	0	1,312	3,332
Tabango	0	0	0	0	0
Tabontodon	1,493	0	0	585	2,078
Tacloban City (Cap)	0	0	0	0	0
Tanauan	0	0	0	0	0
Toleson	0	0	0	0	0
Tunga	613	0	0	0	613
Villaba	0	0	0	3,750	3,750
Total	38,789	0	13,948	51,503	104,239

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

Name of City or Municipality	TU Nos. of Urban	Class	No. of Related		Urban Sanitation		Number of Toilets			Prov. Avail. IRA	Man. Avail. IRA	Sub-total Avail. IRA
			Bv.	Prov.	Public Mkt.	Bus Term.	School	TU Related				
Abayog	10	2nd	0	0	0	0	0	0	0	0	0	0
Alampang	10	4th	0	0	0	0	0	0	0	0	0	0
Alibon	1	4th	227	340	0	0	3	3	227	340	567	
Baburgon	4	5th	282	383	0	0	4	4	282	383	665	
Bato	7	5th	227	234	0	0	3	3	227	234	460	
Baybay	5	4th	227	249	0	0	3	3	227	249	476	
Burauen	24	3rd	0	0	0	0	9	9	0	0	0	
Burauen	9	3rd	0	0	0	0	0	0	0	0	0	
Calubian	1	5th	35	9	0	0	0	0	0	0	0	
Carapean	2	4th	172	348	0	0	2	2	172	348	520	
Catigara	5	4th	173	284	0	0	2	2	173	284	457	
Dagami	9	5th	0	161	0	0	0	0	0	0	0	
Dulag	26	4th	282	257	0	0	4	4	282	257	539	
Hilongos	3	3rd	172	175	0	0	2	2	172	175	346	
Hindang	2	5th	0	391	0	0	1	1	0	391	391	
Inopacan	1	5th	0	0	0	0	0	0	0	0	0	
Isabel	4	1st	601	738	0	0	6	6	0	0	0	
Jaro	4	4th	227	288	0	0	3	3	227	288	514	
Javier (Bugho)	2	5th	0	0	0	0	0	0	0	0	0	
Julita	5	5th	172	164	0	0	2	2	172	164	336	
Kananga	3	2nd	213	142	0	0	3	3	0	0	0	
La Paz	4	5th	172	206	0	0	2	2	172	206	378	
Leyte	1	4th	260	275	0	0	2	2	260	275	535	
Macthur	3	5th	117	83	0	0	1	1	117	83	199	
Mababag	1	5th	198	176	0	0	2	2	198	176	374	
Matag-ob	6	4th	193	467	0	0	2	2	193	467	660	
Marilom	4	4th	117	159	0	0	1	1	117	159	276	
Mayuga	3	5th	9	107	0	0	0	0	0	0	0	
Merida	1	5th	0	13	0	0	0	0	0	0	0	
Palo	16	3rd	0	4,833	0	0	6	6	0	4,833	4,833	
Palompon	9	4th	227	226	0	0	3	3	227	226	453	
Pastana	4	5th	117	115	0	0	1	1	117	115	231	
San Isidro	3	5th	173	135	0	0	2	2	173	135	308	
San Miguel	2	5th	172	236	0	0	2	2	172	236	428	
Santa Fe	3	5th	66	51	0	0	0	0	0	0	0	
Tabango	1	4th	0	0	0	0	0	0	0	0	0	
Tabontodon	4	6th	0	0	0	0	0	0	0	0	0	
Tacloban City (Capital)	138	1st	3,313	2,322	0	0	0	0	0	0	0	
Tanauan	8	4th	0	0	0	0	0	0	0	0	0	
Toleson	2	5th	0	0	0	0	0	0	0	0	0	
Tunga	4	6th	87	56	0	0	0	0	0	0	0	
Villaba	6	4th	25	158	0	0	0	0	0	0	0	
Total	354	2nd	8,591	25,017	1	0	95	53	3,906	10,042	13,948	
Total Available IRA Fund												13,948

Table 11.5.4 FIRR for Level I Water Supply

Year	Nos of Deep Well	Nos of Shallow Well	Spring/Dev't	Construction Cost	Reliab. And Replacement Cost	Op&M Cost	Cash Outflow	No. of Households	Water Rate Per Month Per Household	Loans and Subsidies	Cash Inflow	Net Value
1	0	0	0	0	0	0	0	0	198	0	0	0
2	17	5	3	10,976,200	0	0	10,976,200	375	198	0	891,000	(10,085,200)
3	26	8	4	16,376,800	0	109,762	16,486,562	945	198	0	2,245,320	(14,241,242)
4	26	8	4	16,376,800	0	273,350	16,650,150	1,515	198	0	3,599,640	(13,050,690)
5	25	7	3	15,057,800	0	437,298	15,495,098	2,040	198	0	4,847,040	(10,648,058)
6					0	587,876	587,876	2,040	198	0	4,847,040	4,259,164
7					0	587,876	587,876	2,040	198	0	4,847,040	4,259,164
8					0	587,876	587,876	2,040	198	0	4,847,040	4,259,164
9					0	587,876	587,876	2,040	198	0	4,847,040	4,259,164
10					0	587,876	587,876	2,040	198	0	4,847,040	4,259,164
11					0	587,876	587,876	2,040	198	0	4,847,040	4,259,164
12					1,749,900	587,876	2,337,776	2,040	198	0	4,847,040	2,509,264
13					2,705,400	587,876	3,293,276	2,040	198	0	4,847,040	1,553,764
14					2,705,400	587,876	3,293,276	2,040	198	0	4,847,040	1,553,764
15					2,544,300	587,876	3,132,176	2,040	198	0	4,847,040	1,714,864
16					0	587,876	587,876	2,040	198	0	4,847,040	4,259,164
17					0	587,876	587,876	2,040	198	0	4,847,040	4,259,164
18					0	587,876	587,876	2,040	198	0	4,847,040	4,259,164
19					0	587,876	587,876	2,040	198	0	4,847,040	4,259,164
20					0	587,876	587,876	2,040	198	0	4,847,040	4,259,164

Discount rate for NPV = 0.09 per year

TOTAL 6,157,270
 FIRR 1.3%
 NPV 1,782,947

(Unit: Pesos)

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

Category	Total Amount	1st year	2nd year	3rd year	4th year	5th year
A. Const. & Civil Works						
1. Water Supply	55,115,150	0	11,023,030	16,534,545	16,534,545	11,023,030
2. Sanitation	91,091,020	0	18,218,204	27,327,306	27,327,306	18,218,204
3. Land Acquisition	700,000	0	140,000	210,000	210,000	140,000
B. Equip./Logistic Support	1,173,600	0	1,173,600	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.	16,159,679	6,463,871	3,231,936	3,231,936	1,615,968	1,615,968
D. Institutional Devt.						
1. Capacity Enhanc. Prog.	3,200,000	960,000	960,000	640,000	320,000	320,000
2. Commu. Manag. Prog.	1,615,500	484,650	484,650	323,100	161,550	161,550
3. Health & Hygiene Educ.	270,000	81,000	81,000	54,000	27,000	27,000
4. Water Quality Surveil.	105,000	31,500	31,500	21,000	10,500	10,500
5. NGO Assistance	180,000	54,000	54,000	36,000	18,000	18,000
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)	17,195,795	958,302	3,575,792	4,861,789	4,634,487	3,165,425
Total (A+B+C+D+E+F)	189,153,744	10,541,324	39,333,712	53,479,675	50,979,356	34,819,677
F. Others						
1. Price Contingency	58,363,580	3,252,536	12,136,457	16,501,208	15,729,732	10,745,647
2. Value Added Tax (VAT)	7,940,847	442,534	1,651,265	2,245,126	2,140,160	1,461,762
Grand Total	255,458,171	14,236,394	53,121,434	72,226,009	68,849,248	47,025,086

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	87	25	14
Nos. of HHs to be Served	1,305	375	210
Reconstruction Cost (Peso)			
Unit Cost	489,600	82,400	747,000
Ttl. Reconst. Cost	42,595,200	2,060,000	
Ttl. Reconst. Cost/year	2,129,760	206,000	
Cost per HH/year	1,632	549	
Rehabilitation Cost (Peso)			
Unit Cost	78,700		
Ttl. Rehab. Cost	6,846,900		
Ttl. Rehab. Cost/year	684,690		
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	2,157	599	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	180	50	4
Proportion (Mean)	2.2%	0.6%	0.0%
Proportion (Median)	3.1%	0.8%	0.1%

Table 11.6.4 Family Income (Unit: Pesos)

Annual ¹⁾		Monthly ²⁾	
Mean	Median	Mean	Median
51,042	35,944	8,367	5,892

Note: 1) 1994 NSO Family Income and Expenditure Survey

2) Estimated value in 2004 applying 7% inflation rate/year

O&M Cost for GOP Assisted Sanitation Project

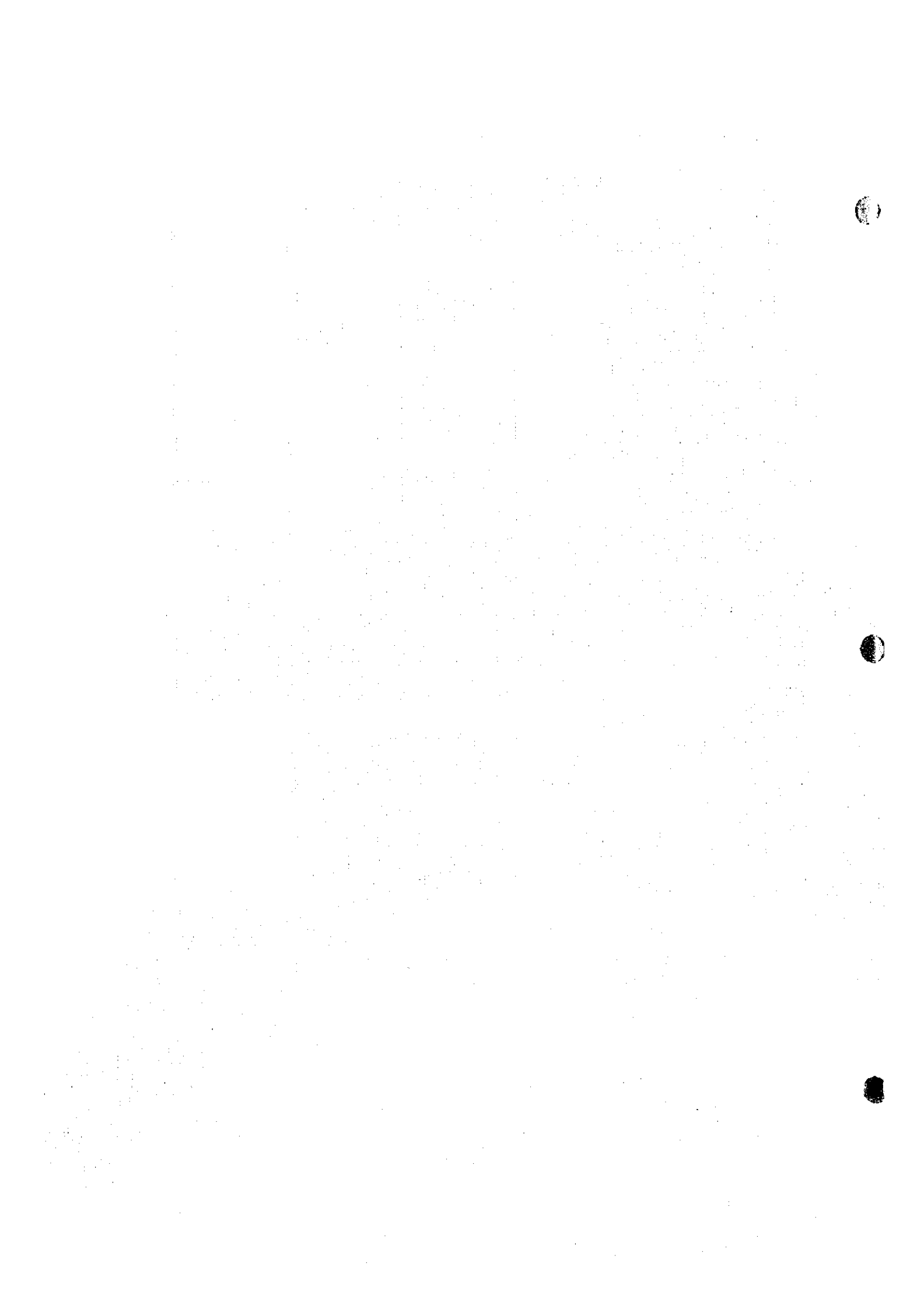
Table 11.6.5 O&M Cost for Rural Sanitation (Unit: Pesos)

os. of Facilities to be Constructed		Unit Construction Cost		Yearly O&M Cost
Public Toilets	School Toilets	Public Toilets	School Toilets	
0	236	358,400	233,500	2,755,300

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)

os. of Facilities to be Constructed		Unit Construction Cost		Yearly O&M Cost
Public Toilets	School Toilets	Public Toilets	School Toilets	
0	53	358,400	233,500	618,775



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

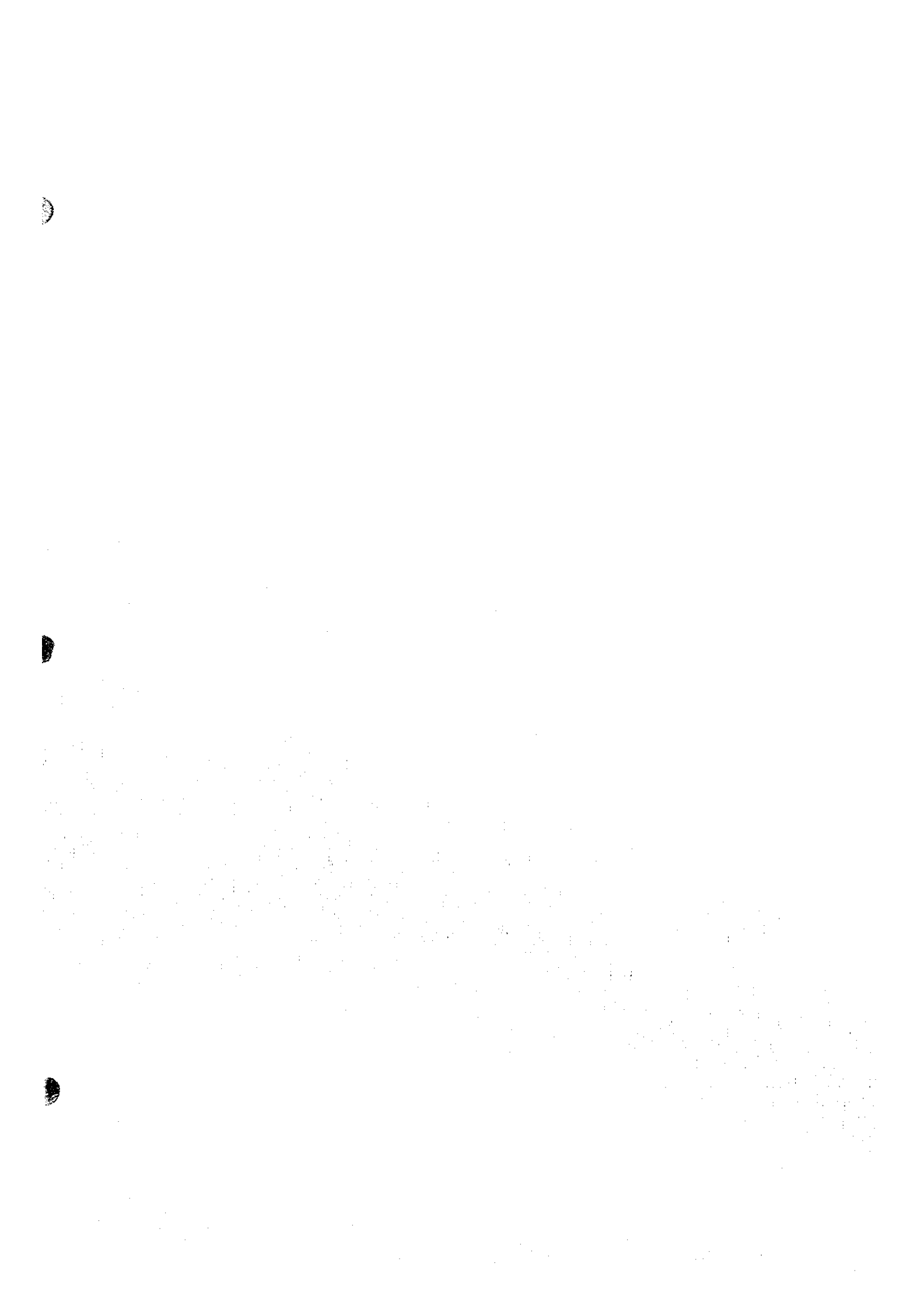
Period Covered: _____ to _____

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.								
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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.											
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W.											
SUB-TOTAL											
NGO											
NGO											
NGO											
SUB-TOTAL											
TOTAL											





JICA