

10.2.2 Unit Cost of Equipment

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

(1) Medium size rotary drilling rig

Type: Truck-mounted top head drive mud circulation type

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

Equipment composition:

One unit of truck-mounted drilling rig

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

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

Unit cost: Peso 32,314,000 per set

(2) Medium size percussion drilling equipment

Type: Truck-mounted cable percussion type

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

Equipment composition:

One unit of truck-mounted drilling rig

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

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

Unit cost: Peso 25,582,000 per set

(3) Well rehabilitation equipment

Equipment composition:

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

One set of air hose and hose fittings

Unit cost: Peso 280,000 per set

(4) Service truck

Type: Diesel engine driven 4 tons truck equipped with crane

Unit cost: Peso 1,200,000 per unit

(5) Support Vehicle

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

Unit cost: Peso 590,000 per unit

(6) Refuse collection truck

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

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

(7) Maintenance tools

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

Unit cost: Peso 10,000 per unit

(8) Water quality testing kits

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

Type: Ammonia testing kit

Unit cost: Peso 15,300 per unit

10.2.3 Cost of Laboratory and Equipment

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

10.3 Cost of Required Facilities and Equipment

10.3.1 Cost of Required Facilities

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

Unit: P 1,000

Name of Municipality	Urban Water Supply Level III	Rural Water Supply										Level I Rehabilitation	Total	Grand Total
		New System					Level I							
		Level II		Deep Well			Shallow Well	Spring Dev.	Subtotal	Level I				
		40 m	80 m	120 m	120 m	Shallow Well								
Alavas	1,744	3,316											3,316	5,060
Balete	1,091	2,313	734					734					3,063	4,154
Banga	1,448		4,404			169		4,573					4,667	6,115
Batan	945		4,771					4,771				102	4,873	5,818
Buruanga	740					506		506					506	1,245
Ibajay	1,622	5,594											5,594	7,216
Kalibo (Capital)	33,077													33,077
Lezo	1,325		2,202					2,202				47	2,249	3,574
Libacao	1,772		367			759		1,126				8	1,134	2,905
Madalag	1,095		367			590		957				8	965	2,060
Makato	2,040		3,670			84		3,754				78	3,833	5,873
Malay	6,299	2,405	367			337		704				8	3,117	9,415
Malinao	978	3,627											3,627	4,605
Nabas	2,591		1,835			337		2,172				39	2,211	4,802
New Washington	3,499		5,138					5,138				110	5,248	8,746
Numancia	2,148		4,037					4,037				86	4,123	6,271
Tangalan	2,020		2,202			84		2,286				47	2,333	4,353
Provincial Total	64,431	17,255	30,094			2,866		32,960				643	50,858	115,289

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

Unit: P 1,000

Name of Municipality	Urban Water Supply Level III		Rural Water Supply										Level I Rehabilitation	Total	Grand Total
	New System										Subtotal				
	Level I					Spring Dev.	Subtotal								
	Deep Well		Shallow Well												
40 m	80 m	120 m													
Altravas	11,933	24,222				1,349						25,571	517	26,088	38,022
Balete	8,079	32,663				3,203						35,866	698	36,564	44,643
Banga	9,607	30,828				1,770						32,598	659	33,257	42,864
Batan	583	45,875										45,875	980	46,855	47,438
Buruanga	5,057					2,192						2,192		2,192	7,249
Ibajay	11,595	17,249				422						17,671	368	18,039	29,634
Kalibo (Capital)	143,917														143,917
Lezo	3,234	14,680										14,680	314	14,994	18,227
Libacao	13,686	1,835				3,625						5,460	39	5,499	19,186
Madalag	5,325	4,037				8,346						12,383	86	12,469	17,794
Makato	8,136	29,727				674						30,401	635	31,036	39,172
Malay	38,658	13,212				11,971						25,183	282	25,465	64,122
Malinao	207	18,350				1,012						19,362	392	19,754	19,960
Nabas	17,696	8,074				1,855						9,929	172	10,101	27,797
New Washington	23,420	11,010										11,010	235	11,245	34,665
Numancia	14,744	15,781										15,781	337	16,118	30,862
Tangalan	14,410	18,350				1,012						19,362	392	19,754	34,164
Provincial Total	330,286	285,893				37,429						323,322	6,107	329,430	659,715

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

Unit: P 1,000

Name of Municipality	Urban Sanitation						Rural Sanitation						Total Public Investment Cost	Total Construction Cost	Public School Toilets	Total Public Investment Cost	Total Construction Cost	
	Household Toilets			Sub-total of Public Investment	Public Toilets	Total Construction Cost	Household Toilets			Sub-total of Public Investment	Public School Toilets	Total Public Investment Cost						Total Construction Cost
	Flush	Pour Flush	VIP/Dry				Sub-total of Construction Cost	Flush	Pour Flush									
Alifan	2,392			2,392	723	3,115	723			6,754	3,216	9,970	105	1,401	11,371	1,506		
Balete					723	723	723			20,262		20,262	316	934	21,196	1,250		
Banga		99		99	723	822	723	2		9,109		9,109	142		9,251	142		
Batara					723	723	723			8,968	4,239	13,206	140	1,635	14,841	1,774		
Buruanga					723	723	723			9,771	1,818	11,589	152	701	12,290	853		
Ibajay	2,944			2,944	723	3,667	723			5,781	5,282	11,063	90	934	11,997	1,024		
Kalibo (Capital)	17,664	24,830	320	42,814	1,085	48,101	4,203	387										
Lezo	1,058			1,058	362	1,420	362			2,764		2,764	43	701	3,465	744		
Libacao	2,231			2,231	723	2,954	723			14,509		14,509	226	1,401	15,910	1,627		
Madalag	1,725			1,725	723	2,448	723			15,538		15,538	242	1,168	16,706	1,410		
Makato	1,311			1,311	723	2,034	723			5,344		5,344	83	1,401	6,745	1,484		
Malay	3,910	4,456	582	8,948	1,808	11,223	467	70		17,526	3,039	20,565	273	1,401	21,966	1,674		
Malinao	782			782	723	1,505	723			5,852		5,852	91	1,401	7,253	1,492		
Nabas	115			115	723	838	723			437		437	7	1,168	1,605	1,174		
New Washington	3,013			3,013	723	3,736	723			8,037	320	8,357	125	1,401	9,758	1,526		
Numancia	2,645			2,645	723	3,368	723			13,508		13,508	211	1,168	14,675	1,378		
Tangalan	3,174			3,174	723	3,897	723			8,672		8,672	135		8,807	135		
Provincial Total	42,964	29,384	902	73,250	13,379	91,299	4,670	458		152,830	17,913	170,743	2,384	16,812	187,555	19,196		

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

Unit: P 1,000

Name of Municipality	Urban Sanitation										Rural Sanitation						Total Public Investment Cost
	Household Toilets					Public School Toilets	Public Toilets	Total Construction Cost	Total Public Investment Cost	Urban Sewerage	Household Toilets			Sub-total of Public Investment	Public School Toilets	Total Construction Cost	
	Flush	Pour Flush	VIP/Dry	Sub-total of Construction Cost	Sub-total of Public Investment						Flush	Pour Flush	VIP/Dry				
Alitavas	1,863	2,552		4,415	40		723	5,138	763				26,508	414	6,071	32,579	6,485
Balere	5,451			5,451			723	6,174	723				20,713	323	5,371	26,083	5,694
Banga		2,341		2,341	37		723	3,064	760				38,014	593	5,604	43,618	6,197
Banan	3,841			3,841			1,085	4,926	1,085				33,468	343	7,706	41,173	8,048
Bunanga	575	987		1,562	15		723	2,285	739				13,028	203	3,036	16,064	3,239
Ibajay	1,173	2,101		3,274	33		723	3,997	756				43,950	423	5,371	49,321	5,793
Kalibo (Capital)	46,253	65,198		111,451	1,017	2,569	1,085	115,105	4,670	309,338							
Lezo	345	1,438		1,783	22		723	2,506	746				15,616	192	3,269	18,885	3,461
Libacao	2,093	2,735		4,828	43		723	5,552	766				31,181	332	6,305	37,486	6,637
Madaya	1,771	1,904		3,675	30		723	4,398	753				26,170	408	5,137	31,307	5,545
Makato	1,955	2,919		4,874	46	467	723	6,064	1,236				41,918	444	7,239	49,156	7,682
Malay	11,707	11,858		23,565	185	1,635	723	25,923	2,543	47,180			52,311	816	7,939	60,250	8,755
Malinao	529	1,184		1,713	18		723	2,437	742				33,886	339	6,305	40,191	6,644
Nabas	1,771	3,187		4,958	50	467	723	6,148	1,240				24,929	389	6,071	31,000	6,460
New Washington	2,898	4,456		7,354	70	701	723	8,777	1,493				39,043	699	7,706	46,748	8,315
Numancia	3,795	4,075		7,870	64	467	723	9,060	1,254				35,908	469	5,604	41,512	6,073
Tangalan	2,392	2,947		5,339	46		723	6,062	769				25,761	402	4,904	30,664	5,305
Provincial Total	88,412	109,881		198,293	1,714	6,305	13,018	217,615	21,036	356,517			502,403	6,699	93,634	596,037	100,332

10.4 Costs of Sector Management

10.4.1 Breakdown of Community Development and Training Cost

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

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

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

Table 10.4.1 Breakdown of Community Development and Training Cost

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

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11. FINANCIAL ARRANGEMENTS FOR MEDIUM-TERM DEVELOPMENT PLAN

11.3 Additional Funding Requirements

Percentages for Annual Investment

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

Table 11.3.1 Percentages for Annual Investment

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

Note: Institutional development includes:

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

Urban water supply:

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

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

Rural water supply (Level I):

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

Sanitation:

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

11.4 Medium-Term Implementation Arrangements

11.4.2 Alternative Countermeasures

Comprehensive Investment Need Ranking for the Municipalities

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

11.5 National Government Assisted Level I Water Supply and Sanitation Project

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

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

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

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

O&M for Rural Water Supply

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

O&M for Sanitation

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

Table 11.4.1 Comprehensive Investment Need Ranking of the Municipalities

Name of Municipality	Evaluation Factor								Score by Sub-Sector				Weighted Score by Sub-Sector				Synthetic Investment Need Ranking			
	(% of Underserved and Unserved Population or Households)				Urban Sanitation				Urban Water Supply	Rural Water Supply	Urban Sanitation	Rural Sanitation	Urban Water Supply	Rural Water Supply	Urban Sanitation	Rural Sanitation		Total Weighted Scores		
	Urban Water Supply	Rural Water Supply	Urban Sanitation	Rural Sanitation	Urban Sanitation	Rural Sanitation	Urban Water Supply	Rural Water Supply	Urban Sanitation	Rural Sanitation	Urban Water Supply	Rural Water Supply	Urban Sanitation	Rural Sanitation	Urban Water Supply	Rural Water Supply		Urban Sanitation	Rural Sanitation	
Alitvas	N.A.	52	24	42	0.76	0.80	0.60	0.60	0.20	1.00	0.23	0.25	0.15	0.15	0.20	0.15	0.15	0.15	0.69	4
Balete	N.A.	92	0	61	0.93	1.00	0.20	1.00	0.20	0.20	0.08	0.15	0.05	0.05	0.05	0.25	0.25	0.25	0.78	2
Banga	N.A.	45	5	28	0.32	0.60	0.20	0.20	0.20	0.60	0.13	0.25	0.05	0.05	0.15	0.05	0.05	0.33	15	
Batan	N.A.	65	5	43	0.50	1.00	0.20	0.60	0.20	0.60	0.19	0.10	0.05	0.05	0.15	0.05	0.15	0.58	7	
Buruanga	N.A.	35	9	63	0.76	0.40	0.20	1.00	0.20	1.00	0.19	0.10	0.05	0.05	0.20	0.25	0.25	0.59	6	
Ibajay	N.A.	26	32	37	0.59	0.20	0.80	0.40	0.20	0.80	0.15	0.05	0.10	0.10	0.10	0.10	0.10	0.50	9	
Kalibo (Capital)	N.A.	100	14	100	0.60	1.00	0.40	1.00	0.40	1.00	0.15	0.25	0.10	0.25	0.10	0.25	0.10	0.75	3	
Lezo	N.A.	38	6	18	0.40	0.40	0.20	0.20	0.20	0.20	0.10	0.10	0.05	0.05	0.10	0.05	0.05	0.30	16	
Libacao	N.A.	33	20	42	0.59	0.40	0.40	0.60	0.40	0.60	0.15	0.10	0.10	0.10	0.10	0.15	0.15	0.50	9	
Madalag	N.A.	79	24	51	0.77	1.00	0.60	0.80	0.60	0.80	0.19	0.25	0.15	0.20	0.15	0.20	0.20	0.79	1	
Makato	N.A.	37	2	16	0.60	0.40	0.20	0.20	0.20	0.20	0.15	0.10	0.05	0.05	0.05	0.05	0.05	0.35	13	
Malay	N.A.	51	8	31	1.00	0.80	0.20	0.40	0.20	0.40	0.25	0.20	0.05	0.10	0.05	0.10	0.10	0.60	5	
Malinao	N.A.	35	12	25	0.20	0.40	0.40	0.20	0.20	0.20	0.05	0.10	0.10	0.10	0.10	0.05	0.05	0.30	16	
Nabas	N.A.	29	5	18	0.76	0.20	0.20	0.20	0.20	0.20	0.19	0.05	0.05	0.05	0.05	0.05	0.05	0.34	14	
New Washington	N.A.	12	16	27	0.60	0.20	0.40	0.20	0.40	0.20	0.15	0.05	0.10	0.10	0.05	0.10	0.05	0.35	12	
Numancia	N.A.	13	14	32	0.45	0.20	0.40	0.40	0.40	0.40	0.12	0.05	0.10	0.10	0.10	0.10	0.10	0.37	11	
Tangalan	N.A.	40	24	35	0.93	0.40	0.60	0.40	0.60	0.40	0.23	0.10	0.10	0.15	0.10	0.10	0.10	0.58	7	
Provincial Total	N.A.	41	13	35																

Note:

(1) Scoring to Underserved and Unserved Percentage.

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

Score	Range of Underserved and Unserved Percentage				Allocated Weight
1.0	61 < %	41 < %	61 < %	61 < %	0.25
0.8	51 < %	31 < %	40 < %	51 < %	0.25
0.6	41 < %	21 < %	30 < %	41 < %	0.25
0.4	31 < %	11 < %	20 < %	31 < %	0.25
0.2	% < 30	% < 10	% < 10	% < 30	0.25

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

Name of City or Municipality	Td Nos. of Bgy. in Rural Area	Class	Rural Water Supply										Rural Sanitation							Sub-total Avail. IRA							
			R. Water Supply		Nos. of LEVEL I Facilities				Rural Sanitation		Public		Number of Toilets		Mun. Avail. IRA	Sub-total Avail. IRA											
			Provl.	Muni.	Deep Wells	Shallow Wells	Springs	Dev't	Ttd Related	Provl.	Muni.	Bus Term.	School Toilet	Ttd Related													
Albayas	13	5th	0	1,286	2,199	0	0	0	0	0	0	0	0	676	999	0	0	0	6	0	0	6	0	76	999	1,675	
Balete	9	5th	2	1,188	2,353	2	0	0	0	0	2	1,188	2,353	3,541	577	960	4	4	4	4	4	4	4	577	960	1,537	0
Banga	29	4th	0	1,808	3,959	12	2	0	0	0	0	1,808	3,959	1,211	149	121	0	0	0	0	0	0	0	0	0	1,211	0
Batan	19	4th	0	1,883	3,080	13	0	0	0	0	0	1,883	3,080	1,121	780	1,121	7	7	7	7	7	7	7	780	1,121	1,901	
Bunanga	14	5th	6	201	677	0	6	0	0	0	6	201	677	878	0	1,142	3	3	3	3	3	3	3	0	1,142	1,142	
Ibajay	34	4th	0	2,166	4,349	0	0	0	0	0	0	2,166	4,349	0	490	796	4	4	4	4	4	4	4	490	796	1,286	
Kalibo (Capital)	0	5th	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lezo	11	4th	0	874	1,588	6	0	0	0	0	0	874	1,588	0	382	525	3	3	3	3	3	3	3	382	525	907	
Libacao	23	5th	10	443	1,321	1	9	0	0	0	10	443	1,321	1,764	276	1,898	6	6	6	6	6	6	6	276	1,898	2,172	
Madaya	24	5th	8	289	1,320	1	7	0	0	0	8	289	1,320	1,610	0	1,929	5	5	5	5	5	5	5	0	1,929	1,929	
Makato	17	5th	11	1,486	2,383	10	1	0	0	0	11	1,486	2,383	3,869	683	923	6	6	6	6	6	6	6	683	923	1,591	
Malay	15	4th	0	1,209	994	1	4	0	0	0	0	1,209	994	0	741	534	6	6	6	6	6	6	6	741	534	1,275	
Malmiao	22	5th	0	1,407	2,967	0	0	0	0	0	0	1,407	2,967	0	671	1,221	6	6	6	6	6	6	6	671	1,221	1,891	
Nabas	18	5th	9	860	1,591	5	4	0	0	0	9	860	1,591	2,451	548	845	5	5	5	5	5	5	5	548	845	1,393	
New Washington	15	4th	0	2,032	2,726	14	0	0	0	0	11	1,598	2,206	3,804	624	793	6	6	6	6	6	6	6	624	793	1,477	
Nunungan	15	5th	11	1,598	2,206	11	0	0	0	0	11	1,598	2,206	3,804	624	793	5	5	5	5	5	5	5	627	737	1,364	
Tangalan	13	5th	7	997	1,840	6	1	0	0	0	7	997	1,840	2,747	147	107	0	0	0	0	0	0	0	147	107	0	
Total	291	3rd	64	19,643	35,852	82	34	0	0	64	6,973	13,691	20,663	7,414	14,643	0	0	72	72	72	72	72	7,118	14,421	21,540		

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

Name of City or Municipality	Td Nos. of Bgy. in Urban	Class	Urban Sanitation						Number of Toilets			Mun. Avail. IRA		Sub-total Avail. IRA
			Urban Sanitation		Public Mkt.		Provl.	Muni.	Bus Term.	School	Ttd Related	Mun. Avail. IRA		
			Provl.	Muni.	Provl.	Muni.								
Albayas	1	5th	313	480	1	0	1	313	480	792	313	480	792	
Balete	1	5th	313	556	1	0	1	313	556	868	313	556	868	
Banga	1	4th	313	615	1	0	1	313	615	928	313	615	928	
Batan	1	4th	313	457	1	1	0	2	313	457	770	770		
Bunanga	1	5th	56	968	1	1	0	2	56	968	1,024	1,024		
Ibajay	1	4th	313	562	1	0	0	1	313	562	875	875		
Kalibo (Capital)	16	5th	2,225	1,230	1	1	18	20	2,225	1,230	3,455	3,455		
Lezo	1	4th	173	255	1	0	0	1	173	255	429	429		
Libacao	1	5th	313	843	1	1	0	2	313	843	1,156	1,156		
Madaya	1	5th	0	989	1	1	0	2	0	989	989	989		
Makato	1	5th	313	450	1	0	0	1	313	450	762	762		
Malay	2	4th	939	748	3	1	2	6	939	748	1,687	1,687		
Malmiao	1	5th	313	592	1	0	0	1	313	592	904	904		
Nabas	2	5th	313	376	0	1	0	1	313	376	689	689		
New Washington	1	4th	313	387	1	0	0	1	313	387	700	700		
Nunungan	2	5th	313	370	1	0	0	1	313	370	833	833		
Tangalan	2	5th	313	570	1	0	0	1	313	570	883	883		
Total	36	3rd	7,148	10,896	18	7	20	45	7,148	10,896	17,745	17,745		

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

Name of City or Municipality	Water Supply		Sanitation		Total
	Rural	Urban	Urban	Rural	
	Albayas	0	0	792	
Balete	3,541	0	868	1,537	5,947
Banga	0	0	928	0	928
Batan	0	0	770	1,901	2,671
Bunanga	878	0	1,024	1,142	3,043
Ibajay	0	0	875	1,286	2,161
Kalibo (Capital)	0	0	3,455	0	3,455
Lezo	0	0	429	907	1,335
Libacao	1,764	0	1,156	2,172	5,092
Madaya	1,610	0	989	1,929	4,528
Makato	3,569	0	762	1,591	6,222
Malay	0	0	1,687	1,275	2,962
Malmiao	2,451	0	904	1,891	2,796
Nabas	0	0	833	1,393	4,676
New Washington	0	0	689	1,477	2,165
Nunungan	3,804	0	700	1,164	5,868
Tangalan	2,747	0	883	0	3,630
Total	20,663	17,745	21,540	21,540	59,948

Table 11.5.4 FIRR for Level I Water Supply

Year	No. of Deep Well	No. of Shallow Well	Spring Dev't.	Construction Cost	Rehab. & Replacement Cost	O&M Cost	Total Costs (Outflow)	No. of Households	Water Rate per month per household	Loans and Subsidies	Cash Inflow	Net Value
1	7	6	0	3,074,800	0	0	3,074,800	195	151.44		354,369.60	(2,720,430.40)
2	11	8	0	4,711,400	0	30,748	4,742,148	480	151.44		872,294.40	(3,869,853.60)
3	11	8	0	4,711,400	0	77,862	4,789,262	765	151.44		1,390,219.20	(3,399,042.80)
4	7	6	0	3,074,800	0	124,976	3,199,776	960	151.44		1,744,588.80	(1,455,187.20)
5					0	155,724	155,724	960	151.44		1,744,588.80	1,588,864.80
6					0	155,724	155,724	960	151.44		1,744,588.80	1,588,864.80
7					0	155,724	155,724	960	151.44		1,744,588.80	1,588,864.80
8					0	155,724	155,724	960	151.44		1,744,588.80	1,588,864.80
9					0	155,724	155,724	960	151.44		1,744,588.80	1,588,864.80
10					0	155,724	155,724	960	151.44		1,744,588.80	1,588,864.80
11					1,054,600	155,724	1,210,324	960	151.44		1,744,588.80	534,264.80
12					1,536,800	155,724	1,692,524	960	151.44		1,744,588.80	52,064.80
13					1,536,800	155,724	1,692,524	960	151.44		1,744,588.80	52,064.80
14					1,054,600	155,724	1,210,324	960	151.44		1,744,588.80	534,264.80
15					0	155,724	155,724	960	151.44		1,744,588.80	1,588,864.80
16					0	155,724	155,724	960	151.44		1,744,588.80	1,588,864.80
17					0	155,724	155,724	960	151.44		1,744,588.80	1,588,864.80
18					0	155,724	155,724	960	151.44		1,744,588.80	1,588,864.80
19					0	155,724	155,724	960	151.44		1,744,588.80	1,588,864.80
20					0	155,724	155,724	960	151.44		1,744,588.80	1,588,864.80

Province of Aklan

Total: 8,794,522.80
 FIRR: 6.24%
 NPV@9%: -1,823,948.62

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

Unit: Peso

Category	Total Amount	1st year	2nd year	3rd year	4th year	5th year
A. Const. & Civil Works						
1. Water Supply	15,572,400	0	3,114,480	4,671,720	4,671,720	3,114,480
2. Sanitation	30,522,000	0	6,104,400	9,156,600	9,156,600	6,104,400
3. Land Acquisition	320,000	0	64,000	96,000	96,000	64,000
B. Equip./Logistic Support	1,072,400	0	1,072,400	0	0	0
C. Consultancy Services						
1. Hydrogeological Survey	1,148,000	1,148,000	0	0	0	0
2. D/D and Const. Sv.	5,105,584	2,042,234	1,021,117	1,021,117	510,558	510,558
D. Institutional Devt.						
1. Capacity Enhanc. Prog.	3,200,000	960,000	960,000	640,000	320,000	320,000
2. Commu. Manag. Prog.	689,280	206,784	206,784	137,856	68,928	68,928
3. Health & Hygiene Educ.	115,200	34,560	34,560	23,040	11,520	11,520
4. Water Quality Surveil.	44,800	13,440	13,440	8,960	4,480	4,480
5. NGO Assistance	76,800	23,040	23,040	15,360	7,680	7,680
6. Administrative Support	1,200,000	360,000	360,000	240,000	120,000	120,000
E. Physical Contingency (10% of sub-total A+B+C+D)	5,906,646	478,806	1,297,422	1,601,065	1,496,749	1,032,605
Total (A+B+C+D+E+F)	64,973,110	5,266,863	14,271,643	17,611,718	16,464,235	11,358,651
F. Others						
1. Price Contingency	21,781,959	1,765,694	4,784,508	5,904,254	5,519,565	3,807,939
2. Value Added Tax (VAT)	2,420,715	196,229	531,721	656,163	613,411	423,191
Grand Total	89,175,785	7,228,785	19,587,872	24,172,135	22,597,211	15,589,782

Note: Item A includes equity of users.

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

Table 11.6.2 O&M Cost for Level I Facilities

	Deep Well	Shallow Well	Spring Dev't
Nos. of Facilities to be Constructed	36	28	0
Nos. of HHs to be Served	540	420	0
Reconstruction Cost (Peso)			
Unit Cost	367,000	84,300	747,000
Ttl. Reconst. Cost	13,212,000	2,360,400	
Ttl. Reconst. Cost/year	660,600	236,040	
Cost per HH/year	1,223	562	
Rehabilitation Cost (Peso)			
Unit Cost	78,400		
Ttl. Rehab. Cost	2,822,400		
Ttl. Rehab. Cost/year	282,240		
Cost per HH/year	523		
Recurrent Cost for O&M (Peso)			
Cost per HH/year	100	50	50
O&M Cost Total (Peso)			
Cost per HH/year	1,846	612	50

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

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

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

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

	Deep Well	Shallow Well	Spring Dev't
O&M Cost per HH/month	154	51	4
Proportion (Mean)	1.2%	0.4%	0.0%
Proportion (Median)	2.0%	0.7%	0.1%

Table 11.6.4 Family Income (Unit: Pesos)

Annual ¹⁾		Monthly ²⁾	
Mean	Median	Mean	Median
70,376	43,170	12,344	7,572

Note: 1) 1994 NSO Family Income and Expenditure Survey

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

O&M Cost for GOP Assisted Sanitation Project

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

Nos. of Facilities to be Constructed		Unit Construction Cost		Yearly O&M Cost
Public Toilets	School Toilets	Public Toilets	School Toilets	
0	72	361,600	233,500	840,600

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

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

Nos. of Facilities to be Constructed		Unit Construction Cost		Yearly O&M Cost
Public Toilets	School Toilets	Public Toilets	School Toilets	
25	20	361,600	233,500	685,500

12. MONITORING FOR MEDIUM-TERM DEVELOPMENT PLAN

12.4 Evaluation of Plan Implementation and Updating the PW4SP

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

Form P-1

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

I. Service Coverage

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

II. Sources & Uses of Capital Development Funds

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

III. School Sanitation (Source, DECS)

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

IV. Incidence of Diarrhea (Source IPHO)

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

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

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

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

Municipality of _____
 Provincial Water & Sanitation Monitoring System

Annual Sector Performance Summary Report

Period Covered : _____ to _____

I. Service Coverage

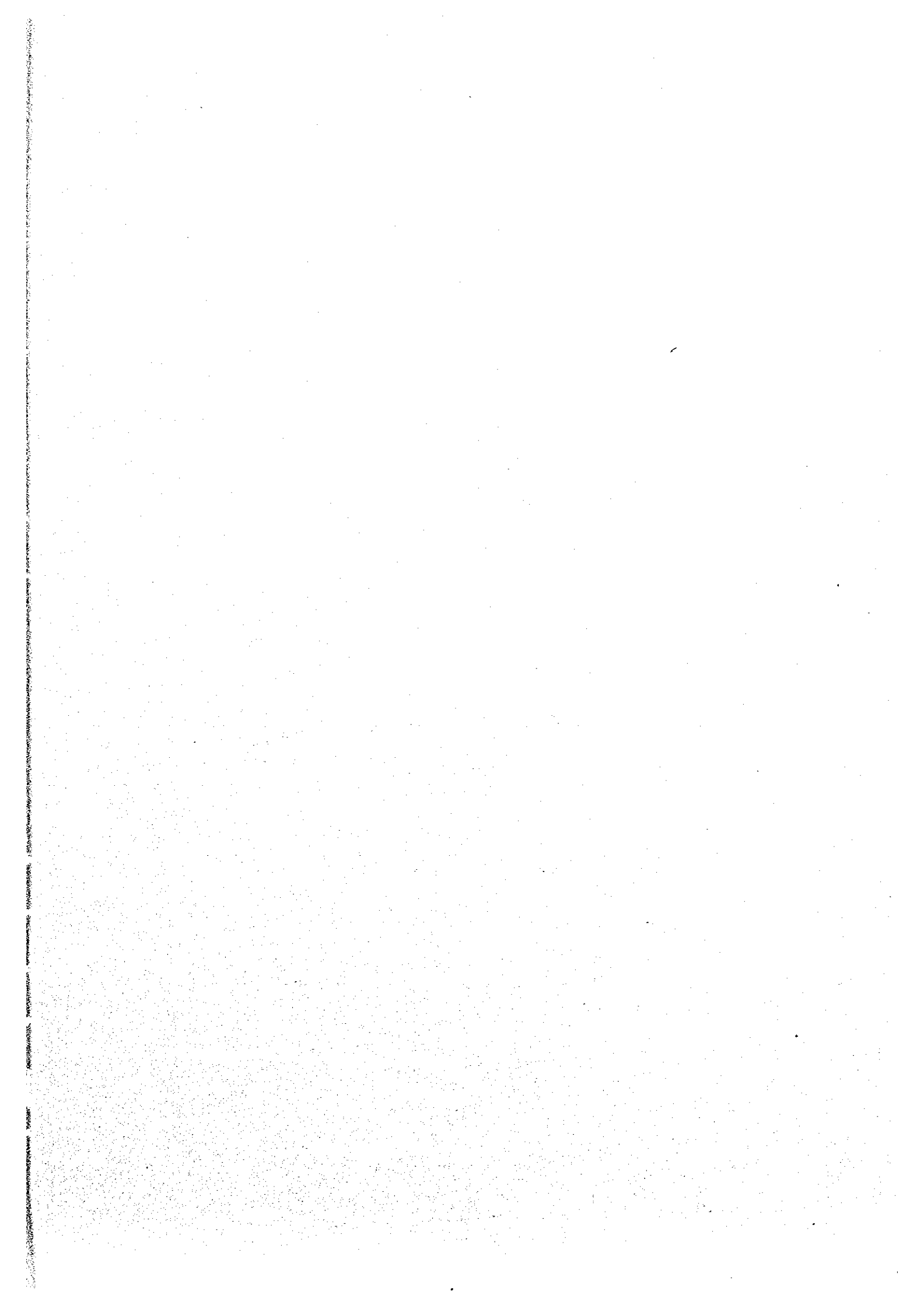
Name of Barangay (1)	LAST YEAR				THIS YEAR			
	Population (2)	Persons with Safe Water & Sanitary Toilets (3)	Persons with Water Only (4)	Persons with Sanitary Toilets Only (5)	Population (6)	Persons with Safe Water & Sanitary Toilets (7)	Persons with Water Only (8)	Persons with Sanitary Toilets Only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

II. Sources & Uses of Capital Development Funds.

Source of Funds (1)	Budget (2)	Actual Disbursement (3)	Uses of Funds							Others (10)
			Water Source Development (4)	Water Supply Transmission (5)	Water Storage/ Treatment & Distribution (6)	Household Toilets (7)	School Toilets (8)	Public Toilets (9)		
Municipal Funds										
Barangay Funds										
A.										
B.										
C.										
D.										
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NGO										
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