JAPAN INTERNATIONAL COOPERATION AGENCY

DEPARTMENT OF THE INTERIOR AND LOCAL GOVERNMENT
THE REPUBLIC OF THE PHILIPPINES

THE STUDY ON THE PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN IN THE REPUBLIC OF THE PHILIPPINES

VOLUME II - [5]

SUPPORTING REPORT

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN FOR THE PROVINCE OF

SURIGAO DEL NORTE

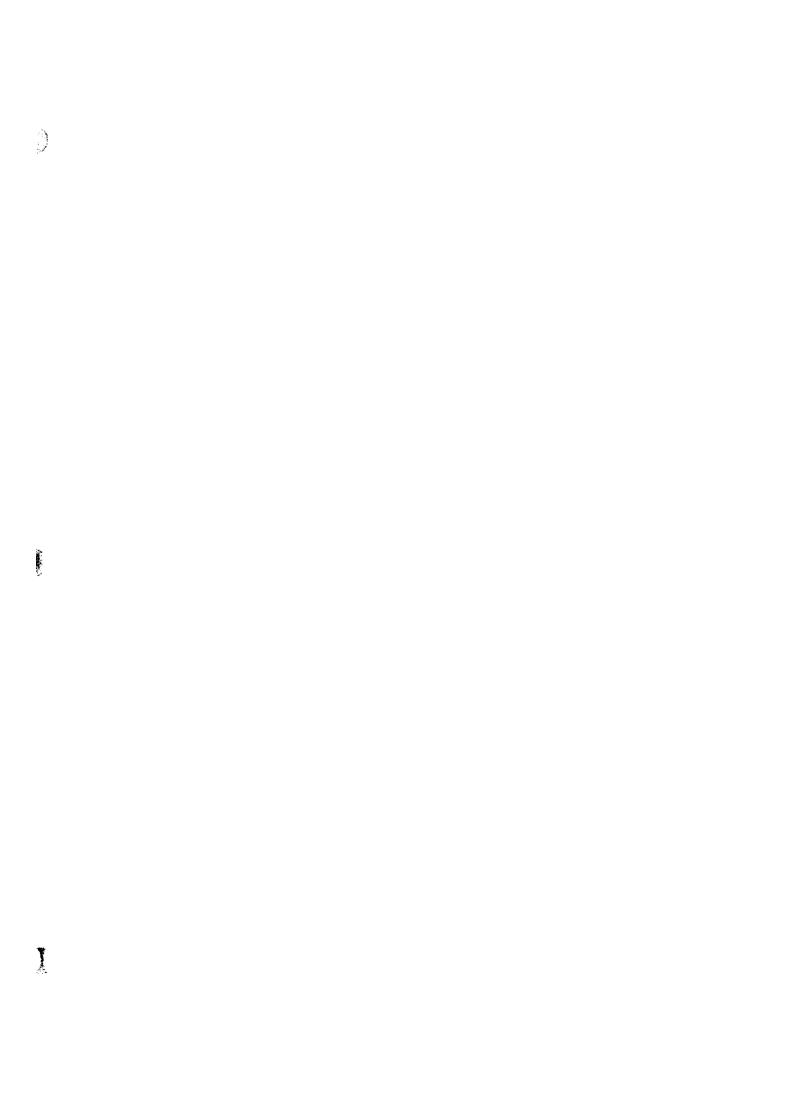


OCTOBER 1998

NIPPON JOGESUIDO SEKKEI CU., LTD.



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PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

VOLUME II SUPPORTING REPORT

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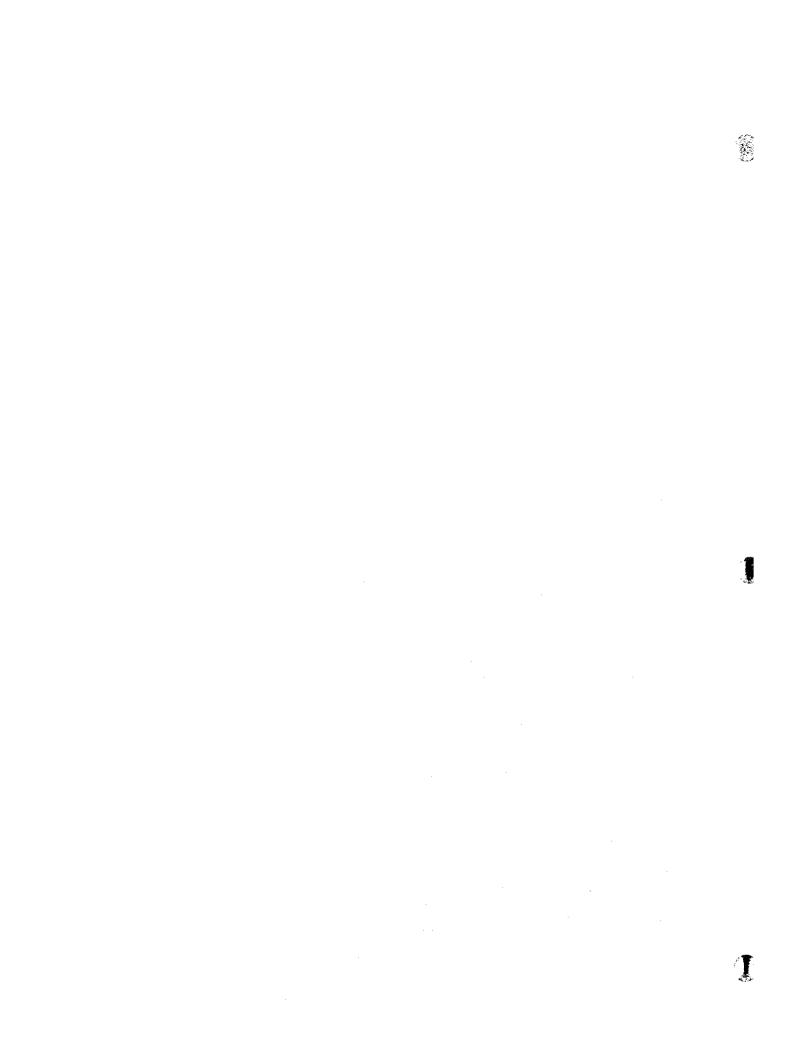
PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

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PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

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BACKGROUND INFORMATION AND EXISTING CONDITIONS



- 1. INTRODUCTION
- 1.3 The Provincial Plan for the Province of Surigao del Norte
- 1.3.1 Preparation of the Plan

MINUTES OF DISCUSSIONS

ON

THE INCEPTION REPORT

FOR

THE STUDY ON PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLANS

FOR

VISAYAS AND MINDANAO

IN

THE REPUBLIC OF THE PHILIPPINES

AGREED UPON BETWEEN

THE DEPARTMENT OF THE INTERIOR AND

LOCAL GOVERNMENT

AND

THE STUDY TEAM OF

JAPAN INTERNATIONAL COOPERATION AGENCY

MR. NORMANDO J. TOLEDO

Director

Office of the Project Development!

Services

Dept. of the Interior and Local Government

MANILA, JANUARY 26, 1998

MK MASATOSHI MOMOSE

Team Leader, Study Team

Japan International Cooperation

Agency

Japan International Cooperation Agency (hereinaster referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the Government of Japan, dispatched the Study Team to the Republic of the Philippines on January 13, 1998 to conduct "The Study on Provincial Water Supply, Sewerage and Sanitation Sector Plans for Visayas and Mindanao" (hereinaster referred to as "the Study") in accordance with the Implementing Arrangement for the Study executed between the JICA and the Department of the Interior and Local Government (hereinaster referred to as "DILG") on August 27, 1997.

A series of discussions were made on the Inception Report for the Study between the Study Team and the officials of DILG and other agencies concerned. In the course of the discussions, both parties have agreed with the general approach and methodology, and implementation arrangements detailed in the Inception Report. Also agreed upon were the changes made as to which provinces are to be covered in 1st batch and 2nd batch (refer to 1. Study Area). The list of attendees in the series of discussions is presented in Appendix A.

Study Area

The subject twenty-one (21) provinces were grouped into four batches in the "Implementing Arrangement on the Study". However, a delay in the organization of the Provincial Sector Planning Team (PSPT) in the 1st batch provinces of Misamis Oriental and Surigao del Sur prompted their transfer to the 2nd batch. Instead, Davao del Sur and Davao Oriental from the 2nd batch whose PSPTs were already formed were moved up in their place. In this connection, the DILG completed to exchange MOA with the provinces on the participation and full support by the provinces.

The present study area covers the following 21 provinces grouped into four batches.

1 st BATCH	2 nd BATCH	3 rd BATCH	4 th BATCH
 Agusan del Norte Agusan del Sur Davao del Sur Davao Oriental Surigao del Norte 	 Davao Misamis Oriental Sarangani South Cotabato Surigao del Sur 	 Biliran Eastern Samar Leyte Northern Samar Southern Leyte Western Samar 	 Aklan Antique Capiz Iloilo Negros Occidental

With regard to Davao province, the separation into two provinces is currently under legislative process. Upon the formalization of an additional province, the total number of the provinces in the study area would be 22. The DILG has requested that the forthcoming province be included in the study area. The JICA Study Team will relay the request to JICA headquarters for consideration. The DILG is expected to complete the execution of the MOAs of the 2nd batch provinces by early July to catch up with the planned schedule. The required arrangements in terms of subject provinces and study period will be discussed between the DILG and JICA.



(1)

2. General Approach and Methodology to the Study

The PW4SPs will be prepared with the full participation of the respective PSPTs together with DILG coordinators and the Study team in accordance with the approach and methodology outlined in the Inception Report. The following topics were confirmed during the discussions:

- (1) Planning framework for future sector development
 - a) Planning base year is 1997 for 1st and 2nd batches and 1998 for 3rd and 4th batches. Medium-term and long-term target years are 2005 (implementation program: year 2001 to year 2005) and 2010, respectively.
 - b) Plan will be prepared in compliance with "Implementing Rules and Regulations of NEDA Board Resolution No. 4".
- (2) Standard provision of school toilets

Discussions and confirmation on the provision of school toilets will be arranged with DECS.

- (3) Options on the sludge removal from septic tank and its disposal will be shown in the plan.
- (4) Model province for 1st batch is Agusan del Sur.

3. Sector Information Collection

The DILG and the IICA Study Team will continuously collect information on the projects/programs assisted by various financial sources. The information will be reflected in the plans.

4. Implementation Set-Up for the Study

In accordance with the Implementing Arrangements between the DILG and the JICA, the DILG shall:

- (1) Secure the safety of the JICA Study Team;
- (2) Assign DILG counterpart staff members who will coordinate and assist PSPTs at the provincial level;
- (3) Set-up PSPTs by respective provincial governments in the study area and secure budget to carry out the Study;
- (4) Through PSPT in each study area province; facilitate and coordinate in data gathering with municipal government and other agencies concerned, and participate in workshops and preparation of PW4SP;





(5) Facilitate coordination with concerned agencies like DPWH, DOH, NEDA, LWUA and with appropriate bodies.

The JICA Study Team shall:

- (1) Pursue technology transfer to the Philippine counterpart personnel in the course of the Study and;
- (2) Assist PSPTs in the preparation of the PW4SP.



1

LIST OF ATTENDEES IN THE SERIES OF DISCUSSIONS

ATTENDEES

DESIGNATION

A. DILG

1. Mr. Normando J. Toledo	Director, Office of Project
	Development Services

2. Mr. Orville M. Roque	Program Manager, WSS-PMO
-------------------------	--------------------------

3. Ms. Ellen I. Pascua	Asst. Program Manager, WSS-PMC
3. Ms. Ellen I. Pascua	Asst. Program Manager, WSS-PM(

5. Ms. Fe Crisilla M. Banluta	PW4SP Project Officer, WSS-PMO
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B. Other Agencies

1 M. C C'.	
1. Mr. Sam Siao	Officer, PMO-RWS, DPWH

C. JICA Advisory Committee

1. Ms. Keiko Yamamoto	Chairman, Advisory Committee

2. Mr. Keiichi Kanaya Member, Advisory Committee

D. JICA Headquarters

i. wir. Snigeyuki Matsumoto	Second Development Study Division,
	Social Development Study Dept.

E. JICA Study Team

I. Mr. Masatoshi Momose	Team Leader/Water Supply Planning

2. Mr. Nobuki Abe Water Supply/Sanitation Engineer

3. Ms. Consuelo B. Estepa Community Dev't/WID Specialist

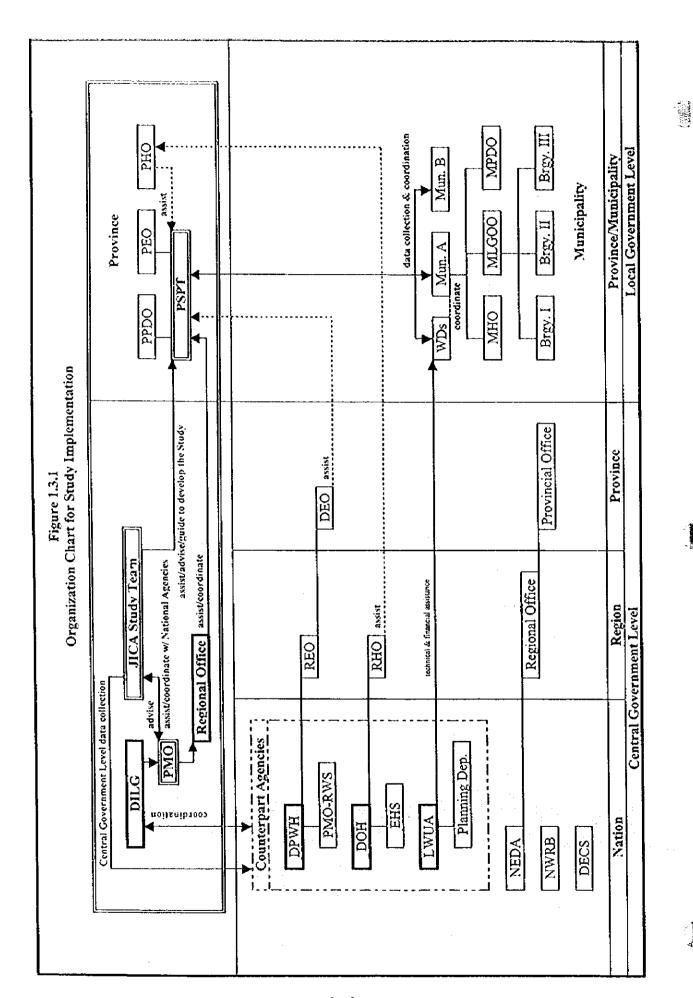
4. Ms. Elizabeth L. Verzola Socio-Economic/Financial Specialist

5. Mr. Kenji Takayanagi Water Source Development Specialist

6. Mr. Emmanuel L. Patingo Data Management Specialist







MINUTES OF DISCUSSIONS

ON

THE PROGRESS REPORT

FOR

THE STUDY ON PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLANS

FOR

VISAYAS AND MINDANAO

IN

THE REPUBLIC OF THE PHILIPPINES

AGREED UPON BETWEEN

THE DEPARTMENT OF THE INTERIOR AND

LOCAL GOVERNMENT

AND

THE STUDY TEAM OF

JAPAN INTERNATIONAL COOPERATION AGENCY

MANILA, MARCH 18, 1998

MR. NORMANDO J. TOLEDO

Director

Office of the Project Development

Service

Dept. of the Interior and Local Government

MR. MASATOSHI MOMOSE Team Leader, Study Team

Japan International Cooperation

Agency

The Stage I fieldwork for "the Study on Provincial Water Supply, Sewerage and Sanitation Sector Plan" started on January 13, 1998 and completed on March 23, 1998.

A series of discussions were held throughout the course of the Study, between JICA Study Team and officials concerned including DILG, NEDA, DOH, DPWH and other central government agencies and provinces. The general approach and methodologies, as presented in the Inception Report, have been employed for the fieldwork.

A Progress Report, which covers all outputs during the work period, was prepared entailing part of PW4SP for the respective provinces. The contents of the report were basically agreed upon on March 18,1998 between JICA Study Team and officials of the DILG. The list of attendees to the meeting is presented in Appendix A. The following issues/problems on the arrangements required for the implementation of the Study were discussed, and the Study Team will relay the modified arrangements required to JICA headquarters.

(1) Modified Arrangements Required for 1st batch Study

- 1) Due to the presidential election scheduled on May 11, 1998, the second workshop may be held from May 18 to May 22, 1998 after the election, and tentatively starting the 2nd field work on May 13, 1998.
- 2) The venue for the final workshop was requested by concerned PPDCs to be held in Mindanao rather than in Manila as originally planned. This is because of the financial constraint on the travel expenses required for 7 members of respective PSPTs under the current GOP instruction to LGUs to reduce its planned annual expenditures of up to 25%.

(2) Provinces to be Covered by the 2nd Batch

The total number of provinces for the 2nd batch (5 provinces) will be kept as previously agreed between the two parties. However, Surigao del Sur will be omitted from the Study, since timely establishment of the PSPT by the province seems to be difficult. Instead of the said province, either the newly created Compostela Valley or Bukidnon (Region X) would be included.

The DILG will inform the Study Team of the possibility in the setting up of PSPT by the administration of Compostela Valley by the middle of June 1998. If not, DILG will make an advanced arrangement with Bukidnon.

(3) Electric Resistivity Prospecting and Test Boring

Comparatively reliable data to evaluate the development potential of water source were collected for 1st batch provinces during the fieldwork. It is assumed that the conduct of the field test for groundwater analysis, given a limited period, cannot be able to contribute significantly to the level of accuracy in the preparation of M/P and F/S. The situation will remain the same for 2nd batch provinces. Accordingly, it is not recommended to conduct field test for this study.

H

The required areas and the scope of work/surveys, such as field tests, will be recommended in the PW4SP and will be considered during detailed design and construction stages.

(4) Time Constraint in Data Collection/Validation/Follow-up

It was found, both by the Study Team and the DILG through the fieldwork, the following problems on data collection/validation/follow-up:

- The summary reports on the sector status prepared by NEDA Regional Office through UNICEF fund were field confirmed as the materials to provide approximate sector situations in the fact of no existence of sector related information at present.
- 2) Data collection by PSPTs had sometimes to be done at the barangay level, due to limited data available in the municipal level. Thus, additional time was required for PSPTs to access to remote rural barangays.
- 3) Comprehensive planning work by the province in Mindanao area is still initial stage. It is necessary for the activities to ensure much more time through intensive technology transfer to DILG coordinators and PSPTs.

Based on the lessons learned, the Study Team and the DILG recognized the need of the review on the allotted period for the activities. The Study Team will relay this matter to JICA headquarters.

(5) Cities to be Covered in the Preparation of PW4SP

Of the three classes of cities in the Local Government Code, only component cities, which are under the jurisdiction of the provincial government will be considered. The subject cities are as follows:

Province Component City
Surigao del Norte Surigao City

Davao Tagum City and Island Garden City
Leyte Tacloban City

LeyteTacloban CityWestern SamarCalbayog CityCapizRoxas CityIloiloPassi City

Negros Occidental Bago City, Cadiz City, La Carlota City, San Carlos

City and Silay City





LIST OF ATTENDEES IN THE SERIES OF DISCUSSION

ATTENDEES

DESIGNATION

	T. F.	_
A.	וות	•

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Community Dev't/WID Specialist

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2. PLANNING APPROACH FOR FUTURE SECTOR DEVELOPMENT

- 2.6 Planning Principles and Data Management
- 2.6.2 Data Management

(1) Computer-based System

The data management system was established to support the Provincial Sector Planning Team (PSPT) in the preparation of the Provincial Water Supply, Sewerage and Sanitation Sector Plan (PW4SP). An essential task of data management is to organize various kind of data into an effective and efficient information base.

A computer-based system was applied as a viable solution to process large amount of data and to minimize the human-error in calculation. For this particular project, a dynamic system is designed to allow the planner to adjust planning factors and update the information when further data becomes available.

It is viable and economical to choose the microcomputer with software suitable for the average skills of the common user. In this connection, of the two types of software package available, database and spreadsheet, the latter method was selected. Among the available spreadsheet-type software, EXCEL was used. EXCEL supports file conversion (opening and saving), multiple file opening, graphic presentation of data, What-You-See-Is-What-You-Get (WYSIWYG) formatting, scaleable font and view, etc. The following are the advantages and disadvantages of the spreadsheet method with reference to database method.

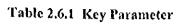
Advantage

- 1. Minimum programming skills
- 2. Friendly environment to users
- 3. Graphic presentation of data at user's option
- 4. Execution of data linkage at formula level entry
- 5. Guided formula creation using function wizard

Disadvantage

- 1. Repeated entry of same formula
- 2. Sorting or indexing is done manually
- 3. All data are loaded in memory, which require huge amount of memory
- 4. Limited to static data linkages

Data management task starts from the collection of data using the questionnaire forms. The existence and accuracy of data are major concern at this stage to prepare main information bases. Using the microcomputer provided with EXCEL spreadsheet, data in the questionnaire forms are transferred into the forms constructed in EXCEL. Applicable policy, criteria and assumptions are entered into key parameter tables. These data are then processed and finally consolidated into target forms. These final forms provide a map of provincial profile, service coverage, future requirements, cost estimates for future sector development, and funding requirements.



No.			Description of Key Parameter	Unit	Values
1.		Wate	er Supply Number of household to be served by Level 1 Facility	£11770	
	🐧	l	Number of household to be served by Level II System	HIVSource HIVPublic Faucet	
	Service Level		Water Consumption Rate for Level III System	Liter/capita/day	·
	3	Sani	fation	- Enter capitaday	
	<i>3</i> 5		Std. number of student to be served by a unit of Sanitary toilet	Student/Foilet	
			Standard number of toilets for a public utility	Toilet/Public Facility	
2.			Water Supply		
	i	İ	UrbanWater Supply	% of Population	
			Rural Water Supply	% of Population	
	ļ ļ		Sanitation		
		G.	Household Toilet		
		Medium Term Plan	Urban Household Toilet Flush	% of Household	
		ern	Pour Flush	% of Household	
		ıŢ.	VIP Latrine	% of Household	
		ui	Rural Household Toiles	% of Household % of Household	
		led	Flush	% of Household	
	=	2	Pour Flush	% of Household	
	12		VIP Latrine	% of Household	
	₩		School Toilet	% of Public Student	
	8		Public Toilet	% of Public Utility	
	ઝ	!	Solid Waste	% of Population	
	Provincial Sector Target		Water Supply		
	Ē		UrbanWater Supply	% of Population	
	ا فِ		Rural Water Supply	% of Population	
	"		Sanitation		
			Household Toilet		_
		i ii	Urban Household Toilei	% of Household	
		Long Term Plan	Flush	% of Household:	
		5	Pour Flush VIP Latrine	% of Household	
		ă,	Rural Household Toilet	% of Household	
		3	Flush	% of Household	
			Pour Flush	% of Household	
			VIP Latrine	% of Household % of Household	
		i	School Toilet	% of Public Student	
]		Public Toilet	% of Public Utility	
	L		Urban Sewerage	% of Urban Population	
3.	Percent	age o	Level Deep Wells to be Rehabilitated	%	
4.	Percent	age o	Sector Management Cost to Construction Cost		
	Ì	Feas	ibility and Detail Design	% of Construction Cost	
	<u> </u>	Cons	truction Supervision	% of Construction Cost	
5.	Commi		Development and Training Cost		
	Ì	Leve		% of Construction Cost	
-	 	Leve	II, II and Public Toilet	% of Construction Cost	
6.		Leve	HII System (Operating Cost)	Pesos/HH/year	
	Recurrent Cost	1 eve	HII System (Spare Parts/Equipment)	% of Construction Cost	
	Cost	Leve	I II System (Spare Parts/Equipment)	Pesos/HH/year	
	١ێ	DUN	11 System (Spare Parts/Equipment) ic School Toilet Maintenance Cost	Pesos/HH/year	
			ic School Tollet Maintenance Cost	Pesos/Toilet/year	
7.	Allocat		ictors/Percentages of IRA	Pesos/Toilet/year	
			Provincial		
			Municipality and Brgy.	%	<u> </u>
8.	Fundia	g Les	els/Percenatges for Different Financing Scenarios	70	
	1		cenario	% Funding Available	
	[Scenario	% Funding Available	
		3rd S	Scenario	% Funding Available	
			Scenario	% Funding Available	
			Scenario	% Funding Available	



Table 2.6.2 Composition of Well Sources and Specific Capacity

		Type Water	Proportion		Standard S	
Name of Municipality	Туре	Source	(%)	Depth (m)	SWL (m)	Specific Capacity (liter/sec/m)
	ទ	Shallow Well				
	Urban	Deep Well				
	2	Spring				
		Shallow Well				
	Rural	Deep Well				
		Spring				
	ន	Shallow Well				
	Urban	Deep Well				
		Spring				
	- ₇₆	Shallow Well				
	Rural	Deep Well				
		Spring				
) គ	Shallow Well			<u> </u>	
	Urban	Deep Well				
		Spring				
	ਜ਼	Shallow Well				
	Rural	Deep Well		**************************************		
		Spring				
] 🖁	Shallow Well		_		
	Urban	Deep Well				
		Spring				
	न	Shallow Well			ļ	
	Rurai	Deep Well			Grainteidicher Germanner	
	L	Spring				
	5	Shallow Well				
	Urban	Deep Well			<u> </u> 	<u> </u>
		Spring				
	7	Shallow Well	.		<u> </u>	
	Rural	Deep Well		44004-0-0-0000		
		Spring				
	ة	Shallow Well			 	<u> </u>
]	Urban	Deep Well		10.000000000000		
	<u> </u>	Spring				
	न्न	Shallow Well			 	<u> </u>
	Rural	Deep Well	 -		1	# 0070000000000000000000000000000000000
		Spring	<u> </u>			
	a	Shallow Well			1	<u> </u>
	Urban	Deep Well				
		Spring				
1	ਜ਼	Shallow Well			 	<u> </u>
	Rural	Deep Well	1	100 mm	1	
		Spring	<u> </u>			
	l a	Shallow Well				
·	Urban	Deep Well	ļ		Land to the state of the state	
		Spring	ļ			
	ਜ਼	Shallow Well				·
	Rural	Deep Well	<u> </u>	arana aring arang	1	
		Spring	<u> </u>			



	Table 2.6.3 Annual	Investm	ent				
Sub-Sector	Component	1999	2000	2001	2002	2003	Total
_	Level III System						
Urban Water Supply	Feasibility Study and Detail Design	11212020147474)	19090909(303)	-46469696969 	101111111111111111
S & CC	Construction & Supervision			ŀ		1	
	Community Development & Training	i	L]
	Level I Facility						
yld.	Detail Design]			
Rural Water Supply	Construction & Supervision			1		1	
ter	Community Development & Training						
Ka	Level II System						
Ē	Detail Design						1
Ş.	Construction & Supervision			1			
	Community Development & Training					L	
	Urban Household Toilet			l			
	Rural Household Toilet				ŀ		
.5	Public School Toilet				ŀ		
[2]	Public Toilet				ļ		
Sanitation	Disinfection of Level I Wells			 	<u> </u>		
41	Detail Design						
	Construction & Supervision			1			
	Community Development & Training			<u> </u>	<u></u>		L

Table 2.6.4 Level I Safe & Unsafe Percentage

Name of Municipality	Safe (%)	Unsafe (%)
		:
Provincial Total		

Table 2.6.5 Unit Construction Cost of Different Facilities

Description Construction Cost (Pesos)	sos)	Served Population	erved Served Mulation Household	Person	Pesos/ Household
Vew System) Population O Population O Population Expansion Population O Population O Population	(\$00\$)	Population	Housebold	Person	Household
Water Supply Level III - New System For 5000 Population For 10000 Population For 15000 Population For 5000 Population For 5000 Population For 10000 Population For 15000 Population Level II					
Level III - New System For 5000 Population For 10000 Population Evel III - Expansion For 5000 Population For 10000 Population For 15000 Population For 15000 Population					
For 5000 Population For 10000 Population For 15000 Population Level III - Expansion For 5000 Population For 10000 Population For 15000 Population					
For 10000 Population For 15000 Population Level III - Expansion For 5000 Population For 10000 Population For 15000 Population					
For 15000 Population Level III - Expansion For 5000 Population For 15000 Population For 15001 Population					
Level III Expansion For 5000 Population For 10000 Population For 15000 Population Level II					
For 5000 Population For 10000 Population For 15000 Population Level II					
For 10000 Population For 15000 Population Level II					
For 15000 Population Level II	i				
Level II					
Level I ::	10000				
Deep Well - 40 meter depth					
Deep Well - 80 meter depth					
Deep Well - 120 meter depth					
Shallow Well - 18 meter depth					
Spring Development					
Rehabilitation Cost for Level I Deep Well					
Disinfection of Level I Wells					
Sanitation					
Flush					
Pour Flush					
VIP / Dry					:
School Toilet		•			
Public Toilet					
Urban Sewerage					

Table 2.6.6 Scoring Factor for Municipal Investment Ranking for Urban Water Supply

Score	Underserved and Unserved Population in Base Year	Underserved and Underserved and Population Unserved Unserved Population by Level III Systems in Base Year	Population Unserved by Level III Systems in Base Year
1.0	%>	%>	%>
0.8	< < < < < < < < < < < < < < < < < < <	>%>	>%>
9.0	<%< 30	>%>	\%\ \
4.0	< % < 20	>%>	×%×
0.2	%< 10	>%	>%
Weight Allocation Score			
(0/)			

Table 2.6.7 Scoring Factor for Municipal Comprehensive Investment Ranking

Score	Urban Water Supply	Urban Water Supply Rural Water Supply	Urban Sanitation	Rural Sanitation
1.0	N.A.	%>	%>	%>
8.0	Z.À.	>%>	·	>%>
9.0	N.A.	>%>	>%>	>%>
0.4	N.A.	>%>	°>%>	>%>
0.2	N.A.	>%	>%	>%
Weight Allocation Score				

3. PROVINCIAL PROFILE

3.3 Socio-economic Conditions

3.3.1 Economic Activities and Families Income

Table 3.3.1 Distribution of Families by Income Class

S

Ĺ		Surigao	CARAGA Region				
_ [Total Families		Annual	Income	Total	Annual	
Income Class	Number	Share	Total (P '000,00)	Average (Pesos)	Total Number of Families	Income Average (Pesos)	
Under 20,000	15,190	15	251,503	16,557	47,687	17,398	
20,000 - 29,999	28,661	29	814,813	28,429	90,476	28,430	
30,000 - 39,999	14,840	15	540,206	36,401	64,408	38,042	
40,000 - 59,999	21,504	22	1,142,129	53,112	81,931	54,243	
60,000 - 99,999	15,584	16	1,519,175	97,485	54,889	88,626	
100,000 - 249,999	2,401	2	401,169	167,084	20,684	146,067	
250,000 and over		0			2,246	451,654	

Source: 1994 Family Income and Expenditure Survey, NSO

Notes:

(1) Derived from Region X 1994 Files

- (2) Based on NEDA and other agencies, poverty threshold in Region XI in 1994 was estimated at P 43,659 (P 7,938 annual per capita poverty threshold.
- (3) For purposes of the survey, a family is defined as a group of persons usually living together and composed of the head and other persons related by blood, marriage and adoption. A single person living alone is considered as a separate family. A household is composed of 1 or more families in the same housing unit and have a common arrangement of food preparation and consumption.

Table 3.3.2 Employment by Major Industry Group and Class of Worker, 1994

	Class of Worker								
Major Industry Group	Household Population 15 years and Over Who Worked	Worked for Private Household (Domestic Services)	Worked for Private Business/ Enterprise/ Farm	Worked for Government/ Government Corporation	Self- employed Without Any Paid Employee	Employer In Own Farm or Business	Work With Pay in Own Family Operated Farm or Business	Work Without Pay in Own Family Operated Farm or Business	Not Reported
Agriculture, Hunting and Forestry	70,561	416	5,158	169	27,342	12,948	240	23,497	790
Fishing	18,660	63	1,536	37	13,140	2,006	15	1,694	168
Mining and Quarrying	2,165	12	1,699	8	334	28	0	74	10
Manufacturing	3,237	75	1,367	33	1,273	236	3	206	44
Electricity, Gas and Water	486	15	367	49	37	8	0	4	6
Construction	5,363	264	4,121	191	635	75	2	37	38
frade	12,154	58	1,386	26	6,692	1,826	17	2,078	74
Services	34,503	5,238	8,902	14,126	4 675	700	21	625	217
Not Stated	1,195	32	194	64	176	20	0	50	660
Provincial Total	148,325	6,173	24,730	14,703	54,304	17,847	298	28,265	2,007

3.3.3 Education

Table 3.3.3 Household Population by Highest Education Attaintment

	Household	Age Group					
Highest Educational Attaintment	Population 5 years Old and Over	Below 20	20 - 24	25 - 29	30 - 34	35 and Over	
No Grade Completed	22,888	16,520	503	435	596	4,834	
Pre-school	14,775	14,312	52	35	27	349	
Elementary							
1st - 4th Grade	98,731	59,633	3,999	3,594	3,238	28,267	
5th - 7th Grade	98,661	28,819	8,199	8,623	8,435	44,585	
High School							
Undergraduate	61,619	29,576	7,567	5,922	4,751	28,267	
Graduate	32,986		8,199	8,623	8,435	44,585	
Post Secondary						7 1,500	
Undergraduate	521	80	112	92	85	152	
Graduate	3,525	124	748	836		1,207	
College Undergraduate	21,703	5,000	6,014	2,930		5,311	
Academic Degree Holder	20,031	115	2,770	3,646	3,501	9,999	
Post-Baccalaureate	538	1	20	41	54	422	
Not Stated	5,848	4,232	303	211	169	933	
Total	381,826	187,231	38,486	34,988	32,349	168,911	



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3.5 Health Status

Table 3.5.1 Number and Ratio of Population to Health Facilities

And Medical Practitioners

Health Facilities and	Surigao	del Norte	Philippines		
Practitioners	Number	Ratio	Number	Ratio	
Health Facilities					
Hospital	17	1/26,825	1,700	1/40,206	
Rural Health Units	72	1/6,334	2,335	1/29,272	
Barangay Health Station	129	1/3,535	11,646	1/5,869	
Practitioners	7				
Doctors	24	1/19,001	2,029	1/33,686	
Nurses	36	1/12,667	2,694	1/25,371	
Midwives	149	1/3,061	10,898	1/6,272	
Dentists	10	1/45,602	1,071	1/63,818	
Others Medical Practitioner	51	1/8,942			

⁽¹⁾ Include only government health practitioners for the national (Philippines) total. No data is available for private practitioners. Source: Socio Economic Profile, 1995 and 1997 Philippine Statistical Yearbook

3.6 Environmental Conditions

3.6.2 Water Pollution

Table 3.6.1 Types of Drainage Facilities

Туре	Length (km)
Drainage Main	18
Open Channel (with Concrete & rubble masonry)	6
Open Ditches & Unlined Laterals	88
Reinforced Concrete Circular Pipes	1
Street Gutters	5
Outfalls to rivers from drainage mains	5

Source: Provincial Health Office

Table 3.6.2 DENR Water Quality Criteria/Water Usage and Classification for Fresh Water

PARAMETER	UNIT	CLASS AA	CLASS A	CLASS B	CLASS C	CLASS D
Color	PCU	15	50	(C)	(C)	(C)
Temperature (max. rise in deg. Celsius)	°C rise		3	3	3	3
pH (range)		6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.0-9.0
Dissolved Oxygen (Minimum)	%satn	70	70	70	60	40
	mg/L	5.0	5.0	5.0	5.0	3.0
5-Day 20°C BOD	mg/L	1	5	5	7(10)	10(15)
Total Suspended Solids	mg/L	25	50			
Total Dissolved Solids	mg/L	500	1,000			1,000
Surfactants (MBAS)	mg/L	nil	0.2(0.5)	0.3(0.5)	0.5	
Oil/Grease (Petroleum Ether Extract)	mg/L	nil	1	1	2	5
Nitrate as Nitrogen	mg/L	1	10	NR	10	
Phosphate as Phosporous	mg/L	nil	0.1	0.2	0.4	
Phenolic Substances as Phenols	mg/L	nil	0.002	0.005	0.02	
Total Coliforms	MPN/100mL	50	1,000	1,000	5,000	
or Fecal Coliforms	MPN/100mL	20	100	200		
Chloride as Cl	mg/L	250	250		350	
Copper	mg/L	1	1		0.05	

Class AA - Public Water Supply Class I. Intended for waters having watersheds which are uninhabited and otherwise protected and which required only approved disinfection in order to meet the national standards for drinking water.

Class A - Public Water Supply Class II. Sources of water supply that will require complete treatment (coagulation, sedimentation, filtration and disinfection) in order to meet drinking water standards.

Class B - Recreational Water Class I. For primary contact recreation such as bathing, swimming, skin diving, etc. (particularly for tourism purposes).

Class C - Fishery Water for the propagation and growth of fish and other agnatic resources; recreational (for boating, etc.); industrial water supply class I for manufacturing processes after treatment.

Class D - For agriculture, irrigation, livestock watering, etc.; for industrial water supply class II (cooling, etc.); other inland waters by their quality, belong to this specification.



4. EXISTING FACILITIES AND SERVICE COVERAGE

4.1 Water Supply

4.1.3 Level III Systems

Table 4.1.1 Details on Existing Level III Systems

			· · · · · · · · · · · · · · · · · · ·			Level III	Services			
Name of Municipality/ City	Name of Operating Body		umber 1gays S			Number of seholds Ser	ved		Number of ulation Ser	
	· .	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
	Brgy, Ouano	<u> </u>		1	200		200	1,040		1,040
	Bacuag WD	1		1	502		502	2,875		2,875
	LGS-Burgos	2		2	60		60	321		321
Cagdianao	LGU-Cagdiano		11	}		105	105		544	544
Dapa	Consolacion	- 1		1	277		277	1,389	. 	1,389
Del Carmen	Del Caruwasa Inc.	2	1	3	13	50	63	65	300	365
Gigaquit	Alambique	1		1	73		73	393		393
	lpil	1		1	99		99	556		556
	Mahanub		1	1		286	286		1,503	1,503
	Poniente		1_1_	1		209	209		1,597	1,597
	San Antonio	ì		1	116		116	702		702
	San Isidro	11	l	1	154		154	794		794
	Municipal Total	4	2	6	442	495	937	2,445	3,100	5,545
Loreto	LGU-Loreto	4		4	765		765	499		499
Mainit	Mun.Government	2	19	21	340	1,020	1,360	1,698	5,297	6,995
Malimono	Government	1		1	145		145	735		735
Placer	it Mun.Government mono Government r Anislagan Bugas-bugas Municipal Total Benito LGU-San Benito	<u> </u>	1	1		112	112		675	675
			1	ì		10	10		60	60
	Municipal Total		2	2		122	122		735	735
San Benito	LGU-San Benito	2		2	72		72	420		420
San Francisco (A	Balite		1	1		100	100		600	600
	Banbanon		1	1						
	Hubas	1	1	2	250	150	400	1,442	1,034	2,470
	Jubgan	1	T.	1	27		27	161		161
	Magtangale		1	1		180	180		804	80-
	Oslao		1	1		140	140	·	700	700
	Municipal Total	2	5	7	277	570	847	1,603	3,138	4,74
San Jose	Magtangale Oslao Municipal Tota	1		1	70		70	386		380
Santa Monica (Sa			1	1		15	15		90	90
	LGU-Santa Monica	2		2	270		270	1,459		1,459
	Municipal Total	2	1	3	270	15	285	1,459	90	1,549
Sison	LGU-Sison	ı	2	3	17	495	512	85	2,475	2,560
	Mabuhay		ı	1		208	208		1,040	1,040
	Municipal Total	1	3	4	17		720	85		3,600
Surigao City (Ca	Surigao Metro WD	4	5	9	9,036		9,136			45,680
Tubod	LGU-Brgys	1	2	2		520	520		2,194	2,19
	Marga		1	1		200	200		1,099	1,099
	Poblacion	i	2	3	293	200	493	1,526		2,53
	Timamana	1	1 1	† - <u></u>		250	250		1,485	1,48
<u> </u>	Municipal Total	1	6	7	293	1,170				7,31
Provis	ncial Total	31	45	76	12,779	<u> </u>				

Table 4.1.1 Details on Existing Level III Systems

					Le	vel II Servi	ce			
Name of Municipality	Name of Operating Body	Number	of Public	Faucets	Number	of Household	s Served	Number o	f Populatio	n Served
	Optivating issu)	Urban	Rurat	Total	Urban	Rural	Total	Urban	Roral	Total
Alegria	Brgy. Ouano	30		30	300		300	1,500	i	1,500
Bacuag	Bacuag WD									
Burgos	LGS-Burgos	15		15	145		145	688		688
Cagdianao	LGU-Cagdiano		3	3	 -	193	193		1,236	1,236
Dapa	Consolation									
Del Camien	Del Caruwasa Inc.		12	12		167	167		1,000	1,000
Gigaquit	Alambique									
	lpil								t	
	Mahanub									-
	Poniente									
	San Antonio		! !							
	San Isidro									
	Municipal Total									
Loreto	LGU-Loreto				714		714	3,773	·	3,773
Mainit	Mun.Government	100	30	130	650	200	850		1,179	4,552
Malimono	Government	4		4	24		24			120
Placer	Anislagan		10	10		13	13		75	75
	Bugas-bugas		3	3		68	68		326	326
—	Municipal Total		13	13		81	81		401	401
San Benito	LGU-San Benito	40		40	148		148	 		800
San Francisco (Anao-Aon)	Balite					10	10		60	60
	Banbanon		 							
	Hubas							 		
	Jubgan	20	 -	20	41		41	200		200
	Magtangale		10	10		100	100	 	487	487
:	Oslao	 -	5	5		20	20	-}	127	127
	Municipal Total	20		35	{	130	171	- 	674	874
San Jose	Brgy, Cuarinta	ļ	 "		 	1		203	074	014
Santa Monica (Sapao)	Garcia		7	7	 	40	40	 -	231	231
	LGU-Santa Monica	23	 	23			88	 	231	356
	Municipal Total			30	 		128		231	587
Sison	LGU-Sison		25	25		140	140	· 	700	700
	Mabuhay	 	 			140	1 1	1	100	
	Municipal Total		25	25	<u> </u>	140	140	,	700	700
Surigao City (Capital)	Surigao Metro WD	 	1		1	<u> </u>			700	
Tubod	LGU-Brgys	 	 	 		<u> </u>	<u>. </u>	 -		
	Marga	 	2	2		32	32	,	100	
	Poblacion		16		 	238				100
	Timamana		3	 		42	 		1,221	1,221
	Municipal Tota	,	21	21	 	 	 		214	214
P						312		+	1,535	
Provincia	i iotat	237	126	358	2,110	1,263	3,373	3 10,810	6,956	17,76





Table 4.1.1 Details on Existing Level III Systems

j	-		Water Sou	rees		Совзи	mption	
Name of Municipality	Name of Operating Body	Type of Water Source ¹	Number	Production Capacity	Domestic	Insti- tutional	Commercial	Industrial
		Source.		(cu.m/day)		(cu.n	v/day)	
Alegria	Brgy, Ouano	SP	1	2,400			<u> </u>	· · · · · · · · · · · · · · · · · · ·
Bacuag	Bacuag WD	SP	<u> </u>	1,728	1,000	10	30	
Burgos	LGS-Burgos	SP	3					
Cagdianao	LGU-Cagdiano	SP	1	2,400		·		
Dapa	Consolacion	SP SP/Surf DgW DgW SP SP	1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2,400				
Del Carmen	Del Caruwasa Inc.	SP/Surf	2				· · · · · · · · · · · · · · · · · · ·	
Gigaquit	Alambique	DaW						
	ipil						 -	
	Mahanub							-
•							 	
	·							
			· · · · · · · · · · · · · · · · · · ·	 	<u> </u>			
······································				 	!		-	
Loreto	San Antonio SP 1	ł		<u> </u>				
Mainit	San Isidro DgW I Municipal Total 6 LGU-Loreto SP I Mun.Government 2	1	150		<u> </u>			
Malimono	Municipal Total 6	130		 	ļ 			
Placer		ļ						
113001	LGU-Loreto SP 1 720							
	Municipal Total	3r	 -	- 96				
San Benito	LGU-San Benito						ļ	
San Francisco (Anno Aon)	Balite		1	190		ļ <u> </u>	·	ļ
San Francisco (Ando Zon)	Banbanon	SP	1	240	192	5	ļ	
`	·		ļ. ———	ļ	25	5	<u> </u>	-
		40	ļ <u>.</u>	<u> </u>	330	20	<u> </u>	
			1	480	24	5		<u> </u>
			1	240	240	5	ļ	ļ
		SP	1	120	96	12	12	ļ
			4	1,080	907	52	12	
San Jose		SP						
Santa Monica (Sapao)	Garcia	SP		<u> </u>	<u> </u>			
	LGU-Santa Monica	SP	3	. 9	ļ			<u> </u>
 	Municipal Total		<u></u>		<u> </u>	<u> </u>	<u> </u>	
Sison	LGU-Sison	SP	1	7,680	135	1	1	l
	Mabuhay	SP	3	7,920	ļ <u> </u>	<u> </u>		
;;_ <u></u> ;;	Municipal Total	ļ <u></u>	4	15,600		1	1	
Surigao City (Capital)	Surigao Metro	DW/Surf	4	10,714	5,313	77	440	
Tubod	LGU-Brgys	SP	1	364	<u></u>		L	<u> </u>
	Marga	SP				L		
	Poblacion	SP				<u></u>		
<u>:</u>	Timomana	SP				I	Ĭ	
	Municipal Total	1						1
Pre	vincial Total		37	38,131	7,513	140	483	Ì

Note: 1. Type of Water Source: DW - Deep Well, DgW - Dug Well, Surf. - Surface Water (River), SP - Spring, IG - Infiltration Gallery.

Table 4.1.1 Details on Existing Level III Systems

									Consum	ers						
	Name of System	Domesti n	ic House ections	Con-	Dome	stic Pabli	c Faucet	Instituti	ional Con	sumers	Comm	ercial Cor	isumers	Indu	strial Cor	sunters
Municipality	(Operating Body)	Coane	ction	Con- sump- tion	Con	ection	Con- sump- tion	Conn	ection	Con- sump- tion	Con	section	Con- sump- tion	Con	nection	Con- sump- tion
		Metered	Unme- tered	(cu m/-	Me- tered	Unme- tered	(cu m.'- day)	Metered	L'nme- trred	(cu.m/- day)	Metered	Unme- tered	(cu m/ day)	Me- tered	Unme- tere-d	(cu-m/
Alegria	Brgy, Ouano								Ī	Ī			Ĭ -	<u> </u>	1	<u> </u>
Васоад	Васиад WD	463		1,000				10		10	29	·	36	·—	* ***/-	
Burgos	LGS-Burgos									ļ		!	1		†	
Cagdianao	LGU-Cagdiano									l		i	t]		
Dapa	Consolacion		396					l	1	I			·			
Del Carmen	Del Canawasa		365			35				i	ļ		†	<u> </u>	 ,	
Gigaquit	IncAlambique		292									 -	ļ		<u>'</u>	ł
- 2-4	Ipil		246	ļ	···-	 	ļ			ļ.——		l	·]	ļ		
	Mahanub		286			ļ	l	 	<u> </u>							
	Poniente		309		 	ļ		ł		 	 	 	1		}	ļ
	San Antonio		116			 	ļ <i>-</i>	l	 	ļ						.
					··-				ļ	<u>-</u>				ļ. —.		
	San Isidro		513	-	ļ		ļ		ļ	ļ	ļ <u>. </u>		.	ļ		l
	Municipal Total		1,762		ļ		<u>-</u>	ļ	ļ	ļ	ļ		<u> </u>	l		
Loreto	LGU-Loreto		4,039		ļ	 			3:	` 	ļ	20	0	ļ		1
Mainit	Mun.Government	429	57	158		ļ				ļ				<u> </u>	<u> </u>	
Malimono	Government		132		ļ	3		ļ		i	ļ		2	ļ		l
Placer	Anislagan				<u> </u>									l		
·	Bugas-bugas	ļ						<u> </u>		ļ	ļ	<u></u>	<u> </u>	<u> </u>		
	Municipal Tetal	 		<u> </u>	ļ			<u></u>	<u></u>	.]		l				
San Benito	LGU-San Benito		1	<u></u>	<u> </u>	<u> </u>	l	<u> </u>								1
San Francisco	Balite		100	192		<u>L</u>		1	l	5			1	\		
(Anao-Aon)	Banbanon	<u> </u>	L	20		l	. :	5		5						1
	Hubas	l		300			30)		20	·		T			
	Jubgan		201	24					24	0 9	5		1	1		1
	Magtangale		180	240					24	2 :	5	1	T		1	†
<u></u>	Oslao		700	96				1	1	0 17	2	1	5 12		-	
	Municipal Total		1,181	872			3:	5	5	5.		1	5 12		· 	
San Jose	Brgy, Cuarinta			[1		T		İ	T		I	T	† -	- 	-
Santa Monica	Garcia		15					T	†		†	i	·	1		
(Sapao)	LGU-Santa	1					<u> </u>	1				l	-			
	Monica Municipal Total	ļ			 	 	 -	 	-		 	┨──		-		
Sison	LGU-Sison	450	1	135	:	10]		4			 -	 	:[-	-
013641	Mabuhay	430	 	 	-		1	ļ	*		3] (`		<u>'</u>		-
 -	- 	\vdash	 -	 	 	 	 -	-	 		 	.			_	· ·
Surigao City	Municipal Total Surigao Metro WD			5,313	 	 	 	9		7	7 540	 	440	, —	_	ļ
(Capital)			1		1	<u> </u>	1	<u> </u>		1	1	<u> </u>	***	1		
fubod	LGU-Brgys	<u> </u>	L	_	<u> </u>	<u> </u>	I	<u> </u>		1	<u> </u>					1
	Marga	ļ	1	1	<u> </u>		[:]
	Poblacion		l										1]	1	1
<u> </u>	Timamana													1	1	1
	Municipal Total	1					T						T	†··-		1
Provin	ncial Total	7.93/	7,945	7,47	8	5-	6 3	5 i0	9 0	1 14	0 58	<u> </u>	37 43	1		1



4.1.4 Level II Facilities

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Table 4.1.2 Details on Existing Level II Systems Sheet 1 of 6

						Ē	Existing Facilities		
Name of	Name of Operating		Water Source	3 5.	Length of	Re	Reservoir	Length of	Number of
Municipality	Body	Type	Number	Discharge (m ³ /day)	Transmission Line (meter)	Number	Volume (m³)	Distribution Line (meter)	Public Faucets
Alegnia	Alipao BWSA	SP		190.8	008			1,000	9
) 	Budlingin	S			800		0.6	200	5
	Cp Edward BWSA	d'S		0.601	200			300	3
	Ferida	SP	1		1,800		9.0	300	01
	Ombong BWSA	SP	1	92.7	2,000			000,1	9
	Pongtud	SP	l	:	1.500	1	9.0	200	9
	Municipal Total	l .	9	392.5	7,400	3	27.0	3,300	36
Bacuag	Cambuayon	SP			300	1	7.2	400	9
•	Campo	SP			427	1	17.3	1,000	15
	Payapag	SP			1,800	1	7.5	250	7.
	Pungtod	SP			30	1	22.5	90	9
	Sto. Rosario	SP			1.500	1	7.2	09	प
	Municipal Total		0	0.0	4,057	5	61.7	1.760	38
Burgos	Baybay, Burgos	ďS			7,500			3,700	4
)	Bitaug	S.			1,300			1,300	2
	Poblacion 1	έs			1,900	1	22.5	200	10
	Poblacion 2	SP			1,200	1	0.6	150	8
	San Mateo	S.			1,500			200	3
	Municipal Total	1	0	0.0	13,400	2	31.5	6,150	27
Cagdianao	Cabinton-an BWSA	SP	1	81.8	008			800	4
1	Maatas BWSA	SP	1	109.0	1,000			800	9
	San Jose, Cagdianao	SP	1	240.0	800	1	18.0		3
	Sta. Rita BWSA	Sp	1	32.7	1,000			1,000	9
	Sto. Niño BWSA	ςS		81.8	008			300	7
	Municipal Total		S	545.3	4,400	1	18.0	2,600	23

Table 4.1.2 Details on Existing Level II Systems

		Wotor Com			a	Existing Facilities	ı	
Name of Operating		water source	ce	Length of	Re	Reservoir	Length of	Number of
Body	Type	Number	Discharge (m³/dav)	Transmission Line (meter)	Number	Volume (m²)	Distribution Line (meter)	Public Faucets
Cabuco RWSA	dS		130.8	1,200			1,000	10
Sana BWSA	S	,	32.7	1,000			800	S
micipal	Total	2	163.5	2,200		0.0	1,800	15
Del Caruwasa Inc.	SP		100.0	8	7	116.0	3,100	37
Bagakay	SP	1	2,400.0	3	1	80.0	25	15
Buenavista, Dapa	SP	-	2,400.0				30	6
Cabawa	SP	_	2,400.0	006	1	64.0	50	20
Commendor	ďS	-	2,400.0	30		125.0	150	12
Tuhano	SP		2,400.0	008	1	80.0	70	18
San Carlos	SP		2,400.0				08	14
San Mignel	ďS	-	1,200.0	3,000	1	45.0	80	10
Municipal Total	- 1	7	15,600,0	5.190	5	394.0	485	98
Taranta Tarant	Ш		287.0	000.6		·	4,225	
LCO-Dinagat	d S		160.0	1.000		27.0	1,000	7
Arellano RWSA	dS		109.0	0001			000'1	8
Ravanihan	•	-	4,800.0	5,000			400	
Dona Helen								-
rarcia								
Pen Agumaldo	SP		3,600.0	000'9			700	
Kanihaan BWSA	ďS	1	81.8	000'1			800	0
lamera BWSA	ЗЪ	1	8.18	1,000			008	٥
Magsaysay, Libjo								
Osmenia								
Plandel								
Ouezon BWSA						:		
Rosita				000'9			700	
San Antonio	SP	-	2,240.0	5,000			360	
San Jose, Libio	ďS			3,000	1		1,200	
Sto. Nino								
		ľ	11 072 61	000 60	2	27.0	6.960	7.7

Table 4.1.2 Details on Existing Level II Systems

						E G	Existing Facilities		
3	Vicence of Organiting		Water Source	3	I enoth of	Re	Reservoir	Length of	Number of
Municipality	Body		,	Discharge	Transmission Line		Κ.	Distribution	Public
•	•	Type	Number	(m³/day)	(meter)	Number	Volume (m')	Line (meter)	Faucets
Loreto	LGU-Loreto	SP	6	480.0	1,000			2,500	3
Malimono	Binocaran	SP			2,500			800	
	Bunyasan (Gov)	SP							8
	Bunyasan (Pvt)	SP			1,000			200	
	Cagtinae, Brgy, Proper	SP			2,400			1,850	14
	Can-aga, Brgy. Proper	SP			2,700			1,600	
	Cansayong	Sp			4,000			2,500	
	Cantapoy, Brgy, Proper	SP			7,000			3,500	16
	Cayawan, Brgy, Propert	SP			3,400			850	17
	Hanagdong, Brgy, Prop	ďS			2,000			3,000	20
	Karihatag, Brgy. Proper	SP			3,900			1,550	12
	Masgad, Ad-on	SP			005'6			3,900	30
	Pili, Brgy, Proper	SP			4,500			2,300	14
	Tinago	SP			400				7
	Villariza, Cb. 1-4	SP		:	2,500			2,100	101
	Municipal Total	Test	0	0.0	45,800	0	0.0	24,150	190
Pilar	Asin, Centro, Pilaring, Pu	SP	1	0.096	9,400			2,600	01
	Mabini, Pilar	S.	1	20.0	1,200			800	7
	San Roque, Pilar	SP		120.0	3.000			1,500	3
	Municipal Total	Ē	3	1,100.0	13,600	0	0.0	4,900	17
Placer	Boyongan	S.	1	48.0	300	1	8.0	650	5
	Central	SP		2,400.0	1,500			1,500	2
	Ellaperal	85	I	48.0	200	1	8.0		٧
	Ipil, Placer	SP SP	7		1,000	1	10.0		2
	Magupange	SP	1	36.0	009	1	0.9		4
	Municipal Total	le.	5	2,532.0	3,900	4	32.0	2,150	61

Table 4.1.2 Details on Existing Level II Systems

						ය	Existing Facilities		
Name of	Name of Operating		Water Source	33	Length of	Re	Reservoir	Length of	Number of
Municipality	Body	Type	Number	Discharge	Transmission Line (meter)	Number	Volume (m²)	Distribution Line (meter)	Public Faucets
Con Condition / Anna American	V ****			432.0	008	-	1.0	300	10
San Francisco (Anao	Honrado			432.0	009		0.5	200	2
	Linongganan		-	360.0	1,000	1	1.0	400	2
	Масора	SP	1	109.0	008			800	
	Municipal Total	1	4	1,333.0	3,200	. 3	2.5	2,000	
San Isidro	Del Carmen	SP	1	33.0	12,000	1	132.0	1.000	28
San Jose	Aurelio	Surf		0.8	1,379	4	5.6	26	14
	Don Ruben	SP	-	13.2	1,600	. 1	1.8	200	73
	Jacquez	SP	1	32.4	000.6	1	0.8	200	3
	Luna	S.	-	8,4	3,000	ļ	2.0	500	12
:	Matingbe	SP	1	8.4	300	1	0.5	200	1
	Wilson	SP	1	5.8	009	1	1.4	400	1
	Municipal Total	[E]	9	65.4	15,879	6 .	19.3	1.856	33
Santa Monica (Sapao	Santa Monica (Sapao Alegna, Santa Monica	SP	1	100.0		1	1.7		20
	Libertad	SP			82	2	63.1	2,730	27
	Magsaysay	SP	1		1,000	1	12.0	500	7
	Municipal Total		2	100.0	1,082	4	76.8	3,230	\$
Sison	Biyabid	SP		7,200.0	1,800	:		200	7
	Ima .	SP	1	8.061	2,300			009	9
•	Mabuhay	S.		136.3	800			1,000	8
-	San Isidro	SP	-	6,720.0	2,000			1,200	8
	San Pablo	ďS	1	98.1	1,000	1	10.0	1,000	8
	Tagbayanı	S.S.	1	4,800.0	1,600			700	9
	Tinogpahan	S		5,040.0	1,700			800	5
	Municipal Total	le.	7	24,185.2	11,200	1	10.0	5.800	48

Table 4.1.2 Details on Existing Level II Systems

. <u> </u>						3	EXISTING LACINETES	-	1
	Name of Operating		Water Source	90	Length of	Re	Reservoir	Length of	Number of
Municipanty	Body	Type	Number	Discharge (m³/dav)	Transmission Line (meter)	Number	Volume (m³)	Distribution Line (meter)	Public Faucets
Surigao City (Capital Alemia	erra	S.							10
Ano	Anomar	S. d.S.				1	15.6		15
Aurora	ora	GS.				1	15.6		12
Balil	Balibayon	SP				1	15.6		4
Bayt	Ваубау	gs				1	15.6		13
Bon	BoniEacio	gs.		:		-	15.6		25
Buci	Buenavista	Sb				1	15.6		15
<u>ặ</u>	Cabongbongan	SP				1	15.6	1000	23
Cag	Cagniog	ЗS				2	31.3		22
S	Cantiasay	ďS				1	15.6		18
Caps	Capalayan	SP				3	46.9		17
Danao	ao	SS SS				1	15.6		5
Dag.	Danawan	SP				1	15.6		8
lial		ęs,				3	46.9		26
Libuac	ıac	SP				7	9.51		18
Lipata	ıta	SP				2	31.3		32
Liso	Lisondra	Sp				1	15.6		16
Mab	Mabini	SS.				1	15.6		Š
Mabua	vua	SP				2	31.3		16
Mapawa	awa	85				2	31.3		19
Mat-i		ŝ				3	46.9		20
Naba	Nabago	SP				2	31.3		٥
Nonoc	8	ďS				2	31.3		28
Q Q	<u> </u>	gy.				• 1	15.6		13
Poetoy	toy	SP				2	31.3		17
Punt	Punta Pilar	SP SP					15.6		Ø

Table 4.1.2 Details on Existing Level II Systems

						Œ	Existing Facilities		
Name of	Name of Operating		Water Source		Length of	Re	Reservoir	Length of	Number of
Municipality	Body	Type	Number	Discharge (m³/day)	Transmission Line (meter)	Number	Volume (m²)	Distribution Line (meter)	Public Faucets
	Ouezon	SP					15.6		13
`	Rizal	SP				1	15.6		7
	San Jose	dS				2	31.3		22
	San Pedro	gs				2	31.3		18
	San Roque	Sp				3	46.8		19
	Serra	ďS				1	15.6		٥
	Silop	S				2	31.3		21
	Sukailang	SS				1	15.6		16
	Talisay	d'S				1	15.6		7
	Togbongon	S				ĭ	15.6		29
	Trinidad	dS.				3	46.9		17
	Zaragosa	ďS				1	15.6		15
	Municipal Total	[23]	0	0.0	0	22	9.068	0	604
Tubaion	LGU-Tubaion	dS		100.0	10.000	1	309.0	800	2/9/
Tubod	Capavahan BWSA	S	-	98.1	1,000			700	\$
	Cawilan BWSA	gy.	: 1	0.601	1,000	1	8.0	1,000	14
	Del Rosano BWSA	ďS			2,500			800	10
	Motorpool	S.	1	136.3	009		8.0	1,000	10
	San Isidro, Tubod	SS			1,500	1	10.2	300	20
	Municipal Total	i i	3	343.4	009'9	. 3	26.2	3,800	99
	Provincial Total		70	58,432.9	206,908	103	2,173.6	82,566	1,487
	i i Vituriai i viti								

Note: 1. Type of Water Source; DW - Deep Well, DgW - Dug Well, Surf - Surface Water (River), SP - Spring, and IG - Infiltration Gallery

Table 4.1.2 Details on Existing Level II Systems
Sheet 2 of 6

Name of	Name of	Number	Number of Barangay Served	y Served	Number o	Number of Households Served		Number o	Number of Population Served	n Served
Municipality	Operating Body	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Alegnia	Alipao BWSA		1	1		30	30		180	180
	Budlingin		1	1		30	30		150	150
	Cp Edward BWSA		1	1		15	15		09	99
	Ferida		1	ı		52	52		543	543
	Ombong BWSA		1	1		20	20		120	120
	Pongtud		I	1		36	36		180	180
	Municipal Total		9	9		183	183		1,233	1,233
Bacuag	Cambuayon		ĭ	ĭ		36	36		180	180
	Campo		1	1		06	06		450	450
	Payapag		ĭ	1		42	42	•	210	210
	Pungtod			~		36	36		180	180
	Sto. Rosario		1	ı		24	24		120	120
	Municipal Total		\$	\$		228	228		1,140	1.140
Burgos	Baybay, Burgos		1	1		20	20	-	120	120
	Bitang		1	1		10	10		09	9
	Poblacion 1	1		1	45		45	250		250
	Poblacion 2	I		ĭ	35		35	250		250
	San Mateo		1	1		15	15		06	06
	Municipal Total	2	3	5	80	45	125	200	270	770
Cagdianao	Cabinton-an BWSA		1	1		24	24		120	120
	Maatas BWSA		1	1		30	30		150	150
	San Jose, Cagdianad		1	1		42	42		189	189
	Sta. Rita BWSA		1	1		30	30		150	150
	Sto. Niño BWSA		1	I		20	20		100	100
	Municipal Total		5	5		146	146		709	709
Claver	Cabugo BWSA		1	7		50	20		281	281
	Sapa BWSA			-		25	25		150	150
	Municipal Total		2	2		75	75		431	431

Table 4.1.2 Details on Existing Level II Systems Sheet 2 of 6

Municipality Operating Body Urban Rural Del Carmen Del Caruwasa Inc. 2 2 Dapa Bagakay 1 Dapa Buenavista, Dapa 1 Corregidor 1 1 Jubang 1 1 San Carlos 1 1 San Miguel 7 1 Municipal Total 7 1 Dinagat LGU-Dinagat 7 1 Libjo (Albor) Albor 1 1 Arellano BWSA 1 1 Bayanihan Doha Helen 1 1 Gen. Aguinaldo 1 1 Kamihaan BWSA 1 1 Magsaysay, Libjo 1 1 Osmeña 1 0 Magsaysay, Libjo 1 1 Nan Antonio 1 1 San Antonio 1 1 San Jose, Libjo 1 1	Name of Number of Barangay Served	ay Served	Number of	Number of Households Served	ls Served	Number o	Number of Population Served	n Served
armen Del Caruwasa Inc. 2 Bagakay Buenavista, Dapa Cabawa Corregidor Jubang San Carlos San Miguel Municipal Total Municipal Total Albor Albor Albor Arellano BWSA Bayanihan Doña Helen Garcia Gen. Aguinaldo Kanihaan BWSA Llamera BWSA Llamera BWSA Magsaysay, Libjo Osmeña Plandel Quezon BWSA Rosita San Antonio San Antonio San Jose, Libjo	Urban	Total	Urban	Rural	Total	Urban	Rural	Total
Bagakay Buenavista, Dapa Cabawa Corregidor Jubang San Carlos San Miguel Municipal Total Municipal Total Arellano BWSA Bayanihan Doha Helen Garcia Gen. Aguinaldo Kanihaan BWSA Llamera BWSA Llamera BWSA Domeña Planidel Quezon BWSA Rosita San Antonio San Antonio San Jose, Libjo	2	4	651	191	842	3.255	955	4,210
Buenavista, Dapa Cabawa Corregidor Jubang San Carlos San Miguel Municipal Total Albor Albor Arellano BWSA Bayanhan Doña Helen Garcia Gen. Aguinaldo Kanihaan BWSA Llamera BWSA Llamera BWSA Domeña Plaridel Quezon BWSA San Antonio San Antonio		1		73	73		364	364
Cabawa Corregidor Jubang San Carlos San Miguel Municipal Total LGU-Dinagat Albor Bayanihan Doña Helen Gen. Aguinaldo Kanihaan BWSA Llamera BWSA Llamera BWSA Magsaysay, Libjo Osmeña Plandel Quezon BWSA Rosita San Antonio San Jose, Libjo	Dana	, ,		46	46		275	275
Corregidor Jubang San Carlos San Miguel Municipal Total LGU-Dinagat Albor Arellano BWSA Bayanihan Doña Helen Garcia Gen. Aguinaldo Kanihaan BWSA Llamera BWSA Llamera BWSA Ranihaan BWSA San Antonio San Antonio San Jose, Libjo				93	93		416	416
San Carlos San Carlos San Miguel Municipal Total LGU-Dinagat Albor Albor Bayanihan Doña Helen Garcia Garcia Garcia Hagsaysay, Libjo Osmeña Plandel Rosita San Antonio San Jose, Libjo	1	1		09	09		300	300
San Carlos San Miguel Municipal Total LGU-Dinagat Albor Albor Arellano BWSA Bayanihan Doña Helen Gen. Aguinaldo Kanihaan BWSA Llamera BWSA Llamera BWSA Magsaysay, Libjo Osmeña Plandel Quezon BWSA Rosita San Antonio San Jose, Libjo		F-1		17	71		349	349
San Miguel Municipal Total LGU:-Dinagat Albor Albor Bayanihan Doña Helen Gareia San Antonio 1 San Antonio San Jose, Libjo	,	y(69	69		385	385
Municipal Total LGU-Dinagat Albor Arellano BWSA Bayanihan Dona Helen Garcia Gen. Aguinaldo Kanihaan BWSA Llamera BWSA Magsaysay, Libjo Osmeña Plandel Quezon BWSA Rosita Rosita San Antonio San Jose, Libjo	1	 		09	09		326	326
LGU-Dinagat Albor Arellano BWSA Bayanihan Doha Helen Garcia Gen. Aguinaldo Kanihaan BWSA Llamera BWSA Magsaysay, Libjo Osmeña Plandel Quezon BWSA Rosia San Antonio		7		472	472		2.415	2,415
Arellano BWSA Bayanihan Dona Helen Garcia Gen. Aguinaldo Kanihaan BWSA Llamera BWSA Magsaysay, Libjo Osmeña Plandel Quezon BWSA Rosita San Jose, Libjo	7 1	8	270	98.	1.056	2.515	1.351	3.866
Arellano BWSA Bayanihan Doha Helen Garcia Gen. Aguinaldo Kanihaan BWSA Llamera BWSA Magsaysay, Libjo Osmeña Plandel Quezon BWSA Rosita San Antonio	1		42		42	210		210
	SA 1			40	40		200	200
	r			15	15		75	75
m BWSA BWSA BWSA Say, Libjo BWSA BWSA conio		1		40	70		240	240
nn BWSA I BWSA Say, Libjo BWSA Say, Libjo Conio		1		55	55		330	330
n BWSA say, Libjo BWSA say, Libjo conio	do			25	25	-	150	150
say, Libjo BWSA onio ., Libjo	VSA 1	-		25	25		126	126
say, Libjo BWSA onio ., Libjo	SA			30	30		120	120
BWSA onio	Libio			09	09		300	300
BWSA onio . Libjo	1	1		12	12		61	61
BWSA omio . Libjo	1	1		85	85		425	425
onio s, Libjo	SA	1		55	55		275	275
onio e, Libjo	1	1		92	95		250	250
		-	125		125	625	:.	625
				8	8		450	450
Sto Niño				85	85		425	425
Municipal Total 2 14	Total 2	16	167	299	834	835	3.427	4.262
_		5		579	579		2.773	2.773

Table 4.1.2 Details on Existing Level II Systems Sheet 2 of 6

Name of	Name of	Number	Number of Barangay Served	y Served	Number o	Number of Households Served	ds Served	Number o	Number of Population Served	on Served
Municipality	Operating Body	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Malimono	Binocaran		1,	1		30	30		150	150
	Bunyasan (Gov)		1	1		37	37		185	185
	Bunyasan (Pvt)		1	1		12	12		09	99
	Cagtinae, Brgy. Proj		1	1		84	84		420	420
	Can-aga, Brgy. Prop		1	1		30	30		150	150
	Cansayong		1	1		152	152		092	760
	Cantapoy, Brgy. Pro		I	1	-	96	96		480	480
	Cayawan, Brgy. Pro		1	1		106	106		530	530
	Hanagdong, Brgy. P.		1	1	:	120	120		009	009
	Karihatag, Brgy. Prd		1	1		7.2	72		360	360
	Masgad, Ad-on			7		200	200		1,000	1,000
•	Pili, Brgy, Proper		1	1		69	69		345	345
	Tinago			1		42	42		210	210
	Villariza, Cp. 1-4		1	1		09	09		300	300
	Municipal Total	-	14	14		1.110	1,110		5.550	5.550
Pilar	Asin, Centro, Pilaring	3	1	4	320	1.1	397	1,886	434	2,320
	Mabini, Pilar		1	-		24	24		120	120
	San Roque, Pilar		1	1		18	18		06	90
	Municipal Total	3	3	9	320	119	439	1,886	644	2,530
Placer	Boyongan					99	99		303	303
	Central	1		1	100	•	100	528		528
	Ellaperal	;	1	1		99	99		348	348
	Ipil, Placer	1		1	25		25	132		132
	Magupange		1	1		20	50		234	234
	Municipal Total	2	3	\$	125	182	307	099	885	1.545

Table 4.1.2 Details on Existing Level II Systems Sheet 2 of 6

Number of Population Served	Rural Total	250 250	100 100		240 240	069 069	1.720	420		180 180	262	30	30	180 982		930 930	401 401	2,124 2,124	75 75	150 150			233 233	396 396	308 308	1,789	522 522		706	
Number of P	Urban						1.720	420	09		292	30	30	802																
ds Served	Total	50	20	20	40	130	316	84	12	30	20	9	9	188	131	155	99	352	15	30	9	89	43	99	49	331	110	173	124	
[Househol	Rural	905	20	20	40	130				30				30	131	155	99	352	151	30	9	89	43	99	64	331	110	173	124	The second second
Number of Households Served	Urban						316	84	12		50	9	9	158									:							-
	Total	1	1	1	-	4	-:-	2	1	1		_	-7	7	1	7	1	4		-	1	1	1		1	7			1	
Number of Barangay Served	Rural	1	_	-	-	4				1				-	1	2	-	4		1		ı	1	-	1	~	-	1	_	4.00
Number	Urban						-	2	1			7	ı	9	١.				·											
Name of	Operating Body	Amontav	Honrado	Linoneganan	Macopa	Municipal Total	Del Carmen	Aurelio	Don Ruben	Jacquez	Luna	Matngbe	Wilson	Municipal Total	Aleema. Santa Moni	Libertad	Magsaysay	Municipal Total	Bivahid	Ima	Mabuhav	San Isidro	San Pablo	Tagbayani	Tinogpahan	Municipal Total	Aleena	Anomar	Aurora	1.0
Name of	Municipality	San Francisco (Anao-A Amontav					San Isidro								Santa Monica (Sapao)				Sison								Surigao City			_

Table 4.1.2 Details on Existing Level II Systems Sheet 2 of 6

Name of	Name of	Number	Number of Barangay Served	y Served	Number o	Number of Households Served	ds Served	Number 0	Number of Population Served	n Served
Municipality	Operating Body	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Surigao City	Baybay		1			54	54		283	283
(Capital)	BoniEacio		1	1		218	218		1,190	1,190
	Buenavista	1	,	I	217		217	1,015		1.015
	Cabongbongan		1	1		110	110		288	588
	Cagniog		1	1		334	334		1,697	1,697
	Cantiasay		1	1		152	152		801	801
	Capalayan		1	1		09	09		347	347
	Danao		1	I		75	75		374	374
	Danawan		F *	1		86	86		510	510
	[id]		1	1		156	156		780	780
-	Libuac		1	1		195	195		1.019	1,019
	Lipata		1			239	239		1,326	1.326
	Lisondra		7	1		115	115		629	629
	Mabini		p-ut	-		30	30		150	150
	Mabua		1	1		305	305		1,518	1,518
	Mapawa		1	1		139	139		727	727
	Mat-i		ĭ	Ĭ		120	120		009	900
	Nabago		-1	1		54	54		270	270
	Nonoc		1	1		154	154		910	910
	Orok		1	1		154	154		725	725
	Poctoy		1	1		199	199		959	959
	Punta Pilar			1		104	104		635	635
	Quezon		-	1		48	48		240	240
	Rizal		1	7		42	42		210	210
	San Jose	1		1	227		227	1,202		1,202
	San Pedro		-1	1		106	106		632	632
	San Roque		1	I		133	133		652	652
	Serra		1	1		36	36		180	180
	Silop		1	1		129	129		785	785



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Table 4.1.2 Details on Existing Level II Systems Sheet 2 of 6

Name of	Name of	Number (of Baranga	iy Served	Number of Barangay Served Number of Households Served Number of Population Served	f Househole	ds Served	Number o	f Populatio	n Served
Municipality	Operating Body	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Surigao City	Sukailang		1	I		118	118		57.1	571
(Capital)	Talisay	1		1	42		42	210		210
	Togbongon		1	I		265	265		1,395	1,395
	Trinidad	:	I	1		329	329		1,603	1,603
	Zaragosa		1	1		124	124		869	869
	Municipal Total	3	35	38	984	4.826	5,312	2,427	25,227	27,654
Tubajon	LGU-Tubajon	1	1	2	150	176	326	708	885	1.593
Lubod	Capayahan BWSA		. I	1		25	25		150	150
-	Cawilan BWSA			1		42	42		230	230
	Del Rosario BWSA		1	1		38	38		195	195
·	Motorpool			1		47	47		230	230
	San Isidro, Tubod		1	1.		159	159		742	742
	Municipal Total		\$	5		311	311	_	1.547	1.547
Provincial Total	ial Total	29	127	156	2.723	10,939	13.662	15,308	\$4,225	69.533

Table 4.1.2 Details on Existing Level II Systems Sheet 3 of 6

					Service C	Service Conditions During Dry Season	ig Dry Seas	ПО.		
Name of		,	1	, c	Supp	Supply Interruption (number/month)	(number/m	onth)	Supply W.	Supply Water Pressure (% of total)
Municipality	Name of Operating Body	Supply (Hrs/day)	Water ¹	Smell ²	Power Failure	Pump Breakdown	Pipe Burst	Others	Adequate	Inadequate
Alegna	Alipao BWSA									
>	Budlingin			ပ					100	
	Cp Edward BWSA									
	Ferlda			9					100	
	Ombong BWSA			-						
	Pongtud								18	
Bacuag	Cambuayon									
,	Cambuayon									
	Campo									
	Payapag									
	Pungtod									
	Sto. Rosano									
Burgos	Baybay, Burgos		0	Ð						
•	Bitaug		0	9						
	Poblacion 1		0	Ŋ						
	Poblacion 2		0	Ð						
	San Mateo		0	Ð						
Cagdianao	Cabinton-an BWSA									
	Maatas BWSA									
	San Jose, Cagdianao									
-	Sta. Ritz BWSA									
	Sto. Niño BWSA									
Claver	Cabugo BWSA		,							
	Sapa BWSA									
Del Carmen	Del Caruwasa Inc.									

Table 4.1.2 Details on Existing Level II Systems
Sheet 3 of 6

					Speries	Socritos Conditions During Dry Season	o Dry Seas	60		
					771				Carried W	John Drocemen
Name of	- 5	Č	į	Toeto or	Suppl	Supply Interruption (number/month)	(number/m	onth)	%) w Aiddns	Supply water rressure (% of total)
Municipality	Name of Operating Body	Suppiy (Hrs/day)	Water	Smell ²	Power Failure	Pump Breakdown	Pipe Burst	Others	Adequate	Inadequate
Dana	Bacakay	24	0	ŋ					95	
1 2 3	Buenavista, Dapa	24	0	ტ			1		95	\ <u>\</u>
	Cabawa	24	0	Ö			2		95	
	Corregidor	24	0	 5					25	
	Jubang	24	0	5			2		8	
	San Carlos	24	0	ව			2		95	
	San Miguel	12	0	9			3		<u>8</u>	70
Dingent	I GII-Dinagat									
Libio (Albor)	Albor			ტ					70	30
	Arellano BWSA									
	Bayanihan									
	Dona Helen		į							
	Garcia									
	Gen. Aguinaldo									
	Kanihaan BWSA									
	Llamera BWSA									
	Magsaysay, Libjo									
	Osmeña									
	Plandel									
	Ouezon BWSA									
	Rosita			-				-		
	San Antonio									
	San Jose, Libio									
	Sto. Niño									
Loreto	LGU-Loreto									

Table 4.1.2 Details on Existing Level II Systems Sheet 3 of 6

				5	rvice Cond	Service Conditions During Dry Season	o Dry Seas	00		
				3					Supply	Supply Water
Name of	4		Dirts	Toeto or	Supply	Supply Interruption (number/month)	n (number/1	nonth)	Pressure (Pressure (% of total)
Municipality	Name of Operating Body	Suppiy (Hrs/day)	Water ¹	Smell ²	Power Failure	Pump Break- down	Pipe Burst	Others	Adequate	Inadequate
Malimono	Binocaran									
	Bunyasan (Gov)									
	Bunyasan (Pvt)									
	Cagtinae, Brgy, Proper	-								
	Can-aga, Brgy, Proper				-				-	
	Cansayong									
	Cantapoy, Brgy. Proper									
	Cayawan, Brgy, Proper									
	Hanagdong, Brgy, Proper									
	Karihatag, Brgy, Proper									
	Masgad, Ad-on									
	Pili, Brgy. Proper									
	Tinago									
	Villariza, Cp. 1-4									
Pilar	Asin, Centro, Pilaring, Punta									
	Mabini, Pilar									
	San Roque, Pilar									
Placer	Boyongan	24	OM	O					75	25
	Central									
	Ellaperal	24	0	Ü					20	20
	Ipil, Placer		0	G					25	25
	Magupange	24	0	Ċ					75	25
San Francisco (Anao-A Amontay	Amontay									
****	Honrado									
	Linongganan									
	Macopa									
San Isidro	Del Carmen									

Table 4.1.2 Details on Existing Level II Systems Sheet 3 of 6

Name of Municipality Name of Operating Body (Hrviday) Supply (Hrviday) Dirty (Hrviday) Taste or Divide Sample Supply Interruption (number/month) Supply Nater Presente Proper (Archital) Proper (Archital) Supply Nater Presente Supply Nater Presente Proper (Archital) Proper (Archit						Service C	Service Conditions During Dry Scason	ng Dry Sea	son		
Name of Operating Booty Supply Auter Fine Pipe Others Adequate Aurelio 12 G C	Name of			į į	Tacto or	Supp	ly Interruption	(number/n	nonth)	Supply W	ater Pressure of total)
Aurelio Don Kuben 12 G	Municipality	Name of Operating Body	Suppry (Hrs/day)	Water ³	Smell ²	Power Failure	Pump Breakdown	Pipe Burst	Others	Adequate	Inadequate
Don Kuber 12 G Acquez 12 G Lina Maingbe	San Jose	Aurefio									
Jacquez 12 G Jacquez 12 G Jacquez Jacquez Jacquez Mamabe		Don Kuben									X
Linuary Linu		Jacquez	12		5					20	50
Manugbe Wilson Wilson Wilson Malson 24 0 Magasyay 24 0 G Magasyay 24 0 G Mabubay 24 0 G San Palohay 24 0 G San Palohay 24 0 G Anonar Ahomat Ahomat Barbay Barbay Barbay Barbay Barbay Barbay Barbay Cabonglongan Cagnog Calongslongan Cagnog Cantiassy Cantiassy Cantiassy Captiagram Captiagram Captiagram Captiagram Captiagram <		Luna									
Wilsoin Alegra, Santa Monica Alegra, Santa Monica 24 0 G Magasayay 24 0 G Biyabid 24 0 G Ima Alabubay 24 0 G San Isidro 24 0 G San Isidro 24 0 G Alabubay 24 0 G Alegra Alegra Alegra Autora Baybay Baybay Baybay Capuiog Capuiog Carinasay Capuiog Capuiog Capuiog Capuiog Capuiog Capuiog Capuiog Capuiog Capuiog Capuiog Capuiog Capuiog Capuiog Capuiog Danawan Capuiog Capuiog Danawan Capuiog Capuiog		Matingbe									
Alegra, Santa Monica Alegra, Santa Monica Libertad		Wilson									
Libertad	Santa Monica (Sapao)	Alegria, Santa Monica									
Magsaysay 24 O G Biyabid 24 O G Mabulay 24 G I San Isidro 24 O G San Isidro 24 O G Tagbayam 24 O G Tinogaban 24 O G Antegna Antegna Ballbayon Ballbayon Ballbayon Ballbayon Ballbayon Ballbayon Bundavista Cabongbongan Capanog Capanog Capanog Capanog Cantasay Capana Capana Capanasan Capanasan Danao Lipana Danao Lipana Lipana Lipana Lipana Lipana Lipana Lipana	•	Libertad						-			
Biyabbd		Magsaysay		0							
Image Mabulay 24 G G San Islatio 24 O G San Islation 24 O G Tinogpahan 24 O G Alegina Alegina B A Anomar Aurora B B Aurora Balbayan B B Baybay Baybay B B Baybay Baybay Cabonic bongan C Cabring Cantasay Capalayan C Danao Danao Danao D Lipil Lipil Lipilat Lipilat Lipilat Lipilat Lipilat		Biyabid	.24		ტ					001	
Mabuhay Z4 G I San Isidro 24 O G San Pablo 24 O G Tinogpahan 24 O G Alegria Anomar Anomar Anomar Aurora Balibayon Balibayon Balibayon Bandosyon Bandosyon Cagniog Cagniog Cagniog Cartiasay Capalayan Capalayan Danao Danao Danawan Danawan Danawan Danawan Danawan Danawan Libuil Libuil Libuata Lipata Libuata Libuata		Ima									
San Isidéo 24 G I San Pablo 24 O G Tagbayam 24 O G Tinogpaham 24 O G Anomar Anomar Balbayon Balbayon Balbayon Balbayon Balbayon Bandayan Cagniog Cantiasay Capalayan Capalayan Capalayan Danao Danawan Ipil Ipil Ipil Lipil Lipil Lipil Lipilata		Mabuhay					_				
San Pablo San Pablo Tagbayan 24 O G Tanogpahan A O G G Anomar Anomar G G Autora Balbayon G G Baybay Baybay G G Baybay Bonifacio G G Buenavista Cabongbongan G G Capusog Caritasay Capalayan G G Danao Danao D G G Danao Danawan G G G Danawan D G G G G G Danawan D G		San Isidro	24		G					100	
Tagbayam 24 O G Tinogpahan 24 O G Alegna Anomar Anomar Aurora Balibayon Balibayon Baybay Baybay Cabongon Benibacio Cabongon Cabongongan Cabongbongan Capriosa Capriosa Cantiasay Capriasay Capriasay Capalayan Capalayan Danao Danao Danawan Danawan Libuac Libuac Libuac Libuac Libuac Libuac		San Pablo									
Tinograham 24 O G Alegria Alegria Alegria Aurora Aurora Aurora Balibayon Bajbayon Baybay BomEacro Bucmavista Bucmavista Cabongbongan Cabongbongan Cardiasay Cantiasay Cardiasay Cardiasay Capalayan Danao Danao Danao Danawan Danawan Dilanawan Libuac Libuac Libuac Libuac Libuac Liptiac Libuac Libuac		Tagbayani	24	0						201	
Surigao City (Capital) Alegria Anomat Autora Autora Balibayon Balibayon Banbayon Banbayon Buchavista Cabongbongan Cartiasay Cartiasay Cantasay Cantasay Cantasay Danao Danao Danawan Inbuac Libuac Libuac Libuac Libuac Libuac Lipata Libuac Lipata Lipata		Tinogpahan	24	0						8	
Anomar Autora Autora Baltbayon Baybay Bonizacio Bucuavisa Cafoongbongan Cagniog Cantasay Capalayan Danao Danawan Ipil Libus	Sungao City (Capital)	1									
Aurora Balibayon Balibayon Baybay Baybay Bomizacio Buranavista Cabrilasay Cartiasay Cantasay Capalayan Danao Danawan Danawan Danawan Libitac Libitac Libitac Libitac Lipata Lipata											
Balibayon Baybay BonEacto Bucarvista Cabongbongan Caritasay Caritasay Capalayan Danao Danawan Diamawan Libuac Libuac Lipata		Aurora									
Baybay BomEacio Buenavista Capriog Cantiasay Capalayan Danao Danawan Ipil Libuac Libuac Lipuac		Balibayon									
BoniEacio Buenavista Cabongbongan Capulog Cantiasay Capalayan Danao Danawan Libuac Libuac Libuat Libuat		Baybay									
Buenavista Buenavista Cabongbongan Cagniog Cantiasay Capalayan Danao Danao Ipil Libuac Libuata Lipata		ВоплЕасто									
Cabongbongan Cagniog Cantiasay Capalayan Danao Danawan Libuac Libuac Lipata Lipata		Buenavista			11.00						
Cagniog Cantuasay Cantuasay Capalayan Danao Danawan Ipil Libuac Lipata Lipata		Cabongbongan	7, -			4 1 1					
Cantiasay Capalayan Danao Danawan Ipil Libuac Lipata		Cagniog									
Capalayan Capalayan Danao Danawan Ipil Libuac Lipata Lipata		Cantiasay									
Danao Danawan Ipil Libuac Lipata		Capalayan									
Danawan Ipil Libuac Lipata		Danao									
Ipil Libuac Lipata		Danawan									
Libuac		lidi									
Lipata		Libuac									
		Lipata									

Table 4.1.2 Details on Existing Level II Systems Sheet 3 of 6

					Service C	Service Conditions During Dry Season	ng Dry Sea	son		
Name of	Name of Onemeting Body	Cumuly	Sirk	Taste or	Supp	Supply Interruption (number/month)	(number/n	aonth)	Supply W	Supply Water Pressure (% of total)
Municipality	Ivanic of Operating Body	(Hrs/day)	Water	Smell ²	Power Failure	Pump Breakdown	Pipe Burst	Others	Adequate	Inadequate
	Lisondra									
	Mabini									
	Mabua									
	Mapawa									
	Mat-1									
	Nabago									
	Nonoc								,	
	Orok									
	Poctoy									
	Punta Pilar									
	Quezon									
	Rizal									
	San Jose									
	San Pedro									
	San Roque									
	Serra									
	Silop									
	Sukailang									
	Talisay									
	Togbongon									
	Trinidad							-		
	Zaragosa							-		
ubajon	LGU-Tubajon	12	0	O				-	100	
Tubod	Capayahan BWSA									
	Cawilan BWSA									
	Del Rosano BWSA				,					
	Motorpool									
	Can leaded Import	1 ₹								

Note: 1. Dirty Water: E - Everyday, OW - Once a week, OM - Once a month, O - Ocassional.

2. Taste or Smell: G - Good taste, S - Salty, W - Wood taste, M - Metallic taste, O - Others.

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

Name of Municipality Alegnia Bacuag Burgos	Name of Operating Body Alipao BWSA Budlingin Op Edward BWSA Ferlda Ombong BWSA Pongrud Cambuayon Cambuayon Campo Campo Stor Rosario Bayapag Pungrod Sto. Rosario Baybay, Burgos Bitaug	Technical	Administrati ve Staff	Collector	Number of Staff Total Staff Trac	Local Trademan	Repair Work	DEO	Others
Cagdianao Cayota Claver Del Carmen	Poblacion 1 Poblacion 2 San Mateo Cabinton-an BWSA Maatas BWSA San Jose, Cagdianao Sta. Rita BWSA Sto. Niño BWSA Cabugo BWSA Sapa BWSA Del Caruwasa Inc.								

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

					Number of Staff	Staff			
Name of	Name of Oneratine Rody	Technical	Administrati		Total		Repair Work	ork	
Municipality		Staff	ve Staff	Collector	Number of Staff	Local Trademan	MEO/CEO	DEO	Others
Dapa	Bagakay								
•	Buenavista, Dapa					>			
	Cabawa					`^			
	Corregidor					,			
	Jubang					>			
	San Carlos					,			
	San Miguel					^			
Dinagat	LGU-Dinagat								
Libjo (Albor)	Albor						>		
	Arellano BWSA								
	Bayanihan								
	Dona Helen								
	Garcia								
	Gen. Aguinaldo								
	Kanihaan BWSA								
-	Llamera BWSA								
	Magsaysay, Libjo								
	Osmeña								
	Plaridel								
	Quezon BWSA								
	Rosita								
	San Antonio								
	San Jose, Libjo								
	Sto. Niño								
Loreto	LGU-Loreto								

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

					Number of Staff	Staff			
Name of		Tochaide	Administrati		Total	<u> </u>	Repair Work	ork	
Municipality	Name of Operating body	Staff	ve Staff	Collector	Number of Staff	Local Trademan	MEO/CEO	DEO	Others
Malimono	Binocaran								
	Bunyasan (Gov)								
	Bunyasan (Pvt)								
	Cagunae, Brgy, Proper								
	Can-aga, Brgy, Proper								
	Cansayong								
	Cantapoy, Brgy. Proper								
	Cayawan, Brgy, Proper	:							
	Hanagdong, Brgy, Proper								
	Karibatag, Brgy, Proper								
	Masgad, Ad-on								
	Pili, Brgy. Proper								
	Tinago								
	Villariza, Cp. 1-4								
Pilar	Asin, Centro, Pilaring, Punta								
	Mabini, Pilar								
	San Roque, Pilar								
Placer	Boyongan					`			
	Central								
	Ellaperal					,			
	Ipil, Placer					>			
	Magupange					>			
San Francisco (Anao-A Amontay	Amontay								
	Honrado	-			. :				
	Linongganan								
	Macopa								
San Isidro	Del Carmen								



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

Name of Operating Body Rechnical Administratify Total Repair Work						Number of Staff	Staff			
Auricia Auri	Name of		Tochaicol	Adminiate	l l	Total		Repair W	ork	
Monica (Sapao) Airelio Monica (Sapao) Airelio Monica (Sapao) Airelio Monica (Sapao) Magasaysay Magasaysay Magaysay Mabuhay San Isidro San Isid	Municipality	Name of Operating body	Staff	ve Staff		Number of Staff		MEO/CEO	DEO	Others
Don Ruben Jacquez Jacquez Luna Maringbe Wilson Maringbe Wilson Magsaysay Mapuhay San Isidro San Pablo Tagbayam Tinogpalan Tinogpalan Tinog	San Jose	Aurelio								
Jacquez Luna		Don Kuben								
Manica (Sapao) Alegra Santa Monica							>			
Matingbe	-	Luna								
Monica (Sapao) Wilson Monica (Sapao) Alegra, Sana Monica Libertad Magsaysay Biyabid Ima Mabuhay San Babio San Pablo Iagbayan Tinogpahan Ingbayan In City (Capital) Alegra Anomar Auomar Auomar Auomar Bailbayon Bailbayon Bailbayan Capalayan Capalayan Capalayan Capalayan Capalayan Danao Danao Danao Danawan Libuac Libuac		Managbe								
Monica (Sapao) Alegria, Santa Monica Libertad Magsaysay Ima Ima Mabuhay San Isidro San Isidro Inograham Inograham Inograham Nomar Anomar Anomar Balbayon Balbayon Balbayon Banbaya Caguaga Cabongbongan Caguagayan Cabalayan Caguagayan Danao Danao Danawan Libuac Ipil Libuac		Wilson								
Magsaysay Magsaysay Biyabid Ima Mabuhay San Isidro San Pablo Tagbayam Tagbayam Tagbayam Tagbayam Anomar Aurora Balibayon Baybay Baybay Baybay Baybay Baybay Baybay Baybay Baybay Cabongbongan Cabongbongan Cabongan Cabanasay Cabanasay Capanog Cantasay Capanog Danao Danao Danavan Ipil	_	Alegna, Santa Monica								
Magsaysay Bayabid Ima Mabuhay San Paloto San Paloto Tagbayam Tinogpahan Toomar Anomar Anomar Alegra Balibayon Balibayon Banbayon Banawan Libuac		Libertad								
Biyabid Biyabid Ima Im		Magsaysay					,			
Ima Mabuhay San Isidro San Isidro San Isidro San Pablo Tagbayam Tagbayam Tagbayam Tagbayam Tagbayam Anomar Aurora Balbayon Balbayon Banbayon Banbayon Banbayon Buenavista Cabongbongan Cagnog Cantasay	Biyabid					,				
10 Io Io Io Io Io Io Io Io Io Io Io Io Io		Ima								
10 In In In In In In In In In In In In In		Mabuhay								
10 hban hban on sita bongan bon no sita bongan no no no no no no no no no		San Isidro					>			
bhan on sta bongan bon an n n n n n n n n n n n		San Pablo								
bhan on sta bongan bongan sta bongan n n		Tagbayam					,			
Sungao City (Capital) Alegna Aurora Aurora Balibayon Balibayon Banibasio Banibasio BoniEario Cabongbongan Capinog Cantassy Capalayan Capalayan Danao Danavan Danawan Libuac Libuac Libuac		Tinogpahan					,			
Anomar Anomar Aurora Aurora Balibayon Balibayon Banibayon Banibayon BoniEacio Cabongongan Cabriog Cantasay Cantasay Cantasay Danao Danawan Danawan Danawan Libuac Libuac	Sungao City (Capital)	Alegna								Ī
Aurora Aurora Balibayon Balibayon Baybay Babbay Buenavista Cabongbongan Cabongbongan Cantasay Cantasay Cantasay Capalayan Danao Danawan Danawan Libuac Libuac		Anomar								
Balibayon Baybay BonEacto Buenavista Cabongbongan Cagniog Cantasay Capalayan Danao Danawan Ipil Libuac		Aurora								
Baybay BoniEacio Buenavista Cabongbongan Cagniog Cantasay Capalayan Danawan Ipil Libuac		Balibayon								
BoniEacto Buenavista Cabongbongan Capriog Cantrasay Capalayan Danao Danawan Ipil Libuac		Baybay								
Buenavista Buenavista Cabongbongan Cagniog Cantiasay Capalayan Danavan Danawan Ipil Libuac		BoniEacio								
Cabongbongan Cagniog Cantiasay Capalayan Danao Danawan Ipil Libuac		Buenavista								
Cagniog Cantiasay Capalayan Danao Danawan Ipil Libuac	,	Cabongbongan								
Cantiasay Capalayan Danao Danawan Ipil Libuac	-	Cagnog								
Capalayan Danao Danawan [pi] Libuac Libuac		Cantiasay								
Danao Danawan Ipil		Capalayan								
Danawan [pi] Libuac		Danao								
[pi] Libuac		Danawan								
Dibuac		ligi								
		Libuac								

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

					Number of Staff	Staff			
Name of	Name of Onerating Body	Technical	Administrati		Total		Repair Work	ork	
Municipality	4	Staff	ve Staff	Collector	Number of Staff	Local Trademan	MEO/CEO	DEO	Others
	Lipata								
	Lisondra								
-	Mabini								
	Mabua								
	Mapawa								
*	Mat-1								
	Nabago								
	Nonoc								
·	Orok				1				
·	Poctoy								4, 4
	Punta Pilar								
	Quezon								
	Rizal	:							
	San Jose								
	San Pedro								
	San Roque								-
	Setta								
	Silop								
	Sukailang								
	Talisay								
-	Togbongon								m 16
	Trinidad								
	Zaragosa								
Tubajon	LGU-Tubajon	1				,			
Tubod	Capayahan BWSA						-		
	Cawilan BWSA						,		
	Del Rosano BWSA								
	Motorpool								
	San Isidro, Tubod						-		

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

					Expenditures						Tariff			Average
Name of Municipality	Name of Operating Body	Annual	Wages	Fuel, Chem.	Transport	Repairs	Loan Repayment	Other	Consumer Payment	Cost per Pail	Cost per Cu.	Cost per HH	Other	Collection Efficiency
	- F			(P)	(P '000.00 / year)	(ì			(Year)		(Pe	(Pesos)		(%)
Alegna	Alipao BWSA													
,	Budlingin		1.8	5	2	10								
	Cp Edward BWSA													
	Ferlda		1.8	\$	2	10								
	Ombong BWSA													
	Pongtud		1.8	5	2	10								
Bacuag	Cambuayon													
	Cambuayon													
	Campo													
	Payapag													
	Pungtod													
	Sto. Rosario													
Burgos	Baybay, Burgos													
	Bitaug													
	Poblacion 1			-										
	Poblacion 2												-	
	San Mateo													
Cagdianao	Cabinton-an BWSA													
	Maatas BWSA													
	San Jose, Cagdianao													
	Sta. Rita BWSA													
	Sto. Niño BWSA												~	
Claver	Cabugo BWSA													
	Sapa BWSA													
Del Carmen	Del Caruwasa Inc.													
Dapa	Bagakay										1			
	Buenavista, Dapa													
	Cabawa									- 				
	Corregidor							-					_	
	Jubang													
	San Carlos													
	San Miguel													
Dinagat	LGU-Dinagat													

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

				Ξ	Expenditures						Tariff			Average
Name of Municipality	Name of Operating Body	Annual	Wages	Chem.	Transport	Repairs	Loan Repayment	Other	Consumer Payment	Cost per Pail	Cost per Cu.	Cost per HH	Other	Collection Efficiency
				(P.	(P '000.00 / year))			(Year)		(Pesos)	(30		(%)
Libio (Albor)	Albor													
	Arellano BWSA									-				
	Bayamhan											8		Ī
	Dona Helen													
	Garcia													
	Gen. Agumaldo													
	Kamhaan BWSA													
	Llamera BWSA													
	Magsaysay, Libio													
	Osmeña													ĺ
	Plandel													
	Quezon BWSA													
-	Rosita					_								
	San Antonio		48			10						270		35
	San Jose, Libjo													
	Sto. Niño						-							
Loreto	LGU-Loreto									1				
Malimono	Binocaran													
	Bunyasan (Gov)													
	Bunyasan (Pvt)									1				
-	Cagunae, Brgy. Proper	cr												
	Can-aga, Brgy. Proper	er									-			
	Cansayong													
	Cantapoy, Brgy. Proper	per												
	Cayawan, Brgy, Proper	ocr.					·							
	Hanagdong, Brgy. Proper	roper								_	1			Ī
	Kanhatag, Brgy. Proper	per				:			:			-		
	Masgad, Ad-on								•				-	
	Pili, Brgy, Proper	1000			100		i							
	Tinago	Sugar Carte Congress							:					
	Villariza, Cp. 1-4											1		
Pilar	Asin, Centro, Pilaring, Punta	Punta				1								
	Mabini, Pilar													
	San Roque, Pilar													

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

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											100			
					Expenditures	·				- }-	171111			Wer age
Name of Municipality	Name of Operating Body	Annual	Wages	Chem.	Transport	Repairs	Loan Repayment	Other	Consumer Payment	Cost per Pail		Cost per HH	Other	Collection Efficiency
				(P)	(P '000.00 / year)	.)			(Year)		(Pesos)	os)		(%)
Placer	Воуопдап													
	Central													
	Ellaperal								1					
	Ipil, Placer													
	Magupange											+		
San Francisco (Anao-AAmontay	Amontay						-							Ī
	Honrado								1					
	Linongganan										-			
	Macopa											+		
San Isidro	Del Carmen													
	Aurelio			_								1		1
	Don Ruben											1	1	
-	Jacquez											1		
	Luna									Ī				Ī
	Matingbe													
	Wilson													
Canta Manica (Canta) Alemia Cente Momica	A learns Conta Mome					-								
Condes (September Company)	Libertad													
	Magraveav	1.2	0.7			0.5								
Sison	Biyabid					3								Ī
	Ima													
	Mabuhay													
	San Isidro					4								Ī
	San Pablo										1	+	-	Ī
	Tagbayanı					73						1		
	Tinogpahan					3						+		1
Sungao City (Capital) Alegna	Alegna													
	Anomar						!							
	Aurora												-	
	Balibayon												1	
	Baybay													1
	BoniEacio													Ī
	Buenavista													
	Cabongbongan											-		
	Cagniog									1		- -		
	Cantiasay						-					-		

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

					Expenditures						Tariff			Average
Name of	Nате of			Yuer,	1	L	Loan	1	Consumer	Cost per	L		L	Collection
Municipality	Operating Body	Annuai	Wages	Chem.	Transport	Repairs	Repayment	Other	Payment	Pail	ទី ទី	жж	is direct	Efficiency
				a)	(P '000.00 / year)	C.			(Year)		ď	(Pesos)		(%)
	Capalayan													
	Danao													
	Danawan													
	ligil													
	Libuac		:			-								
	Lipam												_ 1	
	Lisondra													
	Mabini							-						
	Mabua													
	Mapawa													
	Mater													
	Nabago													
	Nопос		:											
	Orok													
	Poctoy													
	Punta Pilar													
	Quezon				-									
	Rizal													
	San Jose						Π							
	San Pedro						_							**
	San Roque					-								
	Sепа													
	Silop													
1	Sukailang		_		-	<u>-</u>								
	Talisay	}												
	Togbongon					-								-3-
	Trinidad								-			2		-
	Zaragosa													
Tubajon	LGU-Tubajon	36												
	Capayahan BWSA													
	Cawilan BWSA													
	Del Rosario BWSA							 		 		 		
	Motorpool							-					-	
	San Isidro, Tubod						-				_	-		<u>; –</u>
	and the second s		-	de communicación de la companion de la compani	and the second second	accessors and an arrangement		-				The second second	TAXABLE DESCRIPTION OF THE PERSON OF THE PER	(

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

				Billings					Revenues		
Name of Municipality Name of Operating	Name of Operating	Annual	Public Faucet	House Connection	Expected	Others	Annual	Payment by Public Faucet	Payment by House	Subsidies	Other
	Body	Billing	Consume	Consumers	Subsidies		Income	Consumers	Connection		, ,
	•	(Number)				D	(P '000.00 / year)	'car)			
Alegna	Alipao BWSA										
	Budiingin										
	Cp Edward BWSA		1								
	Ferlda										
	Ombong BWSA	476					,				
	Pongtud	***				-					
Bacuag	Cambuayon										
	Cambuayon										
	Campo		-							-	
	Payapag						:				
	Pungtod				-						-
	Sto. Rosario										
Burgos	Baybay, Burgos										
	Bitaug			,							
	Poblacion 1										
	Poblacion 2										
	San Mateo					-				ļ	
Cagdianao	Cabinton-an BWSA										~
	Maatas BWSA										
	San Jose, Cagdianao										
	Sta. Rita BWSA										
	Sto. Niño BWSA										
Claver	Cabugo BWSA										
	Sapa BWSA					:					
armen	Del Caruwasa Inc.				-					_	- 3: 0
Dapa	Bagakay										
	Buenavista, Dapa										
	Cabawa										
	Corregidor										
	Jubang						_				
	San Carlos										
	San Miguel										
Dinagat	LGU-Dinagat										

Section 1

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

				Billings		_			Revenues		
-			Public	House				Payment by	Payment by		
ne of Municipality	Name of Municipality Body Body	Annual Billing	Faucet	Connection	Expected Subsidies	Others	Annual	Public Faucet	House	Subsidies	Other
	-	; ; ;	Consume	Consumers			• , 00 000, 0	Consumers	Connection		
		(Number)					(r oog oo sear)	(car)	اممده ميرده جي دروسيد		
Libjo (Albor)	Albor							:	:		
	Arellano BWSA										
	Bayanihan					_					
	Doña Helen										
	Garcia										
	Gen. Agumaldo										
	Kanihaan BWSA				•						
•	Llamera BWSA										
	Magsaysay, Libjo						•				
	Osmeña										
* • •	Plandel										
:	Quezon BWSA										
<u>-</u>	Rositz								7		
	San Antonio						10		******		
<u> </u>	San Jose, Libjo										
	Sto. Nino						-				
Loreto	LGU-Loreto										
ou	Віпосагап									•	
	Bunyasan (Gov)										
	Bunyasan (Pvt)									-	
	Cagunae, Brgy. Proper										
<u> </u>	Can-aga, Brgy. Proper					-					
	Cansayong										
•	Cantapoy, Brgy. Proper										
	Cayawan, Brgy, Proper										
<u>,</u>	Hanagdong, Brgy. Proper)CT									
<u> </u>	Karihatag, Brgy. Proper										
	Masgad, Ad-on					•					
	Pili, Brgy, Proper										
<u> </u>	Tinago										
	1 1 2		-		,		-	~			

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

ليست				Rillings					Revenues		
			Public	House	,		4	Payment by	Payment by		
Name of Municipality Same of Operating Body	Name of Operating Body	Annual Billing	Faucet	Connection	Expected Subsidies	Others	Income	Public Faucet Consumers	House Connection	Subsidies	Other
		(Number)				C	(P '000.00 /)	/year)			
D.1	A six Contro Dilaming Punta										
···	Mahini Pilar										
	Can Doone Dilar										
	שווי איסוריאי איזייי										
Placer	Soyongan										
	Ellaneral								:		
	Ipil, Placer										
	Magupange										
San Francisco (Anao-Al Amontay	Amontay										
	Honrado										
	Linoneganan										
	Macopa										
San Isidro	Del Carmen										
	Aurelio										
	Don Ruben										
	Technical Technical										
	Targue										
	Mathemathe										
	Wilcon										
Santa Monica (Sanao)	Alegria Santa Monica										
	Libertad										
	Magsaysay										
Sison	Biyabid										
	Ima										1
	Mabuhay										
	San Isidro										
	San Pablo										
	Tagbayani										Ī
	Tinogpahan										
f.											

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

									Revenues		
				DIMINES		1					
Name of Municipality Body Body	Name of Operating Body	Annual Billing	Public Faucet	House Connection	Expected Subsidies	Others	Annual Income	Public Faucet Consumers	Fayment by House Connection	Subsidies	Other
		Number	Companie	Company		B)	(P '000.00 / year)	car)			
Surigao City (Capital)	Alegnia										
	Anomar										
	Aurora										
	Balibayon		-								
	Ваурау										
	BoniEacio										
	Buenavista										
	Cabongbongan										
:	Cagniog										
	Cantiasav										
	Canalavan										
	Danao										
	Danawan										
-1.	Inil										
. 15	Libuac										
.[1	Lipata										
	Lisondra										
	Mabini										
	Mabua			ì							
	Mapawa										
1.2	Mat-1							-			
	Nabago										
	Nonoc							٠			
	Orok										
1	Portov					-	•				
	Printa Pilar										
-1-2	Onezon										
	Rizal										
	San Jose										
											ı

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

				Billings				[Revenues		
Name of Municipality Body	Name of Operating Body	Annual Billing	Public Faucet Consume	8 E	Expected Subsidies	Others	Annual Income	Annual Public Faucet House Income Consumers Connection	Payment by House Connection	Subsidies	Other
		(Number)					P '000.00 / year)	(car)			
	San Pedro										
	San Roque										
-	Serra										
	Silop										
	Sukailang										
	Talisay										
	Togbongon										
	Trinidad										
	Zaragosa						Ì				Ī
Tubajon	LGU-Tubajon										
Tubod	Capayahan BWSA										
	Cawilan BWSA										
	Del Rosario BWSA										
	Motorpool										Ī
	San Isidro, Tubod								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

Table 4.1.3 Percentage of Unsafe Source

Menujoinalitu	No of Comples	Unsafe S	Source
Municipality	No. of Samples	Number	(%)
Alegria	3	1	33
Bacuag	2	1	50
Basilisa (Rizal)			
Burgos	3		0
Cagdianao			
Claver	1	1	100
Dapa	4	2	50
Del Carmen			
Dinagat	1		0
General Luna			
Gigaquit			
Libjo (Albor)			
Loreto			
Mainit			
Malimono			
Pilar	2		0
Placer			
San Benito	1		0
San Francisco (Anao-Aon)			
San Isidro	2		0
San Jose			
Santa Monica (Sapao)	3		0
Sison			
Socorto	: :		
Surigao City (Capital)	10	1	10
Tagana-An	2	1	50
Tubajon			
Tubod	1		0
Province	35	7	20

Source: PPDO

4.1.5 Level 1 Facilities

Safe and Unsafe Classification of Level I Facilities

According to the definition of DOH, 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.

As for water sources in the province, the PHO conducts water quality examination upon request. However, the number of samples was very limited and majority of these samples was usually collected from doubtful sources.

On the other hand, as one of the activities in the preparation of this PW4SP, the PPDO conducted water quality analysis by random sampling from public and private wells.

The results of water quality analysis indicate that 20% of the existing wells, as a provincial average, are classified as unsafe sources. Since the total number of shallow well (991) occupies about 40% of the total number of Level I Facilities (2,444) and deep well is rarely exposed to contamination by seepage of wastewater, these unsafe sources are considered to be shallow wells. Although the number of samples was very limited, the PPDO analysis result (20% of unsafe percentages) was applied to classify all shallow wells (drilled and driven) into safe and unsafe sources.

The unsafe percentage of provincial average was applied common to urban and rural areas of respective municipality both for public and private shallow wells. While, those sources other than shallow wells are classified based on the questionnaire. Table 4.1.4 (a) presents the number of Level I facilities by safe and unsafe classification.

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Table 4.1.4 Number of Level I Facilities by Safe and Unsafe Chassification

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Table 4.1.4 Number of Level I Facilities by Safe and Unsafe Classification

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Public and Private Level I Facilities for Rural Water Supply



Table 4.1.4 (b) represents number and proportion of Level I facilities by public and private sources for rural water supply in the province. The number of public and private facilities shares 75% and 25% of the safe water sources, respectively. Developed springs share 16% of public facilities.

Table 4.1.4 (b) Public and Private Level I Facilities for Rural Water Supply

Tune of Position	Public S	ouces	Private S	ources	Total
Type of Facility	Number	%	Number	%	Iotat
Deep Well	114	75	37	25	151
Shallow Well	311	63	181	37	492
Spring Development	120	100	0	0	120
Others	211	86	47	18	258
Total	756	75	265	25	1,021

4.1.6 Water Supply Service Coverage

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

Through the review of the number of water supply systems/facilities and the number of households derived from questionnaire, it was found that a great number of unserved population would be figured out as a balance between the total population and population with any levels of services (including unsafe facilities) in application of the service level standard for Levels I and II. To come up with more realistic service coverage, the unserved population in 1997 was referred to the profile in 1990 population census data, "Households by Main Source of Drinking Water and City/Municipality." Of the rest of the population those who are not served by Levels III 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, river, peddler, etc.)
 reported in the 1990 population census was assumed to have unchanged up to present.
- Population covered by Level I facilities were calculated as a balance figure between the total population, and the population served by Level III & II systems and the unserved population.
- Level I population coverage was estimated in 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. Table 4.1.6 presents overall population covered by Level I facilities and number of households.

Number of households per shared public/private facilities is calculated at 23 households as provincial average, which is considered as rather high, compared with the service level standard of Level I public facility (15 households/facility). In particular, those figures at Suigao City (urban area) and the municipalities of General Luna (rural area), Libjo (rural area), Placer (urban and rural area), San Francisco (urban and rural area), Sison (urban area), Socorro (urban area) and Tagana-an (rural area) are quite large. This reason seems to arise from presence of 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 useful information for considering to what extent the additional population to be covered by public facilities in the future plan, because Level I facilities will be major facilities specially for rural water supply through the future.

Population covered by public facilities is calculated as a balance between total population served by Level I facilities and population covered by private facilities. Thus, it is estimated at 80,100 persons or 85% of the total population covered by Level I facilities from the figures shown in Table 4.1.6 (a) and 4.1.6 (b).

Table 4.1.5 Estimation of Caserved Population by Municipality

Name of	Area		ion and id (1997)	Ser	ed Popula	tion	Unserved	Percentage	Fopula: (1995)	Unserved	Populati Covered
Municipality	Area	Number		Level M	Level	Total	Total No. of HHs	No. of Unserved	%	Population 1997	Lesel i Facilità
	Urban	5 264	5 90	A		2 540	ļ	Hills		<u> </u>	<u></u>
Megria	Rural	6.893	5 44	1,04%	1,500	2,540 1,233	1,227	50 87	- 6	305	
•	Total	12,157	5 63	1,040	2,733	3,773	7,091	137	7	489	<u></u>
	Urban	8,395	5 59	2,875		2,875	1,440	34	2	198	- 7,1 5.1
Высизв	Rural	4,410	614		1,140	1,140	693	59	9	378	2,5
	Total	12,835	5.77	2,875	1,149	4,015	2,133	93	4	560	B.:
nucleus en tour	Urban	3,209	5 65				531	25	5	151	3.0
Basilésa (Pizzl)	Rural	22,596	554				3,817	317	8	1,877	20,
	Urban	25,805 2,213	- 5 55 4 83		1 100	4.400	4,349	342	- 8	2,030	23.
Burges	Rural	667	5 38	321	1,189	1,509 270	443	13	3	65	
•	Total	2,880	495	321	1,458	1,779	120 563	35	18	122	
	Urban	5,172	4 88		0,400	•,,,,,	1,042	221	21	1,097	
agdianao	Rural	6,186	5 09	544	1,945	2,489	1,195	385	32	1,093	4.4
	Foral	11,358	5 00	544	1,945	2,489	2,237	606	27	3,077	5,
·4	Urban	7,668	5 03				1,475	82	6	426	7.
Javer	Rural	7,118	5 02		431	431	1,371	1+2	10	237	5.9
	Total	11,786	5 02		431	431	2,845	224	8	1,164	13,
Japa	Urban	11,760	4 90	1,389		1,389	2,377	615	26	3,043	7.
rapa	Rural	4.818	5 06		2,415	2,415	943	472	50	2,403	
	Total Urban	16,578 3,437	495	1,389	2,415	3,804	3,320	1,687	33	5,428	7,1
lel Cormen	Rural	9,273	5 12 5 20	65 300	3,255	3,320	651	328	50		
	Total	12,710	5.17	365	3,955 5,210	2,255 5,575	1,729 2,380	570	33	3,057	3.9
	Urban	2,550	4 88		2,515	5,575 2,515	2,380 \$16	898 359	38	4,796	4,6
Pinogut	Rural	6,175	512		1,351	1,351	1,189	359 48	40	740	ļ <u>-</u> -
-	Total	8,725	505		3,866	3,866	1,705	407	24	249 2,083	4,3
	Ultan	4,632	5 04	· · · · · · · · · · · · · · · · · · ·		2,000	885	27	3	2,083	1,0
icocraf Lana	Rurat	8,404	5.40				1,499	45	- 3	258	8.
	Total	13,036	5 2 7				2,384	73	3	399	12.6
	Urtan	6,594	5.42	2,445		2,445	1,168	147	13	830	3.3
igaquit	Roral	9,317	5.46	3,100		3,100	1,636	256	16	1,458	4.
	Total	15,911	5.44	5,545		5,545	2,804	403	14	2,287	8.0
Delicate de las	Li ban	3,094	514		835	835	581	353	-61	1,880	
ibjo (Albyr)	Rerai	12,358	5 3 3		3,427	3,427	2,239	613	27	3,383	5.9
	Total	15,452	5 29		4,262	4,262	2,820	966	34	5,293	5,5
ercio	Urban Rural	5,662 2,789	4.71	499	3,773	4,272	1,145	36	3	178	1.3
2.00	Total	8,451	4.77		2,173	2,773	541	62	11		
	Urban	10,125	522	499 1,698	6,546	7,045	1,686	98	_ 6	491	1.
laisit	Rurat	12,193	5.4)	5,297	3,373 1,179	5,071	1,892	221	12	1,183	3.5
	Total	22,323	5 33	6,995	4,552	8,476 11,547	2,198 4,090	384 605	17	2,131	3.:
	Urban	6,717	5 07	735	170	855	1,000	80	6	3,302	7,-
1ചിത്തരം	Rural	7,385	5 24		5,550	5,550	1,412	140	10	405 732	5.9
	Total	14,162	5.16	735	5,670	6,495	2,751	220	8	1,133	1.1
	Urban	2,289	5.19 :		1,886	1,836	427	286	67	403	6.6
olar .	Rural	6,279	5 64		611	644	1,079	497	46	2,892	2,7
	Total	8,568	5 51		2,530	2,530	1,506	783	52	4,435	2.1
lacer	Lirban	12,774	5 40		660	660	2,258	121	5	685	11.4
ESCEF	Rural	8,906	4.94	735	1,285	2,021	1,722	211	12	1,091	5,7
	Total	21,680	5 20	735	1,946	2,681	1,980	332	8	1,808	17.7
an Benito	Urban Rural	2,174 2,460	5 60	420	800	1,220	377	39	10	225	
ar being	Total	4,634	5 29				451	- 68	15	371	2.0
	Liban	4,036	5.43	426	800	1,220	828	107	_13	599	2,8
an Francisco (Anao-	Rural	6,303	4 88 5 21	1,603 3,138	200	1,893 4,502	801	25	-	126	2.1
ien)	Total	10,339	5 07	4,741	1,564	6,305	1,171	44 69	- 1	217	1.5
	Urban	1,800	5.73		1,726	1,720	302	52	3 1	362	3.6
an Isidro	Rural	4,229	5 75	-			707	90	13	538	3.6
	Total	6,029	5.24		1,720	1,720	1,009	142	12	338 848	3,8
. —	Urban	16,011	5.53	336	802	1,188	2,884	448	16	2,437	12.3
an Jose	Rurai	11,574	5.92		180	180	1,948	777	40	4,617	6.7
	Total	27,585	5.69	386	982	1,368	4,832	1,225	25	6,993	19.1
ants Advaire (Comes	Urban	1,815	5 3 2	1,459	356	1,815	333	143	43		
anta Monica (Sapao)	Rural	5,581	5 78	90	231	321	942	249	25	1,475	3.7
	Total Urban	7,396 2,896	5.66	1,542	587	2,136	1,275	392	31	2,274	3,7
ison	Rural	6,270	5 i 5 5.47	85		85	543	22	4	117	2.6
	Fotal	9,166	5 36	3,515 3,600	2,489 2,489	6,004	1,108	38		215	·
	Urban	7,775	5.72		2,489	6,089	1,651 1,303	60 123	- 4 -	333	2.7
осото	Rurai	8,069	5.90				1,303	214	16		6.7
	Total	15,844	581				2,618	337	13	2,049	13,7
urigao City	Urban	70,705	5 21	45,180		45,180	13,160	436	-17	2,343	23.1
Capital)	Rural	37,570	5 t4	500		500	7,080	757	TI.	017	33.0
	Iola	108,275	5 18	45,680		45,680	20,240	1,193	6	6,38?	56.2
	Urban	5,676	5 13		1		1,072	122	_11	646	5,0
agana An	Rural	6,867	5 23				1,213	213	17	1,149	5.7
	fetaf	12,543	5.19				2,345	335	14	1,792	10.7
	Urban	1,910	4 80		708	708	383	86	22	429	7
shajon :	Rurai	4,485	5.15	I	885	885	839	150	18	802	2.7
	fotal	6,395	5 04		1,593	1,593	1,222	235	19	1,235	3.5
ubod	Urban Burat	1,526	5.17	1,526	1	1,526	293	50	_17		
	Rural	8,869	5 09	5,787	3,082	8,869	1,729	87	- 5		
	fotal	10,395	5 10	7,313	3,082	10,395]	2,022	137	?	I	
Provincial Total	Urban Rural	217,939	5 23 5 34	- 63,726 23,006	23,691	85,417	40,487	4,544	11	18,174	114.3
			3 14		33,830	56,836	43,171	6,998]	16	37,987	143.2

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

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Covered by Level I Facilities Safe 2,419 2 2,4	Public Facilities Protal Safe 10	Private Safe U	Daires Canilleian	1		24111			Ī
Pacilities Safe	Total			Num	Number of Private Facilities	e Facilities	(I) Po	(1) Population Covered	ered
Facilities Safe 1	Total	_		+	ł	ŀ	,		
Urban 2,419 22 Rural 5,171 25 Fural 5,171 25 Fural 7,591 47 Fural 2,922 19 Fural 1,704 Fural 1,705			Unsafe Total	Safe	e Unsafe	Tota	Saf	Unsafe	Total
Rural 5,171 Total 7,591 Total 7,591 Total 7,591 Total 2,922 Total 8,244 Liban 3,058 Rural 20,719 Total 20,719 Total 20,777 Total 27,5 Total 27,779 Total 2,779 Total 2,7328 Rural 13,191 I Total 7,328 Rural 1,704 Total 1,7328 Rural 1,704 Total 1,7328 Rural 1,704 Total 1,7328 Rural 3,961 Total		42	-:	47				16	139
Total 7,591		56		119		12 60		70	351
(Rizal) Rural 2,922 Total 8,244 Urban 3,058 (Rural 23,777 Urban 639 Rural 275 Total 2779 Urban 4,075 so Rural 1,704 Total 5,779 Urban 7,242 Rural 13,191 Urban 7,328 Rural 13,191 Urban 7,328 Rural 13,191 Urban 7,328 Rural 13,191 Urban 7,328 Rural 13,191 Urban 7,328 Rural 13,191 Urban 7,328		137	1	99	68	15 83	3. 404	86	06,7
Rural 2,922 Total E,244 Urban 3,058 Total 20,719 Total 23,777 Urban 639 Rural 275 Total 27,79 Urban 7,242 Total 5,779 Urban 7,242 Rural 5,950 Total 13,191 I Urban 7,328 Rural 7,328 Rural 7,328 Rural 7,328 Rural 7,328 Rural 7,328 Rural 7,328 Rural 7,328 Rural 7,328 Rural 7,328 Rural 7,328 Rural 7,328 Rural 7,328 Rural 7,328 Rural 7,328 Rural 7,328 Rural 3,961									
(Rizal) Rural 2.058 (Rizal) Rural 20,719 (Urban 23,777 (Urban 23,777 (Urban 4,075 ao Rural 1,704 Total 5,779 (Urban 7,242 Rural 5,950 Total 13,191 Urban 7,328 Rural 7,328 Rural 13,191 Urban 1,704		40	98	38	20	69 67	111	275	386
(Rizal) Rural 20,719 Total 23,777 Urban 639 Rural 275 Total 914 Urban 4,075 Total 5,779 Urban 7,242 Rural 5,950 Total 13,191 Urban 7,328 Rural 7,328 Rural 7,328 Rural 13,191 Urban 7,328 Rural 13,191 Urban 7,328 Rural 3,961		40	98 13	38		49 69	111	275	386
(Rizal) Rural 20,719 Total 23,777 Urban 639 Rural 275 Total 914 Urban 4,075 Total 5,779 Urban 7,242 Rural 5,950 Total 13,191 Urban 7,328 Rural 7,328 Rural 7,328 Rural 13,191 Urban 7,328 Rural 7,328 Rural 7,328			16	16		8		45	45
Total 23,777									
Urban 639 Rural 275 Total 914 914 1,704 1,704 1,704 1,704 1,704 1,04an 1,3191 1,04an 1,328 Rural			16	16		8	S	45	45
Rural 275 Total 914 Urban 4.075 Total 1,704 Total 5,779 Urban 7,242 Rural 13,191 I Orban 7,328 Rural 7,328 Total 7,328 T									
Total 914		37	7 7	41	19	2 21	_	6	8
anao Rural 4,075 Total 1,704 Total 5,779 Urban 7,242 Rural 13,191 Urban 7,328 Rural 7,328 Rural 7,328 Rural 11,791 Total 7,328		37	4 4	41	61	2 21	06	6	8
anao Rural 1,704 Total 5,779 Urban 7,242 Rural 5,950 Urban 7,328 Rural 7,328 Total 7,328 Rural 7,328 Armen Rural 3,961									
Total 5,779 Urban 7,242 Rural 5,950 Urban 7,328 Rural 7,328 Total 7,328 Urban 117 Urban 117 armen Rural 3,961								-	
T.242 Rural 5,950 Total 13,191 Urban 7,328 Rural 7,328 Urban 117 armen Rural 3,961									
r Rural 5,950 Total 13,191 I Urban 7,328 Rural 7,328 Urban 117 armen Rural 3,961	10 49		12	12			9	30	30
Total 13,191 15 15 15 15 15 15 15	21 106		3	3		2 2	2	8	8
Urban 7,328 Rural 7,328 Total 7,328 Urban 117 armen 8,073 S,061 C,073	31 155		15	15		8 8	8	38	38
Rural 7,328 Total 7,328	39 €8								
Total 7,328	1 27								
Urban 117 Rural 3,961	56 5								
Rural - 3,961	1		24	24	1	2 12	2	119	61
	2 39		9	9		3		15	15
Total 4,078 38			30	30	1	5 15	1	177	77
n 35	27								
4,575	25								3
Total	52								
n 4,491	11 59	118	120 23	238	9 65	60 119	296	303	009
General Luna Rural 8,146 2	0 2	-1	0		0	0	2		3
Total 12,637 49	12 61	118	121 23	239	9 65	00 120	362	304	602

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

Covered by Level 1 Facilities Safe 3.319 4,759 8,078 1,379 1,212 1,228 1,228 1,3871 3,591 1,103 6,620 6,620	Unsafe 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tota	Privat	Private Facilities Unsafe 57 57 57 57 57 57 57 5	[ota]	Number o	Number of Private Facilities	Facilities	(I) Po	(1) Population Covered	ered Total
Facilities Safe	Unsafe	Total 16 124 124 140 6 6 6 6 6 6	m m 7 7	57 57 67 124	Total 57	Safe		Total	N250	Theafe	Total
Albor) Urban 3,319 1		16 124 140 6 6 6 6 6 6 6 7 12 35 18	m m m 2 2	57 67 124	57		Unsare	-		**************************************	
Albor) Rural 4,759 Albor) Rural 5,548 Albor) Rural 5,548 Curban 1,212 Rural 1,228 Curban 3,871 Curban 3,871 Rural 3,591 Total 7,462 Urban 5,517 No Rural 1,103 Curban 1,103 Curban Curban 6,620 Urban Rural 1,103 Curban Curban 6,620		124 140 6 6 6 6 6 6 7 12 35	2 2	124			29			154	154
Albor) Rural 8,078 Albor) Rural 5,548 Total 5,927 Urban 1,212 Rural 1,228 Urban 3,871 Rural 3,891 Total 7,462 Urban 5,517 No Rural 1,103 Total 6,620 Urban Rural 1,103		140 6 6 6 6 6 6 7 12 35	2 2	124	70	2	33		٥		190
Albor) Rural 5,548 Total 5,927 Urban 1,212 Rural 1,228 Urban 3,871 Rural 3,891 Total 7,462 Urban 5,517 No Rural 1,103 Total 6,620 Urban C,743		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	72 73		127	2	62	E	8	335	¥
Albor) Rural 5,548 Total 5,927 Urban 1,212 Rural 1,228 Urban 3,871 Rural 3,591 Total 7,462 Urban 5,517 No Rural 1,103 Total 6,620 Urban Rural 2,743		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 2	1							
Total 5,927 Urban 1,212 Rural 16 Total 1,228 Urban 3,871 Total 7,462 Urban 5,517 Droal Rural 1,103 Total 6,620 Urban Rural 2,743		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 7	_							
Urban 1,212 Rural 16 16 Total 1,228		0 12 35 18	7 7								
Rural 16 Total 1,228 Urban 3,871 Total 7,462 Urban 5,517 Total 1,103 Total 6,620 Urban Rural 2,743 Rural		35 35 35 35 35	2	9	8	1	3	4	2		19
Total 1,228 Urban 3,871 Rural 3,591 Total 7,462 Urban 5,517 Rural 1,103 Total 6,620 Urban Rural 2,743 Rura		35	2	17	17		6	6			0.7
Urban 3,871 Rural 3,591 Total 7,462 Urban 5,517 Total 1,103 Total 6,620 Urban Rural 2,743 Rural 2,		35		23	22	-	12	13	N)	Z.	59
Rural 3,591 Total 7,462 Urban 5,517 Sural 1,103 Urban 6,620 Urban Rural 2,743 Rural 2,		18	_								
Total 7,462. Urban 5,517 Rural 1,103 Total 6,620 Urban 2,743		0.5								_	
Urban 5,517 Mono Rural 1,103 Total 6,620 Urban 2,743		25									Ī
mono Rural 1.103 Total 6.620 Urban 2.743											
Total 6,620 Urban 2,743		36	3			2		2	S		8
Urban Rural 2,743		36	3		3	2		2	S		8
Rural: 2,743	3	4	17	11	28	6	9	14			
	0	20	26	3	29	13	2	15	67		75
Total 2,743 21	3	24	43	14	52	22	7	29	67	8	75
11,429		7									
L		11		3	3		2	2		S	S
Total		31		3	3		2	2		οs	S
				8	8		4	4		22	22
		m		16	91		8	8		45	\$7
Total		3		24	24		12	12		67	67
Urban	-	3		0	-	0	0	1	2	0	C3
rancisco (Anao- Rural 1.564	0	-									
	-	4	-	0		0	0	-1	2	0	2
_		m		9	9		60	E)			Î
	4	21									Ī
	4	24		9	9		33	3			

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

Name of Municipality		Pop.			Number of Facilities	Facilities	• •				Coverage of Own Use	f Own Use		
	Area	Covered by Level I	Pu	Public Facilities	8	Pri	Private Facilities	ş <u>i</u>	Number	Number of Private Facilities	Facilities	(1) Pop	(1) Population Covered	vered
		Facilities	Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total	Safe	Unsafe	Total
in in	Urban	12,336	9	1:::	7	01	53	63	. 5	52	32	29	145	174
San Jose	Rural	6,777	34	4	38	13	141	154	9	71	11	35	391	426
	otal	19,113	39	9	45	23	194	217	12	76	139	2	536	009
5	Urban					\$	2	7	m	•	4			
Santa Monica (Sapao) Rural	ura	3,785	17	2	61	30	10	40	15	5	20	03	26	106
	Total	3,785	17	2	19	35	. 12	47	31	9	24	03	58	106
7	Urban	2,694	2		2	F	9	7		3	7	3	15	18
Sison	Rural	15	5		ķ	:	7	8	1	7	4	3	18	21
	Total	2,745	7		-	2	13	15	1	7	8	5	33	39
5	Urban	7,042	4		44	161	-	20	10	1	10	. 54	3	57
Socorro	Rural	6,754	13	0	13	12	10	22	9	5	11	34	29	63
•	Total	13,796	17	0	. 17	31	11	42	16	9	21	68	31	120
	Urban	23,182	38	-	39									Ī
Sî .	Rural	33,053	158	34	192									
(capter)	Total	56,235	196	35	231									
5	rban	5,030	13	0	13	10	1	11	5	0	9	26	2	28
Tagana-An Ri	Rural	5.718	5		5	4		7	2		2	10		10
	Total	10,748	18	0	18	14	-	15	7	0	တ	36	2	38
מו	Urban	773												
Tubajon	Rural	2,798	5		5									
	Total	3,571	. 2		5									
2	rban													
Tubod	Rural										•			
Ĕ	Total													
ָב <u>ּ</u>	Urban	114,348	338	40	378	225	328	553	112	164	277	538	813	1,351
Provincial Total Ri	Rural	143,256	756	83	628	592	409	674	132	205	337	729	1,123	1.853
Įř	Total	257,604	1,094	123	1,217	687	738	1,227	245	369	614	1.267	1.937	3.204

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

Name of trinicipality Area and Public and Public Coverage and Public Urban 2.135 146 2.7 Urban 4.172 649 4.7 Rural 4.172 649 4.7 Urban 1.266 1.270 2.5 Total 1.266 1.270 2.7 Urban 1.699 1.314 3.0 Rural 22.418 1.314 23. Urban 1.76 639 4 Rural 1.76 639 4 Urban 4.075 4,075 4,0 Rural 1.76 639 4 Urban 4.075 4,0 Total 5.161 5,779 5,7 Urban 5.161 2,059 7,7	of Share ate S	II of Hamshald	-		200	Level Coverage (1)			
Area Area Safe Unsafe Total Covered by and Public Total Covered by and Evident Covered	ste S. S. S. S. S. S. S. S. S. S. S. S. S.	Aloua de Illanois de La La La La La La La La La La La La La				,			
Safe Unsafe Unsafe Unsafe Unsafe Unban 2,135 146 Urban 2,135 146 Urban 1,266 1,270 Urban 1,669 1,314 Urban 1,66 639 Urban 1,66 639 Urban 1,66 639 Urban 1,76 639 Urban 1,76 639 Urban 1,764 1,704 Urban 5,161 2,050 Urban E,161 E,16	Saf 81 20	Authors of thousands	" ber Shared		Safe	Unsafe	9	Total	
Urban 2,135 146	81	Unsafe To	Total Facility	ty Pop.	%	Pop.	%	Pop.	%
Rural 4,172 649 Total 6,307 794 Total 6,307 794 Total 1,266 1,270 Total 1,699 1,314 Total 20,719 Total 1,691 1,314 Total 1,691 1,314 Total 1,504 Total 1,504 Total 1,504 Total 1,704 Total			387 8	2,258		162	3	2,419	46
(Rizal)		119	886 10	4,453	9	719	2	5.171	27
(Rizal) Rural 1,266 6,592 (Rizal) Rural 20,719 (Rizal) Total 22,418 1,314 Urban 639 Rural 176 639 Urban 1,704 Total 1,704 Total 1,704 Total 1,704 Urban 8,1704	1			6.710		880	,	7.591	62
(Rizal) Total 1,266 1,270 Total 1,266 6,592 Urban 20,719 Rural 176 639 Rural 176 639 Urban 4,075 ao Rural 1,704 Total 5,779 Urban 5,161 2,050			952			5.322	63	5,322	63
(Rizal) Rural 20,719 1,314 (Rizal) Fotal 20,719 1,314 (Say Lural) Total 176 639 (Urban 176 639 (Urban 176 639 Total 176 7015 (Total 17016 (Total 170	2.536 206			1,377	31	1,545	35	2.922	99
(Rizal) Rural 20,719 1,314 Total 22,418 1,314 Urban 639 Rural 176 639 Urban 176 639 Urban 1,004 ao Rural 1,704 Total 5,779 Urban 5,161 2,050			1,365 15	1,377		6.867	\$	8.244	द
(Rizal) Rural 20,779 Total 22,418 1,314 Urban 176 639 Urban 176 639 Urban 4,075 Iotal 1,704 Total 5,779 Urban 5,161 2,050				1,699		1,359	42	3,058	X
Total	۳,		3,740 62	20,719	26			20,7191	92
Urban 176 639	l	233		22,418		1,359	S	23.777	92
Rural 176 639 1704 1	١.	132				639	23	639	53
Total 176 639 170 639 170 639 1704 1,704	176 33		33	266		6	1	275	4
Urban 1,704 1,70		132	165 6	266	6	879	23	914	32
nao Rural 1,704 Total 5,779 Urban 5,161 2,050						4,075	7.6	4,075	79
nao Kurai 1,705 Total 5,779 Urban 5,161 2,050	1 704	325	335			1,704	28	1.704	28
10tal 5,161 2,050	- 6773	1 170	1 170			5,779	51	5.779	51
Urban 5,101 4,050		307	1 434	5 161	_	2,080	27	7,242	z
: : C	2073 1,020	244		4716		1,234	17	5,950	25
4,710	3 5	659	2617 16	9.877	67	3,315	22	13,191	83
366		75	1,496 22	6,962		366	3	7,328	62
Total 6.962 366 7.	7,328 1,421	75	1.496	6,962	2 - 42	366	2	7.328	4
9 47	98	6	11	6	ų:	108		117	<u> </u>
Dirail 3.452 494 3	346 66	6	759 18	3,452	37	509	5	3.961	43
3 461 540	100			3,461		617	5	4.078	32
35	35			35				35	
Diver 4 4 75	8		893 36	4,575	74			4,575	7.5
4610	01			4,610				4.610	53

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

Safe Unsafe Total Safe Unsafe Total Facility Prop.				Š	Coverage of Sh	of Shared Well					Level I C	Level I Coverage (1) + (2)	F (2)		
vuna Safe Unsafe Total Safe Unsafe Total Fople % Pop. % Pop. vuna Runal 2.684 1.207 3.81 533 2.39 772 4 2.581 5.51 1.51 33 real 2.684 1.207 3.81 5.39 5.31 1.50 3.9 772 4 2.581 6.51 1.51 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.2 3.1 3.2 3.2 3.1 3.2 3.1 3.2 <	Name of Municipality	Arca	(2) Populatio	n Covered band Public	y Private	Numbe	er of House	splot	No. of HHs per Shared	Saf	3	Unsa	fe	Tot	-
Numa Urban 2,684 1,207 3,891 553 772 4 2,681 64 1,510 33 Numa Toban 6,517 1,627 3,814 1,207 341 2,686 13 1,627 13 Loban 6,517 1,627 1,207 3,10 2,884 1,38 1,199 18 2,156 13 Loban 1,103 1,971 3,10 2,50 3,64 3,89 13 1,199 18 2,156 13 Loban 4,238 1,399 2,80 1,39 3,744 4 3,89 3,744 4 3,89 3,110 3,79 3,744 4 3,99 1,110 <td></td> <td></td> <td>Safe</td> <td>Unsafe</td> <td>Total</td> <td>Safe</td> <td>Unsafe</td> <td>Total</td> <td>Facility</td> <td>Pop.</td> <td>%</td> <td>Pop.</td> <td>%</td> <td>Pop.</td> <td>%</td>			Safe	Unsafe	Total	Safe	Unsafe	Total	Facility	Pop.	%	Pop.	%	Pop.	%
Numb Runal Lang 6,517 1,627 8,144 1,207 3,01 1,508 6,53 6,53 7,52 1,527 1,9 Urban 1,193 1,973 1,316 1,250 1,54 1,58 1,193 18 2,4 1,193 18 2,4 1,193 18 2,106 3,137 2,4 1,193 18 3,137 3		Urban	2,684		3,891	533	239	772	4	2,981	75	1.510	33	4,491	97
Total 9,201 2,833 1,2,035 1,739 5,41 2,280 13 9,500 73 3,137 24	General Luna	Rural	6.517		8,144	1.207	301	1,508	603	615'9	7.8	1,627	19	8,146	97
Brund 1,193 1,971 3,165 220 364 584 13 1,193 18 2,126 32 Fund 3,735 8,34 4,569 664 153 57 4,937 31 31,41 20 Toul 4,529 2,804 153 28 1,61 1,421 7 4,438 36 1,110 9 Urban 4,438 1,410 5,548 833 208 1,64 32 4,438 1,110 9 Urban 776 417 1,193 165 89 253 16 4438 3,11 3,14 32 4,438 1,110 5,44 8 1,11		Total	9,201	2,833	12,035	1,739	541	2,280	13	9,500	73	3,137	24	12,637.	97
Name		Urban	1,193		3,165	220	364	584	13	1,193	18	2,126	32	3,319	ςς
Total 4.929 2.866 7.734 904 516 1421 7 4.937 31 3.141 20 Urban 4.438 1.110 5.548 833 208 1.041 175 4.438 36 1.110 12 Urban 4.438 1.148 5.927 8.33 2.82 1.115 186 4.438 36 1.110 19 12 Urban 7.76 417 1.193 165 89 2.53 25 780 14 402 1 Urban 3.274 5.97 3.871 6.27 114 7.42 2.1 3.274 3.2 5.97 6 Urban 3.274 5.97 3.871 6.27 114 7.42 2.1 3.274 3.2 5.97 6 Urban 3.274 3.591 3.571 6.27 114 7.42 2.1 3.274 3.2 3.97 6 Urban 1.095 1.105 2.675 1.088 1.088 1.2873 24 3.2 3.97 6 Urban 1.095 5.517 6.612 2.09 1.088 1.297 3.5 1.103 8 5.517 3.9 Urban 1.095 5.517 6.612 2.09 1.088 1.297 3.5 1.103 8 5.517 3.9 Urban 1.095 5.517 6.612 2.09 1.088 1.297 3.5 1.103 8 5.517 3.9 Urban 1.056 6.0 2.668 4.62 1.1 4.73 9 2.675 4.3 68 1 Urban 1.056 6.0 2.668 4.62 1.1 4.73 9 2.675 3.1 6.8 1 Urban 1.057 6.512 2.117 3.149 1.171 3.4 5.088 5.517 3.9 Urban 1.058 6.57 1.215 3.149 1.31 3.288 169 1.6.288 76 6.95 3 1.1 Urban 1.6.528 6.87 1.7215 3.149 1.39 3.288 169 1.6.28 4.9 5.088 4.9 Urban 1.6.528 6.87 1.7215 3.149 1.39 3.288 1.69 1.6.58 4.2 4.9 6.8 Urban 1.6.528 6.87 1.7215 3.149 1.39 3.288 1.69 3.270 3.248 4.9 Urban 1.6.528 6.87 1.7215 3.149 1.39 3.288 1.89 1.688 4.2 4.9 1.9 Urban 1.6.528 6.87 1.7215 3.149 1.39 3.288 1.89 1.251 1.28 4.9 1.251 1.28 4.9 Urban 1.6.528 6.87 1.7215 3.149 1.39 3.288 1.89 3.49	Gigaquit	Rural	3,735		4,569	684	153	837	5	3,744	6	1,015		4.759	51
Urban Hamilton	<i>-</i>	Total	4,929	121	7,734	904	516	1,421	7	4.937	31	3,141	22	8,078	51
Albor) Rural Logs 4,438 1,110 5,548 833 208 1,041 4,438 36 1,110 9 Albor) Total 4,438 1,189 5,927 833 282 1,115 186 4,438 29 1,489 10 Rural 776 417 1,193 165 89 253 25 780 14 40 1 Rural 776 417 1,193 165 89 253 25 780 9 472 6 Liban 3,274 3871 657 114 742 21 3274 32 473 6 Rural 1,054 3,517 5,517 3,51 3,51 3,64 37 3,274 32 472 6 Inban 6,147 1,315 7,462 1,58 1,088 1,08 1,103 1,51 6 Inban 1,055 5,517 5,517 5,517 <t< td=""><td></td><td>Urban</td><td></td><td>379</td><td>379</td><td>4.5</td><td>74</td><td>74</td><td>,</td><td></td><td></td><td>379</td><td>12</td><td>379</td><td>12</td></t<>		Urban		379	379	4.5	74	74	,			379	12	379	12
Total 4,438 1,489 5,927 833 282 1,115 186 4,438 29 1,489 10 Urban 776 417 1,139 165 89 253 16 780 9 472 8 Urban 3,274 597 3,871 627 114 742 21 3,274 32 597 6 Urban 3,274 597 3,871 627 114 742 21 3,274 32 597 6 Urban 6,147 1,315 7,462 1,138 64 37 2,873 24 718 6 Urban Lychan 1,095 5,17 6,012 209 6 1,103 8 5,517 8 Urban 1,045 5,517 6,012 209 1,268 4,73 9 2,675 43 68 1 Urban 1,045 5,517 6,012 209 1,035	Libio (Albor)	Rural	4,438		5,548	833	208	1.041	173	4,438	36	1,110	٥	5,548	\$
Rural 776 417 1,193 166 89 253 25 780 14 432 8 Rural 776 417 1,193 165 89 253 10 780 9 40 1 Crotal 3.274 597 3,871 627 114 742 21 3,274 32 47 6 Urban 2,873 7,462 1,158 247 1,405 27 6,147 28 1,315 6 Total 6,147 1,315 7,462 1,158 247 1,405 27 6,147 28 1,315 6 Moral 6,147 1,315 7,462 1,158 247 1,405 27 6,147 28 1,315 6 Moral 1,095 5,517 5,517 3,612 209 1,088 1,297 3,7 1,131 4 3,87 4 1,131 4 3,87 4 1,131	,	Total	4,438		5,927	833	282	1,115	186	4,438	29	1,489	10	5,927	82
Rural 776 417 1.193 165 89 253 10 780 9 472 6 Total 776 417 1.193 165 89 253 10 780 9 472 6 Urban 2.874 5.871 627 1.18 247 1.405 27 6.147 283 6 Orban 6.147 1.315 7.462 1.188 247 1.405 27 6.147 28 1.315 6 Virban 1.095 5.517 6.512 2.09 1.088 1.207 35 1.103 1.5 5.517 8.1 Urban 1.095 5.517 6.612 2.09 1.088 1.207 35 1.103 8 5.517 39 Rural 1.095 5.517 6.612 2.09 1.088 1.207 35 1.103 8 3.517 39 Rural 2.608 60 2.668 <t< td=""><td></td><td>Crban</td><td>776</td><td></td><td>1,193</td><td>165</td><td>68</td><td>253</td><td>25</td><td>780</td><td>14</td><td>432</td><td>∞</td><td>1,212</td><td>21</td></t<>		Crban	776		1,193	165	68	253	25	780	14	432	∞	1,212	21
Total	Loreto	Rural		-								40	1	40	
Urban 3.274 597 3.871 627 114 742 21 3.274 3.274 5.97 6 Rural 2.873 7.482 1,138 664 37 2,873 24 718 6 Toral 6,147 1,315 7,462 1,138 247 1,465 27 6,147 28 1,315 6 Urban 1,095 5,517 6,612 209 1,088 1,103 8 5,517 8517 8 Urban 1,095 5,517 6,612 209 1,088 1,297 35 1,103 8 5,517 8 Urban Urban 1,429 462 11 473 9 2,675 31 68 1 Urban 11,429 60 2,668 462 11 473 9 2,675 39 2 Urban 11,429 86 1,622 13 1,171 302 11,429 8		Total	776		1,193	165	68	253	10	780	6	472	9	1,252	15
Rural 2.873 718 3.591 531 133 664 37 2.873 24 718 6 Tocal 6,147 1,315 7,462 1,158 247 1,405 27 6,147 28 1,315 6 Urban 1,095 5,517 6,612 209 1,088 1,297 35 1,103 8 5,517 81 Urban 1,095 5,517 6,612 209 1,088 1,297 35 1,103 8 5,517 39 Rural 2,608 60 2,668 462 11 473 9 2,675 43 68 1 Urban 11,429 60 2,668 462 11 473 9 2,675 43 68 1 Urban 11,429 60 2,668 462 11 2,117 94 5,098 57 695 3 Urban 16,528 687 1,032		Crban	3,274		3,871	627	114	742	21	3.274	32	597	9	3,871	38
Total 6,147 1,315 7,462 1,158 247 1,405 27 6,147 28 1,315 6 Urban Rural 1,095 5,517 5,517 1,098 1,088 1,103 15 5,517 39	Mainit	Rural	2.873		3,591	531	133	664	37	2,873	24	718	9	3.591	52
nono Rural 1,095 5,517 5,517 2,098 1,088 1,088 1,088 1,088 1,099 6 1,103 15 5,517 81 Toral 1,095 5,517 6,612 209 1,088 1,297 35 1,103 8 5,517 39 Urban 1,095 5,517 6,612 209 1,088 1,297 35 1,103 8 5,517 39 Urban 2,608 60 2,668 462 11 473 14 2,675 43 68 1 Urban 11,429 11,429 2,117 302 1,1429 3 68 1 Verban 11,429 1,422 2,117 302 1,69 5,76 695 3 Senito 16,528 687 17,215 3,149 1,29 3,28 169 16,528 7 695 3 Senito Rural 570 1,475 <td< td=""><td></td><td>Total</td><td>6,147</td><td>1,315</td><td>7,462</td><td>1,158</td><td>247</td><td>1,405</td><td>27</td><td>6,147</td><td>28</td><td>1,315</td><td>9</td><td>7,462</td><td>33</td></td<>		Total	6,147	1,315	7,462	1,158	247	1,405	27	6,147	28	1,315	9	7,462	33
Rural 1,095 209 6 1,103 15 9 Total 1,095 5,517 6,612 209 1,088 1,297 35 1,103 8 5,517 39 Urban 2,608 60 2,668 462 11 473 14 2,675 43 68 1 Urban 11,429 60 2,668 462 11 473 9 2,675 31 68 1 Urban 11,429 60 2,668 462 11 473 9 2,675 31 68 1 Urban 11,429 60 2,668 462 11 2,117 94 5,098 89 68 1 Urban 16,528 687 1,217 31,49 139 3,288 169 16,528 76 695 3 Senito Rural 570 1,475 2,044 108 279 35 570 23<		Urban		5.517	5,517		1.088	1.088				5,517	81	5,517	81
Total 1,095 5,517 6,612 209 1,088 1,297 35 1,103 8 5,517 39 Urban Rural 2,608 60 2,668 462 11 473 14 2,675 31 68 1 68 1 7 Total 2,608 687 5,786 1,032 1,171 94 5,098 57 695 8 7 Rural 5,098 687 1,7215 3,149 1,137 94 5,098 57 6,95 3 3 4 7 Total 6,528 687 1,7215 3,149 1,130 3,28 169 16,528 76 6,95 3 4 7 Rural 570 1,475 2,044 108 2,79 3,86 35 570 2,3 1,519 62 7 Total 5,098 419 2,105 345 86 431 1,23 1,688 42 419 1,088 249 1,281 1,251 1,088 1,291 1,251 1,281	Malimono	Rural	1,095		1,095	209		505	9	1,103	15			1,103	15
Curban Cotal 2,668 462 11 473 14 2,675 43 68 1 Total 2,608 60 2,668 462 11 473 14 2,675 31 68 1 Urban 11,429 11,429 2,117 2,117 302 11,429 89 2,675 31 68 1 Total 5,098 687 5,786 1,032 139 3,286 169 5,098 57 695 8 Furban 16,528 687 17,215 3,149 139 3,286 169 16,528 76 695 3 Senito Rural 570 1,475 2,044 108 279 356 35 570 22,18 49 Fancisco (Anno- Rural 1,586 419 2,105 36 30 300 1,251 20 2,248 49 Total 2,037 732 3,669		Total	1,095	5,517	6,612	505	1.088	1.297	35	1,103	8	5,517	39	6,620	47
Rural 2.608 60 2,668 462 11 473 14 2,675 43 68 1 Total 2.608 60 2,668 462 11 473 9 2,675 31 68 1 Urban 11,429 11,429 2,117 2,117 302 11,429 89 1 Total 5,098 687 5,786 1,032 139 1,171 94 5,098 57 695 8 Lotal 16,528 687 17,215 3,149 1,38 169 16,528 76 695 8 Urban 16,528 687 1,7215 3,149 126 126 35 570 2,248 49 Senito Rural 570 1,475 2,044 108 405 513 570 12 2,248 49 Total 5,686 419 2,154 240 60 300 300 1,251 </td <td></td> <td>Urban</td> <td></td>		Urban													
Total 2,608 60 2,668 462 11 473 9 2,675 31 68 1 1 8 1	Pilar	Rural	2,608	:	2,668	462	11	473	14	2,675	43	89		2,743	4
Fural 5,098 687 5,786 1,032 139 1,171 94 5,098 57 695 8 500 500 500 500 500 500 500 500 500		Total	2.608		2,668	797	11	473	6	2.675	31	89		2,743	32
r Rural 5.098 687 5.786 1,032 139 1,171 94 5,098 57 695 8		Urban	11,429		11,429	2,117		2,117	302	11,429	89			:1,429	83
Total 16,528 687 17,215 3.149 139 3.288 169 16,528 76 695 3 Senito Rural 570 1,475 2,044 108 279 386 35 570 23 1,519 62 Total 570 2,181 2,751 108 405 513 34 570 12 2,248 49 Proban 1,686 419 2,105 345 86 431 123 1,688 42 419 10 Prancisco (Anao Rural 1,251 313 1,564 240 60 300 300 1,251 20 313 5 Total 2,937 732 3,669 586 146 731 163 2,939 28 732 7		Rural	860'5		5,786	1,032	139	1,171	94	860'5	57	695	8	5,794	જ
Senito Rural 570 1,475 2,044 108 279 386 35 570 23 1,519 62 Total 570 2,181 2,751 108 405 513 34 570 12 2,248 49 Trancisco (Anao- Analistica (Anao- Anao- Analistica (Anao- Analistica (Anao- Analistica (Ana)- Analistica (Anao- Analistica (Ana)- Analistica (Ana)- Analistica (Ana)- Analistica (Ana)- Analistica (Ana)- Analistica (Ana)- Analistica (Ana)- Analistica (Ana)- Analistica (Ana)- Analistica (Ana)- Analistica (Ana)- Analistica (Ana)- Analistica (Ana)- Analistica (Ana)- An		Total	16.528		17,215	3.149	139	3,288	169	16,528	92	569	m	17.223	79
Senito Rural 570 1,475 2,044 108 279 386 35 570 23 1,519 62 Total 570 2,181 2,751 108 405 513 34 570 12 2,248 49 Total 1,686 419 2,105 345 86 431 123 1,688 42 419 10 Total 1,251 313 1,564 240 60 300 300 1,251 20 313 5 Total 2,937 732 3,669 586 146 731 163 2,939 28 732 7		Urban		707	707		126	126	32			729	3,5	729	34
Total 570 2,181 2,751 108 405 513 34 570 12 2,248 49 49 405 513 34 570 12 2,248 49 49 405 410 410 410 410 410 410 410 410 410 410	San Benito	Rural	570		2,044	108	279	386	35	025	23	1.519	62	2,089	85
Tancisco (Anac-Rural 1,686 419 2,105 345 86 431 123 1,688 42 419 10 10 10 10 10 10 10 10 10 10 10 10 10		Total	570		2,751	108	405	513	34	870	12	2,248	49	2.818	61
Tancisco (Anao-Rural 1,251 313 1,564 240 60 300 300 1,251 20 313 5 Total 2,937 732 3.669 586 146 731 163 2,939 28 732 7		Urban	1,686		2,105	345	98	431	123	1,688	42	419	10	2,107	52
Total 2.937 732 3.669 586 146 731 163 2.939 28 732 7	San Francisco (Anao-	Rural	1,251	313	1.564	240	09	300	300.	1,251	20	313	5	1.564	52
	Aon)	Total	2.937	732	3.669	985	146	731	163	2.939	28	732	7	3.671	36

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

3			S	Coverage of Si	of Shared Well					- 1 - X-2	Level I Coverage (1) \pm (2)	(7)		
vame of	Area	(2) Population Covered by Private	on Covered t	oy Private	Numbe	Number of Households	holds	No. of HHs	Safe	j.	Unsafe	afc	Total	je je
Municipality		Safe	Unsafe	Total	Safe	Unsafe	Total	Facility	Pop.	%	Pop.	%	Pop.	%
	Lirban													
San Teidro	Rural	2.988	703	3.691	520	122	642	31	2,988	71	703	17	3.691	87
	Tota	2.988		3,691	520	122	642	24	2.988	20	703	12	3.691	61
	Urban	3.525	8.637	12,162	637	1,562	2,199	57	3,553	22	8,783	55	12,336	11
San lose	Rural	2.351	4.000		397	9/9	1,073	6	2,386	21	4,391	38	6,777	59
252	Total	5.876	12,637	18,513	1,035	2,238	3,272	21	5,940	22	13,174	48	19,113	SS
	Crean													
Santa Monica (Sanao)		3.115	563	3.678	539	76	929	16	3,195	57	589	11	3,785	SS
	Total	3.115	563	3.678	539	26	929	15	3,195	43	589	8	3,785	51
	Urban	1 224	1.451	2,676	238	282	520	94	1,227	42	1,467	51	2,694	33
Sicon	Rim	30		30	9		9	-	33	1	18	0	51	
	Total	1255	1 451	2,706	243	282	525	36	1,260	14	1,485	16	2,745	30
	I jrhan	1029	194	6.985	1.187	×	1.221	87	6.845	88	197	3	7,042	16
0.0000		5 201	1 400	1699	897	237	1.134	. 47	5,325	99	1,429	18	6,754	84
	Total	12.081		13.676	2.084	271	2,355	62	12,170	17	1,626	10	13,796	87
	I [rhan	22 469	713	23.182	4313	137	4,450	114	22,469	32	713	1	23.182	33
Surjess City (Capital) Bural	Ring	27 165		33,053	5.285	1,145	6,431	33	27.165	72	5,888	16	33,053	88
לייייילישל איני ליייילישלי	Total	49.635	6.601	56.235	865 6	1,282	10,880	47	49,635	46	6.601	9	56,235	22
	I Irhan	4 867	135	5.002	949	97	975	53	4,893	98	137	2	5.030	88
Tagana-An	Rim	\$ 708		5.708	1.091		1.091	156	5,718	83			5,718	83
	Total	10.575	135	10,710	2.040	56	2,066	81	10.611	85	137	1	10.748	98
	Urban		773	773		191	191				773	40	773	Q
Tubaion	Rura	2.798		2,798	543		543	109	2,798	62			2,798	62
	Total	2,798	773	3.571	543	191	704	141	2,798	44	773	12	3,571	\$6
	Urban													i
Tubod	Rural			-										
	Total													
	Urban	75,919	37,077	112.997	14,449	7.050	21,499	33	76,457	35	37,891	17	114,348	52
Provincial Total	Rural	116,707	24,720	141,427	21,826	4,562	26,388	22	117,436	49	25,844	Ξ	143,280	ઙ
	Total	192.626	61,798	254,424	36,275	11.612	47,887	26	193.893	43	63.734	14	257,628	26