#### 6. HUMAN RESOURCE DEVELOPMENT TRAINING

Objective	:	To build a strong and cohesive team from among the core group members and barangay officials (if appropriate)
Expected Results	:	Trained core group members on Human Resource Development
Facilitator	:	CO worker
Co-facilitator	;	Core group members

#### 7. PRESENTATION OF TECHNICAL DESIGN

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Objective	:	Generate community decision on appropriate technology to be used
Expected Results	:	Generate community decision on appropriate technology to be used
Suggested Strategy	:	Community meeting to discuss - Initial findings on technical feasibility study
Facilitator	:	- Presentation of technology options Technical Team

### 8. FACILITATION ON LEGAL WORKS AND DOCUMENTS

Objective	:	Prepare necessary legal documents
Expected Results	:	Legal documents required in WATSAN projects prepared
Facilitator	:	Committee Chairman
CO-facilitator	;	CO Worker
	•	

#### LIST OF DOCUMENTS REQUIRED IN IMPLEMENTING WATSAN PROJECTS

- Barangay Resolution desiring to avail of a water facility to be submitted to the LGU
- Building permit of WATSAN facility, from LGU
- Waiver form DENR (if water system components such as the source, tank, pipelines are
- situated in areas other that private lands) to use the site(s) for community development
- Right of way permit from private land owners, specifically for spring sites and pipeline routes
- Deeds of donation from private landowners for water tank and tapstand sites
- Certificate of water quality source to be developed and tapped, from DOH
- Certificate of water quality produced through the water system facility, from DOH
- Letter of acknowledgment from the municipal mayor endorsing the water system management to the water users' association formed
- Accreditation pertinent papers (needed for the accreditation of RWSAs/BWSAs at the LGU level)
- Water rights
- Water permit
- Drilling permit

#### 9. PRESENTATION OF DRAFT TECHNICAL DESIGN (Skip This Activity If Level I)

Objective : To inform the community of the results of the feasibility study conducted

**Expected Results:** 

Location of major components such as well drilling site, transmission and distribution pipelines

- Tanks and tapstands are identified
  - Community acceptance of design
  - Local counterpart generated

Suggested Strategies:

- Community meeting
- Site visit to proposed structures/facilities' location

#### **INFORMATION TO BE PRESENTED TO THE COMMUNITY**

- Role of technical people
- Contents of typical water system technical plan
- Presentation of design specifications and explanation of plan contents /drawings in layman's terms
- Presentation of program of work (POW), bill of materials and cost estimates
- Validation of data gathered and used in the designing
- Solicit ideas, opinions, comments and preferences
- Come-up with compromises, and if appropriate determine local counterpart

#### 10. MOBILIZATION OF COMMITTEE ON DOCUMENTATION

(skip this activity if Level I)

Objective	:	To facilitate additional legal work requirement for tapstand, pipeline
		and other major system components
	:	To ensure a formal listing of tapstand membership
Expected Results	:	Completed legal documentation requirement membership per tapstand known
Facilitator	:	Committee Chairman, Committee on Documentation and Education and Membership
CO-facilitator	:	CO worker
CO-lavintator		CO WOLKG

#### 11. CONFIRMATION OF MEMBERSHIP BY TAPSTAND

Objective	To confirm final membership by tapstand
	To undertake information campaign on the importance
	of grouping and houserules formulation
	To select tapstand leader
Expected Results	Final listing of membership per tapstand
	Formulated tapstand houserules
	Tapstand leader selected
Suggested Strategy	Undertake meeting per tapstand
Facilitator	CO worker
CO-facilitator	Chairman, Committee on Education and Recruitment

#### DISCUSSION POINTS IN FORMULATING TAPSTAND HOUSERULES

a. Getting water:

)

- How will water be fetched?
- When will water be fetched?
- Who can fetch water?
- b. Monitoring

-

- List down who fetches and
  - how much volume of water was taken
- c. Water tariff due the specific tapstand
- d. Sanitation around the tapstand and around the cluster
- c. Beautification and physical development in the tapstand site
- f. Financial management regarding water tariffs

#### 12. PRESENTATION OF FINAL TECHNICAL DESIGN

Objective	:	To present and approve the final technical design
Expected Results	:	Finalized counterpart agreement
•	:	Construction scheduling developed
Suggested Strategy	:	Meeting among tapstand leaders, core group and barangay council

# 13. TRAINING ON HYGIENE, SANITATION AND HEALTH CARE

Objective	•	Conduct of training on health and hygicne
Expected Results	:	Awareness on community health aspects
Suggested Strategy		Community meeting, or
	:	Meeting by tapstand grouping
Organizer	:	CO Worker, community and rural sanitary inspector
Training Managemen	t :	LGU
Audience		Core Group, Barangay Officials, Barangay Health Workers,
•		Rural Sanitary Inspectors, and Barangay Nutrition Scholars
		n in the state of the

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# 14. SOURCE FOR EXCRETA DISPOSAL MATERIALS AND/OR FACILITIES

	Objective	:	To make available to the community facilities for excreta
÷			disposal (if conditions and culture warrant)
	Expected Results	: <b>:</b>	Materials/facilities for excreta disposal constructed individually by members of the community in their households
:	Suggested Strategy		Core group members together with CO worker make representations with LGUs to source materials or facilities
	Facilitator	:	Core group members
. 1	CO-facilitator	· .	CO worker

# 15. ORGANIZATIONAL MANAGEMENT TRAINING

Organizer	:	CO and the community
Training Management	:	LGU
Audience	:	tapstand leaders, core group and barangay officials

#### 16. PRE-CONSTRUCTION CONFERENCE

:	To generate work plan and tasking for the construction activities
:	Activities and roles identified
:	Commitment to participate generated
:	Hold a community meeting
:	Technical team
;	CO worker

(;

#### AGENDA IN THE PRE-CONSTRUCTION CONFERENCE

- Presentation of schedule of work and tasking
- Determine quantities of resources needed
- Labor arrangements
- Salaries/wages, if any that will be incurred
- Mobilization of committees
- Arrangement on materials storage

#### 17. MOBILIZATION FOR DELIVERY OF MATERIALS

Objective	;	To ensure that materials delivered at the community are all accounted for
Expected Results	:	Materials delivered all accounted for and in
•	- 1	accordance to the agreed upon specifications in the technical design
Suggested Strategy	:	Specific committee to handle delivery, and storage of materials, and, if need be, disposition of materials
Facilitator	:	Committee to be agreed upon by the core group
Co-facilitator		CO worker

#### 18. ACTION PLANNING FOR CONSTRUCTION

Objective	:	To spell out what to expect during the construction
	* 	processes
Expected Results	:	Smooth implementation of construction activities
Facilitator	:	CO worker
Co-facilitator	•	Technical Team
Suggested Strategy		Core group meeting

#### STEPS TO BE UNDERTAKEN:

- Identify activities related to construction
- Define activity schedule and resources required
- Identify the type of manpower skills required per activity
- Monitoring and documentation of major water system components
- Progress reporting, evaluation and action planning
- Monitoring and documentation on construction of major water system components
  - Repeat cycle until completion

#### 19. DEVELOPMENT OF EXIT PLAN

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Objective	:	To plan for the transfer of responsibility from CO worker to core group members
Expected Results	:	Core group informed of activities ahead and the expected time of withdrawal of the CO worker
	:	An exit plan containing task list and specific person responsible
	:	Organizational development program developed
Suggested Strategy	:	Core group meeting
Facilitator	:	CO worker
Co-facilitator	:	Technical Team
Audience	:	Community members

At the end of the Development of Organization Phase, the following milestone must have been achieved:

- Basic organizational development training such as value formation, leadership and team building and sanitation, health care and hygiene education must be done
- CO exit plan jointly developed by the CO together with the community
- All legal documents completed
- Pre-construction conference done
- Materials for construction delivered and accepted by the community
- Organizational strengthening such as involvement of a greater number of community members participating in mobilization activities and increased awareness on key issues through information exchange

The success of the phase rests on the extent the community had participated in the activities and learned from the processes as inputs to the community's capability for self-management. On the other hand, one of the most crucial factors to participation rests on the depth and broadness of their understanding of the project concept, features, processes, stakeholders, tasks, and responsibilities coupled with the need for water supply facility, a condition validated in the first orientation meeting done by the CO upon entry to the community.

The inputs that will be provided by the CO and the technical team will provide the necessary honing skills for the core group and tapstand leaders to have the confidence to accept more challenges in the next phase. These challenges are contained in the Exit Plan, which was formulated by the local stakeholders. The Plan will be implemented in Phase III stage to signal the weaning process of the community from the CO worker.

### PRESENTATION, COMPARISON & COLLATION OF TAPSTAND HOUSERULES (skip this activity if Level I)

Objectives	:	Collate similar houserules form	nulated	in the pr	evious a	ctivity	
Expected Results	;	Collated houserules		• •	· · · .		
	:	Identified houserules			• *		
Querented Strategy		appropriate for by-laws Meeting of tapstand leaders		1. <sup>1</sup> . 1		· • .	
Suggested Strategy	:		· ·		5. S.		
Facilitator	:	CO worker		÷			÷
Co-facilitator	:	Core Group Member			· ·		

### 21. DRAFTING OF CONSTITUTION AND BY-LAWS

Objective

20.

To develop a set of policies and by-laws that will govern the operation of the organization

Expected Results	:	Constitution and by-laws ready for ratification
Suggested Strategy	:	Meeting of core group and tapstand leaders

#### 22. RATIFICATION OF CONSTITUTION, BY-LAWS AND POLICIES

Facilitator	:	CO Worker
Co-facilitator	:	Core Group Member
Expected Results	:	Constitution ratified
	:	Officers elected

### 23. FACILITY/SYSTEM TEST RUN

The community participates in ocular operation and test run of facility installed

Facilitator : Technical Team

#### 24. WATER QUALITY TEST

Objective	:	To ensure potability of water from facility
Expected Result	:	Water facility is to provide potable water to
		community
Suggested Strategy	:	Collect water sample from tapstand
	:	Submit sample to DOH for test and certification
and the second		

#### 25. TURN-OVER OF FACILITY/SYSTEM

Officers elected organize and manage facility turnover ceremony

#### 26. OPERATION, MAINTENANCE AND REPAIR TRAINING

Trainer	: Technical team
Trainees	: Community-appointed Plumber, Meter Reader (if there is a meter installed), Tapstand leader and RWSA/BWSA officers

#### 27. FINANCIAL MANAGEMENT TRAINING

	· · ·	
Trainer	•	NGO, LGU or Water District
ITunioi	-	noo, boo or while blouid
Trainees	•	Bookkeeper, Tapstand Leader and RWSA/BWSA officer
Hamees	•	bookkeper, rapsialiti Leader allo KWSADWSA Officer

#### 28. RWSA/BWSA REGISTRATION AND ACCREDITATION

		and the second
Facilitator	· •	RWSA/BWSA officer
Co-facilitator	:	CO worker

Registration of BWSA/RWSA to appropriate government agencies is done. Options on where to register shall be presented and decided upon by the organization.

Possible Options:

In the absence of a clear national policy on B/RWSA registration, the following Registering Agencies could be presented as options:

- a. Securities and Exchange Commission
- b. Bureau of Rural Workers
- c. Local Waterworks Utilities Administration

- d. Department of Social Welfare and Development
- e. Cooperatives Development Authority

Accreditation of BWSA/RWSA is done through the municipal local government unit.

# 29. FORMAL EXIT OF THE CO WORKER

Facilitator	:	RWSA Officer
Co-facilitator	:	CO worker
Suggested Strategy	:	Hold a community meeting
Agenda	:	Assessment of CO Exit Plan
	:	Planning for the operation and management of water
		facility
	:	Scheduling of CO visits
	:	Scheduling of RWSA/BWSA and CO formal linking
		with other organizations and agencies
	:	Formal tum-over of CO responsibility to RWSA/BWSA

At the end of the Consolidation Phase, the following milestones are achieved:

- Facility is turned-over to the RWSA/BWSA and is functioning as intended and has it set of officers, constitution and by-laws and policies
  - Plan for operation, maintenance and repair of system is installed

At the end of the community organizing process, the degree of capability of RWSA/BWSA in the operation and maintenance of water supply facility and maintaining their organizational health can be gauged on the extent of participation of the members in resolving problems and making decisions. The extent of focus of team building and leadership inputs is crucial in how the members of the RWSAs/BWSAs are willing to make amend allow some compromises among each other. On the other hand, the technical soundness of the design and execution of the construction ensures the long-term sustainability of the system.

By this time, the CO has exited but maintains monitoring visits until he/she is fully confident that the organization is strong enough to take decisions, plan and implement their WATSAN related activities and knows where to access support (in terms of financial, institutional and technical) when needed.

Source: Water Supply and Sanitation Program Management Office Department of the Interior and Local Government

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#### 10 COST ESTIMATES FOR FUTURE SECTOR DEVELOPMENT

#### **10.2** Assumption for Cost Estimates

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#### (1) Unit Construction Cost

The base information in previous PW4SP, such as bill of quantities and unit cost of respective component facilities was fully utilized, which was referred to the standards 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 (wholesale price index). Market prices of these items were also canvassed to compare with calculated prices in 1998 from those in 1995 in application of the escalation rates.

In general, escalated prices meet canvassed prices in most of the materials. Escalation rates between 1995 and 1998 were employed in round figures. Some of them (pipe materials, etc.) were, however, deferred at previous level due to considerable price stabilization in the last year.

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

10 - 1

Major Materials L-I L-I 1. Aggregate x	Water Supply	pply	Sa	Sanitatio		4	rojection	Projection by Major Materials	Iaterials		Collected Price	Comparison
		1	ST.	ST. Flush	Ê	NSO Wholesale Price Index	esale Price	e Index	Price	ce .	DPWH. CIAm	(1), (2) & (3)
	II-1 I-1 I-1	Щ-1	۲.	5 C	) Å	1995	1998	Escalation	1995	1998(1)	· ·	
	*	×	×		×	311.6	367.5	5.7%	 • •			c same wi
Cond	{								304	359	330 350	350 (2) & (3).
Janua Tanvar		:							385	454	418 500	0
Coment v	^	×	×	×	×	197.4	214.1	2.7%	117	127	126 105	105 ditto
		: 				601.6	742.6	7.3%	1,100	1,358	1306	ditto
╀	,	;				208.7	226.3	2.7%	. :			Price of GI casing is
The second parts and the second parts of the s	<	<				 			2,625	2,846	2763	almost the same with (2) and screen is 12%
A" × 3m Streen								 -	4,313	4,667	5291	lower than (2)
	, 	*	 			199.2	223.4	3.9%	 			Price of PVC pipe is
3. r v c pupe v	<	<	<						813	912	882 852	852 almost the same with $852$ m and $7%$ higher that
1_1/7" elhow		• :	•		:	- 			13	15	4(	40 (3).
6 Reinforcing x	×	×	×	×	×	201.4	221.9	3.3%				Almost the same with
					•				68	22	7.	75 40.
10mm x 6m									49	.54	45	10
7 Tumber			×	×	ĸ	268.5	296.8	3.4%				_
8. Paint			×			128.0	140.1	3.1%		-		Almost the same with
Enamel, ODE					:				266	291	31(	310 31
9. Machmery x		×				254.8	254.8	0.0%				

Table 10.2.1 Price of Major Materials by Facility

10 - 2

ST: School toilet, PT: Public toilet, Flush type: Flush water scaled 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

ALC: NO.

Description	Q(y.	Unit	Unit Cost	Amount
A. Mobilization/Demobilization/Site Preparation		LS		52,00
B. Drilling of Well & Installation of Steel Casing/Screen				
1. Materials				
(1) 100mm x 3m Steel Casing with coupling	11	pcs.	2,846	31,30
(2) 100nun x 3m Steel Casing with one end closed	1	pc.	2,997	2,99
(3) 100mm x 3m Low Carbon Steel Screen	2	pes.	4,667	9,33
(4) Casing Centralizer	2	set	1,925	3,85
2. Labor, Fuel, Lubricant and others	_		.,	5,00
Well Drilling for 40 m depth at 200mm borehole	40	m	2,500	100,00
3. Borehole Logging	1	no	16,000	16,00
4. Freight Cost (10% of Materials)	•	LS	10,000	4,74
Sub-Total of B			•••••	168,2
C. Well Development and Pumping Test				100,2.
Well Development	24	hr.	5,500	132,00
Pumping Test	24	տ. հ <b>ւ</b> .	5,000	30,00
Sub-Total of C	······			
D. Gravel Packing, Installation of Handpump and Construct	tion of D	lafform		162,0
<ul> <li>D. Gravel Packing, instantion of manapump and Construct</li> <li>1. Materials</li> </ul>		IALIOFIN		
		4	11.016	11.0
(1) Improved Deep Well Cylinder Pump (Afridev Type)	l	set	11,815	11,8
(2) 63mm x 6m Riser Pipe and Pump Rod	0	pcs.	1,880	
(3) #10 Sieved Grave1	1	cu.m	1,026	1,02
(4) Coarse Sand	1	cu.m	359	3:
(5) Cement for Sanitary Seal	4	bags	127	5
(6) Pump Base and Platform				
1) Cement	4	bags	127	5
2) Gravel	2	cu.m	454	9
3) Sand	1	cu.m	359	3
4) Plywood (1,200mm x 2,400mm x 6mm)	. 1	- pc.	294	2
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	52	3
6) Nail	1	kg.	40	
Sub-Total of D-1				27,4
2. Labor (40% of D-1.)		. •		···· 10,9
3. Freight Cost (10% of Materials)	4	LS	· · ·	2,7
Sub-Total of D				41,1
E. Indirect Cost				
Profit (10% of A, B, C & D)	1997 - A.	· ·		42,3
Overhead Expense (13% of A, B, C & D)		1 A 1		55,0
VAT (10% of Labor, Profit & Overhead Expense)		1		20,8
Sub-Total of E				63,1
Total of Construction Cost (A+B+C+D+E)		<u> </u>	1	354,5
F. Estimated Government Expenses	<b> </b>	†		<u> </u>
1. Preliminary & Detailed Engineering Cost	:	LS		3,6
		LS		2,4
2. Construction Supervision		LS	1	1,4
3. Water Quality Analysis	+			7,
Sub-Total of F			<b></b>	
GRAND TOTAL				361,9 361,9

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

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Note: CS - Lump Sum Source: DPWH standard price in 1994 & LWUA Water Supply Feasibility Study Methodology Manual 1998 Unit Cost. Adjusted to 1998 Price Level

Description	Qty.	Unit	Unit Cost	(Cost: Peso Amount
A. Mobilization/Demobilization		LS		52,00
3. Drilling of Well & Installation of Steel Casing/Screen		· ·		
1. Materials				· · · ·
(1) 100mm x 3m Steel Casing with coupling	11	pcs.	2,846	31,30
(2) 100mm x 3m Steel Casing with one end closed	1	pc.	2,997	2,99
(3) 100mm x 3m Low Carbon Steel Screen	2	pcs.	4,667	9,33
(4) Casing Centralizer	0	set	1,925	
2. Labor, Fuel, Lubricant and others	_		-,	
Well Drilling for 40 m depth at 150mm borehole	40	m	1,600	64,00
3. Borehole Logging	1	no	16,000	16,00
4. Freight Cost (10% of Materials)	•	LŞ	. 0,000	i 10,00
Sub-Total of B				128,00
C. Well Development and Pumping Test				120,00
Well Development	12	hr.	5,500	66,00
Pumping Test	12	hr.	5,000	30,00
Sub-Total of C		, <u>, , , , , , , , , , , , , , , , , , </u>		
D. Gravel Packing, Installation of Handpump and Construc	tion of D	latform		96,00
1. Materials				
	1		33.036	11.01
(1) Improved Deep Well Cylinder Pump (Afridev Type)	1	set	11,815	11,81
(2) 63mm x 6m Riser Pipe and Pump Rod	.6	pcs.	1,880	
(3) #10 Sieved Gravel	0	cu.m	1,026	
(4) Coarse Sand	1	cu m	359	35
(5) Cement for Sanitary Seal	3	bags	127	- 38
(6) Pump Base and Platform				
1) Cement	4	bags	127	50
2) Gravel	2	cu.m	454	
3) Sand	1	çu.m	359	
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pe.	294	29
5) Form Lumber (50mm x 75mm x 1,800mm)	- 6	pcs.	52	3
6) Nail	1	kg.	40	
Sub-Total of D-1				26,2
2. Labor (40% of D-1.)	- 6 6 E			10,50
3. Freight Cost (10% of Materials)	· · · · ·	LS		2,6
Sub-Total of D				39,3
E. Indirect Cost	1			
Profit (10% of A, B, C & D)		ł		31,5
Overhead Expense (13% of A, B, C & D)		1.0		41,0
VAT (10% of Labor, Profit & Overhead Expense)	1	Į	Į	14,7
Sub-Total of E		••••••••		46,2
Total of Construction Cost (A+B+C+D+E)	` <b>{</b>	1		295,6
F. Estimated Government Expenses	·	+	+	
1. Preliminary & Detailed Engineering Cost	1	LS	1	3,6
		LS		2,4
2. Construction Supervision			1	-1,4
3. Water Quality Analysis		LS		
Sub-Total of I	·	· <b> </b>	·	7,4
GRANÐ TOTAL	1	1		303,0

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

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Note: LS - Lump Sum 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

Description	Qty.	Unit	Unit Cost	Amount
A. Mobilization/Demobilization/Site Preparation		LS		52,00
3. Drilling of Well & Installation of Steel Casing/Screen				
. Materials				
(1) 100mm x 3m PVC Casing with Socket	11	pcs.	2,038	22,41
(2) 100mm x 3m PVC Casing with Plug	1	pc.	980	98
(3) 100mm x 3m Stainless Steel Screen	2	pes,	12,700	25,40
(4) Casing Centralizer	2	set	1,925	3,85
2. Labor, Fuel, Lubricant and others				:.
Well Drilling for 40 m depth at 200mm borehole	40	m	2,500	100,00
3. Borehole Logging	1	no	16,000	16,00
4. Freight Cost (10% of Materials)	_	1.5		5,26
Sub-Total of B			1	173,91
C. Well Development and Pumping Test				
Well Development	24	hr.	5,500	132,00
Pumping Test	6	hr.	5,000	30,00
Sub-Total of C	Ŭ		5,000	162,00
D. Gravel Packing, Installation of Handpump and	· · · ·			102,00
1. Materials				
(1) Improved Deep Well Cylinder Pump (Afridev Type)	1	set	11,815	11,81
(1) Improved Deep wen Cymoer Pump (Ander Type) (2) 63mm x 3m PVC Riser Pipe and SUS Pump Rod	12	-	2,450	29,40
	12	pcs.		29,40
(3) #10 Sieved Gravel	1	cu.m	1,026	
(4) Coarse Sand	1	cu.m	359	35
(5) Cement for Sanitary Scal	4	bags	127	50
(6) Pump Base and Platform				
1) Cement	4	bags	127	SC
2) Gravel	2	cu.m	454	90
3) Sand	1	cu.m	359	35
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	29
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	- 52	- 3
6) Nail	1	kg.	40	
Sub-Total of D-1				45,52
2. Labor (40% of D-1.)				18,2
3. Freight Cost (10% of Materials)	1997 - 19	LS	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	4,5
Sub-Total of D	· · · · · · · · · ·			68,2
E. Indirect Cost				
Profit (10% of A, B, C & D)		l		45,6
Overhead Expense (13% of A, B, C & D)	ļ i	· ·		59,3
VAT (10% of Labor, Profit & Overhead Expense)	1			22,3
Sub-Total of E			and the second	67,9
Total of Construction Cost (A+B+C+D+E)				392,1
F. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost	l ·	LS		. 3,6
2. Construction Supervision	1 .	LS		2,4
3. Water Quality Analysis		LS		1,4
Sub-Total of F	ŀ			7,4
GRAND TOTAL	1	<u> </u>	1	399,5
SAY			· ·	399,5

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

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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

Qty.	Unit LS	Unit Cost	Amount
			54,000
			34,000
			· · · · · · · · · · · · · · · · · · ·
24		2,846	68,30
24	pcs.	1	
			2,99
2	· .		9,33
2	SUL	1,925	3,850
		2.500	200.00
00			200,00
1		18,000	18,00
	1.8		8,44
	· · · · · · · · · · · · · · · · · · ·		310,93
1			132,00
6	hr.	5,000	30,00
			162,00
on of P	atform		
1			
1	set		11,81
8	pes.		15,04
}	cu.m		1,02
1	cu m	359	35
4	bags	127	50
		· · · ·	
4	bags	127	50
. 2	cu m	454	90
1	cu.m	359	3:
. 1	pc.	294	2
6		52	3
1		40	
			31,1
1 . I. 1			12,4
	1.5		3,1
			46,7
	[	1	
			57,3
		]	74,5
	i		34,4
	·}·····	· {	91,8
	<u> </u>	<u> </u>	533,4
	ł		333,4
			3,6
	4	l ·	2,4
	. <u> LS</u>		1,4
	ļ		7,4
	}		540,8 540,9
	1 2 80 1 24 6	1       pc.         2       pcs.         2       set         80       m         1       no         L.S         24       hr.         6       hr.         9       on of Platform         1       set         9       pcs.         1       cu.m         4       bags         4       bags         2       cu.m	1       pc.       2,997         2       pcs.       4,667         2       sct       1,925         80       m       2,500         1       no       18,000         LS

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

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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

	<u>.                                    </u>		·	(Cost: Peso
Description	Qly.	Unit	Unit Cost	Cost
. Mobilization/Demobilization/Site Preparation		LS		54,00
B. Drilling of Well & Installation of Steel Casing/Screen				
I. Materials				
(1) 100mm x 3m Steel Casing with coupling	24	pes.	2,846	68,30
(2) 100mm x 3m Steel Casing with one end closed	1	pc.	2,997	2,99
(3) 100mm x 3m Low Carbon Steel Screen	2	pes.	4,667	9,33
(4) Casing Centralizer	0	set	1,925	
2. Labor, Fuel, Lubricant and others				
Well Drilling for 80 m depth at 150mm borehole	80	m	1,600	128,00
3. Borchole Logging	1	no	18,000	18,00
4. Freight Cost (10% of Materials)		LS		8,06
Sub-Total of B				234,69
C. Well Development and Pumping Test				
Well Development	12	hr.	5,500	66,00
Pumping Test	6		5,000	30,00
Sub-Total of C	+			96,00
D. Gravel Packing, Installation of Handpump and Constru		latform		
), Graver Lacking, instantiation of reanapump and constru- 1. Materials				
(1) Improved Deep Well Cylinder Pump (Afridev Type)		∵ set	11,815	11,8
	8	pcs.	1,880	15,0
(2) 63mm x 6m Riser Pipe and Pump Rod	0	F • ·	1,000	15,0
(3) #10 Sieved Gravel		cv.m		3
(4) Coarse Sand		cu.m	359	
(5) Cement for Sanitary Seal	3	bags	127	. 31
(6) Pump Base and Platform			103	
1) Cement	4	bags	127	·
2) Gravel	2	cu.m	454	- 9
3) Sand		cu.m	359	3
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	2
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	52	3
6) Nail	1	kg.	40	
Sub-Total of D-		· ·		30,0
2. Labor (40% of D-1.)		· ·		12,0
3. Freight Cost (10% of Materials)		LS		3,0
Sub-Total of I				45,0
E. Indirect Cost				
Profit (10% of A, B, C & D)		1		42,9
Overhead Expense (13% of A, B, C & D)				55,8
VAT (10% of Labor, Profit & Overhead Expense)				23,8
Sub-Total of	2			66,8
Total of Construction Cost (A+B+C+D+E)				430,5
F. Estimated Government Expenses	1	1		´
1. Preliminary & Detailed Engineering Cost		LS		3,6
		LS		2,4
2. Construction Supervision		LS		1,4
3. Water Quality Analysis Sub-Total of	.+			7,4
				437,9
GRAND TOTAL				437,5

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

L\_\_\_\_SAX 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

Description	Qty.	Unit	Unit Cost	Cost
A. Mobilization/Demobilization/Site Preparation		LS		54,000
3. Drilling of Well & Installation of Steel Casing/Screen				
1. Materials				
(1) 100mm x 3m PVC Casing with Socket	24	pcs.	2,038	48,91
(2) 100mm x 3m PVC Casing with Plug	1	pc.	980	98
(3) 100mm x 3m Stainless Steel Screen	2	pcs.	12,700	25,40
(4) Casing Centralizer	2	set	1,925	3,85
L Labor, Fuel, Lubricant and others				
Well Drilling for 40 m depth at 200mm borehole	80	m	2,500	200,00
B. Borehole Logging	1	no	18,000	18,00
<ol> <li>Freight Cost (10% of Materials)</li> </ol>	-	LS		7,91
Sub-Total of B	1		. 1	305,05
C. Well Development and Pumping Test				
	24	hr.	5,500	132,00
Well Development	6	hr.	5,000	30,00
Pumping Test	U	111,	5,000	162,00
Sub-Total of C		}		102,00
). Gravel Packing, Installation of Handpump and Constru		tanorm. I		
1. Materials			11.016	11.0
(1) Improved Deep Well Cylinder Pump (Afridev Type)	1	set	11,815	11,8
(2) 63mm x 3m PVC Riser Pipe and SUS Pump Rod	16	pcs.	2,450	39,20
(3) #10 Sieved Gravel	1	çu.m	1,026	1,0
(4) Coarse Sand	- 1	cu,m	359	3
(5) Cement for Sanitary Seal	4	bags	127	51
(6) Pump Base and Platform	:	1.1		
1) Cement	4	bags	127	5
2) Gravel	2	cu.m	454	- 9
3) Sand	1	cu.m	359	3
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	<b></b>
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	52	3
6) Nail	1 1	kg.	40	· · · ·
Sub-Total of D-1				55,3
2. Labor (40% of D-1.)	<b>)</b>			22,1
		LS		5,5
3. Freight Cost (10% of Materials) Sub-Total of D				82,9
	<u>'</u>			0-1
E. Indirect Cost		1 .		60,4
Profit (10% of A, B, C & D)				78,5
Overhead Expense (13% of A, B, C & D)				36,1
VAT (10% of Labor, Profit & Overhead Expense)	.l	l		
Sub-Total of H	<u></u>			96,5
Total of Construction Cost (A+B+C+D+E)		~ <b>_</b>		568,5
F. Estimated Government Expenses	i		1	
1. Preliminary & Detailed Engineering Cost		LS		3,0
2. Construction Supervision	I	LS		2,4
3. Water Quality Analysis		LS		1,4
Sub-Total of	F		1	7,
GRAND TOTAL			Į	575,
SAY		1		576,

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

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

Description	Qty.	Unit	Unit Cost	<u>(Cost Pese</u> Amount
A. Mobilization/Demobilization/Site Preparation	1	LS	Ī	56,00
B. Drilling of Well & Installation of Steel Casing/Screen	· · · ·			
1. Materials				
(1) 100mm x 3m Steel Casing with coupling	37	pcs.	2,846	105,30
(2) 100mm x 3m Steel Casing with one end closed		pc.	2,997	2,99
(3) 100mm x 3m Low Carbon Steel Screen	2	pes.	4,667	9,33
(4) Casing Centralizer	2	set	1,925	3,85
2. Labor, Fuel, Lubricant and others	2		.,	5,0.
Well Drilling for 120 m depth at 200mm borehole	120	m	2,500	300,00
3. Borchole Logging	1	no	20,000	20,00
	1	LS	20,000	12,14
4. Freight Cost (10% of Materials) Sub-Total of B		1/0	•••••	453,63
C. Well Development and Pumping Test	24	hr.	5,500	132,00
Well Development				
Pumping Test	6	<u>hr.</u>	5,000	30,0
Sub-Total of C	41 C D			162,0
D. Gravel Packing, Installation of Handpump and Construc	tion of P	lattorm		
1. Materials				
(1) Improved Deep Well Cylinder Pump (Afridev Type)	· · · · ·	set	11,815	11,8
(2) 63mm x 6m Riser Pipe and Pump Rod	10	-	1,880	
(3) #10 Sieved Gravel	1	cu.m	1,026	
(4) Coarse Sand	1	cu.m	359	
(5) Cement for Sanitary Seal	4	bags	127	. 5
(6) Pump Base and Platform		1	100 C	
t) Cement	4	bags	127	5
2) Gravel	2	cuim	454	. 9
3) Sand	1	cu.m	359	3
4) Plywood (1,200mm x 2,400mm x 6mm)	1	pc.	294	2
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	52	3
6) Nail	1	kg.	40	]
Sub-Total of D-1				34,9
2. Labor (40% of D-1.)				13,9
3. Freight Cost (10% of Materials)		LS		3,4
3. Fleight Cost (1076 of that charsy Sub-Total of D	+	1		52,3
				· · · · · ·
E. Indirect Cost				72,4
Profit (10% of A, B, C & D)	1 1 2	1		94,1
Overhead Expense (13% of A, B, C & D)				48,0
VAT (10% of Labor, Profit & Overhead Expense) Sub-Total of E	<b>+</b>	+		120,4
	<b>├</b>	<u> </u>	- <u> </u>	712,4
Total of Construction Cost (A+B+C+D+E)	<b> </b>			114,
F. Estimated Government Expenses	1	1 10		1
1. Preliminary & Detailed Engineering Cost				3,0
2. Construction Supervision				2,4
3. Water Quality Analysis	<b></b>	<u>LS</u>		<u> </u>
Sub-Total of H	·			7,
GRAND TOTAL	1	1		719,
SAY			<u> </u>	719,

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

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Note: LS - Lump Sum Note: DPWH standard price in 1994 & LWUA Water Supply Feasibility Study Methodology Manual 1998 Unit Cost Adjusted to 1998 Price Level

Description	Qty.	Unit	Unit Cost	(Cost: Peso) Cost
A. Mobilization/Demobilization/Site Preparation		LS		56,000
3. Drilling of Well & Installation of Steel Casing/Screen				50,000
1. Materials				
(1) 100mm x 3m Steel Casing with coupling	37	pcs.	2,846	105,302
(1) 100mm x 3m Steel Casing with one end closed	, , , , , , , , , , , , , , , , , , ,	•	2,040	2,997
(2) 100mm x 3m Steel Casing with one end closed	2	pc.	4,667	
(4) Casing Centralizer	0	pcs.		9,334
2. Labor, Fuel, Lubricant and others	U	set	1,925	<b></b>
Well Drilling for 120 m depth at 150mm borehole	120		1.600	102.000
	120	m	1,600	192,000
3. Borehole Logging	1	no	20,000	20,000
4. Freight Cost (10% of Materials)		LS		11,763
Sub-Total of B				341,396
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 Constru	ction of P	latform		
1. Materials				
(1) Improved Deep Well Cylinder Pump (Afridev Type)	1 - 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	(
(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	90
3) Sand	j 1	cu.m	359	.35
4) Plywood (1,200mm x 2,400mm x 6mm)	1 1	pc.	294	. 294
5) Form Lumber (50mm x 75mm x 1,800mm)	6	pcs.	52	- 31
6) Nail	1	kg. 🗉	40	4
Sub-Total of D-1				33,77
2. Labor (40% of D-1.)	1.1	1.1		13,51
3. Freight Cost (10% of Materials)		LS		3,37
Sub-Total of B	1	1	1	50,66
E. Indirect Cost	· :		1	
Profit (10% of A, B, C & D)				54,40
Overhead Expense (13% of A, B, C & D)				70,72
VAT (10% of Labor, Profit & Overhead Expense)				33,06
Sub-Total of F	<b>+</b>	••••••••••		87,47
Total of Construction Cost (A+B+C+D+E)		<u> </u>	· ·	565,53
F. Estimated Government Expenses	1	1		
1. Preliminary & Detailed Engineering Cost		LS		3,60
		LS		2,40
2. Construction Supervision		LS		1,40
3. Water Quality Analysis	;+	+ <u></u>		
Sub-Total of I	` <b> </b>	<b></b>		7,40
GRAND TOTAL SAY				572,93 572,90

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

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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

ption	Quantity	Unit	Unit Cost	Cost
. Mobilization/Demobilization/Site Preparation		LS		56,000
3. Drilling of Well & Installation of Steel Casing/Screen				
Materials				
(1) 100mm x 3m PVC Casing with Socket	37	pcs.	2,038	75,40
(2) 100mm x 3m PVC Casing with Plug	1	pc.	980	989
(3) 100mm x 3m Stainless Steel Screen	2	pcs.	12,700	25,40
(4) Casing Centralizer	2	set	1,925	3,85
2. Labor, Fuel, Lubricant and others				
Well Drilling for 120 m depth at 200mm borehole	120	m	2,500	300,00
3. Borehole Logging	1	no	20,000	20,00
4. Freight Cost (10% of Materials)		LS		10,56
Sub-Total of B				436,20
C. Well Development and Pumping Test				
Well Development	24	hr.	5,500	132,00
Pumping Test	6	hr.	5,000	30,00
Sub-Total of C	Ĭ		2,000	162,00
D. Gravel Packing, Installation of Handpump and Constru-	tion of Pl	atform	[ [	
1. Materials		attorin		
(1) Improved Deep Well Cylinder Pump (Afridev Type)	· 1	set	11,815	11,81
(1) Improved Deep well Cynnaer Punp (Arndev Type) (2) 63min x 3m PVC Riser Pipe and SUS Pump Rod	20	pcs.	2,450	49,00
	20	cu.m	1,026	1,02
(3) #10 Sieved Gravel	L : 1	cum	359	35
(4) Coarse Sand	4	bags	127	50
(5) Cement for Sanitary Seal		Uags	127	
(6) Pump Base and Platform		bags	127	50
1) Cement		-	454	90
2) Gravel	2	cu.m	359	39
3) Sand		cu.m	294	29
4) Plywood (1,200mm x 2,400mm x 6mm)		pc.	52	31
5) Form Lumber (50nun x 75mm x 1,800nun)	6	pcs.		2
6) Nail		kg.	40	
Sub-Total of D-1			1	65,12
2. Labor (40% of D-1.)				26,03
3. Freight Cost (10% of Materials)		LS		6,5
Sub-Total of D	1	<b>_</b>		97,69
E. Indirect Cost				
Profit (10% of A, B, C & D)				75,1
Overhead Expense (13% of A, B, C & D)				97,7
VAT (10% of Labor, Profit & Overhead Expense)				49,8
Sub-Total of E	<u> </u>		· · ·	125,0
Total of Construction Cost (A+B+C+D+E)		<b>_</b>		744,9
F. Estimated Government Expenses		· ·		
1. Preliminary & Detailed Engineering Cost		LS		3,6
2. Construction Supervision		LS		2,4
3. Water Quality Analysis		LS		1,4
Sub-Total of I	F			7,4
GRAND TOTAL	1			752,3
SAY				752,4

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

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

Description	Q'ty	Unit	Unit Cost	Amount
A. Mobilization/Demobilization		LS		8,00
3. Well Rehabilitation	•			
I. Materials		1	1	•
(1) Cylinder Pump Set	1	set	9,570	9,57
(2) Cement for Surface Sealing	4	bags	127	50
(3) Pump Base and Platform				
1) Cement	4	bags	127	50
2) Gravel	2	cu.m	454	90
3) Sand	1	cu.m	359	35
4) Plywood (4' x 8' x 1/4")	1	pc.	294	29
5) Form Lumber (2" x 3" x 6")	6	pcs.	52	31
6) Nail	1	kg.	40	4
Sub-Total of B-1				12,49
2. Labor (40% of B-1)		1.1		5,00
3. Freight Cost (10% of Materials)				1,25
Sub-Total of B		·		18,74
C. Well Development		LS		31,00
				1. T.B.
D. Indirect Cost				
Profit (10% of A, B & C)			:	5,77
Overhead Expense (13% of A, B & C)	· ·		10.00	7,50
VAT (10% of Profit & Labor)				4,17
Sub-Total of D			· · · _ ·	17,46
Total of Construction Cost (A+B+C+D)				75,20
	·	]	· · · · · · · · · · · · · · · · · · ·	
E. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost		LS		1,30
2. Supervision		LS		80
3. Water Quality Analysis	<u></u>	LS		1,4(
Sub-Total of F	2			3,51
GRAND TOTAL	1	1		78,7

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

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Note: LS - Lump Sum Source: DPWH standard price in 1994 Unit Cost: Adjusted to 1998 Price Level

Description	Q'ty	Unit	Unit Cost	(Cost: Peso Amount
\. Mobilization/Demobilization		LS		20,00
B. Drilling of Well & Installation of Steel Casing/S	creen			20,00
1. Materials				
	2	Des	912	1,82
(1) 63mm x 6m PVC Pipe with socket	2	pes.		
(2) 63mm x 3m PVC Pipe with plug	1 1	pc.	452	45
(3) 63mm PVC Socket	1	pc.	12	1
(4) 63mm x 3m PVC Screen	i a	pc.	1,443	1,44
(5) Casing Centralizer	2	set	725	1,45
2. Labor, Fuel, Lubricant and others	• •			
Well Drilling for 18 m depth at 150mm borehole	18		1,600	28,80
3. Freight Cost (10% of Materials)		LS		37
Sub-Total of B				34,35
C. Well Development	4	hr.	2,000	8,00
D. Gravel Packing, Installation of Handpump and	Constru	ction of I	Platform	
1. Materials				
(1) 50mm Jetmatic Handpump	1	set	2,807	2,80
(2) 50mm Riser Pipe and Foot Valve	1	pc.	118	11
(3) #10 Sieved Gravel	0.1	cu.m	1,026	10
(4) Coarse Sand	0.07	cu.m	359	: 2
(5) Cement for Sanitary Seal	4	bag	127	50
(6) Pump Base and Platform				
1) Cement	4	bags	127	50
2) Gravel	1	cu.m	454	4:
3) Sand	1	cu.m.	359	3:
4) Plywood (1,200mm x 2,400mm x 6mm)	1 1	pc.	294	29
5) Form Lumber (50mm x 75mm x 1,800 mm)	1	pc.	52	:
6) Nail	1	kg.	40	
Sub-Total of D-1				5,2
	1			2,1
2. Labor (40% of D-1.)		LS		-,-
3. Freight Cost (10% of Materials) Sub-Total of D		+		7,9
	<u> </u>			
E. Indirect Cost				7,0
Profit (10% of A to D)				9,1
Overhead Expense (13% of A to D)				1,6
VAT (10% of Profit & Overhead Expense)				8,6
Sub-Total of E	<del> </del>			
Total of Construction Cost (A+B+C+D+E)				78,8
F. Estimated Government Expenses				· · ·
1. Preliminary & Detailed Engineering Cost		LS		1,3
2. Construction Supervision		LS		8
3. Water Quality Analysis		LS		1,4
Sub-Total of I	7			3,5
GRAND TOTAL				82,3
SAY				82,4

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

Note: LS - Lump Sum

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Source: DPWH standard price in 1994 & LWUA Water Supply Feasibility Study Methodology Manual 1998 Unit Cost: Adjusted to 1998 Price Level

Q'ty	Unit	Unit Cost	
	LS		Amount 24,000
	1		
	1.5		42,700
			14,945
	-		4,270
• • • • • • • • •			61,915
			01,713
220	DOO	920	316,470
1.1	•	1	172
-		1	3,640
1	•	1	
د » ۱			267
1			1 200
2	- · ·		1,800
l	•		177
1	pc.	1 1	12
-	-		576
			158
	1 *	3	
2	pes.	59	
ł			325,624
	LS		113,968
	LS		32,562
	<u> </u>		472,15
l			· · · ·
· ·	<b>)</b> .		47,21
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		61,38
- · ·	1 1.1		22,25
		· · .	· ·
1			25,77
	· ·		8,59
		Į	4,93
1	-	1	170,14
1	1	1	1
			728,21
1			
ion	LS		2,40
1	LS		15,00
:	LS		1,40
2			18,80
·+		- <del> </del>	
	l		747,01
1	330 1 26 3 1 2 2 2 2 2 2 2 2 2 2	I.S         330       pcs.         1       no.         26       cans         3       nos.         1       pc.         2       pcs.         1       pc.         2       pcs.         1       S         1       pc.         1       pc.         1       pc.         2       pcs.         2       pcs.         1       LS         LS       LS         Ion       LS         LS       LS	LS         I.S         I.S         I.S         I.S         1         no.         1         no.         1         no.         1         no.         1         no.         1         no.         1         pc.         99         2         pcs.         900         1         pc.         1         pc.         99         2         pcs.         100         113         2         pcs.         113         2         pcs.         113         2         pcs.         113         113         113         114         115         115         1167         117         118         119         110         110         1110         1111      <

# Table 10.2.7 Unit Cost of Level I (Spring Development)

(A)

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Note: LS - Lump Sum Source: US

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 11 (600 Service Population)

Description	Q'ty	Unit	Unit Cost	Amount
Mobilization/Demobilization		LS		36,000
. Construction of Spring Box & Ground Reservoir				
. Materials		LS	1	128,00
. Labor (35% of 1.)		LS		44,80
. Freight Cost (10% of Materials)		LS		12,80
Sub-Total of B				185,60
. Installation of Pipelines & Fittings				
. Transmission Pipeline Materials				
63mm dia, PVC Pipe (Class 12.5 with socket)	500	pcs.	959	479,50
63mm dia. Tee	1	no.	172	17
Solvent Cement	40	cans	140	5,60
63mm dia. x 50mm Nipple	3	nos.	159	47
63mm dia. Union Patent	1	pc.	203	20
63mm dia. x 50mm dia. Reducing Socket	2	pcs.	123	24
63mm dia. Elbow (90 deg.)	1	pc.	89	8
63mm dia. Elbow (45 deg.)	1	· pc.	99	ļ.
63mm dia. Gate Valve	3	pcs.	1,320	3,9
Sub-Total of Materials				490,34
Labor (35% of Material Cost)		LS		171,6
Freight Cost (10% of Materials)		LS		49,0
Sub-Total of Transmission Main				711,0
2. Distribution Pipeline Materials		1		
50mm dia. PVC Pipe (Class 12.5 with socket)	20	pcs.	531	10,6
38mm dia. PVC Pipe (Class 12.5 with socket)	30	pcs.	353	10,5
20nm dia. PVC Pipe (Class 40 with socket)	10	pcs.	118	1,1
13mm dia. x 1 m Stand Pipe	10	pcs.	110	1,1
Solvent Cement	4	cans	140	5
Fittings			1	
a. 50mm dia. x 150mm PVC Nipple	3	pcs.	147	4
b. 32mm dia. x 150nun PVC Nipple	3	pcs.	89	2
c. 13mm dia. x 150mm GI Nipple	40		29	1,1
d' 50mm dia. Union Patent		pcs.	192	1
e. 32mm dia. Union Patent	1 2	pcs.	83	1
f. 13mm dia. Union Patent	1 10	) pcs.	29	1
g. 50mm dia. x 32mm dia. Reducing Socket		pcs.	106	(
h. 32mm dia. x 20mm dia. Reducing Socket	1		82	
i. 20mm dia. x 13mm dia. Reducing Socket	1		64	ļ.,
j. Somm dia. PVC Elbow (90 deg.)		1 •	64	
k. 13mm dia. GI Elbow (90 deg.)	2		15	
1. 20mm dia. x 13mm dia. Socket Adapter	1		48	
m. Somm dia. Gl Gate Valve		2 pcs.	791	1,
n. 32mm dia. GI Gate Valve		2 pcs.	447	
o. 13mm dia. Gl Gate Valve	2		271	6,
p. 13mm dia. Brass Faucet	2		59	
g. Somm dia. Tee	1	4 pcs.	153	1
r. 32mm dia. Tee		6 pes.	129	
	1	4 pcs.	1,004	1
s. Water Meter		4 pcs.		
t. Water Meter Box Sub-Total of Material			-,	96,

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Description	Q'ty	Unit	Unit Cost	Amount
Labor (35% of Material Cost)		LS		33,802
Freight Cost (10% of Materials)	1	LS		9,658
Sub-Total of Distribution Pipeline				140,036
Sub-Total of C				851,038
). Indirect Cost				•
1. Transmission Main				
Profit (10% of C-1)		LS		71,100
Overhead Expense (13% of C-1)		LS		92,430
VAT (10% of Profit, Overhead Expense and Labor)		LS		33,515
2. Source Facilities and Distribution Pipeline				
Profit (10% of A, B, C-2)		LS		36,164
Overhead Expense (13% of A, B and C-2)		LS		47,01.
VAT (10% of Profit, Overhead Expense and Labor)		LS		16,178
Sub-Total of D			Ι	296,400
				the second
Total Construction Cost (A+B+C+D)		ł		1,369,03
E. Estimated Government Expenses				
1. Preliminary & Detailed Engineering and RWSA Formatio	n	LS	1	2,40
2. Supervision		LS		15,00
3. Water Quality Analysis		LS		1,40
Sub-Total of E	. :			18,80
Total Estimated Cost				1,387,83
	• • • •	· · · · ·	· · · · · ·	<u> </u>
Unit Cost per Person Served	:			2,31
SAY				2,30

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

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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

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Description	Q'ty	Unit	Unit Cost	Amount
A. Mobilization/Demobilization		LS	***	360,000
3. Source Development and Storage				
I. 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	:		11 I	
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	2,288,00
F. Miscellancous				, and dig
1. Vehicle	1	No.	649,000	649,00
2. Office & Workshop Bldg.	1	No.	645,000	645,00
3. Office Equipment	1	LS	118,000	118,00
4. Tools and Spare Parts	1	LS	110,000	110,00
Sub-Total of F				1,522,00
Total Direct Cost (A+B+C+D+E+F)				20,059,00
G. Indirect Cost (25% of Direct Cost)	· · · ·			5,014,75
		· · · · ·		
Total Estimated Cost				25,073,75
Unit Cost per Person Served				
For New Construction				5,01
	] :	<b>_</b>	SAY	5,00
For Expansion of Existing System (Exclude	F.)			4,6
			SAY	4,6

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

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

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Dense in Alexandre	<u> </u>	11.14	Units Chart 1	(Cost: Peso)
Description	Q'ty	Unit	Unit Cost	Amount
A. Mobilization/Demobilization		LS		360,000
3. 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	ı	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	:			and participa
1. Vehicle	1	No.	649,000	649,00
2. Office & Workshop Bldg.	1	No.	645,000	645,00
3. Office Equipment	1	ES	118,000	118,00
4. Tools and Spare Parts	· 1	LS	110,000	110,00
Sub-Total of F				1,522,00
Total Direct Cost (A+B+C+D+E+F)				29,810,00
G. Indirect Cost (25% of Direct Cost)				7,452,50
Total Estimated Cost	;	<u>.</u>		37,262,50
Unit Cost per Person Served For New Construction				3,77 3,70
For Expansion of Existing System (Exclude	F.)			3,51 3,51

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

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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

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Description	Q'ty	Unit	Unit Cost	Amount
A. Mobilization/Demobilization		LS		360,00
3. Source Development and Storage				
1. Deep Well	2	No.	2,001,000	4,002,00
2. Deep Well Pump	2	No.	832,000	1,664,00
3. Chlorinator House & Equipment	2	LS	632,000	1,264,00
4. Storage Tank (250 cu.m)	2	No.	1,300,000	2,600,00
Sub-Total of B				9,530,00
C. Transmission Main				
1. 160mm dia.	1,000]	LM	1,320	1,320,00
Sub-Total of C				1,320,00
D. Distribution Main		;		
1. 160mm dia.	3,000	LM	1,320	3,960,00
2, 110mm dia.	7,000	LM	1,090	7,630,00
3. 90mm dia.	8,000	LM	684	5,472,00
4. 75mm dia.	10,000	LM	637	6,370,00
Sub-Total of D		:.		23,432,00
E. Service Connections	3,000	Nos.	2,288	6,864,00
F. Miscellaneous				
1. Vehicle	1	No.	649,000	649,00
2. Office & Workshop Bldg.	1	No.	645,000	645,00
3. Office Equipment	1	LS	118,000	
4. Tools and Spare Parts	1	LS	110,000	110,00
Sub-Total of F				1,522,00
Total Direct Cost (A+B+C+D+E+F)				43,028,00
G. Indirect Cost (25% of Direct Cost)				10,757,0
Total Estimated Cost				53,785,0
Unit Cost per Person Served		1		
For New Construction		1		3,5
				3,6
For Expansion of Existing System (Exclude	F.)	†		3,4
	1	1 · · ·		3,5

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

Note: LS - Lump Sum

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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

	Description	Q'ty	_Unit_]	Unit Cost	Amount
	Demolition		LS		1,100
	Earthwork				
	1. Materials			19 - C	1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -
		,	a	45.4	
	(1) Gravel Fill	1	cu.m	454	454
	Sub-Total of B-1				454
	2. Labor	l l		i i i i i i i i i i i i i i i i i i i	
:	(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
•	Concrete Work		<u> </u>		
•	1. Materials	1	· · ·		
1					
	Slab on wood planks	100	110		
	(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
$\sim 10^{-1}$	(7) Stone Lining with Mortar	1	LS	1,250	1,250
	Sub-Total of C-1			1,250	5,294
		· ·		1. A	
	2. Labor (30% of C-1) Sub-Total of C				1,588
		·			6,882
<b>.</b> .	Carpentry Work	:			
	1. Materials	(0			100
	(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 1	20
	Sub-Total of C-1				1,15
	2. Labor (30% of C-1)	1997 - L	1	1.0	34
· .	2. Labor (50% 01 C-1) Sub-Total of C	+	+	•	1,49
	Plumbing		+	·	
		1.1.1			
:	1. Materials			4.000	100
•	(1) Water Closet		set	4,900	4,90
	(2) Water line and sanitary fixtures		LS	1,650	1.65
	Sub-Total of E-1	· · ·			6,55
	2. Labor (30% of E-1)	Į			1,96
	Sub-Total of E	·	1		8,51
F,	Transportation Cost	1	LS	540	54
	(excluding indigenous materials)	<u> </u>			<u> </u>
G.	Indirect Cost		1		1 .
-	Profit (10% of A - F)				2,02
	VAT (10% of Profit & Labor)	1	1		71
	Sub-Total of H	<b>a</b> ti			2,74
			-+		22,99
	Total of Construction Cost		1		1 ZZ.99

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

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

	Description	Q'ty	Unit	Unit Cost	(Cost: Pese
۲	Eardiwork	<u></u>	OBIL	URI COST	Amount
	1. Materials				
		,			<b>.</b>
	(1) Gravel Fill	1	cu.m	454	454
	Sub-Total of A-1				454
	2. Labor				
	(1) Excavation	6	cu.m	140	84(
	(2) Backfill	2	cu.m	127	254
	(3) Gravel Fill	1		166	
•		1	¢u.m	100	160
	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	90
	(7) Stone Lining with Mortar	1	LS	1,250	1,250
:	Sub-Total of B-1	•	20	1,250	5,294
	2. Labor (25% of B-1)				1,32
	Sub-Total of B				6,61
Ċ.	Carpentry Work		1997 - 19	-	
	1. Materials				
	(1) Nipa	60	pc.	2	120
11	(2) 1.5m x 1.8m, amakan	3	pc.	75	22
	(3) $2^{9} \times 3^{9} \times 10^{\circ}$ Coco Lumber	20	bd.ft		220
			bd.ft	10	
	(4) 2" x 2" x 10' Coco Lumber	33.3			33.
	(5) 3 <sup>n</sup> dia. Bamboo	3	light	21	6
	(6) Assorted CWN	4	kg	43	17:
	(7) Rattan wire	20	pc.	1	2
:	(8) Pale (medium)	1	pc.	203	20
	(9) 3" dia. PVC x 3m	1	pc.	665	66
		2		70	14
	(10) 3" dia. PVC Elbow	4	pc.		
	(11) PVC solvent	1	pint	54	5
	(12) Ga. 31" x 8' plain GI sheet	- 1	sheet	214	21
:	Sub-Total of C-1			1	2,42
· · :	2. Labor (25% of C-1)		1 ·		60
.	Sub-Total of C				3,03
<u> </u>			1		0,00
[ <b>D</b> .	Plumbing		1 · ·		
	1. Material				
	<ol> <li>Toilet Bowl-Squat Type</li> </ol>		pc.	703	70
	(2) 75mm dia x 6.0m PVC Pipe	1 1	pc.	152	15
	Sub-Total of D-1	Į	1		85
	2. Labor (25% of D-1)				21
	2 Labor (23% of D-1) Sub-Total of D		+		1,06
		<u>↓</u>		240	
E.	Transportation Cost		1 10	340	34
	(excluding indigenous materials)		<b>_</b>		ļ
F.	Indirect Cost				· · · · · · · · · · · · · · · · · · ·
<b>I</b> Î.	Profit (10% of A - D)	ļ	i		1,54
11	VAT (10% of Profit & Labor)		1		49
lí.	VAT 10% OF FIOR & LAUOF				
	Sub-Total of F	<b> </b>			2,04
	Total Construction Cost		1		14,81
11	(A+B+C+D+E+F)		1	SAY	14,80

#### Table 10.2.13 Unit Cost of Pour Flush with Double Pit Latrine

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Note: ES - Lunip Sum Source: DOH standard poce in 1993 Unit Cost: Adjusted to 1998 Price Level

Description	Q'ty	Unit	Unit Cost	Amount
Earthwork	· • // • · · · · · · · · · · · ·	مورشتان ورو		
1. Materials				•
(1) Gravel Fill	0.5	cម.៣	454	227
Sub-Total of A-1	0.5	Cu.m	474	
				227
2. Labor				
(1) Excavation	3	cu.m	140	420
(2) Backfill	1	çu.m	127	127
(3) Gravel Fill	0.5	cu.m	166	83
Sub-Total of A-2				63(
Sub-Total of A				857
Concrete Work	·			
I. Materials				
Slab on wood planks				
	c's	110	0	
(1) $2^{4} \times 8^{4} \times 6^{4}$ Coco Lumber	64	bd.ft	8	512
(2) 10mm dia x 6.0m Rebar	2	pc.	58	110
(3) #16 Tie Wire	0.5	kg	58	29
(4) Cement	.4	bag	137	54
(5) Sand	0.5	cu.m	359	180
(6) Gravel	0.5	cu.m	454	22
(7) Stone Lining with Mortar	· · · · · · · · · · · · · · · · · · ·	LS	1,200	1,20
(7) Stone Linnig with Mortal Sub-total of B-1		LU	1,200	
				2,81
2. Labor (25% of B-1)		<b> </b>	<b> </b>	70
Sub-Total of B		i	· · · · · · · · ·	3,51
Carpentry Work	,		1	
1. Materials		1		
(1) Nipa	60	pc.	2	12
(2) 1.5m x 1.8m, amakan	3	pc.	75	22
(3) 2" x 3" x 10' Coco Lumber	20	bd.ft	11	22
(4) 2" x 2" x 10' Coco Lumber	33.3	bd.ft	10	33
	33.3	light	21	6
(5) 3" dia. Bamboo	-		43	17
(6) Assorted CWN	4	kg		1
(7) Rattan wire	20	pc.		2
(8) 3" x 3" hinges	2	pc.	32	6
Sub-Total of C-1				1,21
2. Labor (25% of C-1)		<b>_</b>		30
Sub-Total of C				1,52
. Plumbing		1	1	
1. Material	17			
(1) 50mm dia. PVC Pipe	1	pc.	76	7
	1 1		59	Ś
(2) Fly Screen		pc.		13
Sub-Total of D-1	1	}		
2. Labor (25% of D-1)				4
Sub-Total of D		<u> </u>	<u></u>	17
. Transportation Cost	1	LS	170	12
(excluding indigenous materials)	L			
. Indirect Cost				
Profit (10% of A - E)				6
				2
VAT (10% of Profit & Labor)	; <b></b>	•+		8
Sub-Total of E	<u>`</u>			
Total Construction Cost				7,0
(A+B+C+D+E+F)	1	1	SAY	7,10

# Table 10.2.14 Unit Construction Cost of Ventilated Improved Pit Latrine

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

Description	Q'ty	Unit	Unit Cost	Amount
, Earthwork				
1. Materials			1	
(1) Gravel Fill	0.3	cu.m	454	136
Sub-Total of A-1	<b>v</b>			130
2. Labor			1	1.00
(1) Excavation	2	cu,m	140	280
(2) Backfill	0.6	cu.m	127	200
(3) Gravel Fill	0.3	cu.m	166	50
Sub-Total of A-2	V	ount	100	406
Sub-Total of A				542
3. Concrete Work		······································		
1. Materials				
Slab on wood planks				
(1) 2" x 8" x 6' Coco Lumber	38	bd.ft	8	304
(1) $2 \times 8 \times 6$ Coco Lumber (2) 10mm dia x 6.0m Rebar	58	pc.	。 58	58
(3) #16 Tie Wire	0.5	kg.	58	29
(4) Cement	0.3	кg. bag	137	411
(4) Cement (5) Sand	0.3	oag cu.m	359	108
(5) Sand (6) Gravel	0.3	cu.m cu.m	359 454	130
(0) Graver (7) Stone Lining with Mortar	0.3	LS	434 700	700
(7) Stone Lining with Motian Sub-total of B-1	1	LO	700	1,740
2. Labor (25% of B-1)	· .			430
Sub-Total of B				2,182
C. Carpentry Work	· .		· · · · · · ·	
1. Materials		1		
(1) Nipa	30	pc.	2	6(
(2) $1.0m \ge 1.8m$ , amakan	3	pe.	75	22
(3) 2" x 3" x 10' Coco Lumber	14	bd.ft	11	15
(4) 2" x 2" x 10' Coco Lumber	24	bd.ft	10	24
(5) 3" dia. Bamboo	3	light	21	6
(6) Assorted CWN	3	kg	43	12
(7) Rattan wire	14	pc,	1	1
(7) Kallali witc (8) 3" x 3" hinges	2	pc.	32	6
Sub-Total of C-1		PV.		94
2. Labor (25% of C-1)	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -			23
2. Labor (2378 of C-1) Sub-Total of C			•	1,18
D. Transportation Cost	1	LS	170	1,10
(excluding indigenous materials)	] `			
E. Indirect Cost		1		· · · · · · · · · · · · · · · · · · ·
Profit (10% of A -D)	· ·			39
VAT (10% of Profit & Labor)			1	16
Sub-Total of E		1	1	55
Total Construction Cost	<b> </b>	1		4,63
(A+B+C+D+E)			SAY	4,60
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

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<u></u>	of 5 Description	Q'ty	Unit	Unit Cost	(Cost: Peso Amount
	Mobilization and Demobilization	- 5-7	LS		6,000
~	Earthwork				0,000
1	. Materials				
•	(1) Gravel Fill	3	cu.m	454	1,362
	Sub-Total of B-1	Ĩ	vo.m		1,362
2	. Labor	1			1,302
2	(1) Excavation	16	cu.m	140	2,240
	(2) Backfill	5	cu.m	140	635
	(3) Gravel Fill	3	cu.m	166	498
	Sub-Total of B-2		co.m	100	
	Sub-Total of B			••••••	3,373
. <u> </u>	Concrete Work			· · · · · · · · · · · · · · · · · · ·	4,735
	. Materials				
•	(1) Cement	61	bags	137	8,357
	(2) Sand	4	cu m		
	(2) Sand (3) Gravel	8	cum	359 454	1,436
	(4) Rebars: 12mm dia x 6m	38		1 1	3,632
	(4) Recars: 12mm dia x om 10mm dia x 6m	38 57	pcs.	79 50	3,002
	(5) #16 Tie Wire	57 8	pcs.	58	3,306
		0	kg.	58	464
	(6) Formworks:	c		197	<b>a</b> a.ca
	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		1 G		25,059
. 4	2. Labor (30% of C-1)		LS	•••••	7,518
	Sub-Total of C		· · · ·		32,577
•	Masonry Work				
	1. Materials	000			* 000
	(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 бm	. 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
, <sup>1</sup> .	Sub-Total of D-1				26,64
· .	2. Labor (30% of D-1)		LS		7,99
	Sub-Total of D	· · · ·	ļ		34,63
 /•	Roofing Work				
. :	1. Materials				
	(1) GA #26 Corr. GI $(1 = 10')$	20	pes.	310	6,200
÷ .	(2) GA #24 Pln. GI Flashing	3	pes.	300	90
	(3) GA #24 Pln. GI Gutter (Pre-Fab)	9	pcs.	300	2,70
:	(4) Umbrella Nails 2-1/2"	12	kg.	50	60
	(5) Rafter - $2'' \times 5'' \times 18' = 5 \text{ pcs.}$	75	bf.	3,5	2,62
	(6) Purlins - $2'' \times 2'' \times 12' = 18$ pcs.	72	bf.	35	2,52
	(7) WD Cleats - $2'' \times 2'' \times 10'' = 6pcs$ .	20	bf.	35	70
	(8) Nailers - 2" x 2" x 12' = 30pcs.	120	bf.	35	4,20
	$-2" \times 2" \times 10' = 36 \text{pcs.}$	120	bf.	35	4,20

#### Table 10.2.16 Unit Cost of School Toilet

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10 - 24

cet 2 of 5	0110	Unit	Unit Cost	(Cost: Peso
Description	Q'ty			Amount
(9) Fascia Board	48	ЫÎ.	20	1 (00
$1^{"} \times 12^{"} \times 12^{"} = 4 \text{pcs}.$			35	1,680
$1^{"} x 12^{"} x 18^{"} = 2 \mu cs.$	36	bf.	34	1,224
(10) Wood Plate	0.7	1.0		<u>.</u>
$2'' \times 4'' \times 20' = 2pcs.$	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	14(
(15) 3" dia Coupling (PVC)	1	pes.	26	20
(16) Ceiling Vent				
$1^{"} \times 1^{"} \times 8' = 4 \text{pcs}.$	3	bf.	29	87
(17) Screen (1/8" x 1/8")	1	yd.	91	91
Sub-Total of E-1	ļ			30,17
2. Labor (30% of E-1)		LS		9,05.
Sub-Total of E				39,23
. Carpentry Work	7			
1. Materials				
(1) D - 1 Hollow Core Tanguile				·
Flush Type Door w/ Louver (.80x2.20)	2	sets	1,620	3,24
(2) D - 2 Hollow Core Tanguile				
Flush Type Door (.60x2.10)	1	sets	1,216	1,21
(3) D - 3 Louver Door (.60x1.40)	5	sets	1,013	5,06
(4) Door Jambs (Apitong)				
$2" \times 6" \times 14" = 1 \text{pc.}$	14	bf.	37	51
$2^{"} \times 6^{"} \times 10^{"} = 2 \text{pcs}.$	20	bf.	36	72
$2^{\circ} \times 6^{\circ} \times 10^{\circ} = 1 \text{pc}.$	18	bf.	35	63
$2" \times 4" \times 12" = 5pcs.$	40	bf.	34	1,36
(7) Wooden Jalousie Window				
With 5 Blades (.40x.50)	14	set	338	4,73
(8) Window Jambs (Apitong)	17	301	555	•,•
	80	bf.	- 36	2,88
$2^{"} \times 6^{"} \times 16^{"} = 5pcs.$	14	bf.	35	49
$2^{"} \times 6^{"} \times 14^{"} = 1pc.$		bf.	34	34
$2^{n} \times 6^{n} \times 10^{n} = 1 \text{pc.}$	10			٩ر ا
(9) Cabinet	· · ·		878	87
$3/4'' \times 4' \times 8' = 1$ pc. (plyboard)		pc.	070	
Sub-Total of F-1	· ·			22,06
2. Labor (30% of F-1)		LS		6,62
Sub-Total of F	ļ	<b> </b>		28,69
G. Tile Work		1 3.4		
1. Materials		1 ·	. · · .	
(1) 4-1/4" x 4-1/4", Glazed Tiles	1,950	pcs.	5	9,75
(2) 0.10m x 0.20m, Floor Tiles	900	pcs.	7	6,30
(3) Cement	4	bags	137	5
(4) White Cement	1	bag	742	74
Sub-Total of G-1		1		17,34
2. Labor (30% of G-1)		LS		5,20
Sub-Total of G		1	1	22,5

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#### Table 10.2.16 Unit Cost of School Toilet

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heet 3					(Cost: Peso)
	Description	Q'ty	Unit	Unit Cost	Amount
Ι.	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	pes.	98	686
	(6) 1-1/2" dia x 3m, PVC San. Pipe	4	pes.	59	236
:	(7) 2" dia. x 3m, PVC San. Pipe	4	pçs.	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	, 2 4		36	144
:	(12) 4 dia. $XZ$ dia. TEE PVC	3	pcs.	47	
			pcs.	1 1	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	pes.	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	<b>.</b>			19,325
<b>I</b> .	Painting				
	1. Materials				
	(1) Acrylic, Semi Gloss	8	gals.	295	2,360
	(2) Concrete Seater	4	gals.	233	932
	(3) Acri Color: Wood	4	gals.	200	800
1.	(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
1::	(10) Roof Paint (green, ready-mix)	2	gals.	319	638
	Sub-Total of I-1				8,499
:	2. Labor (30% of I-1)		LS		2,55
1	Sub-Total of I	1		1	11,04
3.	Electrical Work				
	1. Materials				1
	(1) 40 Watts Fluorescent Lamp	2	sets	289	57
	(2) Elect. Wire TW #12	24		7	16
	(3) Elect. Conduit - 1/2" dia x 10"	4		88	35
	(4) Entrance Cap. 1/2" dia	1	pc.	32	3
	(5) Switch Outlet, Flush Type	2	i .	44	8
ll 🛛	(6) Utility Box 2"x3"	2	1 '	12	2

#### Table 10.2.16 Unit Cost of School Toilet

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	1 of 5 Description	Q'ty	Unit	Unit Cost	(Cost: Peso 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
ζ.	Hardware				2,507
	1. Materials				
	(1) 3" x 3" Butt Hinges (Loose Pin)	10	pcs.	20	200
	(2) 4" x 4" Butt Hinges (Loose Pin)	12	pes.	36	432
:	(3) Door Lockset (Schlage US)	3	pes.	650	1,950
	(4) Barrel Bolt (4")	5	pes. pes.	45	225
		5	•	45	
	(5) Cabinet Pull (4")		pcs.	1	35
	(6) Water Storage Cover				
	Checkered Plate 1/4" thick			1.112	
	1-7/16" x 5/8", L-bar & flat bar	1	set	1,116	1,110
	5/8" x 9/16", L-bar & flat bar	2	set	629	1,258
	(7) Padlock	1	pcs.	429	429
1	Sub-Total of K-1				5,64
	2. Labor (30% of K-1)		LS		1,69
	Sub-Total of K	·			7,33
.ر]	Septic Tank and Sewage Basin	1			1
	1. Materials	:			
1	(1) 4" CHB	180	pcs.	5	90
	(2) Cement	- 18	bags	137	2,46
	(3) Sand	2	cu.m	359	71
	(4) Gravel	· 1	cu.m	454	45
	(5) Rebars: 10mm dia x 6m	29	pcs.	58	1,68
	(6) #16 Tie Wire	2	kg.	58	11
	(7) Formworks: Coco Lumber				·
	$2^{"} \times 3^{"} \times 10^{"} = 12 \text{ pcs.}$	60	bf.	- 11	66
	1/4" x 4' x 8', Plywood ord.	2	pcs.	477	95
	C.W.N. (Assorted)	2	kg.	43	8
	Sub-Total of L-1				8,03
	2. Labor (30% of L-1)		LS		2,41
÷.,	Sub-Total of L		[		10,44
M.	Shallow Well (18 depth)	·		1 · · · · · · · · · · · · · · · · · · ·	:
	a. Drilling of Well & Installation of				
1	Steel Casing/Screen		ļ .	· · · · · · · · · · · · · · · · · · ·	
	1. Materials				1
	(1) 63mm x 6m PVC Pipe with socket	2	pcs.	912	1,82
	(2) 63mm x 3m PVC Pipe with plug	1	pc.	452	45
	(3) 63mm PVC Socket	1	pc.	12	l di a j
l	(4) 63mm x 3m PVC Screen	1	pc.	1,443	1,44
	Sub-Total of M-a-1	1	1		3,72
	2. Labor, Fuel, Lubricant and others	1	1 .		
	2. Labor, Fuer, Eubricant and others Well Drilling for 18m depth at				
	÷ .	18	m	1,600	28,80
	150mm borchole Sub-Total of M-a		· · · · · · · · · · · · · · · · · · ·	1,000	
	Sub-Totat of M-3	4	ł	1	32,53

# Table 10.2.16 Unit Cost of School Foilet

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cet S of S	011	Unit	Unit Cost	(Cost: Peso)
Description	Q'ty	Unit	UBILCOST	Amount
. c. Gravel Packing, Installation of Hand-				
Pump and Construction of Platform				
1. Materials				0.007
(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	3,59
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		LS		18,042
excluding sand and gravel)	·		<u> </u>	
). Indirect Cost		<b>]</b> .		
Profit (10% of A - N)	1		· ·	27,697
VAT (10% of Profit & Labor)			]	8,108
Sub-Total of O				35,805
Total of Construction Cost				312,77
(A to O)			100 - A.	
P. Estimated Government Expenses				
1. Preliminary & Detailed Engineering Cost	1	LS	2,400	2,40
2. Construction Supervision	1	LS	1,800	1,80
Sub-Total of F	5	1		4,20
GRAND TOTAL		1		316,97
			SAY	317,00

#### Table 10.2.16 Unit Cost of School Toilet

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

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10 - 28

*===	Description	Q'ty	Unit	Unit Cost	Amount
	Mobilization and Demobilization		LS		7,000
	(2.4% of B - M)				
	Earthwork				
	Materials				
•	(1) Gravel Pill	3	cu.m	454	1,362
	Sub-Total of B-1				1,36
,	2. Labor				.,
. 4	(1) Excavation	15.88	çu.m	140	2,22
	(2) Backfill	4.97	cu.m	127	63
	(3) Gravel Fill	3	cu.m	166	49
	(3) Graver Fill Sub-Total of B-2	,	Coati	100	3,35
	Sub-Total of B				4,71
					4,71
	Concrete Work			-	
1	1. Materials	61	Lana	137	0.36
	(1) Cement	61	bags	137	8,35
	(2) Sand	4	cu.m	359	1,43
: .	(3) Gravel	8	<b>c</b> ដ.m	454	3,63
	(4) Rebars: 12mm dia x 6m	38	pes.	79	3,00
	10mm dia x 6m	57	pcs.	58	3,30
	(5) #16 Tie Wire	8	kg.	58	46
	(6) Formworks:	· · ·			
	1/4" Plywood	6	pcs.	477	2,86
	2" x 2" x 10" (Coco Lumber)	200	bd.ft.	10	2,00
	Sub-Total of C-1				25,05
	2. Labor (30% of C-1)				7,51
	Sub-Total of C				32,57
D.	Masonry Work				
	1. Materials	÷	ĺ		
	(1) 6" CHB	800	pes.	6	4,80
	(2) 4" CHB	260	pcs.	5	1,30
· · .	(3) Cement	97	bags	137	13,28
	(5) Sand	10	cu.m	359	3,59
	(6) Rebars: 12mm dia x 6m	30	pcs.	79	2,3
	10mm dia x 6m	11	pcs.	58	6
• •	(7) #16 Tie Wire	4	kg.	58	2
	(8) Scaffolding:		Ĩ		
	$2'' \times 4'' \times 8'' = 10$ pcs. (Coco Lumber)	53.33	bf.	8	<b></b> - <b>4</b>
	Sub-Total of D-1	1			26,6
	2. Labor (30% of D-1)			1999 - 1997 - 19	7,9
	2. Labor (5070 of D 1) Sub-Total of D				34,6
E.	Roofing Work		<u> </u>		
£.	1. Materials				
	(1) GA #26 Corr. GI $(1 = 10^{\circ})$	20	pes.	310	6,2
	$(1) \cup A \# 20 \cup 011, 01 (1 - 10)$		pes.	300	
	(2) GA #24 Pln. GI Flashing		pcs.	300	τ
	(3) GA #24 Pln. Gl Gutter (Pre-l'ab)			50	
	(4) Umbrella Nails 2-1/2"				1
	(5) Rafter - $2'' \times 5'' \times 18' = 5pcs$ .	7	£	35	
	(6) Purlius - $2'' \times 2'' \times 12' = 18$ pcs.	7.		35	
1	(7) WD Cleats - $2^{"} \times 2^{"} \times 10^{"} = 6 \text{pcs.}$	2	0 bf.	. 35	

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# Table 10.2.17 Unit Cost of Public Toilet

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# Table 10.2.17 Unit Cost of Public Toilet

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icet 2 of 5				(Cost: Peso)
Description	Q'ty	Unit	Unit Cost	Amount
(8) Nailers - $2^n \times 2^n \times 12^i = 30$ pcs.	120	bf.	- 35	4,200
-2" x 2" x 10' = 36pcs.	120	bf.	35	4,200
(9) Fascia Board			ļ	×
$1^{n} \times 12^{n} \times 12^{n} = 4 \text{pcs}.$	48	bf.	35	1,680
$1'' \times 12'' \times 18' = 2 \mu cs.$	36	bf.	34	1,224
(10) Wood Plate				
$2^n \times 4^n \times 20^r = 2pcs.$	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
(12) C.W.W. Associed (13) 3" dia x 3m Downspout (PVC)	3	pcs.	91	273
(14) 3" dia Elbow (PVC)	2	pcs.	70	140
	- 4		26	26
(15) 3"dia Coupling (PVC)	2 67	pcs.	20	20
(16) Ceiling Vent, 1" x 1" x 8' x 4pcs.	2.67	bf.		
(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
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	1,210
(3) D - 3 Louver Door (0.60 x 1.40)	- 1- <b>5</b>	sets	1,013	5,061
(4) Door Jambs (Apitong)				
$2" \times 6" \times 14" = 1pc.$	14	bf.	37	518
$2^{"} \times 6^{"} \times 10^{"} = 2pcs.$	20	bf.	36	720
$2^{"} \times 6^{"} \times 10^{"} = 1 \text{pc}.$	18	bf.	35	63(
$2" \times 4" \times 12" = 5 \text{pcs.}$	40	bf.	34	1,36
(7) Wooden Jalousie Window				
With 5 Blades (0.40 x 0.50)	14	set	338	4,73
(8) Window Jambs (Apitong)		300		
$2^{"} \times 6^{"} \times 16^{"} = 5 \text{pcs.}$	80	bf.	36	2,88
	14	bf.	35	49
$2^{"} \times 6^{"} \times 14^{"} = 1pc.$	1		34	34
$2'' \times 6'' \times 10'' = 1pc.$	10	bf.		24
(9) Cabinet			070	67
$3/4'' \times 4' \times 8' = 1pc.$ (plyboard)		pc.	878	87
Sub-Total of F-1				22,06
2. Labor (30% of F-1)				6,62
Sub-Total of I	~	11	· · ·	28,69
G. Tile Work				
1. Materials	1 :	1		1
(1) 4-1/4" x 4-1/4" Glazed Tiles	1,95	) pcs.	5	9,75
(2) 0.10 x 0.20m Floor Tiles	900	pcs.	7	6,30
(3) Cement	4	bags	137	5-
(4) White Cement	1	bag	742	74
(5) Tiles Fittings	ł	LS	ł	5,6
Sub-Total of G-	1		i i	22,9
2. Labor (30% of G-1)	-	1		6,8

	of 5 Description	Q'ty	Unit	Unit Cost	(Cost Peso Amount
Ŧ.	Plambing Work				
	1. Materials				
	(1) Urinal	3	sets	1,253	3,759
:	(2) Toilet Bowl - Squat Type	6	sets	703	4,21
2	(3) 4" dia x 3m PVC San. Pipe	6	pcs.	175	1,05
	(4) 3" dia x 3m PVC San. Pipe	4	pcs.	98	39.
	(5) 2" dia x 3m PVC San. Pipe	3	pcs.	62	18
	(6) 3/4" dia x 6m GI Pipe Sch. 40	5	pcs.	288	1,44
	(7) 1/2" dia x 6m GI Pipe Sch. 40	1	pes.	213	21
	(8) 4" x 4" WYE PVC	1	pcs.	38	3
	(9) 3" dia Elbow PVC	10	pcs.	70	70
· .	(10) 3" dia 45 degrees Bend PVC	- 2	pcs.	85	17
	(11) 2" dia Elbow PVC	6	pcs.	53	31
	(12) 2" dia 45 degrees Bend PVC	2	pcs.	68	13
	(12) 2" dia Elbow GI	5	pes.	40	20
	(14) 4" dia 3" dia WYE PVC	8	pes.	52	41
	(15) 3/4" dia TBE GI	7.	pcs.	70	49
	(16) 1/2" dia TEE GI	5	pes.	55	27
	(17) 4" dia x 2" dia TEE PVC	6	pes.	36	21
	(18) 4" dia Clean Out PVC	3	pcs.	41	12
	(19) 2" dia Clean Out PVC	1	pcs.	29	2
	(20) Faucet	10	pcs.	59	. 59
	(20) Faucer (21) 3" dia x 2" dia Elbow Reducer PVC	1	pes.	85	8
	(22) 3" dia x 2" dia WYE PVC	3	pcs.	29	8
	(22) 5 dia x 2" dia WYEPVC	3	pcs.	: 17	
	(24) PVC Cement	. 1	can	142	14
	(25) 4" dia x 2" dia WYE PVC	2	pcs.	47	-
	(26) Gate Valve 3/4" dia	1	pcs.	142	14
	(20) Gate Valve $3/4$ dia (27) Gate Valve $1/2$ " dia		pcs.	112	i. i
, i	(28) Water Meter 3/4" dia		pcs.	1,488	
	(28) Water Meter 314 dia (29) 3/4"dia x1/2"dia Elbow Reducer GI		pes.	21	
	(29) 374 tha X172 bia Bloow Reduced Of Sub-Total of H-1	•	p 05.		17,1
					5,1
:	2. Labor (30% of H-1) Sub-Total of H				22,3
I.	Painting		1		
<b>L</b> .	1. Materials				
[]	(1) Acrylic, Semi Gloss	8	gals.	295	2,3
	(2) Concrete Sealer	4	*	233	L
	(3) Acri Color: Wood	4	gals.	200	
i -	(4) Enamel, QDE	6	· ·	310	1
1	(4) Enamer, QDC (5) Wood Putty	i i	gals.	342	
1	(6) Paint Thinner	1	gals.	67	
		4	1 .	45	
		15	1 -	8	
Į	<ul><li>(8) Sand Paper (Assorted)</li><li>(9) Miscellaneous</li></ul>		LS		1,2
	(9) Miscenaneous (10) Roof Paint (green, ready-mix)	2		319	1 -
1	(10) Root Paint (green, ready-mix) Sub-Total of I-1		5415.		8,4
		<b>`</b> {			2,5
l l	2. Labor (30% of I-1) Sub-Total of	-I			11,0

# Table 10.2.17 Unit Cost of Public Toilet

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Table 10.2.17 Un	iit Cost of	Public Toilet
------------------	-------------	---------------

Description	Q'ty	Unit	Unit Cost	(Cost: Peso Amount
Electrical Work	<u>_</u>			
L. Materials				
(1) 40 Watts Fluorescent Lamp	2	sets	289	578
(2) Elect. Wire TW #12	24	1	. 7	165
		m	. ,	
(3) Elect. Conduit - 1/2" dia x 10"	4	pç.s.	88	352
(4) Entrançe 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) Porcetain Receptaele 2" dia	2	pes.	7	_ I 4
(8) Safety Switch 60A, 250V	1	set	555	55:
(9) Electrical Tape	1	roll	25	2
Sub-Total of J-1				1,83
2. Labor (30% of J-1)				55
Sub-Total of J				2,38
, Hardware				
1. Materials				
(1) 3" x 3" Butt Hinges (Loose Pin)	10	pcs.	20	20
(2) 4" x 4" Butt Hinges (Loose Pin)	12	pcs.	36	43
(3) Door Lockset (Schlage US)	3	pcs.	650	1,95
(4) Barrel Bolt (4")	5	pes.	45	22
(5) Cabinet Pull (4")	5	pes.	7	3
(6) Water Storage Cover		Pros.		
Checkered Plate 1/4" thick				
1.44x0.633 w/ L bar & flat bar	. 1	cot :	1,116	1,11
		set	629	1,11
(7) 0.645x0.633 w/ L bar & flat bar	2	set	429	42
(8) Padlock	1	pcs.	429	
Sub-Total of K-1				5,64
2. Labor (30% of K-1)				1,69
Sub-Tetal of K				7,33
		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		
1. Materials				
(1) 4" CHB	180	pcs.	3	90
(2) Cement	18	bags	137	2,46
(3) Sand	1.50		359	53
(4) Gravel	1	cu.m	454	
(5) Rebars: 10mm dia x 6m	29	pcs.	58	1,68
(6) #16 Tire Wire	2	kg.	58	- 11
(7) Formworks: Coco Lumber		1	1	1
$2^{n} \times 3^{n} \times 10^{i} = 12 \text{pcs.}$	60	bf.	1 11	<b>i</b> 66
1/4" plywood ord. 4' x 8'	2	pcs.	477	9.
C.W.N. (Assorted)	2	kg.	43	8
Sub-Total of L-1	i 🛛		1	7,8
2. Labor (30% of L-1)	1 -	<b>.</b>	1	2,3
Sub-Total of I		1	1	10,2
M. Concrete Water Tank (Elevated)	1	1	1	<u></u>
1. Earth Work	1		l	,
(1) Materials	1			
1) Gravel Fill			454	4
EI UTAVELTHI	1 1	cu.m	434	1 4

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Table 10.2.17 Unit Cos	a of Lady	ic roner		
Sheet-5				(Cost Pese
Description	Q'ty	Unit	Unit Cost	Amount
(2) Labor				
1) Excavation	14.70	cu.m	140	2,05
2) Backfill	13.08	cu.m	127	1,66
3) Gravel Fill	1	cu.m	166	16
Sub-Total of M-1 (2)				3,88
Sub-Total of M-1				4,33
2. Materials				
(1) Cement	62	bags	137	8,49
(2) Sand	4.50	cu.m	359	1,61
(3) Gravel	8	cu.m	454	3,63
(4) Rebars: 12mm dia x 6m	160	pcs.	79	12,64
(5) #16 Tie Wite	4	kg.	58	23
(6) Fornworks:		•		
1/4" plywood	12	pcs.	477	5,72
$2'' \times 3'' \times 16' = 60 \text{ pcs.}$	480	bf.	9	4,32
(7) C.W.N. (Assorted)	5	kg.	43	. 2
Sub-Total of M-2				49,89
3. Labor (30% of M-2)				14,90
Sub-Total of M				69,19
N. Freight Cost (11% of Materials for A - M			 	22,32
excluding sand and gravel)				
O. Indirect Cost			1	н н н
Profit (10% of A - M)	· · · ·			32,1
VAT (10% of Profit & Labor)				10,4
Sub-Total of O				42,6
Total of Construction Cost				364,1
(A to O)	· · · ·	:		
P. Estimated Government Expenses			· · ·	
1. Preliminary & Detailed Engineering Cost		LS		2,4
2. Construction Supervision		LS		1,8
Sub-Total of P	<u> </u>			4,2
GRAND TOTAL		<b>.</b>		368,3
	<u>L</u>		SAY	368,4

# Table 10.2.17 Unit Cost of Public Toilet

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

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(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.

Component	Share of Cost (%)
	······································
1. Preparation for Training Activities	10
1.1 Transportation	1
1.2 Technical Assistance	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1.3 Food	• • • • • • • • • • • • • • • • • • •
1.4 Supplies and Materials including Production of Training Kits	6
1.5 Generation of Training Aids	an an an Arrana
en er fan de seu en en de la servicie de la servic En esta de la servicie de la servici	
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

Table 10.2.18 Breakdown of Community Development and Training Cost

# 10.3 Cost of Required Facilities and Equipment

10.3.1 Cost of Required Facilities

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Tab	Table 10.3.1 Const	onstruction	on Cost of	I WATEL DI	fruction Cost of Water Supply Facilities frequili en for a last a fraction	nues requ		י אנשטב א לשינ	(+->-	ñ	Unit: P 1.000
					Rura	Rural Water Supply	pplv				
	Urban				New System				T avel T		Grand
Name of Municinality	Water	·			Level I	el I			Dobahili	Total	Total
freedy winter to stime.	Supply	Level II	:	Deep Well		Shallow	Spring	Subtated	tation		
	Level III		40 m	80 ED	120 m	Well	Dev.				
A lanced	1 3 087						1,494	1,494		1,494	4,581
Munchia Dife						247		247	24	271	271
	U72 C1			1 623		247	2.988	4.858	47	4,905	17.666
Cabucgayan	5 715					2	11.205	11.205		11,205	16,950
Caloiran	702 7			2.705			2.988	5,693	39	5.732	10.438
Cuiaoa	ř			1 623			4,482		24	6,128	. 6,128
Nawayan				13.523			747	14,270	197	14,466	14.466
wuripipi Naval (Capital)	11.316						1,494	1.494		1,494	12,810
Provincial Total (w/ ADB Assisted Project)	37,614			19,472		494	25,398	45,365	331	45,695	83,310
Provincial Total (PW4SP)	37,614										37.614

					Rural Water Supply	er Supply			-	
	Urban			N and						, , , , , , , , , , , , , , , , , , ,
				INEW SYSTEM	Valeu			Level		
N	Water			Lev	LevelI			Rehabili-	Total -	Total
Name of Municipanty	Supply		Deep Well		Shallow	Spring	Subtotal	tation	· · · · · · · · · · · · · · · · · · ·	
	Level III	W UV	- S0 m -	120 m	Well	Dev.				
					220	1 404	2465	16	2,481	4,040
Almeria	1,559	724			47	1,17,1				YLS UC
	377 91	362			247	1,494	2,105	<b>o</b>	77777	
Biliran	10.102					5 976	5.976		5.976	41.662
Cabucgayan	35,686				6		ľ	07	11 700	18.276
	6 486		2.705		28	8,404	10/17		~~~~	
Calbuan			1 632		412	5 229	7.264	24	7.287	19,321
Culaba	12,054		1,040		20	5 270	5 857		5.860	9.995
Vauenan	4,135		241		70	144.0		2	1202 31	010 01
hawayan	7002					15,687	15.687		100.01	71677
Maripipi	C07'/				000	1 404	6.810	63	6.873	11.326
Naval (Capital)	4,453		4.527		606				1970.02	371 371
	1 00 403	1-086	9.195		2,060	45,567	57,908	1/01	1007.00	001.01

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

				, ,					-				Rural Sanitation	ritation			
		-		Urb	A Santation	50			t			Unumberd Tailate	24				Tatel
<b>i</b> .		Hot	Household Toilets	ilets		:			Total		nou					Total	
Name of Municipality	Flush	Pour Flush	VIP/Dry	Sub-total of Cons- truction	Sub-total of Public Invest-	Public School Toilets	Public Toilets	Total Cons- truction Cost	Public Invest- ment Cost	Flush	Pour Flush VIP/Dry	VIP/Dr	Sub-total Sub-total of Cons-, of Public truction Invest- Cost., ment		Public School Toilets	Cons- truction Cost	Public Invest- ment Cost
				1021	TUSCI						0	47.7			1250	1109 :	72.0
	2 645		163	2,808	-	234	737	3.779				200			. V.O	1075 3	Ĩ.
	2	135 0			218	467	368	5,187	1,053		7,4151		(,415	)   			
Biliran		100.4					11/1	10 405	3 706			277	271		••••		
Cabucgayan	10.534	5.802				-	2411				16.014		16.6031	801	1.401	18.004	2
Cathiran		7.770	298	8,068	-		Ichi I			19.00	916 6		1	112	27.6	085.6	541.1
1. Lake	3 473	1003	213	8,777	255	. 467	737	9.951	004'1	C77.4-	0174					0 6471	
ulated			04.	001			777	865	7371	. 728		166/	5.22.5			0.14.0	
Kawayan							727	Î	Ľ		3.863	348	112'7	193	467	4,678	
aribibi		1,317	7	1,388	0		101		Î	1454		0611			2.1021	10.7301	2.102
[Naval (Capital)			646	9 <del>4</del> 9		1,16%		Acc.2	1404.1								
Provincial Total (w/ADB- Assisted Proi.)	16,652	24.331	2.173	43,156	1,217	4.437	6.263	53.855	010.11	23,207	31.509	4,267	58,983	1.575	6,772	05.755	2013 1
Provincial Total	16.652	16.652 24.331	2.173	- 43,156 - 43,156	1,217	4,437	4.052	51.645	9.705	23,207	1,169	4,267	28.643	*	5.371	34.014	5.505

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

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	فالبديد والمترازي				inter Co	n ionei an								Rural Sanitation	itation		Î	
					CLUZII 07			ſ				Hot	Household Toilets	lets	1			ţ
		Ho	Household Tailets	lets				TAPAT	Tota							Public	1.0121	16701
Name of Municipality	Flush	Pour Flush	NB/D		di S F F F	Public School Toilets	<b>Public</b> Tollets		Public Invest- ment Cost	Public Urban Invest- Sewerage nent Cost	Flush	Pour Flush	VIDITY	Sub-total Sub-total of Cons- of Public truction Invest- Cost ment	of Public Invest-	School Toilets	Cons- truction Cost	Public Invest- ment Cost
				ie S	ment				Ì			640		11 611	4 S.	7.269	14,8801	5 2 2
	004	1.42		8.776	62	467	368	9,611	503		201	Ŷ				000	Ŀ	
Almena	1 1 1 1			34 24	221	CAA AK7	NAL.	15.880	086			15.377	:	115.61	2	7.0.7		
Bilitan	12.344	2,901		CHA'CI		ľ			111	17X0 22				-		034	9.4	<b>^</b>
Cabuceavan	30,475	6,068		36,543							977 1	201.21		15.852	102	3,976	19.822	6
	12 472	2.457		15.8891	123	934	368				01 ·			100.01	303	1026	22.0591	. 3.660
(alolran		000		14 405	186	467	368	17,330	1.022		6,532	Ì		C 70%		2000		210.3
Culaba	(0)/71	1001.0						\$ 244			7.705	11,529		19.2341	576	6,437	1/0.27	
Kawayan	S.244			5"Z44								\$717		8,717	436	1.868	10.5851	5.0
Manotol	4,117			4,117						1.61.03	98011	316.316		27.322	812	5,X38	33, 1591	6.649
Naval (Control)	36,754			36,754		1,168	308	1			2021	000 000		112126	1030 2	(S1 YC	143.2%81	2
the state of the following the state of the	035 661	14 507		138.862	825	5.371	1.842	146.075	8.038	106,157	38,134	700'6/		001111	AC1 C			

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

# 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 typeRated 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/cm<sup>2</sup> 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 5m<sup>3</sup> 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 1 facility shall be provided to respective municipality.

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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.

	Unit	Unit Cost	Q'ty	(Cost: Peso Amount
Item				Antonin
1. Building				
New Building	m <sup>2</sup>	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				65,00
4. Glassware/Chemicals				
Glassware/Chemicals	LS			110,00
Total				1,638,70

# Table 10.3.5 Cost for New Laboratory

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

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	a an		· · · · · · · · · · · · · · · · · · ·	(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	<u></u> 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

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# 11. FINANCIAL ARRANGEMENTS FOR MEDIUM-TERM DEVELOPMENT PLAN

# 11.3 Additional Funding Requirements

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# 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	Tota
•	Level III System					[	h
Urban Water	Feasibility Study and Detail Design	50	50	.0	0	0	100
Supply	Construction & Supervision	0	20	30	30	20	100
	Institutional Development	30	20	20	20	10	100
	Level I Facility						
	Detail Design	50	50	0	·· 0	0.	100
	Construction & Supervision	0	20	- 30	30	20	100
Rural Water	Institutional Development	30	30	20	10	10	100
				1 - · ·	-		
Supply	Level II System						i –
	Detail Design	100	0	0	. 0 .	0	100
1 1 1 1 1 1 1	Construction & Supervision	50	50	0	Ö	0	100
• · · · · · · · · · · · · · · · · · · ·	Institutional Development	50	50	0	0	0	100
	Urban Household Toilet	12	22	22	22	22	100
· · · · ·	Rural Household Toilet	12	22	22	22	22	1 10
	Public School Toilet	12	22	22	22	22	100
Sanitation	Public Toilet	12	22	22	22	22	10
	Disinfection of Level I Wells	12	22	22	22	22	10
	Detail Design	100	0	0	0	0	10
1 1	Construction & Supervision	0	20	- 30	30	20	100
· · · ·	Institutional Development	30	30	20	10	10	10

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 1):

- 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 IIII 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 11.4.1 Comprehensive Investment Need Ranking of the Municipalities.

Interview         Urban         Rural Urban         Rural Urban         Rural Urban Water         Rural Value         Urban Water Value         Rural Value         Total Vegeted Sanitation         Vegeted San	•	/%, of Und	Evaluation Factor 1%, of Underserved and Unserved Population	ö	r Households)	:.	Score by S	Score by Sub-Sector			Weighted	Weighted Score by Sub-Sector	ib-Sector		Synthetic
WA         19         30         13         0.67         0.20         0.60         0.20         0.017         0.05         0.15         0.05         0.15         0.05         0.15         0.05         0.15         0.05         0.15         0.05         0.15         0.05         0.15         0.05         0.15         0.05         0.15         0.05         0.15         0.05         0.15         0.05         0.15         0.05         0.15         0.05 </th <th>Name of Municipality</th> <th>Urban Water</th> <th>Rural Water Sunnly</th> <th>ion</th> <th>Rural Sanitation</th> <th>J</th> <th></th> <th>Urban Sanitation</th> <th>Rural Sanitation</th> <th>Urban Water</th> <th>Rural Water</th> <th>Urban Sanitation</th> <th>Rural Sanitation</th> <th>Total Weighted Score</th> <th><i>.</i></th>	Name of Municipality	Urban Water	Rural Water Sunnly	ion	Rural Sanitation	J		Urban Sanitation	Rural Sanitation	Urban Water	Rural Water	Urban Sanitation	Rural Sanitation	Total Weighted Score	<i>.</i>
N.A.         19         30         13         0.67         0.20         0.40         0.11         0.05         0.13         0.05         0.13         0.05         0.13         0.05         0.13         0.05         0.13         0.05         0.13         0.05         0.13         0.05         0.13         0.05         0.13         0.05         0.13         0.05         0.13<		indulan	. Addee			4				- Sumuc	10000		н	5	ľ
rule         N.A.         8         35         54         0.26         0.20         0.67         0.07         0.05         0.20 </td <td>A 1</td> <td>· · · · · · · · · · · · · · · · · · ·</td> <td>64</td> <td>30</td> <td><u>1</u></td> <td></td> <td>0.20</td> <td>0.60</td> <td>0.20</td> <td>0.17</td> <td>0.0</td> <td>CI-0</td> <td>- 1</td> <td>34.7</td> <td></td>	A 1	· · · · · · · · · · · · · · · · · · ·	64	30	<u>1</u>		0.20	0.60	0.20	0.17	0.0	CI-0	- 1	34.7	
m.         M.         4.         4.6         4.6         50         0.90         0.60         1.00         0.23         0.15         0.25         0.15         0.23         0.10         0.25         0.20         0.20         0.24         0.10         0.25         0.25         0.20         0.20         0.20         0.20         0.25         0.25         0.25         0.20         0.25         0.25         0.20         0.25         0.25         0.20         0.25         0.25         0.25         0.25         0.25         0.25         0.25         0.25         0.25         0.25         0.25         0.25         0.25         0.15         0.25         0.15         0.25         0.25         0.25         0.25         0.25         0.25         0.15         0.25         0.15         0.25         0.15         0.25         0.15         0.25         0.15         0.25         0.15         0.25         0.15	Ameria			24	27	ļ	0.20	0.80	0.80	0.07	0.05	0.20	0.20	0.52	ŗ.
Image: NAA         MAA         MAA <thm< td=""><td>Buhran</td><td></td><td></td><td></td><td></td><td>- 080</td><td>0.60</td><td>8</td><td>0.60</td><td>0.23</td><td>0.15</td><td>0.25</td><td>0.15</td><td>0.78</td><td>64</td></thm<>	Buhran					- 080	0.60	8	0.60	0.23	0.15	0.25	0.15	0.78	64
N.A.         33         68         34         64         100         630         6.14         6.10         6.25         6.26         6.26         6.26         6.26         6.25         6.26         6.26         6.20         0.20         0.20         0.05	Cabucgayan	N.N.	9				040	8	0.80	017	010	0.25	0.20	0.72	m
N.A.         32         89         58         0.94         0.40         1.00         0.74         0.11         0.25         0.25         0.05<	Caibiran	¥7.	]	ŶŎ	7	10.0					<	24.0	ę	01.0	~
N.A.         8         5         28         0.26         0.20         0.20         0.07         0.05 <td>Culaba</td> <td>N.N.</td> <td>32</td> <td>68</td> <td>58</td> <td>0.94</td> <td>0.40</td> <td>8</td> <td>R8.0</td> <td>0.24</td> <td>01.0</td> <td>(7) 2</td> <td>2.2</td> <td>6 - 5</td> <td>-</td>	Culaba	N.N.	32	68	58	0.94	0.40	8	R8.0	0.24	01.0	(7) 2	2.2	6 - 5	-
NA         28         66         49         6.20         1.00         0.60         6.12         0.05         0.25         0.15         1           putal)         N.A.         39         15         42         0.27         0.40         0.60         0.12         0.05         0.25         0.15         1           cial Total         N.A.         27         41         41         41         1	Vauran			. 5.	- 28	0.26	0.20	0.20	0.20	0.07	0.05	- 600	60 Q	0.42	~
N.A.         20         15         42         0.27         0.40         0.60         0.07         0.10         0.10         0.15         1           N.A.         22         41         41         1         41         0.10         0.10         0.10         0.15         0.15         0	Vawayan		04	, y	40	0.49	0.20	00 [	0.60	0.12	0.05	0.25 ···	0.15	0.57	4
otal N.A. 22 [	Мапрірі		07					44		0.02	010	010	014	0.42	÷
	Naval (Capital)	N.N	39.		77	17.0	0.40	24-2			$\rightarrow$	2.1.2			
	Provincial Total	N.N.	] - 27 -	41	41	;			•						

(1) Scoring to Underserved and Unserved Percentage.

2) Assumed Weight by Sub-Sector for Synthetic Evaluation by Municipality.

Score		Ranye o	í Unde	rserve	Range of Underserved and Unserved Percentage	nserve	d Perc	okejus		0.25	0.25	0.25	0.25	Allocated Weight
						ĺ			Î					
1.0	. 61	% >		7	× %		3	% >						
0.8	15	< % < 00 31	3	2	< % < 40 51	9	15	<%< 60	8					
0.6	4	>%>	<u>8</u>		< % < 30 41	30	4	< % < 50	ŝ	•				
0.4		< % < 40 11	្ព	=	< % < 20	20	31	< % < -40	\$	1				:
20		V %	g,		> %	10		- % < · 30	30	•				

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

(Unit:1,000 Pesos)

		ſ					Kural Wa	ral Water Supply									Rural	Rural Sanitation	u.				
	Te Nos. of		100 00	R. Wate	Nee of R. Water Supply		Nos. of LEV	CLEVEL I Facilities		Prov.	Mun.	Sub-total	No.of		Rural Sanitation		Numb	Number of Toilers	512	<u>*</u>	Prov. Mun.		Sub-total
Name of City or	Bgy. in	Class	Related	Allotmen	Class Related Allotment of IRA Deep Shal	Deep	Shallow	Spring	P.	Avail.	Avail. Avail.	Avail.	Related	Allotmen	Related Allotment of IRA Public		Bus S	Bus School Td.	rd.	Tti A	Avail.   A	Avail.	Avail.
Municipality	Rural		Bgy.	Prov.	Muni, Wells	Wells.			Related	IRA	IRA	ž	B	Prov.	Muni. Mkt.	Mke 3	Term. 1	Toilet	Re	Related	IRA I	IRA	IR.
	ŕ	Î	Ì									0		- 4K1	501			4	4	4	481	105	982
Almena	40	5		Ĩ							ľ	6		212	1.277	╞		~	6	ŝ	212	1.277	687
Binran			Í		I	J		I			Ì			ł	C	╞		-	G	¢	¢	0	•
Cabucgayan	\$	ŝ									1		-			╏			,,			, v,	
Carbirati	4	Sth				:			1			0		168	609	•			~	-	ŝ	2	
Culsha	4	ţ	ľ			-		1.				0		472	14			3	3	3	472	ž	412
V autora	X		T		T		ŀ					0		0 -	0	•		0	0	0 -	0.1	0	0
			Í		ſ							6		9	<b>K87</b>			- 2	2	5	30	XX7	5:2
Naval (Canital)		ţ	Ţ					-			. 	0		×52	514			×	× ×	×	- X52	1415	505
1.0121	112	ŧ	٥	0	•	Ŷ	0.	•	<b>0</b> 1	•	¢	0		2,934	4.126	0	0	- 25	25	25 25	2.434	4,126	7,065
Total Available 18A Fund	nnd	1	7,065																				

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

	Tti Nos. of		10. 20	Urban	Nos. of Urban Sanication		Number	Number of Tiolets		Prov.	Mun.	Prov. Mun. Sub-total
Name of City or Municipality	Bgy. in	Class	Related	Allotmer	Class Related Allotment of JRA Public	Public	- Suð	School	School Avail Avail Avail	Avail.	Avall.	Avail.
Annalisments	Urban		Bev.	Prov. Muni.	Muni	MKt.	I erm.		Reisted	Y I	¥	IKA .
Almenia		\$th	-	. 366	323	0	0	1	1	360	323	689
Bilima	5	-Sth	12.11	1208	1,255	0	0		2.08	208	1,255	1,463
Cabucyayan	4	5th		200	286-00-	$\mathbf{P} \sim \mathbf{C}$	0	\$ . :	- 9.0	266	382	97E.1
Cathiran	"	Sth		.158	562	1	0	4		:: 851		1,413
Culaba	<b>^</b>	Ę.		- 220	408	0	0-	the state	-1	-559	108 -	968
Kawavan		ŝ	:	•	515-00	0	0	0	-0111-02	0.0	0	0
Maripioi	r 1	÷		37	0201	0	1	0		10.00	1,079	1,116
Naval (Capital)	6.	44		882	1. 524	0	1 - 1 -	5	9 22.2	2XX2	524	1 407
Total	20	4th			Pri 3, 901 - [n. 5, 045 ] 2 2 18 22 3, 901 ] - 4,535	2	. 2	1	. Shee, 22 -	3,901	1051	×,434
Total Avaitable IRA Fund	Pund		17.7.8									

Table 11.5.3 To	otal Available IF S	IRA for GOP-Assist Sanitation Project	isted Level I V ct	Table 11.5.3. Total Available IRA for GOP-Assisted Level 1 Water Supply and Sanitation Project
Name of City or Water Supply	Water Supply	Sanitation	tion -	Total
Municipality	Rural	Urban	Rurat	
Almenia	0	680	286	1.670
Biliran	•	1,463	1,489	2:952
Cabucgayan	0	625'1	0	645.1
Caibiran	0	1,413	1,497	2,910
Culaba	0	896	718	1.781
Kawavan	0	¢	0	0

2:033 8 4 

0 917 90r ∂065

0 0 0

(awava) npipi

8.434 1:0 .407

> - Total oval (Capital)

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Table 11.5.4 FIRR for Level I Water Supply

(11,060,848) (11,984,249) (8,444,195) (5,997,548) 3,046,493 Net Value 3,046,493 3,046,493 3,046,493 3,046,493 3,046,493 3,046,493 2,413,195 2,015,995 2,015,993 2,413,193 ,046,493 3,046,493 3,046,493 3,046,493 1,751,040 2,810,880 5,502,080 3,502,080 3,502,080 3,502,080 3,502,080 3,502,080 3,502,080 3,502,080 3,502,080 ,502,080 3,502,080 3,502,080 3,502,080 3,502,080 \$,502,080 3,502,080 502,080 Cash Inflow 691,200 0 Loans and Subsidies 0 Per Month Per Water Rate Household 256 256 256 256 256 256 256 256 256 256 256 256 256 256 256 256 256 256 Households No. of 1,140 1,140 1,140 1,140 1,140 1,140 1,140 (,140 1,140 1,140 1,140 1,140 1,140 1,140 1,140 1.140 225 570 915 0 13,871,728 9,499,628 13,735,289 1,486,087 1,486,087 1,088,887 9,135,395 455,587 455,587 455,587 1,088,887 455,587 455,587 455,587 455,587 455,587 455,587 455,587 Outflow 455,587 Cash 0 O&M Cost 455,587 455,587 455,587 364,233 455,587 455,587 455,587 455,587 455,587 455,587 455,587 455,587 455,587 455,587 455,587 227,793 91,354 00 Replacement Rehab. And 1,030,500 1,030,500 633,300 633,300 0 0 00 0 Q 0 0 Spring Devi Construction Cost 13,643,935 9,135,395 13,643,935 9,135,395 0 0 6 9 9 6 Shallow Nos. of Well 0 0 **C1** Nos. of Deep Well П 15 **~** Year 19 19 20 ഇ 4 Ъ 15 1

4,882,961

1.3%

TOTAL FIRR NPV

Discount rate for NPV = 0.09 per year

1,400,478

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Total Amount         Ist year         2nd year         3nd year         4th year         5t $12,754,660$ 0         0         2.550,932         3.826,398         3.826,398         3.826,398         0         0 $12,754,660$ 0         0         2.550,932         3.826,398         3.826,398         3.826,398         0							
V         0	Category		lst year	2nd year	3rd year	4th year	5th year
12.754,660         0         2.550,932         3.826.398         3.826,398         3.826,398         0 <th0< th="">         0         <th0< th=""> <th0< th=""></th0<></th0<></th0<>	A. Const. & Civil Works						
I2.754,660         0         2.550,952         3.826,398         3.560,398         3.560,398         3.560,398         3.560,398         3.560,398         3.560,398         3.560,398         3.560,398         3.560,398         3.560,398         3.560,301         0	1. Water Supply	0	<b>0</b>	0	0	0	
0         0	2. Sanitation	12,754,660	0	2,550,932	3,826,398	3,826,398	2,550,952
nrt         1.047,100         0         1.047,100         0 <th0< th="">         0</th0<>	3. Land Acquisition	0	0	0	0	•	0
LTVey         0 <th0< th="">         0         <th0< th=""> <th0< th=""></th0<></th0<></th0<>	B. Equip/Logistic Support	1,047,100	0	1.047.100	0	0	0
LTVey         0 <th0< th="">         0         <th0< th=""> <th0< th=""></th0<></th0<></th0<>	C Consultancy Services						:
Tog.1.403,013561.205280.603280.603140.301Tog.3.200,000960,000960,000640,000320,000rog.43.08012.92412.92412.9248.6164.308rog.7.2008401.440960440280rol.2.8001.4402.1662.40.000320,000rol.1.200,000360.000240.000120.000port1.200,000360.000240.000120.000hpt-H)1.966.265189.857521.600499.858441.249htE+F)21.628.9182.088.4265.737.5985.498.4344.853.736htE+F)21.628.9182.088.4265.737.5985.498.4341.419.588thE+F)21.628.9182.088.4265.737.5985.498.4341.89.585thE+F)21.628.9182.088.4265.737.5985.498.4344.853.736thE+F)21.628.9182.088.4265.737.5985.498.4344.853.736thE+F)21.628.9182.088.4265.737.5985.498.4341.608.145thE+F)21.628.9182.088.4265.737.5985.498.4341.89.588thE+F)21.628.9182.088.4265.737.5985.498.4344.853.736thE+F)21.628.9182.088.4265.737.5985.498.4341.419.588thE+F)21.628.9185.18841.678.0941.658.1451.419.588thE+F)28.492.1422.751.1197.558.2367.243.181	H H V Aroreological Survey	0	0	0	0 	0	0
Tog.         3.200,000         960,000         960,000         640,000         320,000 <th< td=""><td>2. D/D and Const. Sv.</td><td>1,403,013</td><td>561.205</td><td>280,603</td><td>280,603</td><td>140,301</td><td>140.301</td></th<>	2. D/D and Const. Sv.	1,403,013	561.205	280,603	280,603	140,301	140.301
Tog.         3.200,000         960,000         960,000         640,000         320,000 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>:</td></th<>							:
Tog.         3.200,000         960,000         960,000         960,000         3.200,000	D. Institutional Devt.						
rog.43,08012.92412.92412.9248.616 $4.308$ Educ.7,2002,1602,1601,440720Educ.2,800840340560280vol1,200,000360,000360,000240.000120.000port1,966,265189,857521,600499,858441,249h-E+F)21,628,9182.088,4265.737,5985.498,4344.853.736b-E+F)21,628,9182.088,4265.737,5985.498,4344.853.736h-E+F)21,628,9182.088,4265.737,5985.498,4344.853.736h-E+F)21,628,9182.088,4265.737,5985.498,4344.853.736h-E+F)21,628,9182.088,4265.737,5985.498,4344.853.736h-E+F)21,628,9182.088,4265.737,5985.498,4344.853.736h-E+F)21,628,9182.088,4265.737,5985.498,4344.853.736h-E+F)21,628,9182.088,4265.737,5985.498,4344.853.736h-E+F)21,628,9182.088,4265.737,5985.498,4344.853.736h-E+F)21,628,9182.088,4265.737,5985.498,4344.853.736h-E+F)21,628,9187.578,0941.608,1451.419,588h-E+F)237,34551,8841.422,5441.36,602h-E+F)28,492,1422.751,1197.558,2367.243,181h28,492,1422.751,1197.558,2367.243,181h <t< td=""><td>1. Capacity Enhanc. Prog.</td><td>3,200,000</td><td>960,000</td><td>960,000</td><td>640,000</td><td>320,000</td><td>000,026</td></t<>	1. Capacity Enhanc. Prog.	3,200,000	960,000	960,000	640,000	320,000	000,026
Educ.7,2002,1602,1601,440720cil.2,800840840560280port1,200,000360,000360,000240,000120,000port1,966,265189,857521,600499,858441,249h+C+D)1.966,265189,857521,600499,858441,249b+E+F)21,628,9182.088,4265.737,5985.498,4344.853.736there337,34551,8841.42,5441.608,1451.419,588al28,492,1422.751,1197.558,2367.243,1816.393,909	2. Commu. Manag. Prog.	43,080	12,924	12,924	8,616	4,308	4.308
eil.     2,800     840     840     560     280       port     4,800     1,440     960     480       port     1,200,000     360,000     360,000     1240.000       h-c+D     1.966.265     189.857     521.600     499.858     441.249       h-c+D     21.628.918     2.088.426     5.737.598     5.498.434     4.853.736       VAT     537.345     51.884     1.42,544     1.608.145     1.419.588       al     28.492,142     2.751.119     7.558.236     7.243.181     6.393.909	3. Health & Hygiene Educ.	7,200	2,160	2,160	1,440	720	720
port $1,440$ $1,440$ $960$ $480$ port $1,200,000$ $360,000$ $360,000$ $360,000$ $240,000$ $120,000$ $B+C+D)$ $1.966.265$ $189.857$ $521.600$ $499.858$ $441.249$ $B+C+D)$ $21.628.918$ $2.088,426$ $5.737.598$ $5.498.434$ $4.853.736$ $M+E+F)$ $21.628.918$ $2.088,426$ $5.737.598$ $5.498.434$ $4.853.736$ $M-T)$ $537.345$ $5.1884$ $1.678.094$ $1.608.145$ $1.419.588$ al $28.492.142$ $2.751.119$ $7.558.236$ $7.243.181$ $6.333.909$	4. Water Quality Surveil.	2,800	840	840	560	280	280
port1,200,000360,000360,000240,000120,000 $B+C+D$ )1.966.265189.857521.600499.858441.249 $B+C+D$ )21.628.9182.088.4265.737.5985.498.4344.853.736 $h+E+F$ )21.628.9182.088.4265.737.5985.498.4344.853.736 $h+E+F$ )21.628.9182.088.4265.737.5985.498.4344.853.736 $h+E+F$ )21.628.9182.088.4265.737.5985.498.4344.853.736 $h+E+F$ )21.628.9181.678.0941.678.0941.608.1451.419.588 $VAT$ )5.37.34551.8841.42.5441.608.1451.419.585 $al$ 28.492.1422.751.1197.558.2367.243.1816.393.909	5. NGO Assistance	4,800	1,440	1,440	960	480	480
B+C+D)     1.966.265     189.857     521.600     499.858     441.249       B+C+D)     21.628.918     2.088.426     5.737.598     5.498.434     4.853.736 <b>+E+F</b> )     21.628.918     2.088.426     5.737.598     5.498.434     4.853.736 <b>+E+F</b> )     21.628.918     2.088.426     5.737.598     5.498.434     4.853.736 <b>+E+F</b> )     21.628.918     2.088.426     5.737.598     5.498.434     4.853.736 <b>VAT</b> )     537.345     51.884     1.678.094     1.608.145     1.419.588       VAT)     537.345     51.884     142.544     136.602     120.585       al     28.492.142     2.751.119     7.558.236     7.243.181     6.393.909	6. Administrative Support	1,200,000	360,000	360,000	240.000	120,000	120,000
B+C+D)     1.966.265     189.857     521.600     499.858     441.249       B+C+D)     21.628.918     2.088,426     5.737.598     5.498,434     4.853.736       >+E+F)     21.628.918     2.088,426     5.737.598     5.498,434     4.853.736       >+E+F)     21.628.918     2.088,426     5.737.598     5.498,434     4.855.736       >YAT)     537.345     51.884     1.678.094     1.608.145     1.419.588       al     28.492.142     51.884     7.558.236     7.243.181     6.393.909							
of sub-total A+B+C+D) <b>tal (A+B+C+D+E+F)</b> 21.628.918 2.088.426 5.737.598 5.498.434 4.853.736 a Contingency b Contingency b Added Tax (VAT) <b>5</b> 37.345 51.884 <b>1</b> .678.094 <b>1</b> .678.094 <b>1</b> .608.145 <b>1</b> .419.588 <b>1</b> .419.588 <b>1</b> .20.585 <b>1</b> .20.585 <b>6</b> .393,909 <b>6</b> .393,909	E. Physical Contingency	1.966.265	189.857	521.600	499,858	441.249	313,702
tral (A+B+C+D+E+F)       21.628.918       2.088,426       5.737,598       5.498,434       4.8553.736         ce Contingency       6.325,880       610,809       1.678.094       1.608.145       1.419.588         ue Added Tax (VAT)       537,345       51.884       142,544       136.602       120.585         Grand Total       28.492,142       2.751.119       7.558.236       7.243.181       6.393,909	(10% of sub-total A+B+C+D)						
c Contingency     6.325,880     610,809     1.678,094     1.608,145     1.419.588       ue Added Tax (VAT)     537,345     51.884     142,544     136.602     1.419.585       Grand Total     28,492,142     2.751.119     7.558.236     7.243,181     6.393,909	Total (A+B+C+D+E+F)	21,628,918	2.088.426	5,737,598	5.498,434	4,853.736	3,450,723
6.325,880         610,809         1.678,094         1.608,145         1.419,588           537,345         51,884         142,544         136,602         120,585           28,492,142         2.751,119         7.558,236         7.243,181         6.393,909	F. Others						
537,345         51.884         142,544         136,602         120,585           28,492,142         2.751,119         7.558,236         7.243,181         6.393,909	1. Price Contingency	6.325,880	610,809	1,678,094	1.608,145	1,419,588	1,009,244
28.492,142 2.751,119 7.558,236 7.243,181 6,393,909	2. Value Added Tax (VAT)	537,345	51.884	142,544	136.602	120.585	85.729
28.492,142 2.751,119 7.558.236 7.243,181 6.393,909							
	Grand Total	28.492.142	2.751.119	7.558.236	7.243.181	6,393,909	4,545.697

Note: Item A includes equity of users.

	Deep Well	Shallow Well	Spring Dev't
Nos. of Facilities to be Constructed	36	6	34
Nos. of Illis to be Served	540	90	510
Reconstruction Cost (Peso)	i a ta atult		
Unit Cost	546,285	82,400	747,000
Ttl, Reconst. Cost	19,666,260	494,400	
Ttl. Reconst. Cost/year	983,313	49,440	
Cost per IIII/year	1,821	549	
Rehabilitation Cost (Peso)			
Unit Cost	78,700		
Ttl. Rehab. Cost	2,833,200		
Ttl. Rehab. Cost/yeat	283,320	1.1.1 T	
Cost per IIH/year	525		
Recurrent Cost for O&M (Peso)			
Cost per IIH/year	100	50	50
O&M Cost Total (Peso)			
Cost per IIII/year	2,446	599	

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

# Table 11.6.2 O&M Cost for Level I Facilities

Note: 1) Number of facility is physical targets under ADB assisted project.

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

3) 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.

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

	Deep Well	Shallow Well	Spring Dev't
O&M Cost per HH/month	204	50	4
Proportion (Mean)	2.4%	0.6%	0.0%
Proportion (Median)	3.5%	0.8%	0.1%

#### Table 11.6.4 Family Income (Unit: Pesos)

An An	nual <sup>1)</sup>	Men	(hly <sup>2)</sup>
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**

Tabl	e 11.6.5 O&M Co	st for Rural Sanit	ation	(Unit: Pesos)
Nos. of Facilities	to be Constructed	Unit Consta	ruction Cost	Yearly O&M
Public Toilets	School Toilets	Public Toilets	School Toilets	Cost
0	88	358,400	233,500	1,027,400

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

Tabl	e 11.6.6 O&M Cos	t for Urban Sanit	ation	(Unit: Pesos)
Nos. of Facilities	to be Constructed	Unit Consta	ruction Cost	Yearly O&M
Public Toilets	School Toilets	Public Toilets	School Toilets	Cost
3	37	358,400	233,500	485,735

•			Province of	ce of				Form P-1
		DIA	Provincial Water & Sanitation Monitoring System	Sanitation Mon	itoring System			
		Å	Annual Sector Performance Summary Report Period Covered : to	arformance Sum d : to	mary Report			
		 				- - - -	:	
I. Service Coverage	, ,	• •					•	
		LAST	LAST YEAR			SIHT	THIS YEAR	
		6	Ē			Deres	Decord	Derconc
		Persons	Persons	Persons		Persons	rersons	rersons
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Ξ	ropulation	water &	Sarc		1 optimizer (6)		Jaic	
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		1 Olicis (3)	(4)	(3)	· · ·	23/01	(8)	(a)
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								-
10.								
2								
3.								
4								
Total								
% Served								

# 12.4 Evaluation of Plan Implementation and Updating the PW4SP

12.

MONITORING FOR MEDIUM-TERM DEVELOPMENT PLAN

					ä	Uses of Funds			
Source of Fund (1)	Budget for Water Supply & Sanitation (2)	Actual Disbursement (3)	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. C. D. E. F. F. F. F. F. F. F. F. B. National Funds DPWH DOH DOH I. WUA SUB-TOTAL SUB-TOTAL C. External Funds NGO NGO									
NGO SUB-TOTAL									
TOTAL									

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III. School Sanitation (Source, DECS)

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

IV. Incidence of Diarrhea (Source IPHO)

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

ν.	Water Resources: Report any major changes in	n the ava-	ilability and oual	litv
	of water in the province. Attach map,			,

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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
- Deep Well (w/o pump) = \_\_\_\_/ Meter Depth
   Pipeline = \_\_\_\_/ meter
- 4. Storage Tanks =
- 5. Others,

Form M-1

Municipality of Provincial Water & Sanitation Monitoring System

I. Service Coverage

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

Budget (2)						Uses	Uses of Funds			
Image: Tends         Image: Tends<	Source of Funds (1)	Budget (2)	Actual Disbursement (3)	L	Water Supply Transmission (5)	Water Storage/ Treatment & Distribution (6)	Household Toilets (7)	School Toilets (8)	Public Toilets (9)	Others (10)
Introget Finds         Integet Finds         Integet Finds           Integet Finds         Integet Finds         Integet Finds         Integet Finds           Integet Finds         Integet Finds         Integet Finds         Integet Finds         Integet Finds           Integet Finds         Integet Finds         Integet Finds         Integet Finds         Integet Finds         Integet Finds           Integet Finds	Aunicipal Funds									
	arangay Funds			-						
Sile       1										
SW-TOTAL       SW-TOTAL         SW-TOTAL       SW-TOTAL         SW-TOTAL       SW-TOTAL         SW-TOTAL       SW-TOTAL         SW-TOTAL       SW-TOTAL										1
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SUB-TOTAL       SUB-TOTAL         TOTAL       SUB-TOTAL										
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UB-TOTAL GO GO GO GO CO TOTAL TOTAL	4									
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GO GO TOTAL TOTAL	8						<b></b>			
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	SUB-TOTAL									
	TOTAL									
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II. Sources & Uses of Capital Development Funds.

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