Table 4.1.2 Details on Existing Level II Systems Sheet 4 of 6

	-				N'ssee by	5,000			
			:		Number of Stall	Stall			
<b>y</b>					Total		Repair Work	Work	
Name of Municipality/City	Name of Operating Body	Technical Staff	Administrati ve Staff	Collector	Number of Staff	Local Trademan	MEO/CEO	DEO	Others
Almagno	Costa Rica I and II								
Argumen	Guin-ansan	3			3		<b>^</b>		
	Imelda						•		
	Lunang I	10			10		```		
	Lunane II	1			. 1 .				
	Mabubay WS	2			2		<b>&gt;</b>		,
	Pob. & Veloso	2			2		•		
	San Jose	1			1		>		
	Tonga-tonga	1			1		>		
Basev	Amandavehan								
	Anglit								
	Burgos WS								
	Cambavan					-			
	Can-abay						1.1		:
	800								
	Mabini.								
	Magallanes								:
	May-it								
	Pelit	:							
	San Antonio							:	4.5
	Serum						1.		
	Tinaogan								
Calbayog City	Banti-an								
	Baray								
	Bayo								
	Bugtong					`			
	Cabacungan								

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Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 4 of 6

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Number of Staff		Total Acpair work	Number of Local MEO/CEO DEO Others																												
	Donoir IV	Mepaur wo	MEO/CEO																												
of Staff						:																									
Vumber	TANKE T	Total	Number o																												
			Collector																												
		1	ve Staff							144																					
			Staff																												
			Name of Operating Body	Cabatuan	Cabugawan WS	Caganahaw	Cag-anibong	Cagbayang	Cagbilwang	Caglanipao Sur	Cagmanipis Norte	Cagmanipis Sur	Cagnipa	Cag-olongo	Cangomaod	Catabunan	Cavbago	Danao II	Dawo	Dinabongan	Dinagan	Hibabngan	Jose Rono	Libertad	Longsob	Mabini II	Malaga	Manguno-o	Mantaong	Manuel Barral	
		Name of	Municipality/City	Calbavog City																			:				-		:		=

Table 4.1.2 Details on Existing Level II Systems (Cont'd.) Sheet 4 of 6

					Number of Staff	Staff		1	
							Pereir	17.078	
N. come of			•		Total		Nepall WOLK	Y IOA	
Municipality/City	Name of Operating Body	Technical Staff	Administrati ve Staff	Collector	Number of Staff	Local Trademan	MEO/CEO	DEO	Others
Calbavog City	Panloyahan								
	Panovpov								
:	Peña								
:	Pilar								
	Quezon								
	Rizal II								
	Roxas II								
	San Joaquin								
	San Rufino								
	Sigo								
	Sinidman Occidental								
	Sinidman Oriental								
	Tarabucan								
	Tinambacan WS	11							
Cathalogan (Canital)	Bangon								
	Buluan								
	Bunuanay								
	Cabugawan								
	Cagusipan								
	Cagutian								
-	Cawavan								
	Oinco								
	Tobo								
	Poblacion 10								
	Poblacion 11								
	Poblacion 12	ţ				-			
	Poblacion 13								

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Table 4.1.2 Details on Existing Level II Systems (Cont'd.) Sheet 4 of 6

					Number of Staff	Staff			
					Tetel		Repair Work	Work	
Name of Municipality/City	Name of Operating Body	Technical Staff	Administrati ve Staff	Collector	Number of Staff	Local Trademan	MEC	DEO	Others
Cathalogan (Capital)	Socorro								
	Totoringon								
Daram	Baclayan								
	Bagacay								
	Betang	1							
	Birawan								
	Buenavista								
	Burgos								
******	Cabac								
-	Campelipa								
<del></del>	Candugue								
	Mabini								
	Macalpe		:						
	Mayabay								
	Poblacion 1								
	Poblacion 2								
	Poblacion 3								
	Real								
	San Vicente								
	Saugan		,						
-	Ubo								
Gandara	Dumalo-Ong	2		1	3	>			
Tishone	Camanibo-an					>			
	Cantongtong					>			
:	Casapa					, <b>,</b>			
	Catalina					`	-		
	Hinaga					>			
	Jia-An					`>		֭֭֭֭֭֓֞֞֜֜֜֟֝֟֝֟ ֓֞֓֞֞֓֓֓֞֓֓֞֓֓֞֩֞֓֓֓֞֞֞֩֓֓֓֞֓֓֓֓֓֓֓֡֓֓֡֓֓֡֩	

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 4 of 6

Name of Operating Body         Technical Administration (Collector Sparid Name)         Total         Repair Nork           Station (Suppose Name)         Local Industry         Administration (Collector Sparid Name)         Administration (Collector Name)						Number of Staff	Staff			
Name of Operating Body   Technical Administration   Staff   Ve Staff   Ve Staff   Ve Staff   Trademan   MEO/CEO   DEO						Total		Repair	Work	
lidanso Luhtgayan Malino Nagbac Parina San Andres San Andres San Fernando Victory Einukyahan Canyoyo Catato Poblacion Ferreras WS Legapi WS Legapi WS Malobago Oorecia Oorecia Panaryanan Pinalanga Panaryanan Pinalanga Pinalanga Pinalanga Pinalanga Pinalanga Pinalanga	Name of Municipality/City	dy.	Technical Staff	Administrati ve Staff	Collector		Local Trademan	MEC	DEO	Others
Lulugayan Malino Nagbac Parina San Andres San Andres San Fernando Victory Binukyahan Canyoyo Catto Poblacion Ferreras WS Legaspi WS Legaspi WS Logero WS Malobago Odoc Osmeria Panan-awan Pinalanga Pinamtinan Rotio Sana Rina Sana Rina Sio. Niño Tagalaga Tinabaga Veloso	Labona	Tidanao					•			
Malino Nagbac Parina San Andres San Andres San Fernando Victory Binukyahan Canyoy Catto Poblacion Ferreras WS Legaspi WS Legaspi WS Malobago Odoc Osnoria Pinalanga Pinamitinan Roio Santa Rita Sto. Nito Tingalag Tingban	SITOOPIC.	Lulugayan					<b>&gt;</b>			
Nagebac Parina San Andres San Andres San Fernando Victory Binnikyahan Canyoyo Catato Poblacion Ferrens WS Legaspi WS Malobago Odoc Osmera Panan-awan Pinalanga Pinalanga Pinalanga Pinalanga Pinalanga Sto. Niño Tagalag Tinabanan Veloso		Malino					<b>&gt;</b>			
Parina San Andres San Fernando Victory Binukyahan Canyoyo Catato Poblacion Ferreras WS Logero WS Mabubay WS Malobago Odoc Osmeña Panan-awan Pinalanga Pinawithan Roho Sanra Rita Sto. Nijio Tagalag Tinabanan Veloso		Nagbac					4.1			
San Andres San Fernando Victory  Binukyahan Canyoyo Catato Poblacion Ferreras WS Legaspi WS Logero WS Mabuhay WS Mabuhay WS Malobago Odoc Osmeria Pinalanga Pinalanga Pinathinan Roho Santa Rita Sto. Nijio Tagalag Tinabanan Veloso		Parina	1.00				. *			
San Fernando Victory Binuskyahan Canyoyo Catato Poblacion Ferreras WS Legaspi WS Legaspi WS Logero WS Malohayo Odoc Osmeria Panan-awan Pinalanga Pinalanga Pinalanga Pinalanga Pinalanga Pinalanga Pinalanga Pinalanga Pinalanga Pinabanan Koho Santa Rita Sto. Niño Tagalag	. ·	San Andres					,			
Victory Binuskyahan Canyoyo Catato Roblacion Fercras WS Legaspi WS Legaspi WS Malohayo Odoc Osmeria Panan-awan Pinalanga Pinalanga Pinalanga Pinalanga Roho Santa Rita Sto. Niho Tagalag Tinabanan Veloso		San Fernando								
		Victory					,			
	Marabut	Binukyahan								
Catato Poblacion           Ferreras WS           Legaspi WS           Mabuhay WS           Malobago           Odoc           Osmena-awan           Pinalanga           Pinalanga           Pinalanga           Pinalanga           Pinalanga           Sana Rin           Sito. Niño           Tagalag           Tinabanan           Veloso		Canvovo								
Ferreras WS Legaspi WS Logero WS Mabuhay WS Malobago Odoc Osnera Panan-awan Pinalanga Pinatuhaan Rojo Santa Rita Sto. Niiro Tagalaga Tinabaan		Catato Poblacion	:							
Legaspi WS Logero WS Mabuhay WS Malobago Odoc Osmeña Panan-awan Pinalanga Pinalanga Pinawithan Roho Santa Rita Sto. Niho Tagalag Tingalag Tingalag Veloso		Ferreras WS								
Logero WS           Malobago           Odoc           Osmeña           Panan-awan           Pinalanga           Pinaminan           Roño           Santa Rita           Sio. Niño           Tagalag           Tinabanan           Veloso		Legaspi WS								
Mabuhay WS Malobago Odoc Osmeria Panan-awan Pinalanga Pinamuhaan Roho Santa Rita Sto. Niho Tagalag Tinabaan Veloso		Logero WS								
Malobago           Odoc           Osmera           Pinalanga           Pinawithan           Roxo           Santa Rita           Sto. Nixo           Tagalag           Tinabanan           Veloso		Mabuhay WS								
Odoc Osmeña Panan-awan Pinalanga Pinamitinan Robo Santa Rita Sto. Niño Tagalag Tinabanan Veloso		Malobago								
Osmeria         Panan-awan           Panan-awan         Pinalanga           Pinalanga         Santa Rita           Sto. Niño         Tagalag           Tinabanan         Veloso		Odoc								
Panau-awan         Panau-awan           Pinalanga         Pinaudinan           Rono         Santa Rita           Sto. Nixo         Tagalag           Tinabanan         Veloso		Osmena								
Pinalanga Pinaukinan Roho Santa Rita Sto. Niho Tagalag Tinabanan Veloso		Panan-awan								
Pinawutinan           Roňo           Santa Rita           Sro. Nixo           Tagalag           Tinabanan           Veloso		Pinalanga								
Roňo Santa Rita Siro Niño Tagalag Tinabagan Veloso		Pinamitinan		-						
Santa Rita Sto. Niño Tagalag Tinabanan		Rodo							:	
Sto. Nixo Tagalag Tinabanan Veloso		Santa Rita								
Tagalag Tinabanan Veloso		Sto. Nillo								
Tinabanan Veloso		Tagalag								
Veloso		Tinabanan		:						
		Veloso								

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 4 of 6

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					Vinnshow of Ctoff	54066			
					TO PARTIES OF		\$		
Name of	1				Total		Repair Work	Work	
Municipality/City	Name of Operating Body	Technical Staff	Administrati ve Staff	Collector	Number of Staff	Local Trademan	MEO/CEO	DEO	Others
Manimas	Ramir	4			4				
	Mabuligon	9			9	,			
Motions	Calapi			2	7		`		
	Poblacion 1 & 1-A	1		1	3		<b>*</b>		
Paranas (Wright)	Apolonia						>		
	Bato	m	1	1	5				
	Buray	8		1	\$		, ,		
	Jose Roño					. *	^		
	Lipata				ĭ		1		
	Lokilokon				1		•		
	Maylobe						>		
	Pabanos					>	<b>&gt;</b>		
	Paco					^	<b>&gt;</b>		
	Pagsa-ogan				1	^	^		
· .	San Isidro					^	<i>^</i>		
	Tenani	2				, ,	^		
	Tigbawon					~	^		
	Tula					<i>&gt;</i>	<i>/</i>		
San Jorge	San Jorge (Coop.)	3		2	5	,			
le Buan	Poblacion 1-4								Mun. Gov.
	Aslum BWS					`			
	Cabunga-an BWS					>			
	Caticugan BWS					>			
	Igang-igang BWS					>			
	Lupig BWS					`			
	Maligaya BWS					`>			
	Mun. Water Sys.	1		7			,		
	Old Manunca BWS					>			- 1

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 4 of 6

Name of Operating Body   Technical Administration   Collector   Total   Repair Work						Number of Staff	Staff			
Name of Operating Body   Technical Administrating   Staff   Ve Staff   Ve Staff   Ve Staff   Trademan   MEO/CDO   DEO								Donoir	Wart	
San Paceual BWS           San Pedro BWS         // Exercial BWS           Santan BWS         // Exercial BWS           Tominance BWS         // Exercial BWS           Balagut WSA         // Exercial BWSA           Balagut WSA         // Exercial BWSA           Balagut WSA         // Exercial BWSA           Ilijan WSA         // Ilijan WSA           Ilijan WSA         // Ilijah WSA           Sevila WSA         // Ilijah WSA           Independencia BWSA         // Ilijah WSA           Malaguining BWSA         // Ilijah WSA           Placer BWSA         // Ilijah WSA           Palacer BWSA         // Inabusan BWSA           Baquiw WS         // Exercial BWSA           Luna WS         // Exercial BWSA           Luna WS         // Amahito WS	Name of Municipality/City	Name of Operating Body	Technical Staff	Administrati ve Staff	Collector	Total Number of Staff	Local Trademan	MEO/CEO	DEO	Others
San Pedro BWS   San Pedro BWS     Tagacay BWS   Tagacay BWS   Tagacay BWS     Balanguri WSA   Balanguri WSA     Balanguri WSA   Carocanayaan WSA     Ilijan WSA   Diabanguan WSA     Ilijan WSA   Diabanguan WSA     Ilijan WSA   Diabanguan WSA     Independencia BWSA   Malaguining BWSA     Independencia BWSA   Malaguining BWSA   Malaguining BWSA     Independencia BWSA   Malaguining	Santa Rita	San Pascual BWS					, ,			
Santan BWS		San Pedro BWS					>			
Tagacay BWS   Tominamos BWSA   Basud WSA   Cabunga-an WSA   Lijan WSA   Lijan WSA   Lijan WSA   Lijan WSA   Takir WSA   Takir WSA   Lindependencia BWSA   Malaguiung BWSA   Malaguiung BWSA   Malaguiung BWSA   Malaguiung BWSA   Malaguiung BWSA   Malaguiung BWSA   Tatabura BWSA   Malaguiung BWS		Santan BWS					`>			
Tominanos BWS   Tominanos BWS     Balatgut WSA   Balatgut WSA     Basud WSA   Caburga-an WSA     Ilijan WSA   Ilijan WSA     Ilijan WSA   Ilijan WSA     Independencia BWSA   Independencia BWSA     Independencia BWSA   Independencia BWSA   Independencia BWSA     Independencia BWSA   Independencia BWSA   Independencia BWSA     Independencia BWSA   Independencia BWSA   Independencia BWSA     Independencia BWSA   Independencia BWSA   Independencia BWSA   Independencia BWSA     Independencia BWSA   Independencia B		Tagacay BWS					`\			
Balanguri WSA   Basud WSA		Tominamos BWS					>			
Basud WSA   Buenavista WSA   Cabunga-an WSA   Cabunga-an WSA   Cabunga-an WSA   Cabunga-an WSA   Cabunga-an WSA   Lijian WSA   Lijian WSA   Finanangana WSA   Takut WSA   Takut WSA   Vilabernosa WSA   Independencia BWSA   Malaguining BWSA   Malaguining BWSA   Malaguining BWSA   Placer BWSA   Placer BWSA   Tatabunan BWSA   Placer BWSA   Patabunan BWSA   Patabunan BWSA   Placer BWSA   Patabunan		Balatouti WSA		-			`			
Buenavista WSA Cabunga-an WSA Corocawayan WSA Ilijan WSA Ilio WSA Ilio WSA Ilio WSA Takut WSA Villabermosa WSA Independencia BWSA Mallorga BWSA Mallorga BWSA Mallorga BWSA Mallorga BWSA Mallorga BWSA Mallorga BWSA Luna WS Luna WS Nina WS		Basnd WSA								Mun. Off.
Cabunga-an WSA Corocawayan WSA Ilijan WSA Ilijan WSA Ilijan WSA Ilijan WSA Ilijan WSA Ilijan WSA Evilla WSA Sevilla WSA Independencia BWSA Malaguining BWSA Malaguining BWSA Mallorga BWSA Mallorga BWSA Malacawe WS Poblacion 1 BWSA Tatabunan BWSA Bajocawe WS Bajocawe WS Bajocawe WS Bajocawe WS Bajocawe WS Wataluto WS Mataluto WS Maraluto WS Mina WS		Buenavista WSA					. ^			
Corocawayan WSA  Ilijan WSA  Ilo WSA  Pinanangnan WSA  Sevilla WSA  Villabermosa WSA  Independencia BWSA  Malaguming BWSA  Mallorga BWSA  Mallorga BWSA  Placer BWSA  Poblacion 1 BWSA  Tatabunan BWSA  Baquiw WS  Luna WS  Maraluto WS  Maraluto WS		Cabines-an WSA					<b>A</b>			
Ilijan WSA Ilo WSA Pinanangnan WSA Sevilla WSA Takut WSA Villahermosa WSA Independencia BWSA Mallorga BWSA Mallorga BWSA Mallorga BWSA Placer BWSA Tatabunan BWSA Tatabunan BWSA Balocawe WS Luna WS Luna WS Maraluro WS Maraluro WS		Corocawayan WSA					,			
Ilo WSA Pinanagaan WSA Sevilla WSA Takut WSA Villahermosa WSA Independencia BWSA Mallorga BWSA Mallorga BWSA Placer BWSA Poblacion 1 BWSA Tarabunan BWSA Tarabunan BWSA Bajocawe WS Baquiw WS Luna WS Nina WS Nina WS		Titian WSA					· 🗡			
Pinanangnan WSA Sevilla WSA Takut WSA Takut WSA Villabermosa WSA Independencia BWSA Mallorga BWSA Mallorga BWSA Placer BWSA Placer BWSA Tatabunan BWSA Tatabunan BWSA Tatabunan BWSA Marahuto WS Luna WS Marahuto WS Marahuto WS		To WSA								
Sevilla WSA  Takut WSA  Villahermosa WSA  Independencia BWSA  Mallorga BWSA  Mallorga BWSA  Placer BWSA  Poblacion 1 BWSA  Tatabunan BWSA  Bajocawe WS  Luna WS  Maraluto WS  Maraluto WS		Pinananoman WSA					,			
Takut WSA Villahermosa WSA Independencia BWSA Malaguming BWSA Mallorga BWSA Placer BWSA Poblacion 1 BWSA Tatabunan BWSA Balocawe WS. Balocawe WS. Luna WS Maraluto WS Maraluto WS		Sevilla WSA					>			
Villabermosa WSA Independencia BWSA Malaguming BWSA Mallorga BWSA Mallorga BWSA Placer BWSA Poblacion 1 BWSA Tatabunan BWSA Balocawe WS Balocawe WS Luna WS Maraluto WS Maraluto WS		Talout WSA					>			
Independencia BWSA Malaguimig BWSA Mallorga BWSA Mallorga BWSA Placer BWSA Poblacion 1 BWSA Tatabunan BWSA Balocawe WS Balocawe WS Luna WS Maraluto WS Maraluto WS		Villahermosa WSA					,			
Malaguming BWSA Mallorga BWSA Placer BWSA Poblacion 1 BWSA Tatabunan BWSA Balocawe WS Baquiw WS Luna WS Maraluto WS Mirra WS	Talalora	Independencia BWSA					,			
Mallorga BWSA Placer BWSA Poblacion 1 BWSA Tatabunan BWSA Balocawe WS Baquiw WS Luna WS Maraluto WS Nina WS		Malaguining BWSA					<b>,</b>	:		
Placer BWSA Poblacion 1 BWSA Tatabunan BWSA Balocawe WS. Baquiw WS Luna WS Maraluto WS		Mallorga BWSA					`^			
Poblacion 1 BWSA Tatabunan BWSA Balocawe WS Baquiw WS Luna WS Maraluto WS Nina WS		Placer BWSA	:				>			
Tatabunan BWSA Balocawe WS Baquiw WS Luna WS Maraluto WS Nina WS		Poblacion I BWSA					<b>,</b>			
Balocawe WS Baquiw WS Luna WS Mataluto WS Nina WS		Tatabunan BWSA								
Baquiw WS Luna WS Mataluto WS Nina WS	Transmil on	Balocawe WS					>			
VS:	1 4847	Baquiw WS					<i>^</i>			
VS		I ma WS					\ \ 			- '-
		Maraluto WS					^			
		Nina WS					>			

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 4 of 6

				Number of Staff	Staff			
,				Total		Repair Work	Work	
Name of Municipality/City	Name of Operating Body	Technical Administrati	Collector	Number of Staff	Local Trademan	MEO/CEO	DEO	Others
Tarangnan	Baras BWSA				^	>	>	PEO
·	Bisitahan BWSA				, <b>,</b>	`		
	Cabunga-an BWSA				<b>&gt;</b>	<b>&gt;</b>		
	Libucan Dacu BWSA				Ņ	>		
	Majacob BWSA				`	; >		
	San Vicente BWSA			:	~	>		
-	Sugod BWSA				<b>~</b> .			
Villareal	Banquil				,		1,	
	Cambaguio				<b>&gt;</b>			
	Malonoy				· · · ·		:	
	San Roque				,			
	Tayud/Central/Villarosa							
	Villarosa		1	1	^			

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Table 4.1.2 Details on Existing Level II Systems Sheet 5 of 6

Municipality/City Body Municipality/City Body Almagro Costa Rica I and II Coun-ansan Imelda Lunang II Lunang II Lunang II Lunang II Mabuhay WS Pob. & Veloso San Jose Tonga-tonga Amandaychan Angirt	Name of Operating Body  Costa Rica I and II Cuin-ansan Imelda Lunang II Lunang II Mabuhay WS Pob. & Veloso San Jose Tonga-tonga Arnandayehan Anglit Burgos WS Cambayan	Annual 7.2. 7.2. 3.72 3.72 3.72 2.4 2.4 2.4	Wages 7.2	Fuet, Chem.	Transport	Repairs	Loan Repayment	Other	Consumer Payment	Cost per Pail	Cost per Cu.	Cost per HH	Other	Collection Efficiency
Name of icipality/City	Operating ody a i and ii an ws ws eloso eloso eloso ws eloso	Annual 7.2. 7.2. 3.7.2. 3.7.2. 3.7.2. 3.7.2. 3.7.2. 4.2.4	Wages 7.2	Fuet, Chem.	Transport	Repairs	Repayment		Payment	Pail	Ç.	нн	Other	Efficiency
ico de la constanta de la cons	a I and II an WS eloso eloso chan	3.72 3.72 2.4 2.4 2.4	7.2	£.										
Q.	a I and II an WS WS eloso eloso chan chan	3.72 3.72 2.4 2.4 2.4	7.2	٩	(P '000.00 / vear				(Year)		(Pesos)	; <u>o</u> c)		(%)
	ws ws eloso eloso cloan chan	3,72 3,72 2,4 2,4 2,4	7.2	≥										
	WS eloso eloso rehan chan	3.72 3.72 2.4 2.4 2.4												
	WS eloso rehan chan	3.72												
	WS eloso nga chan	3.72 3.4 2.4 2.4	8											
	WS eloso reparation of the chan ws.	3.72												
	eloso nga chan	2.4	3.72											
	nga chan VS	2.4	-											
	nga chan VS	2.4	2.4					11 988						
	chan VS		2.4											
-	S/S													
	S/													
Burges WS														
Compared				:	,									
Sept-app										A ALL LAND				
000						1. 1.11								
Mohm					4.							•		
Magallanes	   	-								7				
Maxit										12.	:			
Dollie														:
San Antonio	die.													
Some	2										•			
Tinaoean									***					
Cathavon City Banti-an					1.000									
												20		
Bayo											-			
Bunton												40	:	
Cabacingan														
Cabanian														
Cabusasan WS	SW or							1.5						
Caoanahaw	, Air													
Cao-saidens	900				1 1									
Caobavane	90	:								:		7		
Cashilwans	94,													
Caslanias Sur	30 Sur				,									
Saman	North				Ī	:						ន		
C 4811101111	Caginalipis (var.	-												

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Table 4.1.2 Details on Existing Level II Systems (Cont'd.) Sheet 5 of 6

				3	v por diference						Tariff			
	Name of Operating	Annual	Wages	Fuel, Chem.	Transport	Repairs	Loan	Other	Consumer	Cost per Pail	Cost per Cu.	Cost per HH	Other	Collection Efficiency
Municipality/City	hod			Mat'l.					.		Meter			8
				(P)	(P '000.00 / year)	(			(Year)		(resos)	(¥0		
Calbayog City	Cagnipa							:						
3	Cag-olongo						: 2 : 2							
	Cangomaod					1								
	Cambunan													
	Caybago													
	Danna II													
	Dawo		:											
	Dinahanaan													
	Dipagen													
	Libohaman		:							-				
	Triogonigan		-		-									
	Thomas	,										S		
	Libertau												:	
	Longsoo													
	INTROLIN TO					1				:				
	Malaga													
	Mandano-o													
	Mantaong													
	Manuel Barral													
	Mawacat	1												
	Panlovahan			11 12 12 12 12 12 12 12 12 12 12 12 12 1										
	Рапоудоу	- 1			i de l'aliana de l'	10.00					:	2		
	Peña													
	Pilar	1			1.7		and any or seems		***					
	Ouczon					10 10 10 10 10				:	:			
	Rizal II		**		1, 1									
	Roxas II		11							:				
	San Joaquin													
	San Rufino											. 5		
	Sign	****** * * ****	1.2	1						- 4.41				
	Similario Occidental						1.7							
	Sindman Oriental											5		
	Tambucan													
	Tinambacan WS			10.000					** .	***				
1	Bancon													
Caroasogan (Capier)	Sulvan													
	Duthall				A section	9							*7	

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 5 of 6

Repairs Repayment Other Payment Cost per Cost per Cu. HH Acter Payment (Pesos)  (Year) (Year) (Acter) (Pesos)  30 25					4	Fynenditures						Tariff			Average
Debusion   Poblecion   Poble	Name of	Name of Operating Body	Annual	Wages	Fuel, Chem.	Transport		Loan Repayment		Consumer Payment	Coxt per Pail		Cost per HH	Other	Collection Efficiency
Bundany   Captaignan   Captai	Tanana paning	· ·			Mar. (P	000.00 / vear				(Year)		(Pe	(30:		(%)
Cabugaway   Cabu															
Categorian   Cat	Catbalogan (Capital)	Bunuariay					: ;								
Cugatisan   Cugatisan   Cugatisan   Cugatisan   Cugatisan   Cucyan   Cucy		Cabugawan								14 14					
Chapturan   Chap		Cagusipan									*****			1	
Cincol   C		Cagutian													
Poblacion 1   Poblacion 2   Poblacion 3	==:	Cawayan												:	
Poblacion 10   Poblacion 10   Poblacion 10   Poblacion 11   Poblacion 12   Poblacion 12   Poblacion 12   Poblacion 13   Poblacion 13   Poblacion 13   Poblacion 13   Poblacion 14   Poblacion 15   Poblacion 15   Poblacion 15   Poblacion 16   Poblacion 17   Pobl		١													
Poblacion 1 V   Poblacion 2 V   Poblacion 2   Poblacion 3   Poblacion 2   Poblacion 3   Poblacio		0000								1, 11, 11, 11, 11, 11, 11, 11, 11, 11,					
Poblacion 1   Poblacion 2   Poblacion 3   Real		Poblacion 10						•							
Poblacion 1.4   Poblacion 2.4   Poblacion 2.4   Poblacion 3.4   Poblacion 3.		Poblacion 11													
Secord   3   Sec		Poblacion 12													
Second		Poblacion 13													
Tolotringon   Backyan   Canpelipa   Canpelip		Socomo													
Bacinyan   Bacinyan     Bacay   Bacay     Barawista   Barawista     Burgos   Candugue     Mabina   Mabina     Mabina   Mabin		Тотоппроп	1	1											1
Betaug     Betaug     Betaug     Birayan     Birayan     Burgos     Caboc     Campeliga     Poblacion 2     Poblacion 2     Poblacion 3     Real     Sangan     Sangan     Ubo     Camanubo-an     Camanubo-an     Camanubo-an     Camanubo-an     Camanubo-an     Camanupo-an     Caman	Daem	Baclayan					40.00								1. 14.
Betaug		Baoreav			100										
Birawan   Bira		Demin													
Burgos   Cabac   Cab		Demok				1		7 4				24.24.			
Declaratista   Declaratista   Declaratista   Declaratista   Declaratista   Declaration   Declarati	-	Burawan			71.47.41										
Burgos           Cabac           Campelipa           Candegue           Maxim           Macabe           Maxaby           Poblacion 3           Poblacion 3           Real           San Vicente           Sangan           Sangan           Ubornalo-Ong           Camarubo-an           Canarubo-an           Canarubo-an           Canarubo-an           Canarubo-an           Canarubo-an           Canarubo-an           Canarubo-an           Canarubo-an           Canarubo-an		Buenavista													
Cabac           Campelipa           Candugue           Maclague           Maclague           Masubay           Poblacion 1           Poblacion 2           Poblacion 3           Real           Sangan           Ubo           Unalo-Ong           Canarubo-an           Cantonogong	<del></del>	Burgos													
Carapelipa         Candugue           Mabini         Mabini           Macalpe         Mayabay           Mayabay         Poblacion 1           Poblacion 2         Poblacion 3           Poblacion 3         Real           Poblacion 3         Real           Sangan         Saugan           Ubo         30           Cananubo-an         2a           Cannonbo-an         2a           Cannongroup         2a		Cabac	.,												
Candugue         Mabin           Maculpe         Maculpe           Mayabay         Mayabay           Poblacion 1         Poblacion 2           Poblacion 3         Real           Poblacion 3         Real           San Vicente         San Vicente           San San Vicente         San Vicente		Campelipa													
Mabini         Macalbe           Mayabay         Mayabay           Poblacion 1         Poblacion 2           Poblacion 2         Poblacion 3           Real         San Vicente           Saugan         Ubo           Ubo         24           Camarubo-an         Camarubo-an           Cantongtong         Cantongtong		Candugue													
Macalpe         Mayabay           Mayabay         Poblacion 1           Poblacion 2         Poblacion 3           Poblacion 3         Real           San Vicente         Saugan           Ubo         24           Qumalo-Ong         24           Camarubo-an         Camarubo-an           Cantongrong         Cantongrong	-	Mabini													
Mayabay         Poblacion 1           Poblacion 2         Poblacion 3           Poblacion 3         Real           San Vicente         Saugan           Ubo         24           Camarubo-an         Camarubo-an           Cantongtong         25		Macalpe													
Poblacion 1         Poblacion 2           Poblacion 3         Poblacion 3           Real         San Vicente           Saugan         Ubo           Dumalo-Ong         24           Camarubo-an         Camarupo-an           Cantongrong         25		Mayabay													
Poblacion 2         Poblacion 3           Real         San Vicente           Saugan         Ubo           Dumalo-Ong         24           Camarubo-an         Cantongtong		Poblacion 3	. 3												
Poblacion 3         Real           Ran Vicente         Saugan           Saugan         24         50         10         30           Dumalo-Ong         24         50         10         30           Camarubo-an         Cantongrong         25         25		Pohlacion 2		4					-						
Real         San Vicente           Saugan         Ubo           Dumalo-Ong         24         50           Самагиbo-an         Самагиbo-an           Cannongtong         Cannongtong		Poblacion 3						14. T. 11.							
Saugan         Saugan           Ubo         10           Dumalo-Ong         24           Camarubo-an         Cantongtong		Pen			1.77	1				J. 188 . Sec.	1000		;		
Saugan Ubo Umalo-Ong Camarubo-an Cantongtong		Can Vicente							:					:	
Ubo  Dumalo-Ong  Camarubo-an  Cantongtong		ALL													
Ubbo         24         50         10         30           Camarubo-an         Cantongtong		Saugan													
Dumalo-Ong Camarubo-an Cantongtong		000		24			30						25		
	Gandara	Dumalo-Ong		7											.~-
Cantongtong	Jiabong	Camarubo-an													
		Cantongtong													

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Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 5 of 6

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السينامورينوسوسيري				9	Expenditures						Tariff			000mm
Name of Municipality/City	Name of Operating Body	Annual	Wages	Fuel, Chem.	Transport	Repairs	Loan Repayment	Other	Consumer Payment	Cost per Pail	Cost per Cu. Meter	Cost per HH	Other	Collection
	-			<u>(</u>	(P '000.00 / year)	)			(Year)		(Pesos)	(\$05		(%)
Jiabong	Casapa													
<b>)</b>	Catalina		-											
	Hinaga					-								
	Jia-An								1				-	
	Jidanao					:								
<del></del>	Lulugayan								11.1					
	Malmo													
	Nagbac		1						:					
	Parina				1									
	San Andres													
	San Fernando													
	Victory			::										
Marabut	Binukyahan											,		
	Canvovo		- 1	1										
	Catato Poblacion	- :	2. *			114								
	Ferreras WS						:							
	Legaspi WS		- ;											
	Logero WS													
·	Mabuhay WS													
	Majobago											į		
	Odoc													
=	Osmeña													
	Panan-awan						:							
	Pinalanga			:										
	Pinamitinan													
	Rono													
	Santa Rita													
	Sto. Niño													
	Tagalag						::							
-	Tinabanan													
	Veloso													
Matuguinao	Barruz					. 20								
	Mabuligon	001				50								
Motiong	Calapi	40		1		40						15		
	Poblacion 1 & 1.A	25				25						*		

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 5 of 6

											T			
				iii	Expenditures						Iariii			Average
Name of Municipality/City	Name of Operating Body	Annual	Wages	Fuel, Chem.	Transport	Repairs	Loan Repayment	Other	Consumer Payment	Cost per Pail	Cost per Cu. Meter	Cost per HH	Other	Collection Efficiency
•				(F)	(P '000.00 / year)				(Year)		(Pe	(Pesos)		(o/ )
n (1)/1/2	4-010-0								:					
(Faranas (wright)	Apolonia			-								B		
	Burny											22		
	Loca Dodo											5		
	Just Notio											5		
	Lipan				-	:						9		
	Maylobe													
	Pahanon											٠		
	Dage													
	Page Area											5		
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·	Tenni	1.									-			
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	Tilla													
2000	Can large (Com)		78	98	36		H			-		5		
Sail Julye	Portion of the land													
San Jose de Buan	Actum BWS													
Salita Miles	Cahuram-on RWS													
	Catanga PW/S													:
	Lauragell DWC										3.			
	I Kallk-18ally Dwo													
	Malimora BWS			1										
	Mun Water Svs													
	Old Manimea BWS						11 11 114						-	
	San Pascual BWS					1 1 1 1				free c		-   - 1 - 1 - 1		
	San Perlan RWS													
	Santon RWS													
	Togger													
	Tominamos BWS				·									
Ganto Millo	Balatonia WSA													
Outro Outro	Rocard WSA													
	Buenavieta WSA					1			100					
	Cabunda-an WSA							1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				, , ,		
	Company WSA					,							:	
	Line Wed					3.5								
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Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 5 of 6

				Ö	Expenditures						Iarini			Average
Name of Municipality/City	Name of Operating Body	Annual	Wages	Fuel, Chem.	Transport Repairs	Repairs	Loan Repayment	Other	Consumer Payment	Cost per Pail	Cost per Cu. Meter	Cost per HH	Other	Collection Efficiency
	_ <b></b>			(P	(P '000.00 / year)				(Year)		(Pesos)	(50)		(0/)
	11. 11/0. 4													
Santo Mino	Programman WSA										1 2 1	444		
	Sevilla WSA											1		
	Takur WSA													
	Villahermosa WSA													
Talatora	Independencia BWSA	÷												
	Malaguining BWSA								1					
	Mallorga BWSA	1,												
	Placer BWSA													
	Poblacion I RWSA													
	Tatabunan BWSA													
Tagnulan	Balocawe WS													
	Eagury WS													
	I una WS													
	Martalino WC													
-	Min 1976													
	Don't Direy						17. 17. 18.					:		
1 arguguan	Distribute DU/CA				.,									
	Cabunga an RWSA													
	Librican Dacu RWSA													
	Maracoh BWSA													
	San Vicente RWSA						:							
<del></del>	Sugar BWS													
173114-4-6-1	Borom													
	Cambadano						:							
	Malanan	1												
	Sea Degree													
	Tour Nodue													
	ומאחשיים וויים מאווים אחווים	Tron								1		ç		
	Villarosa				Jan								101	

Table 4.1.2 Details on Existing Level II Systems Sheet 6 of 6

Municipality/City Body Almagro Costa Rica I and II Ouin-ansan Imelda Lunang I Lunang II Lunang II Almang I Lunang II Almang II Anbuhay WS	ting Annual Billing (Number)	Public Faucet Consume	House Connection Consumers	Expected Subsidies	Others	Annual Put Income Cc	yment by dic Faucet onsumers	Payment by House Connection	Subsidies	Other
ame of ipality/City			House Consumers	Expected		Annual Income P '000.00/y	Payment by Public Faucet Consumers (ear)	Fayment by Kouse Connection	Subsidies	Other
pality/City			Consumers	Campions		P '000.00 / y	Consumers (ear)	Connection		
						P '000.00 / y	ear)			
	<del>                                     </del>					1.5				
Imeida Lunang I Lunang II Mabuhay WS							:			
Lunang II Lunang II Mabuhay WS								:		
Lunang II Mabuhay WS										
Mabuhay WS					14.			· · ·	1	
Dok & Veloso					:					
15 CEL 55. 1 CEL				7.						
San Jose						10.44	5.64	4.8		
Tonga-tonga				:						
Pasew Amandavehan	_		1							
Burgos WS										
Cambayan										
Can-abay										
LOOE										
Mabini			:							ا
Magallanes							. **			
Max-it		-							********	
Pelit		-				-			-	
San Antonio										ŀ
Serum			:		:					
Tinaogan										
Calhavog City Banti-an								* * * * * * * * * * * * * * * * * * * *		
					:					•
Bavo										
Bugtong						!!				
Cabacungan									-	
Cabatuan										
Cabugawan WS			a Standard		:					
Cacanahaw										

Table 4.1.2 Details on Existing Level II Systems (Cont'd.) Sheet 6 of 6

				Billings					Revenues		
Name of	Name of Operating	Anoual	Public Faucet	House Connection	Expected Subsidies	Others	Annual	Payment by Public Faucet	Payment by House Connection	Subsidies	Other
Municipality/City	Àpoq	Ammid Ammid	r	Consumers				Consumers	Consumer		
		(Number)				)	(P '000.00 / year)	/car)			
Calbayog City	Cag-anibong					;					
	Cagbayang										
	Carbilwang		1								Ī
<del></del>	Caclanipao Sur										
	Cagmanipis Norte										
	Cagmanipis Sur										
	Camina										
	Cag-olongo										
	Cangomaod										
	Catabunan										
	Caybago		-								
	Danao II										
	Dawo										
	Dinabongan										
	Dinagan						•				
	Hibabngan					-					
	Jose Rodo										
·	Libertad									-	Ī
	Longsob										
	Mabini II										
	Malaga										
	Manduno-o										Î
-	Mantaong										
	Manuel Barral					-i,					
:	Mawacat										Ī
	Panloyahan										
	Panoypoy										
	Peija										
	Pilar										

Table 4.1.2 Details on Existing Level II Systems (Cont'd.) Sheet 6 of 6

									Dayonyor		
				Billings							
			Public	House	: T			Payment by	Payment by		<del></del>
Name of Municipality/City	Name of Operating Body	Annual Billing	Faucet	Connection	Expected Subsidies	Others	Annual	Public Faucet Consumers	Connection	Subsidies	Orber
	·		_						- Company		
:		(Number)					(P'000.00/year)	'ear)			
Calbayoo Ciry	Ouezon					. :					
	Rizal II										
	Roxas II										
	San Joaquin										
	San Rufino										
	Sign										
	Sinidman Occidental										Ī
	Sinidman Oriental										
	Tarabucan										
	Tinambacan WS										
	Rancon										
Catomogaii (Capital)	Buluan					:					
	Burnanav										
	Cahitonuan					*****					
	Commission					: ::					
	Caguspan										
	Carrana										
	Cinco					1					
	T obo										
	Poblacion 10										
	Poblacion 11							***	٠		
	Poblacion 12										
	Población 13						•				
	Socomo										
	Totalingon										
	Poplaring					:					
Daram	Datayan							:			
	Bagacay										
	Betaug										
	Birawan										

Table 4.1.2 Details on Existing Level II Systems (Cont'd.) Sheet 6 of 6

						-					
				Billings					Revenues		
Name of Municipality/City	Name of Operating Body	Annual Billing	Public Faucet Consume	House Connection Consumers	Expected Subsidies	Others	Annual	Payment by Public Faucet Consumers	Payment by House Connection Consumer	Subsidies	Other
		(Number)					(P '000.00 / year)	ear)	:		
	Q	( Ammor)								:	
Daram	Ductiavista										
	Source July Source					1				i	
	Campelina				1	:					
	Candiigne				1						
	Mabini										
	Macabe										
	Mayahay								• •		
,,;	Poblacion 1					+ 3					
****	Poblacion 2										
	Poblacion 3										
	Real									:	
	San Vicente									<b>-</b>	
	Cancan										
	Tho			• • • • •							
Gandara	Dumalo-Ong										
lishong	Camarubo-an			:							
0	Cantonetone										
	Casaba										_
	Catalina										Ī
	Hinaga										
·	lia-An										
	Jidanao	:									
	Luiugavan								;		
	Malino								:		
	Nagbac		,								
	Parina										
	San Andres	1									
	-										

Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 6 of 6

				Rillings					Revenues		
Name of Municipality/City	Name of Operating Body	Annual Billing	Public Faucet Consume	House Connection Consumers	Expected Subsidies	Others	Annual Income	Payment by Public Faucet Consumers	Payment by House Connection	Subsidies	Other
		(Manual Lond)					(P '000.00 / year)	ear)			
		('Autiliar')									
Jiabong	San Fernando			: 1							
	Victory									,	
Marabut	Binukyahan										
	Canyoyo										
	Catato Poblacion										
	retretas wa							:		:	
	Logano WS										
	Mohnboy WS					1					
	Maloham										
	Odoc					1					
	Osmenia										
	Panan-awan					1: 2:					
	Pinalanea										
	Pinamithan									1 1	
	Ron				1						
	Santa Rita										
	Sto. Niño							-		:	
	Tagalag										
	Tinabanan		**								
	Veloso						:				
Matheman	Barruz			:					a de la companya de l		
	Mabulicon										
Morione	Calani										
Simple	Poblacion 1 & 1-A										
Paranae (Wright)	Apolonia								1 11 11 11 11 11 11 11 11 11 11 11 11 1		
	Bato										
	Burav									į	

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Table 4.1.2 Details on Existing Level II Systems (Cont'd.)
Sheet 6 of 6

Name of Operating Body         Annual Body         Faucet Connection Billing         Expected Consumers         Expected Consumers           Jose Roho         Lipata         (Number)         Subsidies           Lokilokon         Maylobe         120           Pabanog         Paco         120           Pasan Isidro         Tigbawon         120           Tula         San Jorge (Coop.)         120           Poblacion 1-4         San Jorge (Coop.)         120           Poblacion 1-4         Catcougan BWS         Catcougan BWS           Catcougan BWS         Catcougan BWS         Mun. Water Sys.           Old Manunca BWS         San Pascual BWS         San Pascual BWS           San Pascual BWS         Santan BWS         Tagacay BWS           Tominamos BWS         Tominamos BWS         Tominamos BWS		-		Payment by	_	
(Number) 120	idies Others	Annual Income	Payment by Public Faucet Consumers	House Connection Consumer	Subsidies	Other
	(P)	(P '000.00 / year)	ear)			
						Ī
120						
120						
120						
120						Ī
120						
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150						
120		٠				
150						
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BWS mos BWS						
BWS :						1
nos BWS						
i WSA						
Basud WSA	-					
Buenavista WSA		:				
Cabunga-an WSA						

Table 4.1.2 Details on Existing Level II Systems (Cont'd.) Sheet 6 of 6

									Revenues		
				Billings							Ī
Name of	Name of Operating		Public Faucet	House Connection	Expected	Others	Annual	Payment by Public Faucet	Payment by House Connection	Subsidies	Other
Municipality/City	Body	Billing	Consume	Consumers	cameanc		all control	Consumers	Consumer		
		(Number)					(P '000.00 / year)	'ear)			
Santo Niño	Corocawavan WSA										
	Ilijan WSA	:					2				
	Ilo WSA					-					
	Pinanangman WSA										
	Sevilla WSA										
	Takut WSA										
	Villahermosa WSA										
Talalora	Independencia BWSA	:	1								
	Malaguining BWSA				-						
	Mallorga BWSA										
	Placer BWSA										
	Poblacion I BWSA										
	Tatabunan BWSA										Ī
Taganulan	Balocawe WS										
	Baouiw WS										Ī
	Luna WS										
	Mataluto WS										
	Nina WS										
Taranoman	Raras BWSA										
	Bisitahan BWSA				1	. : 1					
	Cabunga-an BWSA										
	Libucan Dacu BWSA								:		
	Majacob BWSA										
	San Vicente BWSA										
	Sugod BWSA										
Villareal	Banouil										
	Cambaguio								1		
	Malonov										
	San Rooue										
	Taynol/Central/Villaro	OSB									
	Villaroes										
	Tanacar										

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#### 4.1.5 Level I Pacilities

### Safe and Unsafe Classification of Level I Facilities

According to the definition of DOH, the protected deep well, protected shallow well, covered/improved dug well and developed spring are classified as safe sources, while unprotected shallow well, open dug well, undeveloped spring and rain water collector are classified as unsafe sources.

In the 1990 population census data, "Households by Main Source of Drinking Water and City /Municipality", it was shown that 45% of households depended on shallow well, dug well, undeveloped spring, lake, river and rain water collector, etc. This figure was arrived as the percentage of underserved/unserved sources, if all shallow wells were regarded as doubtful.

On the other hand, the PHO has been conducting water quality analysis on samples collected at public and private Level I wells and classified these into safe and unsafe sources/facilities. Table 4.3.1 presents the results of the water quality analysis on existing shallow wells (provincial total) in 1998. The breakdown on unsafe sources by municipality is not available.

Table 4.1.3 Percentage of Unsafe Water Sources Based on the Survey by PHO

No. of Level I Shallow Wells Sampled	No. of Unsafe Sources/Facilities	Percentage of Unsafe Sources
26	22	85%

The results of the bacteriological examination in the province indicated that 85 % of the shallow wells are under the classification of unsafe source. The high percentage of unsafe sources may imply the following conditions:

- The number of samples examined was very limited compared with the number of
  existing shallow wells (955) and water sampling by PHO is usually conducted where
  problems on water quality and/or incidence of water related diseases have been
  experienced.
- There are some cases that examination at the same Level I sources/facilities was conducted until the safety of the water was confirmed.
- Sources such as dug wells, which are defined as unsafe sources may be included in the above examination results.

Considering the above conditions, the unsafe percentage derived from the bacteriological examination may be overestimated.

As a reference information, the experiences in 1st and 2nd batch provinces in Mindanao area in the preparation of PW4SP show unsafe percentage of 20-50% as summarized below.

Surigao del Norte	Agusan del Norte	Agusan del Sur	Bukidnon	Misamis Oriental		Davao del Norte	Davao del Sur	Sarangani	South Cotabato
20%	50%	23%	50%	50%	40%	20%	46%	30%	50%

Based on the above study, the maximum percentage of 50% experienced in the 1<sup>st</sup> and 2<sup>nd</sup> batch study (10 provinces) may be adopted as an unsafe percentage to all municipalities both in urban and rural area in the unsafe classification of shallow wells. While, those sources other than shallow wells are processed as classified in the questionnaire. Table 4.1.4 (a) presents the numbers of Level I facilities by safe and unsafe classification.

## Public and Private Level I Facilities for Rural Water Supply

Table 4.1.4 (b) presents the number and proportion of Level I facilities by public and private sources for rural water supply in the province. Public and private facilities share 71% and 29% of the total number of Level I facility, respectively. Developed springs occupy 19% of the total number of public facilities.

Table 4.1.4(a) Number of Level 1 Facilities by Safe and Unsafe Classification

										-					Timeste Source	100					ſ
					Sale So	Diffices							Public				Private	366			_
	_[		Public				L L	اي		1			-								ì
Name of Municipality/ City	Area Deep Well	Shallew		Developed Spring	Suth-total	Deep Well	Shaltow	Covered/ Improved S Dug Well	Sub-total	Jetel S	Shailow Well Dr	Open U	Undeveloped	Rain Water Collection	Seb-tetal	Shallow Well	Open Dug Well	Rain Water Collector	Sub-total	Setai	Total
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Table 4,1.4(a) Number of Level I Facilities by Safe and Unsafe Classification (Cont'd.)

					Cafe Con					-					Unsafe Source	He					
	<u> </u>		Public				Private	يو إ					Public	Ì			Private	ا	1		
Name of Municipality/ City	Area Deep	p Shatlow H Well	Covered/ Improved Dug Well	Developed Spring	Sub-total	Deep	Shallow Ir	pered/ pered/	Sub-total Te	Total	Shattow Op Well Dug	Open Unde Dug Well St	Undeveloped R. Spring C	Rain Water Collection	Sub-total	Shellow Well	Open Dug Weil	Rain Water Collector	Sub-total	Total	Crand Total
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San Jose De Buan	Runs			ð				1		7						T	1		T		<u> </u>
	Total			0	2	1	+	+	1	2						Ť	1	1	-	F	14
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Tegaput-An	Kura!				12		1		, ,	3.					1		2	ž	rs	ş	8
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Table 4.1.4 (b) Public and Private Level I Facilities for Rural Water Supply

Facility	Public Sc	urce	Private S	ource	The second secon
еасину	Number	%	Number	%	Total
Deep Well	415	95%	24	5%	439
Shallow Well	296	82%	67	18%	363
Spring Development	202	100%			202
Others	169	33%	343	67%	512
Total	1,082	71%	434	29%	1,516

# 4.1.6 Water Supply Service Coverage

### Estimation of Service Coverage in Terms of Safe, Unsafe and Unserved Classification

Through review of the number of water supply systems/facilities and the number of households that were derived from the questionnaire, it was found that a great number of unserved population would be accounted as a balance between the total population and the population with any levels of services (including unsafe facilities) in application of the service level standard for Level. To come up with more realistic service coverage, the unserved population in 1997 was referred to using the profile in the 1990 population census data, "Households by Main Source of Drinking Water and City/Municipality" prepared by NSO. The rest of the population, those who are not served by Level III and/or II systems, were considered to be covered by shared or own use of Level I facilities. The calculation procedure is as follows:

- Service percentage/population of Level III and Level II systems was estimated based on the questionnaire survey results.
- Percentage of unserved population (using undeveloped spring, lake water, river water, peddler, etc.) of respective municipality by urban and rural area, which were studied in the 1990 population census.
- Population covered by Level I facilities was calculated as the balance between the total population and the population served by Level III & II systems and the unserved population.
- Level I population coverage was estimated with the assumption that 50% of the private facilities were shared by neighbors.

Unserved population and the population covered by Level I facilities are presented in Table 4.1.5. Tables 4.1.6 (a) and (b) presents the overall population covered by Level I facilities and the number of households.

Table 4.1.5 Estimation of Unserved Population by Municipality

								Unserved Population	pulatio		Population
N. comp. of		Populati	tion and	Serv	Served Population	noi	Unserved	Unserved Percentage (1995)	(395)	Unserved	Covered by
Municipality/City	Area	Househol	(1998)	Level	Level	Total	Total No.	No. of	%	Population	Level I
		Number	HH Size	Ш	ü	<u> </u>	of HHs	Unserved		8661	Facilities
	[ Jrhan	321	4.94		222	222	65	. 33	51	66	
Almagro	Rural	10.503	5.02		1,908	1,908	1,982	233	12	1,235	7,360
	Total	10.824	5.02		2,130	2,130	2,047	266	13	1,334	7,360
	Trhan	11.078	4.90	3,957	685	4,546	2,174	289	. 13	1,473	5.059
Bacev	Rural	29.356	4.71	6,767	1.083	7,850	6,254	2.023	32	9,496	12,010
	Total	40.434	4.76	10,724	1.672	12,396	8,428	2,312	27	10,969	17.069
	Urban	73.851	5.16	39.358	1.729	41,087	11,238	499	4	3,279	29,485
Calbavog City	Rural	59.891	4.92	12,588	7,944	20,532	14,475	3,488	27	14,432	24,927
	Total	133,742	5.03	51,946	6,673	61,619	25,713	3.987	16	17.711	54,412
	Urban	3.930	5.15	3,567		3,567	692	126	18	363	
Calhies	Rural	14 452	4.88	5,384		5384	2.972	878	30	4.269	4,799
	Total	18.382	4.93	8,951		8,951	3,664	1,004	27	4,632	4,799
	Tirban	55.487	5.23	32,979	365	33,344	10,243	286	. 3	1,549	20,594
Cathalogan (Capital)	Rural	22.753	5.16	2,588	1,033	3,621	4,411	2,003	45	10,332	8.800
	Total	78.240	5.21	35.567	1.398	36,965	14,654	2,289	91	11,881	29.394
	Urban	11.066	5.62		1,434	1,434	1,829	87	. 5	526	9.106
Daram	Rural	23,469	5.26		2,445	2,445	4,465	909	14	3,185	17.839
	Total	34,535	5.36		3,879	3.879	6,294	693	11	3,712	26,944
	Urban	5,303	5.24		210	210	874	266	30	1.614	3,479
Gandara	Rural	23,135	4.95	*			4,580	1,864	41	9,416	13,719
-	Total	28.438	5.00		210	210	5.454	2.130	39	11,030	17,198
	Urban	5.216	5.60	4,799		4,799	861	70	&	417	
Hinabangan	Rural	7,015	5.58				1,313	488	37	2,607	4,408
	Total	12,231	5.59	4,799		4,799	2,174	558	26	3.024	4,408
	Urban	3.944	5.64	3,634		3,634	644	145	23	310	
Jiabong	Rural	12,435	5.36		1,526	1,526	2,209	1,014	46	5.708	5,201
0	Total	16,379	5.43	3,634	1,526	5,160	2.853	1.159	41	6.018	5,201

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Table 4.1.5 Estimation of Unserved Population by Municipality (Cont'd.)

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								Unserved Population	opulatio	ជ	Population
,		Population and	on and	Serv	Served Population	ion	Unserved	Unserved Percentage (1995)	(566)	Unserved	Covered by
Municipality/City	Area	Honsepol	old (1998).	Level	Level	Total	Total No.	No. of	%	Population	Level I
		Number	HH Size	III	Ħ	10191	of HHs	Unserved		1998	Facilities
	Urban	1.309	4.88		171	171	268	62	23	303	835
Marahut	Rura	8.984	5.10		1,482	1,482	1,772	431	24	2.185	5.317
	Total	10,293	5.08		1,653	1,653	2,040	493	72	2,488	6,152
	Urban	2,431	5.55		610	610	356	09	17	410	1.411
Matuoninao	Rural	3,228	5.43				595	419	70	2,273	955
Ġ.	Total	5,659	5.47		610	610	951	479	20	2,683	2,366
	Urban	4.766	5.40		1,404	1,404	818	99	. 12	577	2,785
Motions	Rural	8,759	5.21				1,681	691	41	3,601	5,158
Č.	Total	13,525	5.27		1,404	1,404	2,499	790	32	4,177	7.944
	Urban	1.124	5.00				182	14	<b>&amp;</b>	86	1.038
Dogeonchan	Rural	6.652	5.56				1.158	86	••	593	6.089
r akoanprami	Total	7.776	5.49				1,340	112	8	649	7,127
	Trhan	8.887	5.15	2.540	1,282	3,822	1,442	218	51	1.344	3.721
Paranas (Wright)	Rural	15.850	5.18	370	2,116	2,486	3,247	1.528	- 23	7,459	5,905
(audit) common t	Total	757.77	517	2.910	3.398	6,308	4,689	1,746	37	8.802	9.627
	Trhan	1.52	5.37				210	30	14	165	686
Dinahandan	Rital	10.838	5.11				2,046	213	10	1.128	9,710
	Total	11 992	5.14				2,256	243	11	1,293	10,699
	Urban	2.271	5.62		422	422	298			1,849	
San Jorge	Rural	10,261	4.98		1,145	1.145	2,062		28	2,861	6,255
	Total	12.532	5.06		1,567	1.567	2,360	<i>L</i> 59	28	4,710	6.255
	Urban	2.130	4.79		479	479	368	\$6		516	1,135
San Loce De Buan	Rura	3.751	4.69				992	799		3.242	509
	Total	5.881	4.72		479	479	1,158	157	65	3,758	1,644
	Trban	1.947	5.38				325		14	282	1,665
San Sebastian	Rural		5.01				925	33.7	35	1.642	3,004
	Total	L	5.10				1.250	374	30	1.924	4.669

Table 4.1.5 Estimation of Unserved Population by Municipality (Cont'd.)

Household (1998)   Level   Level   Total No.   Number   HH Size   III   III   Total No.   Number   HH Size   III								Unserved Population	opulatio	u	Population	
City         Area         Household (1998)         Level         Level         Loral         Total         of H35         Channel         1998         Page	Varion		Populati	on and	Serv	ed Populat	uoi	Unserved	Percentage (	(5661		Covered by
Number   HH Size   III   II   Of HHs   Unserved   1998   Page   Page   Marie   1346   4.85   Page   136   4.45   Page   136   4.45   Page   136   Page   1407   95   94   4.50   Page   1407   920   920   1.871   66   4   4.05   Page   Municipality/City	Area	Househol	d (1998)	Level	Level	Total	Total No.	No. of	%	Population	Level	
Urban         13,467         4.85         754           Rural         6,421         5.06         7.54           Rural         6,421         5.06         4.450           Urban         11,477         4.97         667         667         3.819         6.6         4.403           Rural         18,733         5.14         4.97         667         667         3.819         662         2.669           Total         30,150         5.08         1.587         1.587         1.587         1.587         1.660         2.266           Rural         1.8,733         5.14         4.91         1.249         2.601         17         1         96           Potal         1.493         4.91         1.249         1.249         2.601         19         1         96           Purban         1.493         4.39         1.249         1.249         2.601         19         1         96           Rural         6.845         5.10         587         887         887         1.343         1         96         1.249           Inban         6.845         5.10         75         427         1         0         2.669	•		Number	HH Size	Ш	II		of HHs	Unserved			Facilities
Name		Urban	13.467	4.85				2,482	139	9	754	12,713
Total         19,888         4,92         920         920         1,871         66         4         403         1           Urban         11,417         4,97         920         1,871         667         3,819         667         12,726         12         2,266         1           Urban         1,373         5.08         1,587         1,587         1,587         5,690         22,669         2         2,691         3         2 </td <td>Santa Marganita</td> <td>Rural</td> <td>6,421</td> <td>5.06</td> <td></td> <td>: ,</td> <td></td> <td>1,407</td> <td>975</td> <td>69</td> <td>4,450</td> <td>1.971</td>	Santa Marganita	Rural	6,421	5.06		: ,		1,407	975	69	4,450	1.971
Urban   11,417   4,97   920   920   1,871   66   4   403   11   11,417   4,97   920   920   1,871   66   4   403   1   1   1   1   1   1   1   1   1		Total	19.888	4.92				3,889	1.114	29	5,204	14,684
Numari   18,733   5.14   667   667   3.819   462   12   2.266   1     Total   30,156   5.08   1.357   1.587   5.690   528   9   2.669   2     Total   10,366   4.95   917   917   2.060   17   1   86   1     Total   13,094   4.91   1.249   1.249   2.661   19   1   96   1     Total   13,094   4.91   1.249   1.249   2.661   19   1   96   1     Total   14,992   5.10   587   587   1.343   1   0   56   1     Total   8.338   4.97   5.87   587   1.343   1   0   5   1     Total   8.338   4.97   5.87   587   1.250   5   1   0   5   1     Total   19,739   5.09   4.58   4.25   5.09   4.22   5   1   2.25   1     Total   19,739   5.09   4.58   4.28   3.694   4.21   1.246   1     Total   19,135   5.34   160   180   6   1   5.25   1     Total   19,130   5.34   160   180   5.39   4.232   48   1   2.56   2.30   1     Total   19,130   5.34   10,404   10,1238   39.56   2.809   7   16.839   11.    Total   11,4892   5.14   5.18   11,240   5.15   12,405   2.30   1     Total   23,544   5.17   27,697   23,507   23,507   23,507   12,687   23,507		Urban	11.417	4.97		920	920	1,871	99	4	403	10.094
Total   30,150   5.08   1,587   1,587   5,690   528   9   2,669   2     Urban   2,728   4,74   332   332   541   2   0   10     Total   13,094   4,51   1,249   1,249   2,601   17   1   86   1     Total   1,493   4,33   4,57   587   587   1,343   1,249   1,249   2,601   19   1   96   1     Total   8,338   4,97   587   587   1,343   1,249   1,249   2,601   19   1   96   1     Urban   2,165   5.00   75   75   427   1   0   5     Urban   4,548   5.07   458   458   3,694   275   7   1,469   1     Urban   3,258   5.07   458   458   3,694   275   7   1,469   1     Urban   3,258   5.07   458   458   3,694   275   7   1,469   1     Urban   3,436   5,39   458   4,28   3,598   42   1   2,25   1     Urban   1,265   5,39   5,34   10   40,404   10,1,238   35,356   2,809   7   16,839   11     Urban   1,264   5,17   5,29   2,340   5,157   15,653   26   96,002   22     Urban   3,436   5,39   2,34   10,404   10,1,238   39,856   2,809   7   16,839   11     Urban   3,25,444   5,10   118,531   34,304   15,235   115,495   22,462   19   112,841   34,54   34,5		Rural	18,733	5.14		199	299	3,819		12	2,266	15.800
Urboan 2,728 4,74 917 917 2,060 17 1 86   10   10   10   10   10   10   10   1		Total	30,150	5.08		1,587	1,587	5,690		6	2,669	25.894
Rural         10,366         4,95         917         917         2,060         17         1         86           Total         13,094         4,91         1,249         1,249         2,601         19         1         86         1           Urban         1,493         4,33         8,23         4,97         587         1,548         1,598         9           Urban         2,165         5,00         351         351         823         4,97         3         3         3         4         4         1         4         4         1         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4		Urban	2,728	4.74		332	332	541	2	0	10	2,386
Total         13,094         4,91         1,249         1,249         2,601         19         1         96         1           Urban         1,493         4,33         4,97         587         587         1,343         96         1           Total         8,338         4,97         587         587         1,343         9         96         1           Total         8,338         4,97         587         587         1,598         1         96         1           Urban         2,165         5.00         75         75         427         1         0         5           Rural         6,713         5.25         426         426         1,250         6         184           Cuban         3,258         5.07         458         458         3,694         275         7         1,485         1           Total         19,141         5.28         458         3,694         2,75         7         1,485         1           Rural         19,141         5.28         2,88         4,58         3,694         4,23         42         1         2,56         2,53         1           Rural         19,141<		Rural	10,366	4.95		917	917	2,060		Н	98	9,363
n         Fural 6,845 5.10         587         587         1,343         6         5         6,845 5.10         6,845 5.10         587         587         1,343         6         5         6,845 5.10         6,845 5.10         6,845 5.10         6,845 5.10         6,845 5.10         6,845 5.10         6,845 5.10         6,845 5.10         6,845 5.10         6,845 5.10         75		Total	13,094	4.91	:	1,249	1,249	2,601	19	1	96	11.749
Rural         6,845         5.10         587         587         1,343         6           Lotal         8,338         4.97         587         587         1,598         6         0         5           Lotal         2,165         5.00         75         75         427         1         0         5           Rural         4,548         5.39         351         351         823         5         1         28           Lotal         5,713         5.25         426         426         1,250         6         0         33           Lotal         16,481         5.09         458         458         3,091         241         8         1,285           Lotal         19,739         5.09         458         458         3,694         275         7         1,469           Lotal         19,141         5.28         238         238         4,232         48         1         256           Lotal         1,256         5.39         238         3,598         4,232         48         1         253           Lotal         1,257         5.29         398         398         4,232         48         1		Urban	1,493	4.33		:		255		. :		1,493
Total         8,338         4.97         587         587         1,598         1         0         5           Urban         2,165         5.00         75         75         427         1         0         5           Rural         4,548         5.39         351         351         823         5         1         28           Total         6,713         5.25         426         426         1,250         6         0         33           Rural         16,481         5.09         458         458         3,694         275         7         1,469           Total         19,739         5.09         458         458         3,694         275         7         1,469           Rural         19,141         5.28         458         3,694         275         7         1,469           Total         19,141         5.28         238         3,598         4,232         48         1         4,58           Rural         19,141         5.28         3,39         4,232         48         1         2,53           Urban         1,265         5.34         10,404         10,1,238         39,956         2,809	Taganul-An	Rural	6,845	5.10		587	587	1.343				6,258
Urban         2,165         5:00         75         75         427         1         0         5           Rural         4,548         5.39         351         351         823         5         1         28           Total         6,713         5.25         6.70         35         6         0         33           Rural         6,713         5.25         5.07         458         458         3.694         275         7         1.469           Total         19,739         5.09         458         458         3.694         275         7         1.469           Urban         3,436         5.34         160         150         634         6         1         223           Rural         19,141         5.28         238         3.598         4.232         48         1         2.69           Total         12,65         5.39         398         398         4.232         48         1         2.50           Rural         13,627         5.34         10,404         101,238         39,956         2.309         7         16,839         1           Inform         235,444         5.17         27,697		Total	8.338	4.97		587	287	1.598			:	7,751
Rural         4,548         5.39         351         351         823         5         1         28           Total         6,713         5.25         426         426         1,250         6         0         33           Urban         3,258         5.07         458         458         3,091         241         8         1,285           Rural         16,481         5.09         458         458         3,091         241         8         1,285           Urban         3,436         5.34         160         150         634         6         1         469           Urban         12,65         5.39         398         398         4,232         48         1         223           Urban         12,65         5.39         398         398         4,232         48         1         2,38           Urban         13,627         5.34         10,404         101,238         39.956         2,809         7         16,839         1           Intral         372,140         5.07         27,697         23,900         51,597         75,537         19,652         29,602         2,483         112,492         15,491         34,304<		Urban	2,165	5.00		75	75	427	1	0	5	2,085
Total         6,713         5.25         426         426         1,250         6         0         33           Urban         3,258         5.07         458         458         3,091         241         8         1,285           Rural         16,481         5.09         458         458         3,694         275         7         1,469           Total         19,739         5.09         458         458         3,694         275         7         1,469           Urban         3,436         5.34         160         150         61         1         223         223           Total         22,577         5.29         398         3,598         4,232         48         1         256         2           Rural         13,627         5.34         10,404         101,238         39,956         2,483         370         15         2,031         1           Rural         13,627         5.34         10,404         101,238         39,956         2,809         7         16,839         1           Urban         235,444         5.17         90,834         10,404         101,238         39,956         2,809         7	Talalora	Rural	4,548	5.39		351	351	823	5	1	28	4,169
Urban         3,258         5.07         458         458         3.091         241         8         1285           Rural         16,481         5.09         458         458         3.091         241         8         1285           Total         19,739         5.09         458         458         3.694         275         7         1.469           Urban         3,436         5.34         160         160         160         160         458         4.232         48         1         2.23           Rural         19,141         5.29         398         4.232         48         1         2.56         2           Wural         1,265         5.39         398         4.232         48         1         2.603           Rural         13,627         5.34         10,404         101,238         39.956         2.809         7         16.839         1           Urban         235,444         5.17         90,834         10,404         101,238         39.956         2.809         7         16.839         1           Urban         235,444         5.17         90,834         10,404         101,238         39.956         2.809		Total	6.713	5.25		426	426	1,250	9	0	33	6.254
Rural         16,481         5.09         458         458         3.694         241         8         1.285           Total         19,739         5.09         458         458         3.694         275         7         1.469           Urban         3,436         5.34         160         150         634         6         1         33           Rural         19,141         5.28         238         3.58         4.232         48         1         225         25           Urban         1,265         5.39         238         398         4.232         48         1         256         2           Rural         13,627         5.34         10,404         101,238         39,956         2,833         16         2,320         1           Total         14,892         5.34         10,404         101,238         39,956         2,809         7         16,839         1           Urban         235,444         5.17         90,834         10,404         101,238         39,956         2,809         7         16,839         1           Total         8ural         372,140         5.07         27,697         23,906         155,837		Urban	3.258	5.07				603	34	9	184	3,074
Total         19,739         5.09         458         458         3,694         275         7         1,469         1           Urban         3,436         5.34         160         150         150         634         6         1         33         1           Rural         19,141         5.28         238         238         4,232         48         1         256         2           Total         1,265         5.39         398         4,232         48         1         256         2           Rural         1,265         5.39         398         4,232         48         1         250         2           Rural         13,627         5.34         1         2,483         370         15         2,031         1           Total         14,892         5.34         10,404         101,238         39,956         2,809         7         16,839         11           Waral         372,140         5.07         27,697         23,900         51,597         75,537         19,653         26         96,002         22           Total         607,584         5.10         118,531         34,304         152,835         115,493 <td></td> <td>Rural</td> <td>16,481</td> <td>5.09</td> <td></td> <td>458</td> <td>458</td> <td>3 091</td> <td>241</td> <td>8</td> <td>1.285</td> <td>14,738</td>		Rural	16,481	5.09		458	458	3 091	241	8	1.285	14,738
Urban         3,436         5.34         160         150         634         6         1         33           Rural         19,141         5.28         238         3.598         4.232         42         1         225         2           Total         1,265         5.39         398         4.232         48         1         256         2           Rural         1,265         5.39         398         4.232         48         1         2.031         1           Rural         13,627         5.34         2         2.483         370         15         2.031         1           Total         14,892         5.34         10,404         101.238         39.956         2.809         7         16.839         11           Urban         235,444         5.17         90,834         10,404         101.238         39.956         2.809         7         16.839         11           Pural         372,140         5.07         27.697         23,900         51,597         75,537         19,653         26         96,002         22           Total         607,584         5.10         118,531         34,304         152,835         115,493 <td></td> <td>Total</td> <td>19,739</td> <td>5.09</td> <td></td> <td>458</td> <td>458</td> <td>3,694</td> <td>275</td> <td>. 7</td> <td>1,469</td> <td>17.812</td>		Total	19,739	5.09		458	458	3,694	275	. 7	1,469	17.812
Rural         19,141         5.28         238         3.598         42         1         223           Total         22,577         5.29         398         398         4,232         48         1         256           Urban         1,265         5.39         39         2,483         370         15         2,031           Total         14,892         5.34         10,404         101,238         39,956         2,809         7         16,839         1           Urban         235,444         5.17         90,834         10,404         101,238         39,956         2,809         7         16,839         1           IniTotal         Rural         372,140         5.07         27,697         23,900         51,597         75,537         19,653         26         96,002         2           Total         607,584         5.10         118,531         34,304         152,835         115,493         22,462         19         112,841         3		Urban	3,436	5.34		160	150	634	9	1	33	3.243
Total         22,577         5.29         398         4,232         48         1         256           Urban         1,265         5.39         232         37         15         289           Rural         13,627         5.34         2,483         370         15         2,031           Total         14,892         5.34         10,404         101,238         39,956         2,809         7         16,839         1           Urban         235,444         5.17         90,834         10,404         101,238         39,956         2,809         7         16,839         1           IniTotal         Rural         372,140         5.07         27,697         23,900         51,597         75,537         19,653         26         96,002         2           Total         607,584         5.10         118,531         34,304         152,835         115,493         22,462         19         112,841         3		Rural	19,141	5.28		238	238	3,598	42		223	18.680
Urban         1.265         5.39         23.2         53         2.58         2.89           Rural         13,627         5.34         2.483         370         15         2.031           Total         14,892         5.34         10,404         101,238         39.956         2.809         7         16,839         1           Vrban         235,444         5.17         90,834         10,404         101,238         39.956         2.809         7         16,839         1           Initial Total         Rural         372,140         5.07         27,697         23,900         51,597         75,537         19,653         26         96,002         2           Total         607,584         5.10         118,531         34,304         152,835         115,493         22,462         19         112,841         3		Total	22,577	5.29		368	398	4,232	48	Ţ	256	21.923
Rural         13,627         5.34         2.483         370         15         2.031           Total         14,892         5.34         10,404         101,238         39,956         2,809         7         16,839         1           Urban         235,444         5.17         90,834         10,404         101,238         39,956         2,809         7         16,839         1           ial Total         Rural         372,140         5.07         27,697         23,900         51,597         75,537         19,653         26         96,002         2           Total         607,584         5.10         118,531         34,304         152,835         115,493         22,462         19         112,841         3		Urban	1,265	5.39				232	53	23	289	976
Total         14,892         5.34         90,834         10,404         101,238         39,956         2,809         7         16,839           Urban         235,444         5.17         90,834         10,404         101,238         39,956         2,809         7         16,839           Initial Rural         372,140         5.07         27,697         23,900         51,597         75,537         19,653         26         96,002           Total         607,584         5.10         118,531         34,304         152,835         115,493         22,462         19         112,841		Rural	13,627	5.34				2,483	370	15	2.031	11.596
Urban         235,444         5.17         90,834         10,404         101,238         39.956         2.809         7         16.839           Rural         372,140         5.07         27,697         23,900         51,597         75,537         19,653         26         96,002           Total         607,584         5.10         118,531         34,304         152,835         115,493         22,462         19         112,841		Total	14,892	5.34				2,715	423	16	2.320	12,572
Rural         372,140         5.07         27,697         23,900         51,597         75,537         19,653         26         96,002           Total         607,584         5.10         118,531         34,304         152,835         115,493         22,462         19         112,841		Urban	235,444	5.17	90,834	10,404	101,238	39.956	2,809	7	16,839	117,367
Total 607,584 5.10 118,531 34,304 152,835 115,493 22,462 19 112,841		Rural	372,140	5.07	27,697	23,900	51,597	75,537	19,653	56	96,002	224,541
		Total	607,584	5.10	118,531	34,304	152,835	115,493	22,462	19	112,841	341.908

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Table 4.1.6 (a) Estimation of Population Covered by Safe and Unsafe Source by Municipality

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		Pare			Number of Encilities	Encilities					ပိ	rerage of	Coverage of Own Use		
Name of	Area	Covered by	Pu	Public Facilities	<u>s</u>	Priv	Private Facilities	es	Numbe	Number of Private Facilities	ate Fac	lities	(1) Pop	(1) Population Covered	rered
istanicipanti City		Facilities	Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Н	Total	Safe	Unsafe	Total
	Urban			-	1									-	
Almagno	Rura	7,360	23	3	26	10	3	I	13	5	2	7	25	-	32
.0	Total	7.360	24		27	01	3	1	13	<b>5</b>	7	. 7	25	7	32
	Than	5.059	17		. 22	11	12	23		5	9	12	27	29	56
Basev	Rura	12,010	74	6.0	105	7	7	1		3	3	7	91	16	32
ì	Total	17.069	16		127	18	19	3	36	6	. 6	18.	43	45	88
	Urban	29,485			35	183	153	335	5		76	168	471	393	864
Calbavoo City	Rural	24.927			681	13	8	20		9	4	10	32	61	52
6.6.6.	Total	54,412		23	224	195	160	35	86   5	20	80	178	503	413	916
	Urban										-				
Calbiga	Rural	4,799	49		799	1			-1	:			ñ		23
)	Total	4,799	3		179	1					-		3		3
	Cross	20,594	51	21	14	9	1		9	3	0	~	4		16
Cathalogan (Capital)	Rural	8,800	88			2			2	-	-		2		5
· ·	Total	29,394	145	38	1	8	1			4	0	4	ន		71
	Urban	9,106	19	4	23	9	23	2	. 3	3	12	15.	17	\$	81
Daram	Rura	17,839	192	7	111	3	37	. 3	39		18	20	7	103	110
: :	Total	26,944	123	11	134	6	09	9		4	30	34	24	167	191
	- Program	3,479	5		5	12	2	1		9	-	71	31	5	37
Gandara	Rura	13,719			12	3	2		7			2	7	4	2
	Total	17,198	32	1	32	15	4	1	18	7	7	6	38	6	£ <del>7</del>
	Urban				£1										
Hinabangan	Rural	4,408			4										
,	Total	4,408			20	•					1	1			
	Urban														
Jiabong	Rural	5,201	13	1.	71						-				
•	Tota!	5,201	13	1	14	: :	:		:		-				
	Urban	835		2	\$						-				
Marabut	Rura	5,317	5	7	8		••				-				
-	Total		8	5	13		40 0	1,1	_		-				-
	Urban		1		1.					;					
Matuguinao	Rural	\$50	1		1						-				
	Total	2,366	2		2						-	-			

Table 4.1.6 (a) Estimation of Population Covered by Safe and Unsafe Source by Municipality (Cont'd.)

	-	000			Number of Encilities	Facilities			:		Coci	Coverage of Own Use	VI USE		
	Arca	Covered by	Pul	Public Facilities	57.	Priv	Private Facilities	ies	Number	Number of Private Facilities	e Faciliti		(1) Popu	(1) Population Covered	ered
Municipality/City	<u>:</u> }	Level I	Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total	$\perp$	Safe	Unsafe	Total
4/1	Lirban	2.785	6	1	6	3]	3	9			.7	. 3	8	8	16
	Rural	5,158	28	-	29				,	:			-	: (1	Ţ,
<u>E</u>	Total	7,944	37	2	38	3	3	9	2		2	<u></u>	8	8	2
5	Urban	1,038	3	2	4							-			;
Pagsanghan Ru	Rural	680'9	27	91	42	5		5	3			3	13		51
	Total	7,127	29	17	46	S		5				3	133	6	51
5	Urban	3,721	9	1	7	3	Ξ	14	2		9	7	S	8	50
Paranas (Wright) Ru	Rural	5,905	28	1	29		,					-	1	-	
	Total	9,627	34	2	. 36	3	11	-14	7		9	7	2	8	20
ň	Urban	686	9	. 2	8										
Pinabacdao	Rural	9,710	6	3	11	:						-			
	Total	10,699	15	5	61						-	+			
5	Urban												+		
San Jorge Ru	Rural	6,255	21	.1	21								1	1	
	Total	6,255	21	-	21							+	1	1	
ว	Urban	1,135	1		I	.:						-	-		
San Jose De Buan Ru	Rural	509	6		6		1			٠.		_		1	
	Total	1,644	10		10							-		1	:
5	Urban	1,665				-	~	4			2	77		0	
San Sebastian Ru	Rural	3,004	13	1	13		~	3			7	7	1	»	٥
	Total	4,669	13	1	13		9	7			m	4		<u>e</u> !	
5	Urban	12,713	84	13	96	31	7	38			4	120	5		77
Santa Margarita Ru	lean	1,971	17	6	25	5		5	1			2	12		71
	Total	14,684	100	21	121	36	7	43			4	22	87		3 5
5	Urban	10,094	8	1	6	7	6	15			4	8	2	7	
Santa Rita	Rural	15,800	55	S	99	18	. 53	70			82	35	<del>Q</del>	130	177
	Total	25.894	63	٥	69	24	61	85	12		31	43	જી	152	211
'n	Urban	2,386	-	-	-		. 3	3		-	2	2		-	7
Santo Niño	Rural	9,363	10	3	12	5	22	26	2	:	-	13	=	51	62
	Total	11.749	01	3	13	5	25	29			12	15	11	28	S
15	Urban	1,493			4	3	10	13	2		5	7	9	72	28
Theanil-An Ru	Rura	6.258	17	7	18	1	81	25	4		6	13	. 15	33	X
				ľ	-	5	30	20		·		101	ξ	V	Ç

Table 4.1.6 (a) Estimation of Population Covered by Safe and Unsafe Source by Municipality (Cont'd.)

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		Pop.			Number of Facilities	Facilities					Coverage	Coverage of Own Use		Ī
Name of	Area	Covered by	2	Public Facilities	ies	Pri	Private Facilities	ies	Number	Number of Private Facilities	Facilities	(I.) Poj	(1) Population Covered	vered
Municipality/City		Facilities	Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total
	Urban	2,085	4	2	9	7	7	13	3	63	7	16	16	33
Talalora	Rural	4,169	8	2	6		ľ					y.	1,6	53
	Total	6,254	12	4	CI .	, 5	,	CT 23	o t	7.	22		3	167
	Urban	3,074		5	1/1	2	55	81		<b> </b>			8.	43
Tarangnan	Rural	14,738	47	21		2	- (	16	1	Ç			101	210
	Total	17,812	99	30	85	43		\$	77	3			0.1	2
	Urban	3,243	4	2	9	10	33	42		10		3	/0	7 (2)
17,111,000	Rimi	18.680	20	9	52	•	187	187	0	93	94		498	477
V III CAIL	Total	21 023		8	32	01	219	229	5	110	115		585	613
	Crean	926	88	1	8	18	2	19	6		10	47	4	5.
Zumamaga	Rural	11,596	4	3	46	2	7	7	-  		2		7	- (5
<b>&gt;</b>	Total	12,572	51	3	54	20	4	23		2			7.00	70
	Urban	117,367	285	67	352	331	309	\$	166	155			8	3
Provincial Total	Rural	224,541	0.6	152	1.082	89		434		173			662	7.1.5
	Total	341,908	1,215	219	1 434	420	655	1.074	210	327	537	0/0"	CK0,1	j.

Table 4.1.6 (b) Estimation of Population Covered by Safe and Unsafe Source by Municipality

			ې	Coverage of Shared Well	sared Well					Level I C	Level I Coverage $(1) + (2)$	(2)		
Name of	Area	(2) Population Covered by Private	on Covered b	by Private	Numb	Number of Households	holds	No. of HHs per Shared	Safe	رو	Unsafe	ife	Total	
Municipality/City	-	Safe	Unsafe	Total	Safe	Unsafe	Total	Facility	Pop.	%	Pop.	%	Pop.	%
	lirhan				-									
A language	N C	6 34 1	286	7.328	1,263	197	1,460	45	995'9	61	766	6	7.360	٤
Craning C	7013	6.341		7,328	1,263	197	1,460	44	992'9		994	6	7360	SS
	Urban	3,323	-	5.003	829	343	1,021	30	3,350	30	1,710	15	5.059	જ
Bacev	Rum	8.321		11,978	1.767	111	2,543	23	8,337	28	3.673	2	12,010	2
Compa	Total	11,643		16,981	2.445	1,119	3,564	25	11,686	29	5,383	2	17,069	42
	Urban	17,946		28,621	3.478	2,069	5,547	27	18,417	સ	11.068	15	29.485	3
Calbavos City	Rural	22.015		24,876	4.475	581	5.056	25	22,047	37	2.880	S	24.927	45
Con Sa Canana	Total	39,961	13,536	53,496	7,952	2,650	10,603	26	40,464	30	13,948	2	\$4,412	14
	1 Than													
Calbies	Ring	4.796		4.796	983		983	15	4,799	33			4.799	33
14 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Total	4,796		4,796	983		983	15	4,799	26			4.799	%
	Tirhan	14.819	5.759	20.578	2,833	1,101	3,935	53	14,834	27	5.760	10	20.594	2
Carbalogna (Capital)	- L	7 437		8.795	1.44	263	1,704	15	7,442	33	1,358	9	8,800	82
	٢	72.256	ľ	29,373	4,275	1,364	5,639	30	9/2.22	28	7,118	6	29,394	38
	Urban	5.342		9,024	156	655	1,606	43	5,359	48	3,747	ž	9.106	8
Dorsam	Ritta	14.387		17,729	2,735	635	3,371	26	14,394	61	3,445	15	17,839	26
	Total	19,729	7,024	26,753	3,686	1,291	4,976	30	19,753	57	7,191	21	26,944	82
	Urban	3,044		3,442	581	76	657	55	3,076	58	403	8	3,479	8
Gandam	Rural	13,365		13,709	2,700	70	2,769	9.5	13.371	- 58	348	7	13,719	\$3
	Total	16,409		17,151	3,281	146	3,426	8	16,447	38	752	3	17,198	8
	Urban												100,	Ţ
Hinabangan	Rural	4,408		4,408	790		790	113	4,408	63			4,408	3
•	Total	4,408		4,408	790		790	39	4,408	36			4.408	3
	Urban					**			1.11					
fishone	Rural	4.829	371	5,201	106	69	026	69	4,829	39	371	2	5.201	42
5	Total	4,829		5,201	106	69	026	69	4,829	. 29	371	7	5.201	33
	Urban	585	251	835	120	15	171	34	285	45	251	2	835	8
Marshut	Rura	2.991	2,326	5,317		456	1,043	130	2,991	33	2,326	%	5,317	જ
	Tota	3.575			90/	507	1,214	93	3,575	35	2.577	25	6,152	00

(

Table 4.1.6 (b) Estimation of Population Covered by Safe and Unsafe Source by Municipality (Cont'd.)

9

		%	58	30	42	88	ଛ	8	2	32	22	42	37	39	86	90	89		61	20	53	7.	28	<u>8</u> 6	જ	11	K	55	74	88	ઝ	S
	Total	Pop.	1.411	955	2,366	2,785	5,158	7.944	1,038	680'9	7.127	3,721	5,905	9.627	686	9,710	10,699		6,255	6,255	1.135	509	1,644	1.665	3,004	4.669	12,713	1,971	14.684	10.094	: 5.800	708.56
(2)	Je Je	%	:		:	10	2	\ \	×	32	32	19	1	8	21	20	20		1	1				\$	ó	X	13	٥	12	28	28	38
Level I Coverage (1) + (2)	Unsafe	Pop.				456	178	634	389	2,108	2,497	1.720	204	1,924	247	2,207	2,454		149	149				1,246	414	1,661	1,694	597	2,291	3.196	5,154	8 340
Level I Co	ن	%	58	30	42	49	57	54	. 58	. 60	09	23	36	31	\$5	69	69		09	49	. 53	14	28	. 22	- 56	46	82	21	62	09	57	48
	Safe	Pop.	1,411	556	2,366	2,329	4,981	7,310	648	3,981	4,629	2,001	5,702	7,703	742	7,503	8,245		6,106	6,106	1,135	209	1.644	419	2,589	3,008	11,019	1,374	12,393	668'9	10,646	17 545
	No. of HHs per Shared	Facility	254	176	215	.43	34	37	52	25	. 27	51	39	43	23	173	110		99	09	237	12	35	154	41	55	23	14	21	123	32	45
	holds	Total	254	176	430	513	066	1,503	208	1,093	1,300	216	1,140	1,856	481	1,900	2,084		1,256	1,256	237	109	345	308	865	905	2,602	387	2,989	2,024	3,040	5 064
	Number of Households	.Unsafe				83	34	117	78	379	457	329	39	368	46	432	478		30	28	1.			230	8	311	346	118	464	639	277	1,616
ared Well	Numbe	Safe	254	176	430	430	956	1,386	130	714	843	387	1,101	1,488	138	1.468	1,606		1,226	1.226	237	109	345	77	517	592	2,257	569	2,526	1,385	2,063	3// 6
verage of Shared Well	by Private	Total	1.411	955	2,366	2,769	5,158	7.927	1,038	6,077	7,114	3,685	5.905	165.6	686	9.710	10,699		6.255	6255	1,135	509	48,	1,655	2,996	4,650	12,621	1,959	14,580	10,057	15.626	20730
Cov	on Covered b	Unsafe				844	178	979	389	2,108	2,497	1,692	204	1.895	247	2.207	2,454		149	149				1,238	406	1,645	1.677	597	2.274	3,175	5.023	90
	(2) Population Covered and Public	Safe	1	955	2,366	2.321	4.981	7,302	648	3,968	4,617	1,994	5.702	7,695	742	7.503	8.245		6.1061	6.106	1,135	509	1,644	416	2.589	3,006	10,944	1.362	12,306	6.882	10,602	200
	Area (	1_	Lishan	Rith	Total	Urban	Rura	Total	Urban	Rura	Total	Urban	Rural	Total	Urban	Rura	Топ	Lirban	Rural	Total	Crban	Rumi	Total	Urban	Rurai	Total	Crban	Rural	Total	Urban	Rural	†
	Name of Municipality/City			Mathoninao			Motions	0		Pagganghan	0		Paranas (Wright)			Pinabacdao			San Jorde	*G:		San Jose De Buan			San Sebastian			Santa Margarita			Santa Rita	

Table 4.1.6 (b) Estimation of Population Covered by Safe and Unsafe Source by Municipality (Cont'd.)

			Ş	Coverage of Shared Well	nared Well					Level I C	Level I Coverage (1) + (2)	(2)		
Name of	Area	(2) Populati	on Covered	by Private	Numb	Number of Households	holds	No. of HHs per Shared	Safe	ſe	Unsafe	ıfe	Total	-
		Safe	Unsafe	Total	Safe	Unsafe	Total	Facility	Pop.	%	Pop.	%	Pop.	%
	1 feban	1777	1 902	1	101	401	502	201	1774	17	1,909	70	2,386	87
Santo Miño	2	4.401	4.901		688	990	1.879	7.5	4,411	43	4,952	- 84	9.363	8
	Total	4,878	6.803		066	1,391	2,381	87	4,889	37	6.861	22	11.749	8
	Urban	782	683	1,465	181	158	338	32	789	S	8	47	1,493	2
Taggard-An	Rura	4,104	2,100	6,204	805	412	1,216	40	4,119	જ	2,139	31	6,258	5
	Total	4,886	2,783	7,669	985	570	1,555	38	4,907	59	2,844	75	7,751	2
	Trhan	1,209	843	2:052	242	169	410	33	1,226	57	828	<del>3</del>	2,085	8
Talalora	Rum	3.474		4,169	645	129	774	86	3,474	- 26	969	15	4,169	25
	Total	4.684	-	6,222	988	298	1,184	55	4,700	20	1,554	23	6.254	33
	Tirban	1.537	1.370	2,907	303	270	573	11	1.621	20	1,453	55	3.074	g
Taraneman	Rim	10.018	`	14,695	1,968	919	2,887	38	10,043	61	4,695	83	14.738	88
	Total	11,555	ĺ		2.271	1.189	3,460	27	11,664	. 59.	6.148	31	17,812	8
	I Irhan	1 051	2 080		197	390	586	22	1,076	31	2,167	. 63	3,243	g
Villareal	Rura	3,165	15.015		009	2,844	3,443	29	3,167	17	15,513	.8	18,680	88
	Total	4,216		21,312	296	3,233	4,030	28	4.243	19	17,680	8	21,923	97
	Crban	906		925	168	3	172	10	953	22	23	2	976	
Zumamaga	Rura	10,751	835	11,586	2,013	156	2,170	45	10,756	79	840	9	11.596	S
)	Total	11,657	853	12,510	2,181	160	2,341	36	11,710	79	883	9	12.572	X.
	Cross	77,515	38,207	115,722	15,127	7,436	22,563	34	78,364	33	39,003	17	117,367	S
Provincial Total	Rural	169,080	54,342	223,422	33,158	10,589	43,747	34.	169,300	45	55,241		224,541	8
	Total	246,595	92,549	339,144	48,285	18,025	66,309	34	247,664	41	94.243	- 16	341,908	28
											:			

( )

The number of households per shared public/private facility is estimated at 34 households in urban area and 47 in rural area as provincial averages. Compared with the service level standard of Level I public facility (15 households/facility), these figures are considered rather high. In particular, those figures in the municipalities of Gandara, Hinabangan, Jiabong, Marabut, Matuguinao, Paranas, Pinabacdao, San Jorge, San Jose De Buan, San Sebastian, Santo Nino and Talalora are considered quite large. This reason seems to arise from a considerable number of non-reported/unidentified private wells.

}

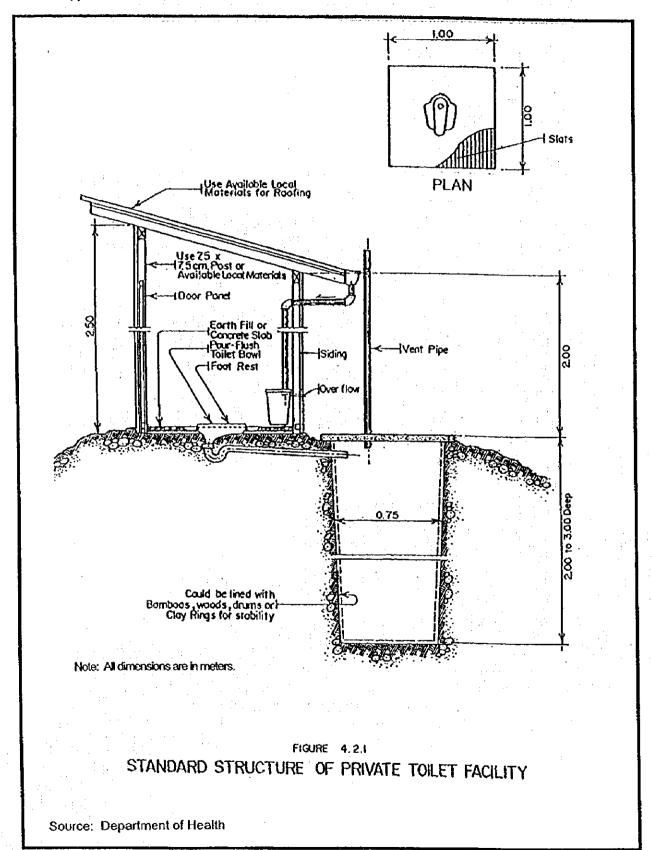
### Percentage of Population Covered by Level I Public Facility for Rural Water Supply

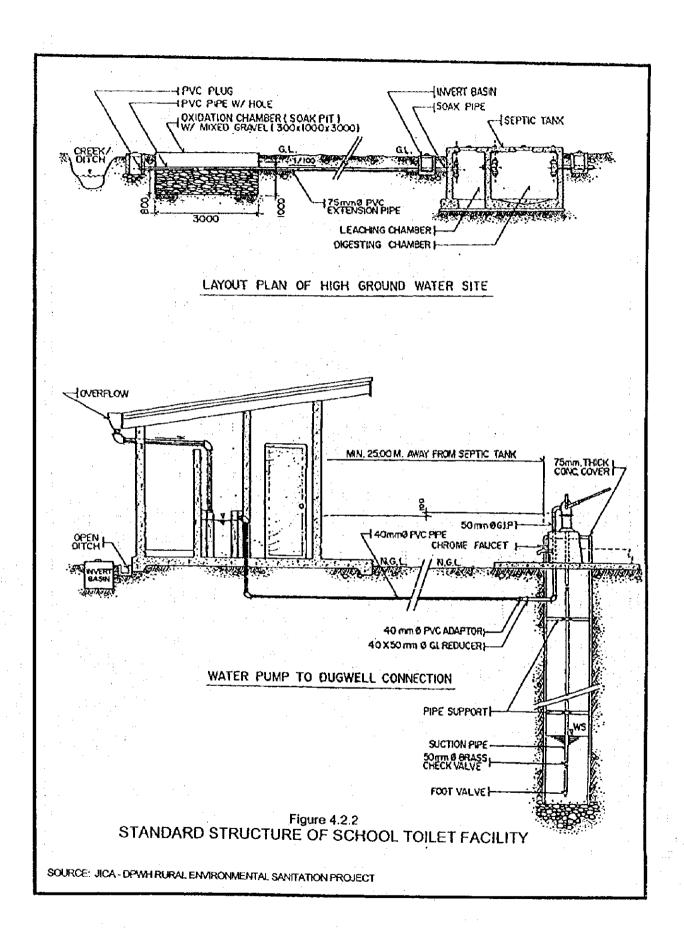
Grasping the current percentage of population covered by public facilities would be a useful information in considering to what extent the additional population to be covered by public facilities in the future plan. This takes into account that the major facilities would be Level I especially for rural water supply in the future.

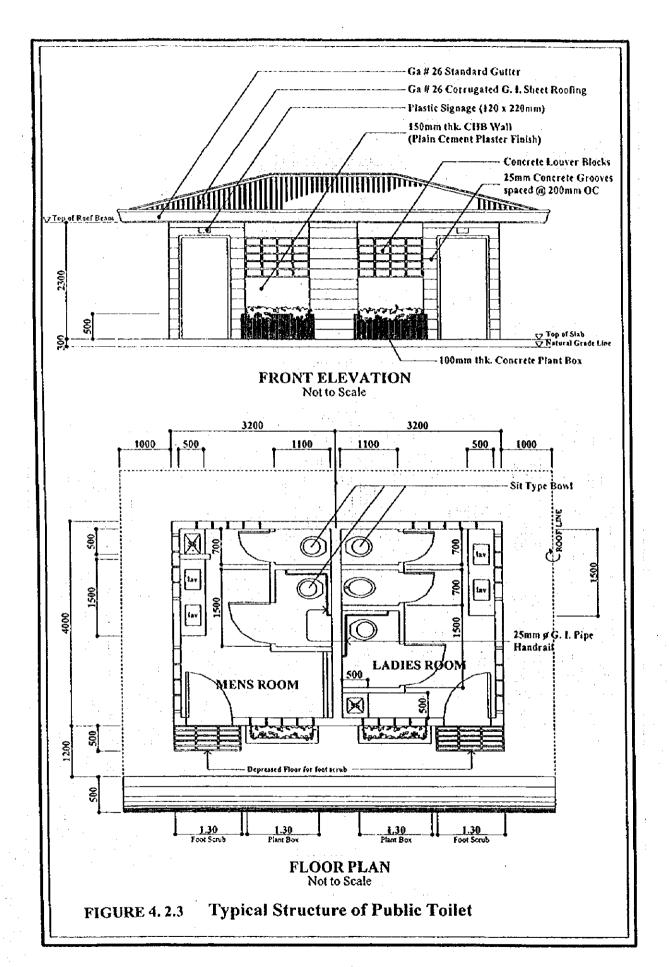
Population served by public Level I facilities is calculated using Tables 4.1.6 (a) and 4.1.6 (b) as a balance between total population served by Level I facilities and population covered by private facilities. Thus, it is estimated that 246,500 persons or more than 95% of the population served by Level I water supply are covered by public facilities.

# 4.2 Sanitation and Sewerage

# 4.2.2 Types of Facilities and Definition of Service Level Standard







# 4.2.3 Sanitation Facilities and Service Coverage

Table 4.2.1 Sanitation Facilities and Service Coverage of Household Toilets by Type, by Municipality, Urban and Rural 1993

Name of	Area	No. of Households	Flore W		ouseholds :								Unserved 1	
Municipality/City	Alex	(1998)	Flush T Number	011et	Pour 11 Number	ush %	VIP/D Number	<u>/y</u>	Tota Number		Unsanit		No Fac	
	Urban	65	Tromoct		25	33	1,011061	3	27	12	Number 20	//	Number	*
Amagra	Rural	2,092			439	21	209	10	643	31	628	31	18 816	28 39
	[otal	2,157			461	22	211	10	675	31	618	30	834	39
	Urban	2,261	90	4	791	35	68	3	949	42	678	30	634	28
asey	Rurat	6,233			1,309	21	623	10	1,932	31	1,870	30	2,43}	39
	Total	8,494	90		2,100	25	69t	- 8	2,831	34	2,548	30	3,065	36
albayog City	Urban	14,312	572	4	5,009	35	429	3	6,010	42	4,294	30	4,008	28
ainayog e ny	Rural Total	12,173 26,485	\$72	2	2,556	21	1,217	10	3,773	31	3,652	30	4,743	39
	Urban	763	31	4	7,585 267	35	1,646 23	6	9,783 321	42	7,916 229	30	8,756 213	33 28
albiga	Rural	2,961		-	622	21	296	10	918	31	888	50	1,155	39
	Total	3,724	31	ī	889	21	319	- 9	1 239	33	1,117	30	1,368	37
	Urban	10,609	424	4	3,713	35	318	3:	4,455	42	3,183	30	2,971	28
Cathalogan (Capital)	gars)	4,409			926	21	441	10	1,367	31	3,323	30	1,719	39
	Total	15,018	424	3	4,639	31	759	5	5.822	39	4,506	30	4,690	31
_ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Urban	1,969		ļ	768	39	59	3	827	42	591	30	551	28
Daram	Rural	4,462			937	21	415	10	1,383	31	1,339	30	1,740	39
	Total	6.431	ļ	<b> </b>	1,705	27	505	8	2,210	34	1,930	30	2,291	36
Gandara	Urban Rural	1,012 4,674	<del> </del>		395	39	30 467	10	425	42	304	30	283	28
	Total	5,696		1	932 1,377	21	497	9	1,449	31	1,402	30	1,823 2,106	39
	Urban	931	37	4	326	35	28		391	12	279	30	261	28
Hinabangan	Rural	1,257	1	<u> </u>	264	21	126		370	11	377	30	490	39
	Total	2,188	37	2	590	27	154		781	36	656	30	751	34
:	Urban	699	28	4	245	35	21		294	42	210	30	195	28
Jiabong	Rural	2,320		L	487	21	232		719	31	696	30	905	39
	Total	3,019	28	1	732	24	253		1,013	34	906	30	1,100	36
	Urban	268		L	105	39			113	42	: 80	30	75	28
Marabut	Rural	1,762		ļ	370	21	176		546	3 i	529	30	687	35
	Total	2,030			175 171	39	184		659	_32	603	30	762	35
Matuguinao	Urban Rural	594		-	125	21	13 59		184	4 <u>2</u> 31	131	30	123 232	28 39
-1460 8110110	Total	1,632		<del> </del>	296	29	72		368	36	309	30	355	: 34
	Urban	883	<del>                                     </del>		344	39	26		370	42	265	30	248	21
Motiong	Rural	1,681		1-	353	21	168		521	31	504	- 30	656	39
	Total	2,564			697	27	194		891	35	759	30	904	3:
1. 1	Urban	225			88			1	95	42	68	30	62	21
Pagsanghan	Rural	1,190		1	251	21	120		371	31	359		466	
	Total	1,421	<u> </u>	<u> </u>	339		127		466	33	427	30	528	3
Danier CV - Alex	Urban	1,726		4	604		52		725	42	518		483	
Paranas (Wright)	Rural	3,060 4,780		1	643	21	300		949	31	918		1,193	
	Urban	21:		+-	1,247	39	358	1	1,674 90	35	1,436 65		1,676	
Pinabacdao	Rural	2,12		t	415		217		657	31	636		828	
	Total	2,330		1	529		218		747	32	701		888	
	Urban	404		<b>—</b>	158		12		170		121		113	
San Jorge	Rural	2,060			433	21	200	10	639		618		803	3
	Total	2,46			591	24	218	9	: 809	- 33	739	: 30	916	
	Urban	144		1	174		1.		187	42	134		124	
San Jose De Buan	Rural	80		1	168		B(		248		240		312	
	Total	1,24			343		9.		435	35	374		436	
San Sebastian	Urban	36 92		<b>-</b>	141		1		152	-	109		101	
SER OCCUPATION	Rural			┼	-		9:		288		278	_	361	
	Total Urban	2,77		1-	1,683		8		1,166		83		778	
Santa Margarita	Rural	1,26		1	260		12		393		38		493	
<b>3</b>	Total	1,04		<del>1</del>	1,345		21		1,559		1,21		1,27	
	Urban			$\mathbf{I}^{-}$	890		6		96		689		64	
Santa Rita	Rural	3,64	5		765		36		1,130		1.09		1 42	
	Total	5,94			1,66		43		2,09		1,78		2.06	
	Urban				22:				24.		17		16	
Santo Niño	Rural	2,09		<del></del>	440		20		649		62:		81	
	Total	2,67		<del> </del>	66:		22		89		80		97	
Taganul An	Urban	1,34		+	28		1 1		14:		10			
Tagapul-An	Rura!	1,68		+	41		13		56		40 50			
	Urban			+-	(6		<del> </del> "		18		130		12	
Talalora	Rutal	84		+	17			4 10	26		25			-
1	Total	1,27			34		9		44.		38			
	Urban			Ī	25			9 3	27		19			
Tarangnan	Rura!	3,23	8		68		32		1,00		97	1 30	1,26	3
L	Total	3,88			93		34		1,27		1,16	4 30	1,44	3
	Urban	64	3	$\Box$	25	1 39	i	9 3	27	0 42	19	3 30		_
Villareal	Rural			1	76	_	36		1,12		1,08			
]	Total	4,26		<b></b>	1,01		38		1,39		1,28			
	Urbar			-	9		<del> </del>	7 3	9		7			
Zuniarraga	Rural			4—	53		25		79		76			
	Total	2,78		-	62		26		1 89		(3,66			_
1	Urbar Rura!			31 3	15,41		1,36 7,33		19,12		22.01			_
Provincial Fotal	• E-EU2?	13.33			12.41	41	. 4.33	or IV		vj 31	44.73	>∪	40,02	-1

Table 4.2.2 Number of Student and School Tollet Facilities by Municipality

Name of Municipali	tv/City	Number of	Number of		mber of Toi	lets
	<u> </u>	School	Student		Unsanitary	Total
	Public	17	2,110	34		34
Vimagro	Private			•		
	Total	17	2,110	34		34
	Public	58	9,582	90		90
Basey	Private					
	Total	58	9,582	90		90
	Public	163	29,438	41	6	47
Calbayog City	Private	2	2,847	47		47
	Total	165	32,285	88	6	94
	Public	36	4,459	82	:	82
Calbiga	Private			1.5		
	Total	36	4,459	82		82
	Public	52	19,431	197		197
Catbalogan (Capital)	Private	6	282	20		20
	Total	58	19,713	217		217
	Public	60	7,081	114		114
Daram	Private		4,14			
	Total	60	7,081	114		114
	Public	59	5,698	96		- 90
Gandara	Private	1	215	7	: .	
	Total	60	5,913	103		10.
	Public	19	3,080	38	3	38
Hinabangan	Private			. 1. 1		7 11 11
	Total	19	3,080	38	3	3
	Public	27	3,005	50	5	- 50
Jiabong	Private :					1 1
	Total	27	3,005	50	5	5(
	Public	15		·	5	20
Marabut	Private		1.3			· · · · · · · · · · · · · · · · · · ·
1 1 1	Total	15	2,710	26	5	2
	Public	6			1	1
Matuguinao	Private			.:	† · · · · · · · · · · · · · · · · · · ·	
	Total	6	736	14	1	1
	Public	31				6
Motiong	Private	†	1	† <u>-</u>	<u>-</u>	<u> </u>
1	Total	31	3,211	64	4	6
	Public	10			<del></del>	2
Pagsanghan	Private	<del> </del>	1,370		<del></del>	<del>                                     </del>
" "PontiPiinii	Total	10	1,670	2	<del>a </del>	

Table 4.2.2 Number of Student and School Toilet Facilities by Municipality

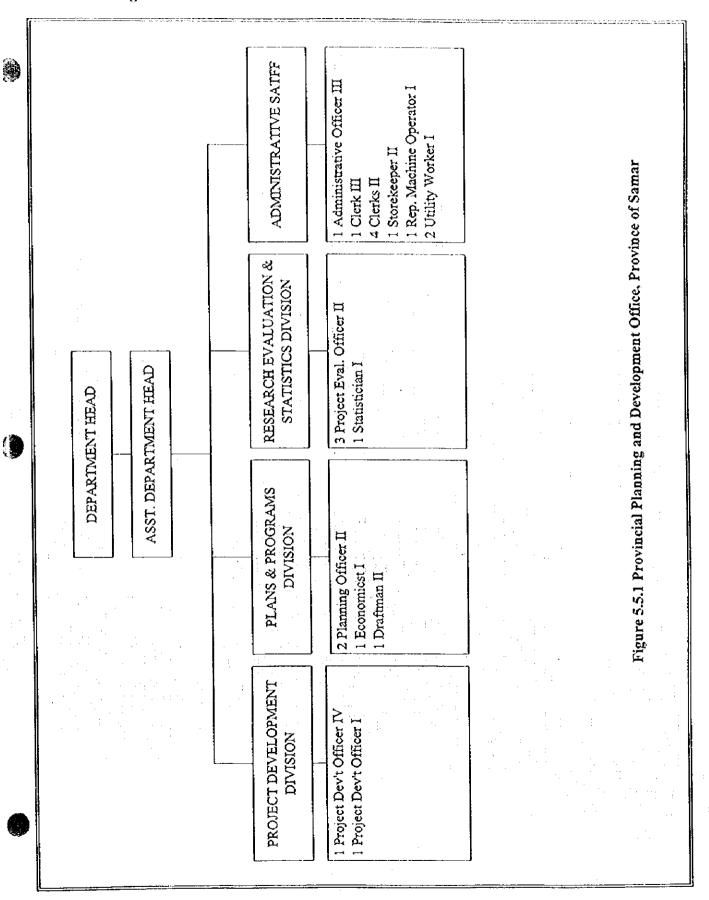
Name of Municipal	ity/City	Number of	Number of		mber of Toi	
Traine of intenterpa	ity/City	School	Student :	Sanitary	Unsanitary	Total
	Public	44	6,812	90		9.
Paranas (Wright)	Private	·	: :			·····
	Total	44	6,812	90		90
-	Public	25	2,896	46		40
Pinabacdao	Private	: : : : : : : : : : : : : : : : : : :				
	Total	25	2,896	46		. 40
	Public	32	2,183	30		30
San Jorge	Private	11.6				5.
	Total	32	2,183	30		3(
	Public	15	918	32		3.
San Jose De Buan	Private				:	
	Total	15	918	32		3:
	Public	10	1,496			13
San Sebastian	Private			<del></del>	·····	
	Total	10	1,496	18		1:
	Public	37	3,738	69		6
Santa Margarita	Private		3,730			
	Total	37	3,738	69		6
	Public	46	5,670			9
Santa Rita	Private	- '	3,0.0			
	Total	46	5,670	90	<del></del>	9
	Public	16	2,850			3
Santo Niño	Private		2,030			
	Total	16	2,850	30	·	3
	Public	16	1,806			2
Tagapul-An	Private		1,000	20	<del>                                     </del>	
	Total	16	1,806	28		2
	Public	11	1,684			2
Talalora	Private		1,001	20		
	Total	11	1,684	20		2
	Public	36			I	7
Tarangnan	Private		,,,,,,	<b>-</b> '`		
	Total	36	4,137	76	<del>                                     </del>	7
	Public	37			ļ	6
Villareal	Private	1	229		<u> </u>	<u> </u>
	Total	38		·		6
· · · · · · · · · · · · · · · · · · ·	Public	22			<del></del>	4
Zumarraga	Private	1	310			<del>                                     </del>
ZAMAHAKA	Total	23		<u>.                                      </u>		5
D	Public	900				
Provincial Total	Private	11	<del>-</del>			8
	Total	911	139,030	1,597	6	1,60

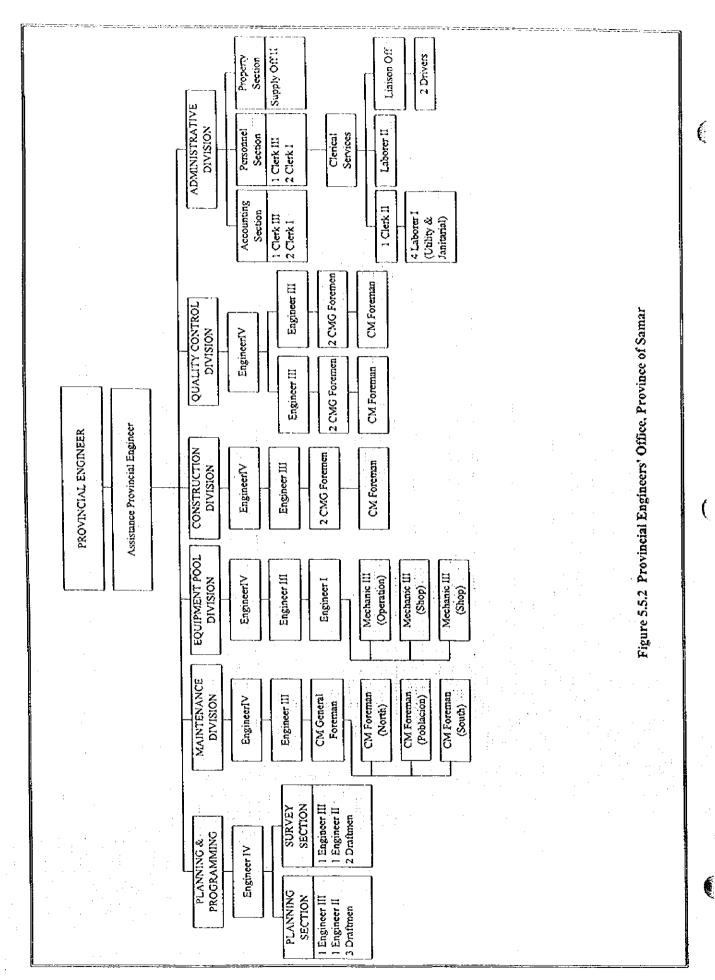
Table 4.2.3 Number of Public Toilets Facilities in 1998

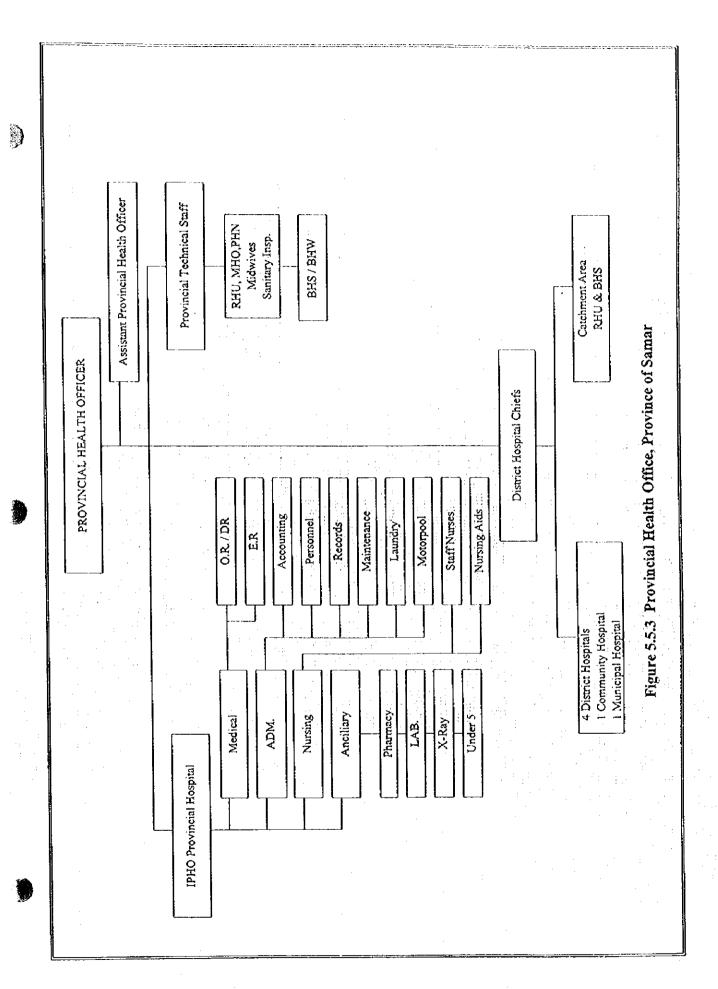
				1,4	, L	in old	.g	Parke/Playoround	nd	
		Public Markets	ts	C/STIC	Bus/Jeepney 1erumas	IIIAIS				1013
Name of Municipality/City	No.of Sanitary	No. of Unsanitary	Sub-total	No.of Sanitary	No. of Unsanitary	Sub-total	No.ot Sanitary	No. of Unsanitary	Sub-total	Number of Toilets
	Toilets	Toilets		Toilets	Toilets		Tollets	Toilets		
Almagro										
Basev		:: :								
Calbavog City	1		1	8		00	3		ľ	27
Calbica									: .	
Cathalogan (Capital)									1	-
Daram										
Candara	<b>p-</b> 4									-
Hinshangan										
Tishong										
Marshut										
Mathemina							-			
Motions										
Passanahan										
Paranas (Wright)										
Pinabacdao										
San Jorge										
San Jose De Buan										
San Sebastian										
Santa Margarita				:						
Santa Rita					:	:				
Santo Niño				:						
Tagapul-An					:					
Talalora										
Tarangnan										
Villarcal		:								Ī
Zumarraga										
Provincial Total	2		2	8		8	4		4	4

# 5. EXISTING SECTOR ARRANGEMENT AND INSTITUTIONAL CAPACITY

# 5.5 Sector Agencies at the Local Level







# Table 5.6.1 Priority Areas/Terms and Conditions, Programs and Projects by Donor

	Delocity, A was Clarine and Conditions Programs and Projects in the Sector/Exceuting Agency
Donor	Man and a second
OECF	Providing project loans for capital infrastructure (infoan.rural), agricultural aevelopment, export water Supply and Sulface to 15% of total foreign exchange component, whichever is financing AWSOP, with World Bank and ADB/MWSS.  Inforest Rate: 2 to 3%; 30-year amortization with 10-year grace period. Environmental projects.  Interest free.
ADB	Providing both capital and technical assistance; Project Ioans: agriculture, agri-industry, energy, social [Rural Water Supply and Sanitation Sector Project/LWUA; Technical Assistance for Water Supply Sector Project/LWUA; Technical Assistance for Water Supply Sector Project/LWUA; Technical Assistance for Water Supply and Sanitation Sector Study/NEDA; Co-financing AWSOP with higher. Special cases can finance up to 80% of total project cost. Terms: Interest rate-pool-based World Bank and OECF/MWSS.  variable; commitment charge of 0.75% per annum; 25 years amortization period including 5-year grace
AUSAID	reasio
DANIDA	Providing capital and technical assistance for water supply and sanitation services and facilities, telecom Water supply projects for 10 towns/LWUA: reasibility studies and interpretable of pollution in the Pasig River-Metro Manila; Water Supply and ancillary equipment, small-scale power projects, environmental project, fishery and services and control of pollution in the Pasig River-Metro Manila; Water Supply and past-harvest facilities; Can finance up to 100% of foreign exhange goods and services of Danish Sanitation Data Bank.  origin, 10% local cost on a case-to-case basis. Technical assistance can be negotiated for conduct of feasibility studies if implementation of the project will require Danish financing in the future.
Government of France	Grants for feasibility studies and detailed design for projects in priority areas, e.g., power generation, Feasibility Study for water supply project in Rizal province. telecommunication, research involving high technology, water supply, air navigational equipment, etc.  Can finance 100% of foreign exchange costs of goods and services of French origin.
German Agency for Technical Cooperation (GTZ)	Providing grants for technical assistance. Promotion of small and medium-scale industries, rural Water Supply for 20 Towns/LWUA; a national water supply and development, technical training, health/family planning, and environmental protection (forest sanitation on-going program; special TA programs for cost recovery management).
JICA	Providing a combination of capital assistance thru grant-aid and technical assistance thru Technical Groundwater study in Mamla; reasibility Study.  Cooperation for development survey and project type assistance which is a combination of experts, Treatment Plant Feasibility Study.  Coupling, limited provision of equipment. Capital assistance for provision of eugipment/materials for training, limited provision of equipment. Capital assistance for provision of eugipment/materials for construction of hospitals, schools, research, social welfare centers. Priority areas include basic for sections infrastruction of facilities and supply of equipment; project development for sections development feducation, research, training). Can finance 100% of foreign exchange costs of civil works, equipment, training (in Japan) and of all goods and services of Japanese origin.

Tabel 5.6.1 Priority Areas/Terms and Conditions, Programs and Projects by Donor	Donor Priority Areas/Torms and Conditions Programs and Projects in the Sector/Executing Agency	UNDP Providing technical assistance for capacity building, human resource training, technology transfer, WATSAN Program for LGUs and selected BWSAs/DILG. policy research, planning, technology development and pre-investment studies. Technical assistance are formulated within country program (CP) frameworks: 6th CP (1997-2001) -poverty and sustainable livelihood, projection and regeneration of the environment and sound governance, gender	UNICEF Providing grant aids for technical assistance. Priority area: social services, particularly for children. Community-based water supply program in Palawan Province: Water supply and sanitation Study for Southern Mindanzo.	USAID Providing grant aid within its strategic objectives. Six strategic objectives and one special objectives Barangay Water Program (BWP) for communities with populations of are: Accelerate the economic transformation of Mindanao; Improve national systems for trade and less than 10,000; TA for private sector participation in the sector.  Investment; Reduce population growth and improve maternal and child health; Enhance management of renewable national resouces; reduce emissions of greenhouse gas; provate participation in public formulation/implementation (selected areas); prevent rapid increase of HIV/AIDS.	World Bank Providing capital assistance in the form of under IBRD and IDA. IBRD (Project/Program). Loans: AWSOP co-financed with ADB and OECF/MWSS; TA for a Water Interest rate = less than 7%; 20 years amortization with 5 years grace period; IDA Loans: interest free Supply Sector Program Study/DILG; TA on private sector with 30 to 40-year amortization period. Providing also tehnical assistance in the form of ESW; IDF; participation in the water supply and sanitation sector; Water Districts Poverty and Human Resource Development Project Proparation and Policy Notes. Can finance 100% Development Project. LGU-Utban Water and Sanitation Project. of foreign exchange costs of the project. Priority areas: powerand energy, roads and railways.		Tabel 5.6.1 Priority Areas/Terms and Conditions, Programs and Projects by Donor  Projects in the Sector/Exceuting Agency Providing technical assistance for capacity building, human resource training, technical assistance for capacity building, human resource training, technical assistance for capacity building, human resource training, technical assistance for capacity building, human resource training, technical assistance for capacity building, human resource training, technical assistance for capacity building, human resource training are formed assistance and regeneration of the environment and sounds governance, gender assistance. Phority area: social services, particularly for children.  Providing grant aid within its strategic objectives. Six strategic objectives and one special objectives Barangay Water Program (BWP) for communities with populations of area consonic trainiformation of Mindoneo. Improve national systems for, traid and prove maternal and child health. Eschauce management in public formulation (selected areas); prevent rapid increase of HIVAIDS.  Providing capital assistance in the form of under, IBRD and, IDA. IBRD (Project/Program), Loans; AWSOP co-Snanced with ADB and OECF/MWSS, TA for a Water Interest rate = less than 7%, 20 years amortization with 5 years grace-period; IDA Loans: interest fee Supply Sector Program Study/DILG: TA on private sector project. Providing assistance in the form of being a solvential assistance in the form of winder, IBRD and ADA in the form of DESW, IDF, participation in the water supply and saniation project. Provide and Policy Notes. Can finance (100%) Development Project. Project Proparation and Policy Notes. Can finance to program and variance supply and saniation, agriculture and social services.
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# (1) Foreign Agencies

The World Bank supported the First Water Supply, Sewerage and Sanitation Sector Project or FW4SP. This project provided capital funds (US\$58.0M) for rural water supply system in Luzon provinces and sanitation system nationwide based on completed provincial master plans. The project concept called for a community-based approach through BWSAs. The project was implemented from 1991 to 1995 with an extension up to 1997. Subsequently, the Capacity Enhancement Program (CEP) with DILG as implementing agency was conducted until the end of 1997.

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In addition, the World Bank prepared a new loan for DILG implementation - the Local Government Unit Urban Water Supply & Sanitation Project (LGUUWSSP). This project aims to support the water supply requirement in the urban centers of approximately 250 small and medium-sized municipalities nationwide, benefitting about 6 million people. The project consists of three components, namely: i) Water and Sanitation Facilities Component, ii) Institutional Development Component and iii) Technical Assistance Component. The project is to be implemented from 1999 to 2006 in three phases, and estimated cost is US\$ 250 M. More information on this project is attached on the following pages.

UNDP assists the Institution Building for Decentralized Implementation of Community-Managed Water Supply and Sanitation Project or IBWSSP known as UNDP PHI/93/010 Project under the Fifth Country Program (1994-1997). This project directly responds to the government's Poverty Alleviation Program. UNDP provides assistance in strengthening the institution involved in the delivery of water supply and sanitation services with emphasis on support to local government units, NGOs, and communities through the BWSAs. The project will complement earlier efforts by UNDP (through the UNDP/ World Bank Water and Sanitation Program) to promote appropriate cost effective technologies in water and sanitation and to improve the training capacity of the sector. The project covered seven (7) provinces; 180 sub-projects were implemented in the objective areas during implementation period 1994-1997.

The United Nations Children's Fund (UNICEF) supports the sector through the Philippines Plan of Action for Children. Apart from hardware support in the priority project site, UNICEF assisted NEDA in updating the national master plan. UNICEF works through the inter-agency committee on environmental health and through NGOs. With the World Health Organization (WHO), UNICEF has been assisting in the preparation of Information, Education and Communication (IEC) materials and in strengthening the sector monitoring system. As part of these various

assistance, UNICEF supported NEDA in 1997 for the assessment of WATSAN Sector of Eastern Visayas (Region VIII) and Southern Mindanao (This was compelled by the sudden and unexpected occurrence of water-borne epidemics that hit Region XI).

Asian Development Bank (ADB) support the Rural Water Supply & Sanitation Sector Project (RW3SP) through sector lending approach for the 20 prospect provinces of the country. The project area covers about 3,000 rural communities with population ranging from 200 to 5,000 persons in provinces located in Luzon, Visayas (Biliran, Eastern Samar and Southern Leyte included from Region VIII) and Minadanao. RW3SP will: i) provide capacity-building to local government units (LGUs) to enhance the delivery of social services, ii) improve social infrastructure for basic needs such as water supply and sanitation, and iii) reduce poverty incidence. The project also includes: i) comprehensive institutional capacity-building, ii) community development program, iii) point source water supply systems, and iv) public and household latrine facilities. This will be implemented from 1995 – 2000. More information on this project is attached on the following pages.

The Japan International Cooperation Agency (JICA) has been extending a grant aid program for the Rural Environmental Sanitation Project which is/was jointly implemented by DPWH and DOH. The project covered construction of Level I and II rural water systems and school toilet facilities in ten- (10) provinces. With DPWH, rural water supply systems were constructed at the evacuation centers for the Pinatubo refugees. JICA also supported the ground water development study in Cavite province (with LWUA) and the institutional development activities for MWSS. The PW4SPs for the nine (9) provinces in Luzon area were completed through previous technical cooperation.

The Overseas Economic Cooperation Fund (OECF) provided financial assistance for the RWS IV Project. It provided a loan of up to Y 5.08B, with a counterpart fund of P 400M. The project covered construction/rehabilitation of Level I systems, construction of workshop building and procurement of various equipment. OECF has also been supporting the Provincial Cites Water Supply Project of LWUA and the Angat Water Supply Optimization Project of MWSS.

DILG requested OECF last year to provide a loan for the Water Supply and Sanitation Project or WSSP for the 6 provinces (based on JICA assisted PW4SPs). The project will achieve additional service coverage both for water supply and sanitation as follows: 549,100 persons with water supply, 9,579 households provided with latrines, 18,750 students with 375 school toilets and 72 public toilets.

The Barangay Water Program (BWP) was a special project being implemented by the then Ministry of Local Government (now DHG) with financial assistance from the USAID. The program envisions to alleviate the health standards of small rural farming and fishing communities by providing safe, adequate and potable water through the establishment of public faucets or individual house connections. The systems for these communities should be owned, operated, maintained and managed by the users themselves through rural waterworks and sanitation associations. The program also intended to enhance the capabilities of local government units in project planning, programming, designing, implementation, evaluation and monitoring. Phase I of the BWP was implemented in the period 1978 – 1981; Phase II started in 1982 and was extended until December 1987. Phase II operations officially ended in December 1987, but a one-year winding-up period was agreed upon between the GOP and USAID. USAID extended loans to cover the construction costs and the installation of facilities on a reimbursement basis while the GOP through DILG shouldered the operational, training and personnel costs. Through BWP, waterworks projects were implemented in 50 provinces, 22 cities and 7 municipalities.

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The Australian International Development Assistance Bureau (AIDAB) supported the Central Visayas Water and Sanitation Project through a \$ 14.65M grant. The project was implemented by the LGUs and the Regional Development Council. Project components include: planning and monitoring information systems; infrastructure planning and rehabilitation; and institution building with an emphasis on community management based on experience from other AIDAB-funded projects. The project period was extended until 1997.

The Water Supply and Sanitation Performance Enhancement Project (WPEP) funded by AusAid through WSP-EAP aims: i) to initiate a systematic program of applied research examining what works and what does work in the field from the recent past and from the new generation of WATSAN projects, ii) to provide technical advice to any privately sponsored community-based field experiments which would seek to apply demand-responsive approaches to bring sustainable WSS; iii) to enhance capacity building programs and implemented to LGUs about operationalizing demand-responsive approaches in the filed and; iv) to help refine policy implementation guideline, and policy where were learned from the field. WPEP is an applied research activity. It will help National Government consolidate its facilitative role in the future. Its structured approach will be a key collaborative activity with NEDA's new Project Performance Monitoring System (PPMS). The project will be executed by DILG in coordination with NEDA in two years from 1999.

The Canadian International Development Agency (CIDA) carried out until March 1998 prefeasibility study of Malalag Bay Alliance Water Supply Project. This project covers ten (10) coastal municipalities. The project includes water source development, construction of storage, transmission and distribution facilities, and service connections. Basic construction costs will be allocated between MBA and its municipalities. Implementation period is scheduled from 1998 to 2002. The Malalag Bay Area Development Office will submit a proposal for assistance to CIDA through the Regional Management Committee of NEDA Region XI office.

# (2) WATSAN project by GOP

To provide safe/accessible water and sanitation serves to the basic sector groups within the 5<sup>th</sup> and 6<sup>th</sup> class municipalities; to enhance the capabilities of the target LGUs in terms of WATSAN planning, implementation and maintenance of the facilities; and to minimize the incidence of water borne diseases through proper site selection, disinfection of contaminated water sources and management waster water, the project of the WATSAN component of PAF 2 (Poverty Alleviation Fund 2 – Potable Water Development and Sanitation Component) was implemented with GOP fund in all the 960 municipalities belonging to the 5<sup>th</sup> and 6<sup>th</sup> class. The project started from 1997 to 1998. GOP provided project fund of P533M (P485,000 for each municipality as capital outlay). The project was implemented with a strategy: i) facility construction by the LGUs themselves; ii) water supply facilities limited to Level I hand pumps with some Level II on a case to case basis; iii) provision of skills enhancement training for LGU personnel; iv) provision of assistance to LGUs in the organization, training, and sustainability of BWSAs; v) installation of an effective projects monitoring and evaluation network; and other effective arrangements.

# (3) Local Government Unit - Urban Water Supply and Sanitation Project (LGUUWSSP)

# 1) Project Objectives

The Project has the following objectives: (i) to assist LGUs in improving and sustaining the provision of water, sanitation, drainage and other environmental services to their urban populations; (ii) to build institutional capability for decentralized planing, implementation and management of water and sanitation services at all levels of government national provincial and municipal; and (iii) to test the implementation of the government policy framework visavis LGU financing of local infrastructure.

### 2) Basic Project Principles

The project is based on two underlying principles aimed at ensuring project sustainability, to wit: (i) The "demand driven approach" in project development and implementation, meaning

that the project shall provide services that the consumers want and are willing to pay for and that the services shall be managed at the lowest appropriate levels; and (ii) The adoption of commercial principles in the management/operation of water utilities by involving the private sector, or simply put, the facilities must be operated as commercial entities and water treated as an economic commodity.

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# 3) The Project Rules

- i) The project promotes full cost recovery, that is, the tariff to be paid by the consumers should cover the cost of operation and maintenance and the repayment of the LGU DBP loan.
- ii) The system shall be operated by a private operator under a long-term lease contract with the LGU.

# 4) Project Coverage

The project aims to support the waters supply requirement in the urban centers of approximately 250 small and medium-sized municipalities, benefiting about 6 million people. There are two sets of market targets, namely: (i) Municipalities/cites, irrespective of income class, which have not formed a water district; and (ii) Municipalities/cites, irrespective of income class, which have water districts but are not in LWUA's current program of assistance (in which case, the LGU should secure a certification/clearance t o that effect. In the even that the local water district is servicing a loan from LWUA, the local water district shall seek clearance from LWUA prior to entering into an agreement with LGU concerned in any program of system expansion rehabilitation).

### 5) Project Components

The project consists of three components, namely:

Part A Water and sanitation facilities component

- construction/improvement/rehabilitation of Level III water facilities
- provision/improvement of sanitation facilities construction/improvement
- construction/improvement of urban drainage

### Part B Institutional development component

- Training of LGUs in decentralized planing, implementation and management of water facilities applying the following commercial principles:
  - i) Demand-driven approach, ii) Private sector participation, iii) Full cost recovery

### Part C Technical assistance component consists of

- This component consists of i) Feasibility study and ii) Detailed engineering

# 6) Estimated cost and implementation timetable

Phase	World Bank	LGU	Total	LGU Coverage
1. 1999 – 2002	\$ 23.3 M	\$13.7 M	\$ 37.0 M	40
11. 2000 – 2004	60. 0 M	20.0 M	80.0 M	80
III. 2003 – 2006	100.0 M	33.0 M	133.0 M	130
Total	\$ 183.3 M	\$ 66.7 M	\$ 250.0 M	250

<sup>\*</sup> The required LGU equity ranges from 10% -25% of the total project cost.

# 7) Relending Terms

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World Bank funds shall be channeled thru the Development Bank of the Philippines (DBP) which shall relend them as subproject loans to the LGUs. The DBP subproject loans shall include costs of feasibility study, technical design and construction of the water facility. Basic terms of the loan are: i) Interest per annum: 15 % per annum, ii) Amortization period: 15 years with 3-year grace period.

### 8) DBL Scheme

The subprojects will be implemented thru the DBL (Design, Build and Lease). A qualified private constructor designs and constructs the facility (while F/S is done by WB consultant), and another private entity, qualified, undertakes the system operation thru a lease contract with LGU (respective municipality).

# (4) Rural Water Supply & Sanitation Sector Project (RW3SP)

### 1) Project overview

The RW3SP's objectives are: i) to improve the capacity of sector agencies in enhancing the delivery of social services; ii) to provide safe, adequate and reliable WSS services to selected low-income rural communities through community-based arrangements; and iii) to support health and hygiene education, water quality surveillance, and community management activities. The project will help develop the technical capability of LGUs and communities in the planing, implementation and O&M of basic WSS services, promote a sense of subproject ownership and enhance community management of rural WSS services, and improve health and hygiene education in the Project areas to ensure the sustainability of Project benefits.

The project will cover about 3,000 rural communities (barangays) with populations ranging from 200 to 5,000 persons. This represents about 50% of the total number of communities in the SRA (Social Reform Agenda) provinces, spread through Luzon, Visayas and Mindanao. They are also the least developed provinces in the country. Presently, only about 40% of the

rural population in these provinces have adequate access to safe and reliable WSS facilities compared with the nation wide average of 70% for the rural areas.

SRA provinces: Batanes, Benguet, Abra, Ifugao, Apayao, Kalinga, Mt.Province, Aurora, Masbate, Romblon, Antique, Guimaras, Biliran, Eastern Samar, Southern Leyte, Agusan del Sur, Surigao del Sur, Basila, Sulu, Tawi-tawi

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The project involves institutional development and improvement of WSS in bout 3,000 rural income communities through the construction and rehabilitation of WSS facilities serving approximately 2.0 million persons and thereby increase the coverage of the project areas rural population from 40 to 90 percent by the year 2000. The project will cover five years and 50% of the rural communities in the poorest provinces under the National Rural WSS Development Programs. The project consists of two main parts; Part A: Institutional Development, and Part B: Water Supply and Sanitation Facilities.

# Part A. Institutional Development consists of four components

- Capacity -building program for local institutions covering training courses for LGUs
- Community management program to help the communities to design and set up cost recover, O&M and the community management organization
- Health and hygiene education program focusing in safe drinking water, good
  habits for personal hygiene and the control of diarrhea. Various media will be
  used. Educational material (handouts, posters, cassettes and vide tapes) will be
  developed. A total of 750 person-months of sanitary inspector and 750 person
  months of midwives will implement the education program covering the target
  communities
- Water quality control and surveillance program: A total of 500 person months of sanitary inspectors and 500 person months of water quality technicians will establish this program in the project provinces, in addition, 50 laboratories will be constructed and equipped.
- Part B. WSS Facilities consists of subprojects for the construction and rehabilitation of point source (Level 1) water supply systems. It is estimated that over 6,100 new water supply systems will be constructed. In addition, 2,000 shallow and deep wells, 130 springs, and transmission lines will be rehabilitated. The subprojects will also selectively cover sanitation facilities, such as the construction of sanitary public and household latrines, and district laboratories.

# 2) Cost estimates and budgetary requirement

Based on the cost estimates of the eight representative subprojects appraised and the subprojects proposed for about 200 communities the total cost of the designated segment of the rural was investment program the project is estimated at \$57.4 million equivalent, including taxes and duties as well as interest during construction. The foreign exchange cost is estimated at \$20.0 million equivalent (including \$1.4 million for interest and service chare during construction) or about 35 percent of the project cost, and the local currency cost is \$37.4 million equivalent of about 65% of the project cost. The fund to be provided by the government to the executing and implementing agencies will be channeled through regular budgetary allocations. Each province participation in the project will provide for the contribution of 10% for the total cost of each subproject in a particular province.

### 3) Implementation Schedule

Designed to commence in mid 1997, the project is planned to implement over a period of five years, with completion expected by 1 August 2001. The advance project preparation activities that have been carried out in about 200 communities in the project areas through the community management approach will ensure that the project gets off to a fast start.