

10.3 Cost of Required Facilities and Equipment

10.3.1 Cost of Required Facilities

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

Unit: P 1,000

Name of Municipality/City	Urban Water Supply Level III	Rural Water Supply										Level I Rehabilitation	Total	Grand Total
		New System												
		Level II	Level I			Spring Dev.	Subtotal							
			Deep Well		Shallow Well									
			40 m	80 m				120 m						
Bago City	23,500	3,600	20,384			3,035	7,376	30,795	439	34,834	58,334			
Binalbagan	18,161		10,192				2,213	12,405	220	12,624	30,785			
Cadiz City														
Calatrava														
Candoni	2,132			2,160		759	738	3,656	31	3,688	5,819			
Cauayan	16,112	4,956	6,552			2,108	3,688	12,348	141	17,444	33,556			
Enrique B. Magalona	18,220		6,916			590	2,213	9,719	149	9,868	28,087			
Escalante	21,888		16,016			337	3,688	20,041	345	20,386	42,274			
Himamaylan														
Hinigaran	9,339		18,928				4,426	23,354	408	23,761	33,100			
Hinoba-an (Asia)	11,970					1,770	1,475	3,246		3,246	15,215			
Ilog	18,222		3,276			422	1,475	5,173	71	5,243	23,465			
Isabela	8,634			18,900			2,950	21,850	274	22,125	30,759			
Kabankalan City	29,412			43,740		674	7,376	51,790	635	52,425	81,837			
La Carlota City				8,100		1,180	2,213	11,493	118	11,611	11,611			
La Castellana	16,690			2,700		3,035	3,688	9,423	39	9,462	26,152			
Manapla	7,412	2,473	6,552			1,012	2,213	9,776	141	12,391	19,803			
Moises Padilla				7,560		422	1,475	9,457	110	9,566	9,566			
Murcia	13,545			2,160		2,951	2,950	8,061	31	8,092	21,638			
Pontevedra	14,232		8,008				2,213	10,221	172	10,393	24,625			
Pulupandan	12,286										12,286			
Sagay City	31,122	8,159		35,100		590	5,901	41,591	510	50,260	81,382			
Salvador Benedicto														
San Carlos City	21,535			32,940		1,265	6,638	40,843	478	41,321	62,857			
San Enrique	7,961		4,004				738	4,742	86	4,828	12,789			
Silay City	33,307		7,644			3,878	5,901	17,423	165	17,587	50,894			
Sipalay	15,214		7,280			1,602	2,950	11,832	157	11,989	27,203			
Talisay City	19,109			4,320		2,445	2,950	9,715	63	9,778	28,887			
Toboso	5,715			16,200		253	2,950	19,403	235	19,639	25,354			
Valladolid														
Victorias City	35,557		4,368			927	2,213	7,508	94	7,602	43,159			
Provincial Total	411,273	19,188	120,120	173,880		29,252	82,611	405,863	5,112	430,163	841,436			

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

Unit: P 1,000

Name of Municipality/City	Urban Water Supply Level III	Rural Water Supply										Level I Rehabilitation	Total	Grand Total
		New System					Level I							
		Deep Well		Shallow Well		Spring Dev.	Subtotal							
		40 m	80 m	120 m										
Bago City	81,536	46,592			7,081	7,376	61,049	1,004	62,053	143,589				
Binalbagan	53,018	14,560				2,213	16,773	314	17,086	70,104				
Cadiz City	27,257	14,924			2,276		17,200	321	17,522	44,779				
Calatrava	10,746		22,140		843		22,983	321	23,304	34,050				
Candoni	11,153		6,480		2,360	738	9,578	94	9,672	20,825				
Cauayan	71,915	17,108			5,817	3,688	26,613	368	26,981	98,896				
Enrique B. Magalona	94,735	15,652			1,517	2,213	19,382	337	19,719	114,454				
Escalante	130,690					3,688	3,688		3,688	134,378				
Himamaylan	101,988	28,028					28,028	604	28,632	130,620				
Hinigaran	38,231	33,124				4,426	37,550	713	38,263	76,494				
Hinoba-an (Asia)	46,386				1,180	1,475	2,655		2,655	49,041				
Ilog	75,110	10,556			1,517	1,475	13,549	227	13,776	88,886				
Isabela	35,158		46,440			2,950	49,390	674	50,065	85,222				
Kabankalan City	186,666		188,460		3,203	7,376	199,039	2,736	201,776	388,441				
La Carlota City	22,150	6,480			1,012	2,213	9,704	94	9,798	31,949				
La Castellana	74,809		5,940		8,177	3,688	17,805	86	17,891	92,700				
Manapla	18,421	4,004			506	2,213	6,723	86	6,809	25,230				
Moises Padilla	34,930		9,180		590	1,475	11,245	133	11,379	46,308				
Murcia	62,605					2,950	2,950		2,950	65,555				
Pontevedra	49,788	2,912				2,213	5,125	63	5,188	54,975				
Pulupandan	47,159	22,204					22,204	478	22,682	69,841				
Sagay City	129,080		137,700		2,360	5,901	145,961	1,999	147,960	277,040				
Salvador Benedicto					2,698		2,698		2,698	2,698				
San Carlos City	50,484		52,920		2,023	6,638	61,582	768	62,350	112,834				
San Enrique	39,697	4,732				738	5,470	102	5,572	45,269				
Silay City	162,159	5,460			2,698	5,901	14,058	118	14,176	176,335				
Sipalay	64,449	5,460			1,265	2,950	9,675	118	9,793	74,242				
Talisay City	83,503		6,480		3,878	2,950	13,308	94	13,402	96,905				
Toboso	21,557		21,060		337	2,950	24,348	306	24,653	46,210				
Valladolid	81,418	4,732					4,732	102	4,834	86,252				
Victorias City	175,623	10,192			2,360	2,213	14,765	220	14,985	190,608				
Provincial Total	2,082,416	240,240	503,280		53,699	82,611	879,830	12,481	892,312	2,974,728				

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

Unit: P 1,000

Name of Municipality/City	Urban Sanitation						Rural Sanitation						Total Public Investment Cost		
	Household Toilets			Public School Toilets	Public Toilets	Total Construction Cost	Total Public Investment Cost	Household Toilets			Sub-total of Public Investment	Public School Toilets		Total Construction Cost	Total Public Investment Cost
	Flush	Pour Flush	VIP/Dry					Sub-total of Construction Cost	Sub-total of Public Investment	Sub-total of Construction Cost					
Bago City				2,802	723	3,525	8,855			8,855		9,574	18,429	9,574	
Binalbagan	12,949	395		2,335	723	16,402	2,300	15,679		17,979	245	2,802	20,781	3,047	
Cadiz City	943	10,660		3,036	166	14,638	3,202	70,571		70,571	1,101	7,939	78,510	9,040	
Calatrava	3,795			934	2,531	7,260	3,465	9,391		20,201	146	4,670	24,871	4,816	
Candoni	299					299		522		3,121	8	1,401	4,522	1,409	
Cauayan	2,760			2,102	1,085	5,946	3,186	705		8,801	11	5,604	14,405	5,615	
Enrique B. Magalona	30,820	6,500		1,635	362	39,316	2,098	5,428		25,803	318	1,635	27,437	1,952	
Escalante	5,865			3,970	723	10,558	4,693	9,890		20,620	167	4,904	25,524	5,071	
Himamaylan	18,331			2,802	723	21,856	3,525	3,266		22,541	301	4,904	27,444	5,204	
Hinigaran	3,588	635			723	4,946	733	17,230		17,230	269		17,230	269	
Hinoba-an (Asia)				1,635	1,085	2,719						2,335	2,335	2,335	
Ilog				2,102	362	2,463						1,401	1,401	1,401	
Isabela								5,819	4,272	10,091	67		10,091	67	
Kabankalan City				4,670	5,424	10,094	10,094	17,066	15,397	32,463	240	9,107	41,570	9,347	
La Carlota City				1,868		1,868	1,868					2,802	2,802	2,802	
La Castellana	19,435	677		20,112	11	20,112	11	8,441	23,434	31,875	366		31,875	366	
Manapla	6,371	2,087		8,458	33	10,243	1,818	23,674		23,674	369	3,036	26,709	3,405	
Moises Padilla	8,073			8,073		8,073		3,818	8,220	12,038	128		12,038	128	
Murcia	16,215	2,200		2,102	362	20,878	2,497	5,440	26,057	32,497	406	4,904	37,400	5,310	
Pontevedra	6,693			1,635		8,328	1,635	4,209	6,599	10,808	103	2,102	12,909	2,204	
Pulupandan	5,934					5,934		828					828		
Sagay City	16,215	338		16,553	5	24,372	7,824	5,175	43,231	48,406	674	7,472	55,878	8,146	
Salvador Benedicto					362	362	362	310	2,343	2,653	5	1,168	3,821	1,172	
San Carlos City	8,717			2,569	362	11,647	2,930	15,040	6,571	22,211	103	7,005	29,216	7,108	
San Enrique	4,669			701		5,370	701	4,709	36	4,745	73	934	5,679	1,007	
Silay City	10,143			3,736	723	14,602	4,459	14,030	76,041	92,982	1,186	4,670	97,652	5,856	
Sipalay				1,868		1,868	1,868	23,730		23,730	370	3,736	27,466	4,106	
Talisay City	13,455	5,302		2,802	723	22,282	3,608	7,774	21,080	28,854	329	3,269	32,123	3,598	
Toboso	6,532			701	362	7,594	1,062	6,003	15,017	21,020	234	3,269	24,289	3,503	
Valladolid	15,893			1,401	362	17,656	1,763	1,932	1,519	5,933	39	934	6,867	973	
Victorias City	28,106	9,221		5,604		42,931	5,748	9,320		11,505	145	2,102	13,607	2,247	
Provincial Total	245,801	38,014		283,815	593	364,142	80,920	150,604	474,620	6,809	632,033	7,404	103,674	111,078	

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

Name of Municipality/City	Urban Sanitation						Rural Sanitation					
	Household Toilets			Public School Toilets	Public Toilets	Total Construction Cost	Urban Sewerage	Household Toilets			Sub-total of Public Investment	Total Construction Cost
	Flush	Pour Flush	VIP/Dry					Flush	Pour Flush	VIP/Dry		
Bayo City	87,423			3,503	362	91,287	130,707	7,061	189,490		2,956	232,276
Binalbagan	51,704	2,975		1,168	362	56,208	102,558	11,891	38,620		602	60,084
Cadiz City	77,441	4,568		5,137	723	87,870	153,453	99,461			1,552	125,146
Calatara	23,000			934	362	24,296	47,552	21,758	68,554		1,069	107,358
Candoni	5,313	155		467	723	6,658	1,193		28,468		444	33,371
Cauayan	46,575	2,933		3,036	723	53,267	92,119	9,200	95,965		1,497	19,848
Enrique B. Magalona	69,253	4,413		3,036	362	76,702	136,890	2,622	49,576		773	58,035
Escalante	99,590	14,297		4,904	362	119,153	188,048	15,295	40,397		55,692	13,940
Himamaylan	65,734	5,922		2,802	362	74,458	128,006	20,723	71,078		91,801	17,921
Hinigaran	27,416	2,623		934	362	31,334	53,246	16,652	87,998		1,373	122,863
Hinobasan (Asia)	43,723			934	362	45,019	1,296	59,940	45,910		716	52,915
Ilog	74,704			3,036	723	78,463	3,759	101,959	14,568	1,377	15,745	20,182
Isabela	30,084			701	723	31,508	1,424	45,099	45,092	3,571	48,663	703
Kabankalan City	167,141			9,340	723	177,204	10,063	236,995	47,334	172,739	2,695	32,690
La Carlota City	52,854			701	362	53,916	1,062	86,257	17,503	29,342	458	9,807
La Castellana	56,741	8,164		1,168	723	66,796	2,018	107,128	65,156		1,016	78,466
Manapla	21,229	1,184		934	362	23,709	1,314	42,158	57,796		536	34,376
Moises Padilla	22,586	1,410		1,085	723	25,081	1,107	44,713	34,376		571	48,872
Murcia	59,961	14,495		3,736	723	78,915	4,685	106,624	12,282	36,590	383	6,772
Pontevedra	51,474	8,079		4,670	1,085	65,308	5,881	96,404	8,326	24,534	180	2,569
Pulupandan	32,706	226		701	723	34,355	1,427	66,744	3,772	11,548	15,320	17,888
Sagay City	112,194	4,301		8,873	723	126,091	9,663	224,979	42,481	143,891	2,245	28,020
Salvador Benedicto					723	723			34,475		538	4,904
San Carlos City	62,721	2,848		4,670	723	70,962	5,438	125,217	1,702	102,197	1,594	23,584
San Enrique	26,657	4,498		1,401	362	32,918	1,833	49,574	16,173		252	3,036
Sisay City	141,864	19,232		8,173	723	169,992	9,196	269,056	24,449	71,586	1,117	4,944
Sipalay	54,418			2,335	1,085	57,838	3,420	88,607	70,105		1,094	13,076
Talisay City	71,714	2,905		3,503		78,121	3,548	143,642	70,401		1,098	11,442
Toboso	15,226			934		16,160	934		44,725		698	11,208
Valladolid	47,472	3,680		3,736		54,888	3,793	93,082	20,219		315	3,036
Victorias City	147,959	14,199		4,904	1,085	168,146	6,210	287,146	11,270	39,508	616	8,173
Provincial Total	1,846,877	123,107		90,365	16,995	2,077,344	109,280	3,307,900	288,236	1,920,335	29,957	402,788
												2,618,147
												432,745

Unit: P.1,000

10.4 Costs of Sector Management

10.4.1 Breakdown of Community Development and Training Cost

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

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

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

Table 10.4.1 Breakdown of Community Development and Training Cost

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

11. FINANCIAL ARRANGEMENTS FOR MEDIUM-TERM DEVELOPMENT PLAN

11.3 Additional Funding Requirements

Percentages for Annual Investment

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

Table 11.3.1 Percentages for Annual Investment

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

Note: Institutional development includes:

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

Urban water supply:

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

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

Rural water supply (Level I):

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

Sanitation:

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

11.4 Medium-Term Implementation Arrangements

11.4.2 Alternative Countermeasures

Comprehensive Investment Need Ranking for the Municipalities

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

11.5 National Government Assisted Level I Water Supply and Sanitation Project

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

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

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

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

O&M for Rural Water Supply

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

O&M for Sanitation

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

Table 11.4.1 Comprehensive Investment Need Ranking of the Municipalities

Name of Municipality/City	Evaluation Factor				Score by Sub-Sector				Weighted Score by Sub-Sector				Synthetic Investment Need Ranking
	(% of Underserved and Unserved Population or Households)				Urban Water Supply	Rural Water Supply	Urban Sanitation	Rural Sanitation	Urban Water Supply	Rural Water Supply	Urban Sanitation	Rural Sanitation	
Bayo City	N.A.	28	9	13	0.66	0.20	0.20	0.20	0.17	0.05	0.05	0.05	28
Binalagan	N.A.	31	26	34	0.46	0.40	0.60	0.40	0.12	0.10	0.15	0.10	12
Cadiz City	N.A.	13	41	25	0.20	0.20	0.60	0.60	0.05	0.05	0.15	0.15	18
Calarava	N.A.	11	24	27	0.60	0.20	0.60	0.20	0.15	0.05	0.15	0.05	19
Candani	N.A.	38	19	22	0.76	0.40	0.40	0.20	0.19	0.10	0.10	0.05	13
Cauayan	N.A.	36	18	19	0.93	0.40	0.40	0.20	0.23	0.10	0.10	0.05	7
Enrique B. Magalona	N.A.	31	38	40	0.66	0.40	0.80	0.40	0.17	0.10	0.20	0.10	3
Escalante	N.A.	14	12	21	0.39	0.20	0.40	0.20	0.10	0.05	0.10	0.05	30
Himanaylan	N.A.	18	30	32	0.70	0.20	0.60	0.40	0.18	0.05	0.15	0.10	9
Hinagan	N.A.	28	24	26	0.86	0.20	0.60	0.20	0.22	0.05	0.15	0.05	10
Hinoban (Asia)	N.A.	29	12	12	0.76	0.20	0.40	0.20	0.19	0.05	0.10	0.05	22
Ilog	N.A.	55	15	17	0.76	0.80	0.40	0.20	0.19	0.20	0.10	0.05	5
Isabela	N.A.	39	10	22	0.76	0.40	1.00	0.20	0.19	0.10	0.25	0.05	1
Kabankalan City	N.A.	49	5	19	0.76	0.60	0.20	0.20	0.19	0.15	0.05	0.05	14
La Carlota City	N.A.	23	8	18	0.23	0.20	0.20	0.20	0.06	0.05	0.05	0.05	31
La Castellana	N.A.	41	30	33	0.76	0.60	0.60	0.40	0.19	0.15	0.15	0.10	2
Manapla	N.A.	14	31	32	0.33	0.20	0.80	0.40	0.08	0.05	0.20	0.10	15
Moises Padilla	N.A.	25	34	36	0.67	0.20	0.80	0.40	0.17	0.05	0.20	0.10	6
Murcia	N.A.	20	34	36	0.79	0.20	0.80	0.40	0.20	0.10	0.20	0.10	4
Pontevedra	N.A.	25	21	27	0.43	0.20	0.60	0.20	0.11	0.05	0.15	0.05	27
Polupandan	N.A.	10	18	12	0.49	0.20	0.40	0.20	0.12	0.05	0.10	0.05	28
Sagay City	N.A.	35	11	22	0.63	0.40	0.40	0.20	0.16	0.10	0.10	0.05	17
Salvador Benedicto	N.A.	10	100	20	0.20	0.20	1.00	0.20	0.05	0.05	0.25	0.05	19
San Carlos City	N.A.	34	18	19	0.43	0.40	0.40	0.20	0.11	0.10	0.10	0.05	26
San Enrique	N.A.	28	22	27	0.66	0.20	0.60	0.20	0.17	0.05	0.15	0.05	16
Silay City	N.A.	28	15	58	0.46	0.20	0.40	0.80	0.12	0.05	0.10	0.20	10
Sipalay	N.A.	20	14	36	0.49	0.20	0.40	0.40	0.12	0.05	0.10	0.10	24
Talisay City	N.A.	23	25	35	0.36	0.20	0.60	0.40	0.09	0.05	0.15	0.10	21
Toboso	N.A.	24	26	27	0.93	0.20	0.60	0.20	0.23	0.05	0.15	0.05	7
Valladolid	N.A.	2	30	35	0.32	0.20	0.60	0.40	0.08	0.05	0.15	0.10	23
Victorias City	N.A.	27	22	23	0.46	0.20	0.60	0.20	0.12	0.05	0.15	0.05	25
Provincial Total	N.A.	27	20	27									

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				0.25	0.25	0.25	Allocated Weight
1.0	61 < %	41 < %	61 < %	61 < %				
0.8	51 < %	31 < %	40 < %	51 < %				
0.6	41 < %	21 < %	30 < %	41 < %				
0.4	31 < %	11 < %	20 < %	31 < %				
0.2	%	30	%	10				

(Unit: 1,000 Pesos)

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

Name of City or Municipality	1st No. of Bgs. in Rural Area	Class	Rural Water Supply										Rural Sanitation									
			Nos. of Related Bgs.	R. Water Supply Allotment of IRA			Nos. of LEVEL I Facilities			Prov. Avail. IRA	Mun. Avail. IRA	Sub-total Avail. IRA	No. of Related Bgs.	Rural Sanitation Allotment of IRA			Number of Toilets			Prov. Avail. IRA	Mun. Avail. IRA	Sub-total Avail. IRA
				Prov.	Muni.	Related	Deep Wells	Shallow Wells	Spring Dev't					Prov.	Muni.	Related	Public Mkt.	Bus Term.	School Ttl.			
Bayo City	21	1st		6,313	29,961		56	36	10	0		0		1,890	8,234				41			0
Binalbagan	9	3rd		2,343	2,932		28	0	0	3	0	0		723	708				12	12	723	708
Cadiz City	16	1st		0	0		0	0	0	0	0	0		0	13,119				34			0
Calatara	35	2nd		0	0		0	0	0	0	0	0		0	6,989				20			0
Candori	8	5th		746	2,488		4	9	1	14	746	2,488		431	951				6	6	431	951
Cauayan	22	1st		3,204	5,669		18	25	5	0		0		1,182	1,825				24			0
Enrique B. Malalona	14	3rd		1,850	2,485		19	7	3	0		0		538	492				7	7	538	492
Escalante	16	2nd		3,730	4,313		44	4	5	0		0		1,085	1,073				21			0
Humayunan	13	1st		0	0		0	0	0	0	0	0		0	7,508				21			0
Imunuran	20	2nd		4,334	6,979		52	0	6	0		0		227	79				0			0
Imunuran (Asia)	9	3rd		667	1,394		0	21	2	0		0		596	1,003				10	10	596	1,003
Ilog	8	3rd		1,024	1,587		9	5	2	0		0		429	424				6	6	429	424
Isabela	21	3rd		4,041	5,870		35	0	4	0		0		191	18				0	0	191	18
Kabankalan City	19	3rd		9,457	41,720		81	8	10	0		0		1,849	7,435				39	39	1,849	7,435
La Carlota City	10	3rd		0	16,949		15	14	3	0		0		0	4,066				12	12	0	4,066
La Castellana	7	3rd		1,778	3,211		5	36	5	0		0		244	124				0	0	244	124
Manapla	7	3rd		2,301	3,450		18	12	3	0		0		787	948				13	13	787	948
Moscos Padilla	6	4th		1,796	5,936		14	5	2	0		0		202	80				0	0	202	80
Mureta	16	3rd		1,533	2,611		4	35	4	0		0		1,128	1,713				21	21	1,128	1,713
Pontevedra	15	4th		1,944	2,521		22	0	3	0		0		571	535				9	9	571	535
Pulupandan	10	4th		0	0		0	0	0	0	0	0		0	0				0	0	0	0
Sagay City	20	3rd		9,070	29,613		65	7	8	0		0		1,635	4,800				32	32	1,635	4,800
Salvador Benedicto	7	5th		0	0		0	0	0	0	0	0		0	1,701				5	5	0	1,701
San Carlos City	12	1st		2,472	34,309		61	15	0	0		0		1,449	5,901				30	30		646
San Enrique	8	5th		949	1,378		11	0	1	12	949	1,378		359	288				4	4	359	288
Silay City	8	2nd		3,230	14,044		21	46	8	0		0		1,226	4,676				20			0
Sipalay	11	1st		2,229	3,984		20	19	4	0		0		913	1,364				16			0
Tanay City	10	3rd		1,834	11,021		8	29	4	0		0		822	4,055				14	14	822	4,055
Toboso	8	3rd		3,597	4,254		30	3	4	0		0		805	764				14	14	805	764
Valladolid	9	4th		0	0		0	0	0	0		0		0	1,411				4	4	0	1,411
Victorias City	6	3rd		1,445	5,666		12	11	3	0		0		580	1,675				4	4	580	1,675
Total	405	1st	16	76,888	244,273	652	347	112	26	1,695	3,866	5,561		19,854	83,961	0	0	444	217	217	11,882	33,193
Total Available IRA Fund			50,636																			

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

Name of City or Municipality	Water Supply		Sanitation		Total
	Rural	Urban	Rural	Urban	
Bago City	0	0	0	0	0
Binalbagan	0	1,377	1,431	0	2,807
Cadiz City	0	0	0	0	0
Calarava	0	0	0	0	0
Candoni	3,223	0	1,381	0	4,615
Cauayan	0	0	0	0	0
Enrique B. Magalona	0	1,020	1,019	0	2,040
Escalante	0	0	0	0	0
Himanaylan	0	0	0	0	0
Hinigaran	0	0	0	0	0
Hinob-an (Asia)	0	1,771	1,599	0	3,370
Ilog	0	1,303	853	0	2,156
Isabela	0	0	208	0	208
Kabankalan City	0	9,954	9,287	0	19,242
La Carlota City	0	2,711	4,066	0	6,777
La Castellana	0	123	368	0	491
Manapa	0	948	1,736	0	2,684
Moises Padilla	0	0	281	0	281
Murcia	0	1,369	2,841	0	4,211
Pontevedra	0	806	1,108	0	1,913
Pulupandan	0	0	0	0	0
Sagay City	0	6,126	6,435	0	12,560
Salvador Benedicto	0	525	1,701	0	2,226
San Carlos City	0	0	0	0	0
San Enrique	2,328	442	646	0	3,416
Silay City	0	0	0	0	0
Sipalay	0	0	0	0	0
Talisay City	0	4,829	4,877	0	9,706
Toboso	0	539	1,569	0	2,108
Valladolid	0	2,558	1,411	0	3,969
Victorias City	0	5,429	2,255	0	7,684
Total	5,561	41,828	45,075	0	92,464

Table 11.5.2 Available IRA for GOP-Assisted Urban Sanitation Project for Eligible Municipalities
Unit: 1,000 Pesos

Name of City or Municipality	Tri Nos. of Bgy. in Urban	Class	Nos. of Urban Sanitation Related		Number of Tiletens		Provisional Avail. IRA		Sub-total IRA	
			Gov.	Prov.	Public Mkt.	Bus Term.	School	Tri Related	Mun. Avail. IRA	Avail. IRA
Bago City	3	1st		747	3,032	1	0	12		0
Binalbagan	7	3rd		665	712	1	1	10	12	665
Cadiz City	6	1st		0	4,646	0	0	13		0
Calarava	5	2nd		0	5,029	0	1	4		0
Candoni	1	5th		0	0	0	0	0	0	0
Cauayan	3	1st		687	1,035	3	0	9		0
Enrique B. Magalona	9	3rd		492	528	0	1	7	8	492
Escalante	5	2nd		956	993	0	1	17		0
Himanaylan	6	1st		75	5,086	1	1	12		0
Hinigaran	4	2nd		248	215	1	1	0		0
Hinob-an (Asia)	4	3rd		603	1,168	2	1	7	10	603
Ilog	7	3rd		557	746	0	1	9	10	557
Isabela	9	3rd		0	0	0	0	0	0	0
Kabankalan City	13	3rd		1,921	8,033	14	0	20	34	1,921
La Carlota City	4	3rd		0	2,711	0	0	8	8	0
La Castellana	2	3rd		119	4	0	0	0	0	119
Manapa	5	3rd		442	506	2	1	3	6	442
Moises Padilla	9	4th		0	0	0	0	0	0	0
Murcia	7	3rd		564	806	0	1	9	10	564
Pontevedra	5	4th		409	396	0	0	7	7	409
Pulupandan	10	4th		0	0	0	0	0	0	0
Sagay City	4	3rd		1,516	4,610	10	0	18	28	1,516
Salvador Benedicto	5th			0	525	0	0	0	0	525
San Carlos City	6	1st		641	2,433	0	1	11		0
San Enrique	2	5th		242	200	0	0	3	3	242
Silay City	8	2nd		914	3,561	0	1	16		0
Sipalay	6	1st		451	621	0	0	8		0
Talisay City	17	3rd		762	4,067	1	1	12	14	762
Toboso	1	4th		307	252	0	0	3	3	307
Valladolid	7	4th		0	2,558	0	1	6	7	0
Victorias City	20	3rd		1,145	4,284	0	0	24	24	1,145
Total	195	1st		14,464	58,734	42	14	248	184	9,745
Total Available IRA Fund										41,828

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	3	2	0	1,401,300	0	0	1,401,300	75	154.21		138,789.00	(1,262,511.00)
2	5	3	1	3,045,000	0	14,013	3,059,013	210	154.21		388,609.20	(2,670,403.80)
3	5	3	1	3,045,000	0	44,463	3,089,463	345	154.21		638,429.40	(2,451,033.60)
4	2	1	0	906,100	0	74,913	981,013	390	154.21		721,702.80	(259,310.20)
5					0	83,974	83,974	390	154.21		721,702.80	637,728.80
6					0	83,974	83,974	390	154.21		721,702.80	637,728.80
7					0	83,974	83,974	390	154.21		721,702.80	637,728.80
8					0	83,974	83,974	390	154.21		721,702.80	637,728.80
9					0	83,974	83,974	390	154.21		721,702.80	637,728.80
10					0	83,974	83,974	390	154.21		721,702.80	637,728.80
11					403,800	83,974	487,774	390	154.21		721,702.80	233,928.80
12					644,900	83,974	728,874	390	154.21		721,702.80	(7,171.20)
13					644,900	83,974	728,874	390	154.21		721,702.80	(7,171.20)
14					241,100	83,974	325,074	390	154.21		721,702.80	396,628.80
15					0	83,974	83,974	390	154.21		721,702.80	637,728.80
16					0	83,974	83,974	390	154.21		721,702.80	637,728.80
17					0	83,974	83,974	390	154.21		721,702.80	637,728.80
18					0	83,974	83,974	390	154.21		721,702.80	637,728.80
19					0	83,974	83,974	390	154.21		721,702.80	637,728.80
20					0	83,974	83,974	390	154.21		721,702.80	637,728.80

Province of Negros

Total: 1,625,702.20
FIRR: 2.21%
NPV @ 9%: -2,395,039.20

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	8,397,900	0	1,679,580	2,519,370	2,519,370	1,679,580
2. Sanitation	98,501,300	0	19,700,260	29,550,390	29,550,390	19,700,260
3. Land Acquisition	140,000	0	28,000	42,000	42,000	28,000
B. Equip./Logistic Support	920,600	0	920,600	0	0	0
C. Consultancy Services						
1. Hydrogeological Survey	1,148,000	1,148,000	0	0	0	0
2. D/D and Const. Sv.	11,774,312	4,709,725	2,354,862	2,354,862	1,177,431	1,177,431
D. Institutional Devt.						
1. Capacity Enhanc. Prog.	3,200,000	960,000	960,000	640,000	320,000	320,000
2. Commu. Manag. Prog.	172,320	51,696	51,696	34,464	17,232	17,232
3. Health & Hygiene Educ.	28,800	8,640	8,640	5,760	2,880	2,880
4. Water Quality Surveil.	11,200	3,360	3,360	2,240	1,120	1,120
5. NGO Assistance	19,200	5,760	5,760	3,840	1,920	1,920
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)	12,551,363	724,718	2,607,276	3,539,293	3,375,234	2,304,842
Total (A+B+C+D+E+F)	138,064,995	7,971,899	28,680,034	38,932,219	37,127,578	25,353,266
F. Others						
1. Price Contingency	47,209,034	2,725,859	9,806,662	13,312,226	12,695,159	8,669,128
2. Value Added Tax (VAT)	5,812,530	335,617	1,207,428	1,639,045	1,563,069	1,067,371
Grand Total	191,086,559	11,033,374	39,694,124	53,883,490	51,385,806	35,089,765

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	15	9	2
Nos. of HHs to be Served	225	135	30
Reconstruction Cost (Peso)			
Unit Cost	410,900	84,300	737,600
Ttl. Reconst. Cost	6,163,500	758,700	
Ttl. Reconst. Cost/year	308,175	75,870	
Cost per HH/year	1,370	562	
Rehabilitation Cost (Peso)			
Unit Cost	78,400		
Ttl. Rehab. Cost	1,176,000		
Ttl. Rehab. Cost/year	117,600		
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	1,893	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	158	51	4
Proportion (Mean)	1.6%	0.5%	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
56,601	43,958	9,928	7,710

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	217	361,600	233,500	2,533,475

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	
38	146	361,600	233,500	2,391,590



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									

[illegible]

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

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

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

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

Municipality of _____
 Provincial Water & Sanitation Monitoring System

Annual Sector Performance Summary Report

Period Covered : _____ to _____

I. Service Coverage

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

II. Sources & Uses of Capital Development Funds.

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