

10.3 Cost of Required Facilities and Equipment

10.3.1 Cost of Required Facilities

Table 10.3.1 Construction Cost of Water Supply Facilities Required for Phase I (2000)

Unit: 1,000 Pesos

Municipalities	Urban Water Supply Level III	Rural Water Supply										Grand Total			
		Level II	New System						Level I Rehabilitation	Total					
			Level I			Shallow Wells	Sub-Total								
			Deep Well		70 m										
30 m	50 m	70 m	30 m	50 m	70 m	0	0	0	0						
Alfonso Castaneda	0	0	0	0	0	0	0	0	0	0	0	63	63	21,255	
Ambaguio	0	0	0	0	0	20,972	0	0	0	0	20,972	283	283	21,255	
Aritao	3,963	0	5,554	0	0	0	0	0	0	0	5,554	148	148	5,702	9,665
Bagabag	6,220	0	2,954	0	0	0	0	0	0	0	2,954	79	79	3,033	9,253
Bambang	8,280	0	5,554	0	0	0	0	0	0	0	5,554	148	148	5,702	13,982
Bayombong (Capital)	10,245	0	0	0	0	4,660	0	0	0	0	4,660	63	63	4,723	14,968
Diadi	744	2,080	2,954	0	0	0	0	0	0	0	2,954	79	79	5,113	5,857
Dupax del Norte	4,612	1,020	11,934	0	0	0	0	0	0	0	11,934	317	317	13,271	17,883
Dupax del Sur	1,912	0	9,098	0	0	0	0	0	0	0	9,098	242	242	9,340	11,252
Kasibu	0	0	28,831	0	0	0	0	0	0	0	28,831	766	766	29,597	29,597
Kayapa	268	0	9,689	0	0	0	0	0	0	0	9,689	258	258	9,947	10,215
Quezon	0	0	11,816	0	0	0	0	0	0	0	11,816	314	314	12,130	12,130
Santa Fe	1,224	0	7,562	0	0	0	0	0	0	0	7,562	201	201	7,763	8,987
Solano	12,721	0	4,608	0	0	0	0	0	0	0	4,608	122	122	4,730	17,451
Villaverde	2,732	0	0	4,177	0	0	0	0	0	0	4,177	75	75	4,252	6,984
Provincial Total	52,921	3,100	100,554	4,177	25,632	0	130,363	3,158	136,621	189,542	189,542	3,158	136,621	189,542	

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

Unit: 1,000 Pesos

Municipalities	Urban Water Supply Level III	Rural Water Supply (Level I)								Grand Total
		New System				Level I Rehabilitation	Total	Grand Total		
		Deep Well		Shallow Wells	Sub-total					
		30 m	50 m						70 m	
Alfonso Castaneda	0	0	0	0	0	0	0	44	44	44
Ambaguio	0	0	0	6,758	0	6,758	0	91	6,849	6,849
Anitao	30,465	6,381	0	0	0	6,381	0	170	6,551	37,016
Bagabag	40,281	5,435	0	0	0	5,435	0	144	5,579	45,860
Bambang	39,069	9,571	0	0	0	9,571	0	254	9,825	48,894
Bayombong (Capital)	58,745	0	0	17,244	0	17,244	0	232	17,476	76,221
Diadi	7,729	4,136	0	0	0	4,136	0	110	4,246	11,975
Dupax del Norte	17,446	6,617	0	0	0	6,617	0	176	6,793	24,239
Dupax del Sur	13,157	3,781	0	0	0	3,781	0	101	3,882	17,039
Kasibu	0	9,571	0	0	0	9,571	0	254	9,825	9,825
Kayapa	2,997	7,208	0	0	0	7,208	0	192	7,400	10,397
Quezon	0	5,199	0	0	0	5,199	0	138	5,337	5,337
Santa Fe	4,821	4,254	0	0	0	4,254	0	113	4,367	9,188
Solano	69,565	8,271	0	0	0	8,271	0	220	8,491	78,056
Villaverde	16,217	0	5,918	0	0	5,918	0	107	6,025	22,242
Provincial Total	300,492	70,424	5,918	24,002	0	100,344	0	2,346	102,690	403,182

Table 10.3.3 Costs of Sanitation Facilities Required for Phase I (2000)

Unit: 1,000 Pesos

Municipality	Urban Sanitation							Rural Sanitation							Total Construction Cost	Total Public Investment Cost	
	Household Toilets				Public School Toilets	Public Toilets	Total Construction Cost	Total Public Investment Cost	Household Toilets				Public School Toilets	Sub-total of Public Investment Cost			
	Flush	Pour Flush	VIP Latrine	Sub-total of Construction Cost					Sub-total of Public Investment Cost	Flush	Pour Flush	VIP Latrine					Sub-total of Construction Cost
Alfonso Caceres	0	0	0	0	0	0	0	0	0	0	0	0	4,549	187	0	4,549	187
Ambaguio	0	0	0	0	0	313	313	313	0	0	0	0	17,197	707	722	17,919	1,429
Arioac	4,139	2,261	0	6,400	93	0	6,400	93	3,498	5,480	2,581	11,559	225	0	0	11,559	225
Bagabag	5,634	2,248	0	7,882	92	0	7,882	92	0	5,613	623	6,236	231	0	0	6,236	231
Bambang	5,153	1,782	0	6,935	73	0	7,248	386	0	10,135	905	11,040	417	0	0	11,040	417
Bayombong (Capital)	7,343	253	0	7,596	10	1,832	9,741	2,155	4,993	13,300	2,341	20,634	547	1,432	0	22,066	1,979
Dadi	935	2,234	0	3,169	92	0	3,169	92	0	13,234	0	13,234	544	0	0	13,234	544
Dupax del Norte	3,044	0	0	3,044	0	703	4,374	1,330	0	2,689	0	2,689	0	2,000	0	4,689	2,000
Dupax del Sur	1,442	0	0	1,442	0	331	1,773	331	0	10,334	830	11,164	425	1,017	0	12,181	1,442
Kaibibu	0	0	0	0	0	0	0	0	0	26,041	0	26,041	1,071	3,394	0	29,435	4,465
Kayapa	240	0	0	240	0	0	867	627	0	24,711	0	24,711	1,016	885	0	25,596	1,901
Quezon	0	0	0	0	0	0	0	0	0	13,207	0	13,207	543	0	0	13,207	543
Santa Fe	0	638	0	638	26	0	1,578	966	0	12,143	133	12,276	499	399	0	12,675	898
Solano	4,432	11,691	0	16,123	481	1,661	18,097	2,455	0	3,032	349	3,381	125	1,286	0	4,667	1,411
Villaverde	1,308	279	0	1,587	11	0	1,900	324	0	10,613	0	10,613	437	535	0	11,148	972
Provincial Total	33,670	21,386	0	55,056	878	4,527	63,342	9,164	8,491	169,589	10,451	188,531	6,974	11,670	0	200,201	18,644

Table 10.3.4 Costs of Sanitation Facilities Required for Phase II (2010)

Unit: 1,000 Pesos

Municipality	Urban Sanitation										Rural Sanitation						Total Construction Cost	Total Public Investment Cost
	Household Toilets					Public School Toilets	Public Toilets	Total Construction Cost	Total Public Investment Cost	Urban Sewerage	Household Toilets				Sub-total of Public Investment Cost	Public School Toilets		
	Flush	Pour Flush	VIP Latrine	Sub-total of Construction Cost	Sub-total of Public Investment Cost						Flush	Pour Flush	VIP Latrine	Sub-total of Construction Cost				
Alfonso Castañeda	0	0	0	0	0	0	313	313	313	0	0	7,488	0	7,488	308	412	7,900	720
Ambaguio	0	0	0	0	0	0	0	0	0	0	0	18,248	0	18,248	751	0	18,248	751
Artaco	38,128	0	0	38,128	0	934	39,062	934	50,728	1,095	27,997	0	29,092	1,152	2,347	31,439	3,499	
Baguio	50,970	0	0	50,970	0	1,081	52,051	1,081	67,649	0	23,461	0	23,461	965	2,116	25,577	3,081	
Bambang	44,616	0	0	44,616	0	1,333	46,262	1,646	59,714	0	40,951	0	40,951	1,684	3,859	44,810	5,543	
Bayombong (Capital)	86,401	0	0	86,401	0	2,311	89,025	2,624	113,822	9,452	20,522	0	29,974	844	4,116	34,090	4,960	
Diadi	6,595	0	0	6,595	0	0	6,595	0	0	0	18,687	0	18,687	769	840	19,527	1,609	
Dupax del Norte	20,639	0	0	20,639	0	608	21,247	608	0	0	28,396	0	28,396	1,168	1,731	30,127	2,899	
Dupax del Sur	11,721	0	0	11,721	0	0	11,721	0	0	0	18,527	0	18,527	762	813	19,340	1,575	
Kasibu	0	0	0	0	0	313	313	313	0	0	43,065	0	43,065	1,771	1,722	44,787	3,493	
Kayapa	2,563	0	0	2,563	0	627	3,190	627	0	0	35,511	0	35,511	1,461	1,627	37,138	3,088	
Quezon	0	0	0	0	0	313	313	313	0	0	22,424	0	22,424	922	937	23,361	1,859	
Santa Fe	4,646	0	0	4,646	0	313	4,959	313	0	0	18,873	0	18,873	776	601	19,474	1,377	
Solano	92,996	0	0	92,996	0	2,448	96,384	3,388	124,472	0	33,955	0	33,955	1,397	1,895	35,850	3,292	
Villardec	14,765	0	0	14,765	0	417	15,182	417	0	0	19,072	0	19,072	784	1,071	20,143	1,855	
Provincial Total	374,040	0	0	374,040	0	9,132	386,617	12,577	416,385	10,547	377,177	0	387,724	15,514	24,087	411,811	39,601	

10.4 Costs of Sector Management

10.4.1 Breakdown of Community Development and Training Cost

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

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

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

Table 10.4.1 Breakdown of Community Development and Training Cost

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



11. FINANCIAL ARRANGEMENTS

11.3 Additional Funding Requirements

Percentages for Annual Investment

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

Table 11.3.1 Percentages for Annual Investment

Sub-Sector	Component	1996	1997	1998	1999	2000	Total
Urban Water Supply	Level III System						
	Feasibility Study and Detail Design	50	50	0	0	0	100
	Construction & Supervision	0	20	30	30	20	100
	Community Development & Training	30	20	20	20	10	100
Rural Water Supply	Level I Facility						
	Detail Design	50	50	0	0	0	100
	Construction & Supervision	12	22	22	22	22	100
	Community Development & Training	22	22	22	22	12	100
	Level II System						
	Detail Design	100	0	0	0	0	100
Construction & Supervision	50	50	0	0	0	100	
Community Development & Training	50	50	0	0	0	100	
Sanitation	Urban Household Toilet	12	22	22	22	22	100
	Rural Household Toilet	12	22	22	22	22	100
	Public School Toilet	12	22	22	22	22	100
	Public Toilet	12	22	22	22	22	100
	Disinfection of Level I Wells	12	22	22	22	22	100
	Detail Design	100	0	0	0	0	100
	Construction & Supervision	12	22	22	22	22	100
	Community Development & Training	22	22	22	22	12	100

Urban water supply:

- Engineering services for feasibility study and detailed design will be undertaken in the first two years.
- Construction work accompanied by supervisory services will be commenced partially in 2nd year and in full operation from 3rd year to 4th year.
- Community development will take place from the first year.

Rural water supply (Level I):

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

Sanitation:

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

11.4 Medium-Term Implementation Arrangements

11.4.2 Alternative Countermeasures

The Local Government Empowerment Fund (LGEF)

The Local Government Empowerment Fund (LGEF) will be established in 1996. Purposes, concept and mechanics of LGEF are discussed below.

(1) Purpose

- 1) To provide a mechanism for channeling grants and/or concessional loan funds to LGUs
- 2) To rationalize the allocation of funds to priority national projects in support of devolved activities of LGUs over and above their mandated IRA shares
- 3) To effect a more transparent presentation to fund allocations to LGUs in the budget

(2) Concept

- 1) The LGEF is an umbrella program fund in the GAA (General Appropriation Act) for national government projects being implemented by national government agencies with components supportive of devolved activities of LGUs.

- 2) Projects under the LGEF are to be supported wholly or partially by grants or highly concessional loans such as those from the ADP funds from ADB, which carry zero interest and payable in 40 years. Highly concessional loan is defined as those loans with a grant element of no less than 75%.
- 3) Projects for inclusion in the LGEF will be basically those under the economic and health services sectors.
- 4) As a matter of strategy, to ensure sustainability of LGU support to the project, a "matching fund" of no less than 10% of the total project cost shall be required from the beneficiary LGU. "The matching fund" may be in cash or in-kind.

(3) Mechanics

- 1) Authorization of funds for the eligible projects will be made under the budgets of the implementing agencies following usual budgetary process, rules and regulations.
- 2) The LGEF like MDF (Municipal Development Fund) will be included as one of the items under Assistance to Local Government Units (ALGU) authorized in the GAA. It will likewise identify foreign assisted projects being implemented by national government agencies with components that are directly benefiting specific LGUs, such as the implementation of devolved activities. However, unlike the MDF, fund allocations for LGU projects under LGEF are not to be repaid and are to be treated as subsidies.
- 3) The LGEF will support programs/activities of the 19 priority provinces under the Social Reform Agenda (SRA) and/or those classified as 5th or 6th class LGUs.

Comprehensive Investment Need Ranking for the Municipalities

Table 11.4.1 Comprehensive Investment Need Ranking of the Municipalities

Municipality	Evaluation Factor						Score by Sub-Sector						Weighted Score by Sub-Sector				Synthetic Investment Need Ranking			
	(% of Underserved and Unserved Population or Households)						Urban Water Supply		Rural Sanitation		Urban Sanitation		Rural Water Supply		Urban Sanitation			Rural Sanitation		
	Urban Water Supply	Rural Water Supply	Urban Sanitation	Rural Sanitation	Urban Water Supply	Rural Sanitation	Urban Water Supply	Rural Sanitation	Urban Water Supply	Rural Sanitation	Urban Water Supply	Rural Sanitation	Urban Water Supply	Rural Sanitation	Urban Water Supply	Rural Sanitation		Urban Water Supply	Rural Sanitation	
Alfonso Castañeda	N.A.	43	N.A.	39	N.A.	0.60	N.A.	0.60	N.A.	N.A.	0.30	N.A.	0.30	N.A.	0.30	N.A.	0.30	N.A.	0.60	7
Ambegguo	N.A.	83	N.A.	57	N.A.	1.00	1.00	0.80	0.60	1.00	0.50	N.A.	0.50	N.A.	0.50	N.A.	0.50	N.A.	1.00	1
Antao	N.A.	29	20	31	0.39	0.40	0.80	0.60	0.60	0.10	0.20	0.10	0.20	0.15	0.15	0.20	0.15	0.15	0.55	11
Bagabag	N.A.	20	8	23	0.67	1.00	0.40	0.40	0.40	0.17	0.25	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.62	5
Bambang	N.A.	21	17	23	0.66	0.40	0.80	0.60	0.40	0.17	0.10	0.20	0.10	0.20	0.10	0.20	0.10	0.10	0.57	10
Bayombong (Capital)	N.A.	14	11	38	0.61	0.20	0.60	0.60	0.60	0.15	0.05	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.50	14
Diadi	N.A.	43	29	45	0.42	0.60	1.00	0.80	0.80	0.11	0.15	0.25	0.20	0.20	0.05	0.05	0.05	0.05	0.71	4
Dupax del Norte	N.A.	57	7	10	0.83	0.60	0.40	0.20	0.20	0.21	0.15	0.15	0.10	0.10	0.05	0.05	0.05	0.51	13	
Dupax del Sur	N.A.	66	1	50	0.59	0.80	0.20	0.80	0.20	0.15	0.20	0.05	0.20	0.05	0.20	0.05	0.20	0.60	7	
Kasibu	N.A.	81	N.A.	41	N.A.	1.00	N.A.	0.80	0.80	N.A.	0.50	N.A.	0.50	N.A.	0.40	N.A.	0.40	N.A.	0.90	2
Kavapa	N.A.	40	0	54	0.72	0.40	0.20	1.00	1.00	0.18	0.10	0.10	0.05	0.05	0.25	0.25	0.25	0.58	9	
Quizon	N.A.	63	N.A.	25	N.A.	0.80	N.A.	0.80	0.40	N.A.	0.40	N.A.	0.40	N.A.	0.20	N.A.	0.20	N.A.	0.60	6
Santa Fe	N.A.	52	21	48	1.00	0.60	1.00	0.80	0.80	0.25	0.15	0.15	0.15	0.25	0.20	0.25	0.20	0.85	3	
Solano	N.A.	21	13	11	0.43	0.40	0.60	0.60	0.20	0.11	0.10	0.10	0.10	0.15	0.05	0.15	0.05	0.41	15	
Villaverde	N.A.	24	13	29	0.66	0.40	0.60	0.40	0.40	0.17	0.10	0.10	0.10	0.15	0.10	0.10	0.10	0.52	12	
Provincial Total	N.A.	42	13	33																

Note:

(1) Scoring to Underserved and Unserved Percentage.

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

Score	Range of Underserved and Unserved Percentage					Allocated Weight				
	81 < % < 80	71 < % < 60	61 < % < 50	51 < % < 40	41 < % < 30	0.25	0.25	0.25	0.25	0.25
1.0										
0.8										
0.6										
0.4										
0.2										

12. MONITORING

12.4 Evaluation of Plan Implementation and Updating the PW4SP

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

Form P-1

Province of _____
Provincial Water & Sanitation Monitoring System
 Annual Sector Performance Summary Report

Period Covered : _____ to _____

1. Service Coverage

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

II. Sources & Uses of Capital Development Funds

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

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

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

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

Municipality of _____
 Provincial Water & Sanitation Monitoring System

Annual Sector Performance Summary Report

Period Covered: _____ to _____

I. Service Coverage

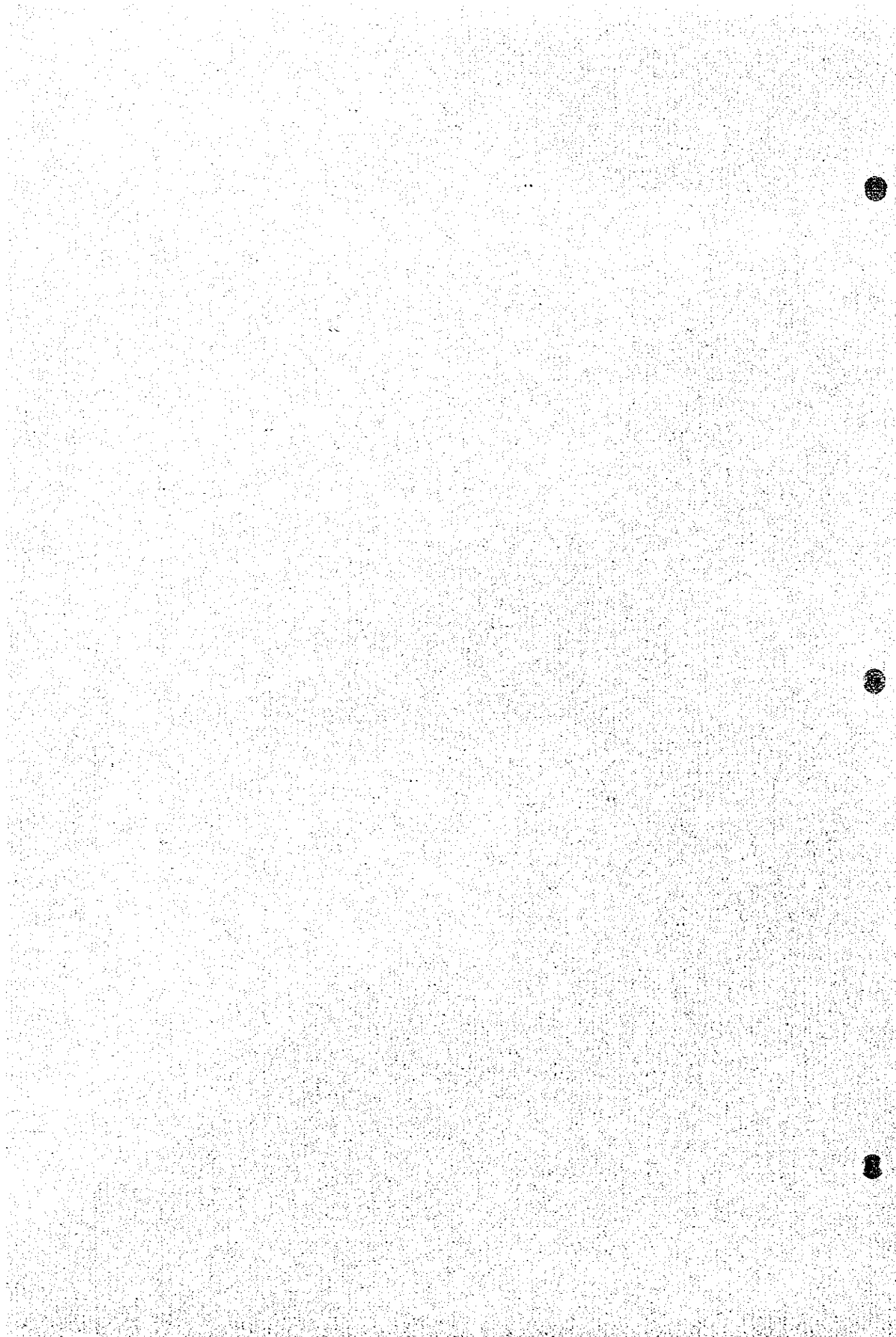
Name of Barangay (1)	LAST YEAR				THIS YEAR			
	Population (2)	Persons with Safe Water & Sanitary Toilets (3)	Persons with Safe Water Only (4)	Persons with Sanitary Toilets Only (5)	Population (6)	Persons with Safe Water & Sanitary Toilets (7)	Persons with Safe Water Only (8)	Persons with Sanitary Toilets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

II. Sources & Uses of Capital Development Funds.

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

DATA REPORT

DATA REPORT



1. INTRODUCTION
 1.3 The Provincial Plan for the Province of Nueva Vizcaya
 1.3.2 Outline of the Report

Table 1.3.1 List of the Report/Data/Information/Materials Collected (1/2)

No.	Title	Year	Prepared by	Related Subjects						Remarks
				WS	HD	SE	CD	SE	O	
LAWS AND REGULATIONS										
1	The Local Government Code of 1991	1991	Congress of the Phil.						x	
2	The Code of Sanitation of the Philippines Presidential Decree No. 856	1976	DOH						x	
3	National Handbook on Land and Other Water Resources	Jul-91	NLUC, NEDA							x
STATISTICS - National Level										
1	1991 Family Income and Expenditures Survey of Households Bulletin Series 72	1991	NSO							x
2	1992 Philippine Statistical Yearbook	Oct-92	NSCB						x	x
3	1992 Philippine Yearbook	Dec-92	NSO							x
4	National Health Survey	1992	DOH						x	
STATISTICS - Provincial Level										
1	1990 Census of Population and Housing Report No. 3-64 D: Socio-Economic and Demographic Characteristics of Nueva Vizcaya	1990								
2	Socio-Economic Profile Province of Nueva Vizcaya									
NATIONAL DEVELOPMENT PLAN/ SECTOR PLAN										
1	Water Supply, Sewerage and Sanitation Master Plan of the Philippines 1988-2000.	1988	NEDA	x	x					
2	National Physical Framework Plan 1993-2022.	Oct-92	Natl. Land Use Com.							x
3	Philippines - Water Supply Sector Reform Study.	Aug-93	WORLD BANK	x	x					Working Papers
4	Philippine Development Report 1987-1992	1993	NEDA							x
5	Project Benefit Monitoring and Evaluation (PBME)	Oct-93	NIS/Basic Team							x
6	Study for the Groundwater Development in Manila Volume 2.	Jun-92	JICA							Final Report Main Report
7	First Water Supply, Sewerage and Sanitation Sector Project BWSA Package Phase I & II.	Mar-93	DILG-PMO							x
8	The Special Assistance for Project Sustainability Program for Rural Water Supply Project.	Mar-92	OECF	x						Final Report (Main Report) Second Edition
9	BWSA Primer English Version.	Sep-92	DILG, DPWH, DOH							x
10	Database Application for Provincial Water Supply, Sewerage & Sanitation Sector Plan.	Apr-93	WORLD BANK							x
11	Skills Training for Sanitary Engineers	Sep-92								x
12	National Strategy and Action Plan Philippine National Urban Sewerage and Sanitation Strategy and Feasibility Studies Project.	May-93	World Bank Proj. Loan 3242-DH							x
13	PAG-ASA Climatological Data									x
14	Sanitation and Water Supply: Practical Lessons from the Decade	1992	Sandy Cairncross							x x
15	Community Water Supply and Sanitation	1989	WHO							x x

List of the Report/Data/Information/Materials Collected (2/2)

No.	Title	Year	Prepared by	Related Subjects						Remarks
				WS	HD	SE	CD	SE	O	
17	Guidelines for Planning Community Participation in Water Supply & Sanitation Projects.		Anne Whyte					X		
18	Participatory Evaluation : Tools for Managing Change in Water and Sanitation.	Feb-93	Deepa Narayan					X		
19	Community Participation and Hygiene Education on Water Supply and Sanitation (CPHE).	Oct-89	Technical Coop.					X		
21	Geological Maps of the Phils.		BMGS					X		
23	Philippine Atmospheric, Geo-Physical and Astronomical Services Admin. Data.		PAG-ASA					X		
24	Philippine Water Resources Summary Data, Vol-1 Stream Flow and Lake or River Stage.		Bureau of Research					X		
25	Hydrogeology of Central Luzon	Aug-70	EM.Sandoval & Mamani					X		
PROVINCIAL SECTOR PLAN/DEVELOPMENT PROGRAM										
1	Provincial Annual Accomplishment Report - Nueva Vizcaya	1993	PPDO						X	
2	Provincial Annual Accomplishment Report - Municipality of Dupax del Sur	1994	MPDO						X	
3	Municipal Annual Accomplishment Report - Municipality of Bagabag	1994	MPDO						X	
4	Municipal Socio-Economic and Physical Profile - Nueva Vizcaya	1990	PPDO						X	
5	Provincial Physical Framework Plan (1995-2025) - Nueva Vizcaya		PPDO						X	
6	Surface Water Quality Map - Nueva Vizcaya		DENR-Province					X		
7	Hydro-Eco-Condition Zone Map		DENR-Province					X		
8	Provincial Water Supply Inventory Report - Nueva Vizcaya	1992	DEO-DPWH					X		
9	Administrative Map (1:150,000) for the Province of Nueva Vizcaya		NAMRIA					X		
10	Topographic Map (1:50,000) for the Province of Nueva Vizcaya		NAMRIA					X		
11	Rapid Assessment of Water Supply Sources for the Province of Nueva Vizcaya		NWRB					X		
12	Groundwater Resources Investigation for the Province of Nueva Vizcaya		NWRB					X		
13	Geology and Mineral Resources of the Philippines		BMGS					X		
14	Geological Map of the Philippines (1:1,000,000)		BMGS					X		
15	Reconnaissance Hydrogeological Survey of the Province of Nueva Vizcaya		BMGS					X		
16	Philippine Water Resources Summary Data - Nueva Vizcaya		DPWH/BRS					X		
OTHER REFERENCES										
1	Microsoft Windows Version 3.1	1992	Microsoft Corporation							X User's Manual
2	Microsoft Excel Version 5.0	1994	Microsoft Corporation							X User's Manual
3	Microsoft Word Version 6.0	1994	Microsoft Corporation							X User's Manual

Related Subject : WS Water Supply, HD Hydrogeology, SE Sanitation and Environment, CD Community Development, SE Socio-Economy, O Others

1.4 Acknowledgements

Table 1.4.1 List of Persons and Institutions Who Participated in the Preparation of PW4SP

Name	Position	Office
<i>Provincial Sector Planning Team:</i>		
1. Mr. Federico Andaya	Provincial Planning & Devt. Coordinator	Provincial Planning & Devt. Office
2. Mr. Edgardo Sabado	Water Resource Engineer	- do -
3. Mr. Franz Joseph Yoshiy	Waterworks Engineer	Provincial Engineer's Office
4. Ms. Evelyn Sagun	Sanitary Engineer	Provincial Health Office
5. Ms. Carol Guntalilib	Training Specialist	Provincial Planning & Devt. Office
6. Ms. Imelda Acojido	Water Supply Engineer/Coordinator	DILG
7. Ms. Analiza Anabelle Ellamil	Computer Encoder	Provincial Planning & Devt. Office
<i>Water Supply and Sanitation - Project Management Office:</i>		
1. Mr. Orville M. Roque	Program Manager	WSS-PMO, DILG
2. Ms. Ellen I. Pasqua	Asst. Program Manager	- do -
3. Mr. Rogelio B. Ocampo	Chief, Planning Division	- do -
4. Mr. Mario V. De Dios	Development Management Officer V	- do -
5. Ms. Fe Crisilla M. Banluta	PW4SP Project Officer	- do -
6. Ms. Ma. Contessa C. Navarro	Coordinator	- do -



2. **PLANNING APPROACH FOR FUTURE SECTOR DEVELOPMENT**
 2.6 **Planning Principles and Data Management**
 2.6.1 **Planning Principles**

Table 2.6.1 Guideline for Preparation of PW4SP

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents		Contents	Main Report	Supporting Report	Data Report
1.	INTRODUCTION				
1.1	Sector Development in the Philippines	Nationwide sector development			
1.2	Provincial Sector Planning	Outline of provincial sector planning			
1.2.1	Objectives of Sector Planning				
1.2.2	Scope of Sector Planning				
1.2.3	Financing of Sector Plan				
1.3	The Provincial Plan for the Province		F1.3.1 Flow Diagram of Sector Planning	F1.3.1 Organization Chart for Implementation of PW4SP	
1.3.1	Preparation of the Plan				*1.3.1 List of Report/Data/Information/Materials Collected
1.3.2	Outline of the Report				
1.4	Acknowledgments				
2.	PLANNING APPROACH FOR FUTURE SECTOR DEVELOPMENT				
2.1	General				
2.2	Planning Framework	- Sector Arrangements with Reference to National Master Plan and Medium-Term Development Plan	T2.2.1 National Sector Coverage Targets		

Table - T: Figure - F
 * Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents		Tables & Figures	
Contents		Main Report	Supporting Report
		Data Report	
2.3	Sector Objectives		
2.4	Current Sector Policies and Strategies		
2.5	Major Legislation and Regulations Affecting the Sector		
2.6	Planning Principles and Data Management	F2.6.1	T2.6.1
2.6.1	Planning Principles	F2.6.2	T2.6.2
2.6.2	Data Management		T2.6.3
			T2.6.4
			T2.6.5
			T2.6.7
			T2.6.8

Table - T. Figure - F
 - Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents		Contents	Main Report	Supporting Report	Data Report
3.	PROVINCIAL PROFILE				
3.1	General	<ul style="list-style-type: none"> - Location of Province - Administrative composition 	F3.1.1 T3.1.1 Location Map Outline of City/ Municipalities		
3.2	Natural Conditions and Geographical Features				
3.2.1	Meteorology	<ul style="list-style-type: none"> - Classification of climate by type and its characteristics - Average rainfall, temperature and wind direction 	T3.2.1 Current Land Use		T3.2.1 Flow Data of Major Rivers
3.2.2	Land Use	<ul style="list-style-type: none"> - Current land use 	T3.2.1 Current Land Use		
3.2.3	Topography and Drainage	<ul style="list-style-type: none"> - Topographical characteristics of the province: mountains, major rivers and its flow rates, and water quality of typical rivers 	F3.2.1 T3.2.2 Major River Networks Drainage Areas and Flow Rates of Major Rivers		
3.3	Socio-economic Conditions				
3.3.1	Economic Activities and Household Income	<ul style="list-style-type: none"> (1) Brief description on major economic activities (2) Discussion on (a) household income level and (b) occupation 	F3.3.1 T3.3.1 Distribution of Households by Income Class	T3.3.1 Distribution of Households by Income Class	T3.3.1 Number of Elementary School, High School and Other Served Facilities
3.3.2	Basic Infrastructure	<ul style="list-style-type: none"> (1) Description on current basic infrastructure in the province (roads, electricity, telecom, postal services, transportation, banking facilities, tourism facilities, schools, etc.) 	F3.3.2 T3.3.1 T3.3.2 Population Distribution by Occupation Provincial Outline on Public Services Public Facilities and Services by Municipality	T3.3.2 Gainful Workers by Occupation Group and Major Industry Group	

Table - T. Figure - F

* Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Main Report	Supporting Report	Data Report
3.3.3 Education	(2) Discussion on public facilities and services (schools, public markets, banks and hospitals) by municipality	F3.3.3 Population Distribution by Highest Attainment of Education	T3.3.3 Household Population by Highest Educational Attainment	
3.4 Population	Description on (a) education levels and (b) literacy level			
3.4.1 Previous Population Development	(1) Population data of NSO for the census periods from 1960 to 1990 together with projected (1995) population	T3.4.1 Previous Population Development by Municipality		
	(2) Special issues, if any, which affected the present population of the province, i.e., special development and those of Mt. Pinatubo eruption in 1991	F3.4.1 Previous Population Development of the Province		
3.4.2 Classification of Urban and Rural Areas	(1) Urban and rural areas classified at barangay level based on the definition of NSO	F3.4.2 Present Population Distribution	F3.4.1 Distribution of Urban and Rural Areas	
	(2) Re-classification of urban and rural areas based on actual condition by PSPT			
3.4.3 Present Population Distribution	(1) No. of barangays, households & population, household size by urban and rural area	T3.4.2 Outline of Urban and Rural Areas in the Province		
3.5 Health Status		T3.4.3 Household Numbers and Household Sizes		
3.5.1 Morbidity, Mortality and Infant Mortality	- Ten leading causes of morbidity, mortality and infant mortality and comparison with national level - Identification and rank of diseases related to water among the 10 leading causes	T3.5.1 Number and Rates of Ten Leading Causes of Morbidity, Mortality and Infant Mortality		T3.5.1 Morbidity, Mortality and Infant Mortality by Municipality (Annual Incidence per 100,000 Persons)

* Questionnaire form
Table - T. Figure - F

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents		Contents	Main Report	Supporting Report	Data Report
3.5.2	Water Related Diseases	<ul style="list-style-type: none"> - Classification of water-borne, biased, washed, vector related diseases - Enumeration of water related diseases and their incidence - Discussion on the health implications of sanitation 	T3.5.2 Reported Cases and Deaths of Notifiable Water Related Diseases. (Year)	T3.5.1 Number and Ratio to Population of Health Facilities and Medical Practitioners	T3.5.2 Number of Health Facilities and Practitioners by Municipality
3.5.3	Health Facilities and Practitioners	<ul style="list-style-type: none"> - No. of medical facilities and practitioners, its ratio to population and comparison with national level 			
3.6	Environmental Conditions				
3.6.1	General	<ul style="list-style-type: none"> - Scope of the subject limited to the sector 			
3.6.2	Water Pollution	<ul style="list-style-type: none"> - Evaluation of existing drainage system, its function as a disposal point of domestic wastewater - Evaluation of industrial wastewater discharge - Existing classification of rivers in terms of water quality and extent of water pollution of water bodies 		T3.6.1 DENR Water Quality Criteria/Water Usage and Classification for Fresh Water	T3.6.1 Municipal Solid Waste Collection and Disposal by Municipality
3.6.3	Solid Waste Disposal	<ul style="list-style-type: none"> - Evaluation of solid waste collection and disposal 	T3.6.1 Municipal Solid Waste Collection and Disposal, and Service Coverage		
4.	EXISTING FACILITIES AND SERVICE COVERAGE				
4.1	Water Supply				
4.1.1	General	<ul style="list-style-type: none"> (1) Types and composition of existing water supply facilities by service level 		T4.1.1 Details on Existing Level III Systems	

Table - 1, Figure - F
- Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents		Contents	Main Report	Supporting Report	Data Report	
4.1.2	Types of Facilities and Definition of Service Level Standard	(2) Survey results compiled from questionnaire by service level shall be arranged to urban and rural areas at municipal level (3) Service coverage shall be counted as percentage of population served by the existing facilities. Further classification by safe and unsafe sources together with adequacy of service are incorporated in the service coverage		T4.1.2	Existing Level II Systems	
4.1.3	Level III Systems	(1) Adequacy of service defined by DOH (1) Description of existing Level III system: - No. of WD & Level III (being operated by LGUs) - Type of major water sources - Range of water consumption (2) Operating conditions of WDS: - Range of service (No. of connection) - Range of charge collection efficiency	T4.1.1 Composition of Water System/Facility by Service Level T4.1.2 Information on Existing Level III Systems T4.1.3 Information on Water Districts			T4.1.3 List of Subdivisions by Municipality
4.1.4	Level II Systems	(1) Description of existing Level II system - No. of operating Level II systems - Type of major water source - Range of household coverage (2) Operating conditions: - Water supply interruption - Water quality - Collection efficiency	T4.1.4 Information on Existing Level II Systems			

* Questionnaire form
Table - T, Figure - F

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Tables & Figures		
		Main Report	Supporting Report	Data Report
4.1.5 Level I Facilities	(1) Description of existing Level I facilities: - No. of operational and non-operational facilities - Safe and unsafe sources - Ownership by public and private (2) Problem areas: - Needs for rehabilitation and replacement of existing facilities	T4.1.5 Information on Existing Level I Facilities T4.1.6 Operating Status of Existing Wells in the Province	T4.1.3 Percentage of Unsafe Water Sources by IPHO T4.1.4 No. of Level I Facilities by Safe and Unsafe Classification T4.1.5 Estimation of Unserved Population by Municipality	
4.1.6 Water Supply Service Coverage	(1) Criteria of adequate service based on the national standard (2) Service coverage (percent of population served by safe sources) in urban and rural areas by municipality (3) On-going projects by municipality	T4.1.7 Water Supply Service Coverage by Municipality F4.1.1 Water Supply Coverage of the Province F4.1.2 Existing Water Supply Service Coverage Map	T4.1.6 Estimation of Population Covered by Safe and Unsafe Source by Municipality	
4.2 Sanitation and Sewerage				
4.2.1 General	- Brief discussion of government policies/guidelines on sanitation and sewerage as spelled out in the Code of Sanitation and NUSSMP - Coverage of the PW4SP (PH, school toilets and public toilets)			
4.2.2 Types of Facilities and Definition of Service Level Standard	- DOH/DECS classification by service level - Types of toilet facilities considered as sanitary and unsanitary in this sector plan - Definition of served and unserved/unserved		F4.2.1 Standard Structure of Private Toilet Facility F4.2.2 Standard Structure of School Toilet Facility	

Table - T. Figure - F

* Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Main Report	Supporting Report	Data Report
4.2.3 Sanitation Facilities and Service Coverage				
(1) Household Toilets	<ul style="list-style-type: none"> - No. of Households with sanitary toilet facilities and underserved, by municipality - Service coverage (percent of household with sanitary toilet facilities and underserved/unserved in urban and rural area, by municipality) 	<p>T-4.2.1 Sanitation Facilities and Service Coverage of Household Toilets, Urban and Rural, 1994</p> <p>F-4.2.1 Provincial Service Coverage of Household Toilet Facilities, 1994</p>	<p>T4.2.1 Sanitation Facilities and Service Coverage of Household Toilets, by Type, by Municipality, Urban and Rural, 1994</p>	
(2) School and Public Toilets	<ul style="list-style-type: none"> - No. of School and public toilets by municipality - Service coverage (percent of students adequately served by sanitary facilities and percent of public utilities with sanitary facilities) 	<p>F-4.2.2 Existing Household Toilets Service Coverage Map</p> <p>T-4.2.2 School Toilet Facilities and Service Coverage in 1994</p>		
(3) On-going Projects	<ul style="list-style-type: none"> - On-going projects by municipality (service coverage) 	<p>T-4.2.3 Public Toilet Facilities and Service Coverage in 1994</p>		
(4) Problem Areas	<ul style="list-style-type: none"> - Common problems encountered with regards to physical and social standpoints 			
4.2.4 Sewerage Facilities	<ul style="list-style-type: none"> - Presence/absence of sewerage facilities. If none, description of existing condition on sewage disposal - If present, description of sewerage system 			

* Questionnaire form
Table - T; Figure - F

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Main Report	Supporting Report	Data Report
5. EXISTING SECTOR ARRANGEMENTS AND INSTITUTIONAL CAPACITY				
5.1 General				
5.2 Sector Reforms	<ul style="list-style-type: none"> - NEDA Board Resolution No. 4 - NEDA Board Resolution No. 5 			
5.3 Sector Institutions	<ul style="list-style-type: none"> - Existing Institutional Arrangements - Sector Financing 	FS.3.1 Functional Relationships		
5.4 Sector Agencies at the National Level	<ul style="list-style-type: none"> (To be discussed for each of the major agencies) - Existing mechanisms and processes to deliver or support services to provinces, municipalities and barangays (financial, technical and institutional) - Mechanisms for coordination and collaboration with LGUs - Existing capacity of national agency to implement sector projects (technical, financial, institutional) - Actual programs being implemented by national sector agencies focusing on transfer of appropriate technologies and approaches - Actual experiences and practices of national agency in project implementation - Problem areas 			
(1) DILG				
(2) LWUA				
(3) DPWH				
(4) DOI				
(5) Other Agencies (NEDA, DOF, NWRB, DBM, DENR, DECS, MWSS)				

Table - T. Figure - F

Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents		Contents	Main Report	Supporting Report	Data Report
5.5	<p>Sector Agencies at the Local Level</p> <p>(1) Provincial Level</p> <ul style="list-style-type: none"> - PPDO - PEO - PHO <p>(2) Municipal and Barangay Levels</p> <ul style="list-style-type: none"> - MDO - NEO - Barangay Councils - RHU/BHS <p>(3) Field Offices of Central Sector Agencies</p> <ul style="list-style-type: none"> - DPWH DEO - DILG P/MLGOO - NEDA RO and RDC <p>(4) Water Districts</p> <p>(5) RWSAs</p> <p>(6) BWSAs</p> <p>(7) Others (including CROs)</p>	<p>(To be discussed for each of the agencies)</p> <ul style="list-style-type: none"> - General description of mandate and responsibility - Present capacity of local agency to undertake: the LGU level within the sector - Project identification and priority-setting - Establishment of community-based organization - Project preparation and planning - Project implementation - Operation and maintenance - Monitoring and evaluation - Financial resources (Refer to Chap 6) - Actual experiences and practices of local agencies on project implementation - Mechanism for coordination and collaboration level among local offices to implement, coordinate and monitoring of program activities - Extent of private sector participation - Linkage with national government agencies 		<p>FS.5.1 Organization Chart of the PPDO</p> <p>FS.5.2 Organization Chart of PEO</p> <p>FS.5.3 Organization Chart of PHO</p>	
5.6	<p>External Support Agencies Active in the Sector</p> <p>(1) Multilateral Agencies</p>	<ul style="list-style-type: none"> - The World Bank (IBRD) - The Asian Development Bank (ADB) - The United Nations Development Program and the United Nations Children's Fund (UNICEF) 			

Table - 1. Figure - F

* Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents		Contents	Main Report	Supporting Report	Data Report
(2) Bilateral Agencies		<ul style="list-style-type: none"> - The Japan International Cooperation Agency (JICA) - The Overseas Economic Cooperation Fund (OECF) - The Australian International Development Assistance Bureau (AIDAB) - The Danish International Agency (DANIDA) - KIW - The Royal Government of the Netherlands 			
5.7 Current Community Development and Training Approaches					
5.7.1 Community Development		<ul style="list-style-type: none"> - Existing CD approaches to promote participation of local beneficiaries - Experiences/practices on participation of project beneficiaries - Financial contributions from beneficiaries - Strategies for targeting involvement of women - Organization and training of beneficiaries 			
5.7.2 Human Resources Development & Training		<ul style="list-style-type: none"> - Staffing situation (quality and quantity) - Existing training programs of sector agencies and mechanisms for implementation (technical and management training) - Access to technical information - Available training and information materials * Types and contents * Mode of dissemination 			

Table - T, Figure - F

* Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Main Report	Supporting Report	Data Report
5.7.3 Sanitation/Hygiene Education	<ul style="list-style-type: none"> - Actual experiences and practices of sector agencies - Existing health/hygiene education programs of sector agencies and mechanisms for implementation <ul style="list-style-type: none"> * DOH (Implementing program on Public Toilets) * DECS (Implementing program on School Toilets) - Mechanisms and resources for mass dissemination of information and other social marketing programs - Hygiene educational materials available <ul style="list-style-type: none"> * Types and content * Mode of dissemination 			
5.8 Existing Sector Monitoring (1) National Level (2) Local Level	<ul style="list-style-type: none"> - Actual experiences and practices of sector agencies (national- and local-level) 			
6. PAST FINANCIAL PERFORMANCE IN WATER SUPPLY AND SANITATION				
6.1 General	<ul style="list-style-type: none"> - Basic idea and brief contents of this chapter 			
6.2 Past Public Investment				

* Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents		Contents	Main Report	Supporting Report	Data Report
6.2.1	Past Public Investment by the Central Government Agencies and LGUs	(1) Study on the previous public investment to the province by concerned agencies	T6.2.1 Previous Sector Investment to the Province by Concerned Agency	T6.2.1 Past Internal Revenue Allotment to Municipalities from Central Government	
6.2.2	Sources of Local Fund	(2) Role of past IRA in the provincial finance (profile of sector investment to allotted IRA in the province)	T6.2.2 Past Internal Revenue Allotment to the Province from Central Government		
6.3	Cost Recovery	- Study on cost recovery in water supply by service level and sanitation (WD, RWSA and BWSA)			
6.4	Affordability	- Affordability of water rates by service level and sanitation costs by users in comparison with income level	T6.4.1 Affordability in Water and Sanitation Services		
6.5	Past Financial Performance of WDs and RWSAs/BWSAs	- Study on past financial performance of WDs RWSAs/BWSAs	T6.5.1 Financial Indicators of Water Districts		
7.	WATER SOURCE DEVELOPMENT				
7.1	General				
	(1) Approach and Outputs	<ul style="list-style-type: none"> - Available water sources and their application to suit the locality - Study approach with justification focusing on groundwater - Water Availability Map & standard well specification 	T6.5.2 Loan Status of Water Districts		

Table - 1. Figure - F
- Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Tables & Figures		
		Main Report	Supporting Report	Data Report
(2) Base Data/Report with Conditions	<ul style="list-style-type: none"> - Major reports and hydrogeological maps used as basis of the study (with conditions and limitations) - Effective data to supplement the base materials 			
(3) Utilization and Up-dating	<ul style="list-style-type: none"> - Manner of out-put in PW4SP - Updating methods clarifying what factors can be modified and updated 			
(4) Existing Water Sources in the Province	<ul style="list-style-type: none"> - Description of existing water sources in the province 	T7.1.1 Existing Groundwater Sources in the Province		T7.1.1 Water Source Information
7.2 Geology	<ul style="list-style-type: none"> - Classification of geologic rock units (3 types: Recent, Pleistocene to Pleistocene, Pleistocene and Old rock units) - Distribution of each rock units and their proportion by municipality - Hydrogeological characteristics of each units 	T7.2.1 Geological Map		
7.3 Groundwater Sources	<ul style="list-style-type: none"> - Definition and classification of groundwater sources - shallow well area (with high yield area) - deep well area (with high yield area) - difficult area 	T7.3.1 Groundwater Availability Map		
7.3.1 Classification of Ground-water Sources				
7.3.2 Groundwater Availability in the Province	<ul style="list-style-type: none"> - Shallow well distribution 		T7.3.1 Work Flow of Groundwater Availability Map	
(1) Shallow Well Area • Questionnaire form				T7.3.1 Well Inventory by Municipality

Table - T, Figure - F

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Tables & Figures		
		Main Report	Supporting Report	Data Report
7.4 Spring Sources	<ul style="list-style-type: none"> - Technical information of shallow well (Depth, SWL, SPC-CP) - Deep well distribution - Technical information of deep well (Depth, SWL, SPC-CP) - Distribution and proportion of difficult areas - Geological & Topographical characteristics of the area - Possible area of salt water intrusion - Iron & Manganese problem area - Distribution of spring sources - Technical information 	F7.3.2	Groundwater Potential Area in the Province	
		F7.3.3	Potential Areas of High Yielding and With Salt Intrusion Problem	
		F7.3.4	Area Category in Ground-water Utilization	
		T7.4.1	Existing Spring Sources by Municipality	
7.5 Surface Water Sources	<ul style="list-style-type: none"> - Major rivers in the province - Typical feature of the river both in quality and flow 	F7.5.1	Study River Basin and Water Sampling Points	
		T7.5.1	River Information and Related Data	T7.5.1
7.6 Future Development Potential of Water Sources	<ul style="list-style-type: none"> - Potential water sources in each municipality (especially for rural area) with standard specifications by well type (shallow well, deep well, and spring) 	T7.5.2	Water Quality Analysis Results	
		T7.6.1	Existing Well Sources	F7.6.1
		T7.6.2	Standard Specifications of Wells by Municipality	

Table - T, Figure - F

- Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Main Report	Supporting Report	Data Report
<p>8. FUTURE REQUIREMENTS IN WATER SUPPLY AND SANITATION IMPROVEMENT</p> <p>8.1 General</p>	<p>(1) Physical targets</p> <ul style="list-style-type: none"> - Provincial sector targets in context of the National Sector Master Plan and the National Medium-Term Development Plan - Population to be served by target year based on the NSO population projection and broken down to urban and rural areas at municipal level by sub-sector - Public school students to be served by target year based on projected school enrollment at municipal level - Projected number of public utilities by target year at municipal level <p>(2) Physical requirements</p> <ul style="list-style-type: none"> - Required facilities classified by urban and rural areas by sub-sector with implementation criteria - Equipment for construction, rehabilitation and O&M be identified <p>(3) Identification of priority projects</p> <ul style="list-style-type: none"> - Criteria for identifying priority projects - Priority projects by sub-sector 			

* Questionnaire form

Table - 1, Figure - F

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Tables & Figures				
		Main Report	Supporting Report	Data Report		
8.2 Targets of Provincial Sector Plan	<p>(1) Percentages of beneficiaries or utilities to be served as target indicator</p> <p>(2) Setting up of provincial sector targets by sub-sector</p> <ul style="list-style-type: none"> - Water supply - Sanitation - Sewerage - Solid waste 	T8.2.1	Provincial Sector Targets	T8.2.1	Estimation of Base Year Service Coverage of Water Supply	
		T8.2.2	Base Year Service Coverage of Water Supply	T8.2.2	Population Coverage in Phase I Provided by Served Population in the Base Year (Water Supply)	
		T8.2.3	Base Year Service Coverage of Household Toilets	T8.2.3	Number of Households Served by Sanitary Toilets in the Base Year (1995)	
		T8.2.4	Base Year Service Coverage of Public School Toilets and Public Toilets	T8.2.4	Number of Public School Students Served by School Toilets in the Base Year (1995)	
		T8.2.5	Base Year Service Coverage of Municipal Solid Waste System in 1995	T8.2.5	Number of Public Utilities with Sanitary Toilets in the Base Year (1995)	
				T8.2.6	Household Coverage in Phase I Provided by Existing Facilities in the Base Year (Household Toilets)	
				T8.2.7	Public School Students and Public Utilities Coverage in Phase I Provided by Existing Facilities in the Base Year	

Table - T. Figure - F

- Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents		Contents		Main Report	Supporting Report	Data Report
8.3	Projection of Frame Values	(1) Methodology for population projection by urban and rural areas by municipality <ul style="list-style-type: none"> - Base figures and conditions: 1990 population census and future population by urban and rural areas by municipality by target year as projected by NSO - Review/verify past population development characteristics by urban and rural areas at regional and provincial level - Review/compare past population in urban and rural areas at provincial level - Identify areas/municipalities where adjustment of projected population is necessary - Identify areas/municipalities to be excluded from PW4SP - Establish future population of urban and rural areas by municipality by target year for 	T8.3.1 Future Population by Urban and Rural Area by Municipality	T8.3.1 Population Distribution in Urban and Rural Areas		
8.3.1	Population Projection				T8.3.2 Past Population Development	
8.3.2	School Enrollment Projection	(1) Methodology for school enrollment projection by municipality <ul style="list-style-type: none"> - Determine school age population - Determine participation rate of total school enrollment and participation rate of public school enrollment - Establish future participation rate of total school enrollment and participation rate of public school enrollment - Conditions used for projection of the number of public utilities toilets 	T8.3.2 Projected Public School Enrollment and Number of Public Utilities by Municipality	T8.3.3 Population Projection for Target Years: Region and Province		
8.3.3	Projection of the Number of Public Utilities				T8.3.4 Provincial Population for Target Years	
					T8.3.5 Projected Number of Households by Urban and Rural Area by Municipality by Target Year	
					T8.3.6 Projected School Enrollment by Municipality by Target Year	
					T8.3.7 Projected Number of Public Utilities by Municipality by Target Year	

Table - T: Figure - F
 * Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents		Contents	Main Report	Supporting Report	Data Report
8.3.4	Planning Area and Population to be Served by the Sewerage System	- Conditions used to define planning area and population to be served			
8.3.5	Number of Households to be Served by Municipal Solid Waste Collection System	- Condition used to determine population to be served			
8.4	Types of Facilities and Implementation Criteria				
8.4.1	Water Supply	- Classification of service level by urban and rural area - Optimum number of persons to be served by type and level of service - Limited utilization/application of Levels I & II systems - Rehabilitation/replacement of Level I facilities	T8.4.1 Groundwater Productivity T8.4.2 Standard Specifications of Level I Wells	F8.4.1 Standard Structure of Wells (Open-hole Drilling and Gravel Pack Method)	
8.4.2	Sanitation	(1) HH toilets: One sanitary toilet per household is considered. Type of facility is dependent on the existing or planned water supply level of community (2) School and public utilities toilets - Future assumption on the number of public schools/utilities toilets - Standard DECS coverage based on a 1:50 facility-student ratio will be followed and the standard designs of RESP will be adopted. - Standard FW4SP designs (with modification) for public toilets will be adopted			

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• Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Tables & Figures	
		Main Report	Supporting Report
8.4.3 Urban Sewerage	- Staged implementation of the sewerage program for limited urban area.		F8.4.2 Staged Improvement in Sewerage Collection Method
8.4.4 Solid Waste	- Requirement of garbage collection trucks is considered.		
8.5 Service Coverage by Target Year			
8.5.1 Water Supply	(1) Assumptions/conditions adopted - Criteria on number of persons served by type and level of service through the future - Limited utilization/application of Levels I & II systems	T8.5.1 Population to be served by Target Year (Water Supply)	T8.5.1 Population to be Served by Level II System in Phase I
	(2) Additional population to be served by target year - Present population served in urban and rural areas at each municipality (1994)	F8.5.1 Map Showing Future Water Supply Service Coverage by 2000	T8.5.2 Population to be Served in Phase I (Water Supply)
	(1) Household toilets - Present household served by type of toilet facility in urban and rural areas at municipal level (1994) - Households to be served by type of toilet facility in urban and rural areas at municipal level by target year - Additional households to be served by type of toilet facility in urban and rural areas at municipal level by target year	F8.5.2 Map Showing Future Water Supply Service Coverage by 2010	T8.5.3 Population to be Served in Phase II (Water Supply)
8.5.2 Sanitation		T8.5.2 Additional number of Households to be Served by Target Year (Household Toilets)	T8.5.4 Additional Number of Households to be Served in Phase I (Household Toilets)
		F8.5.3 Map Showing Household Toilets Service Coverage by 2000	T8.5.5 Additional Number of Households to be Served in Phase II (Household Toilets)
		F8.5.4 Map Showing Household Toilets Service Coverage by 2010	

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COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Tables & Figures			
		Main Report	Supporting Report	Data Report	
8.5.3 Urban Sewerage	(2) School toilets - Present number of public school students adequately served at municipal level (1994) - Number of public school students to be served at municipal level by target year. - Additional public school students to be served at municipal level by target year	T8.5.3	Additional Number of Public School Students to be Served by Target Year (School Toilets)	T8.5.6	Additional Number of Public School Students to be Served in Phases I and II (School Toilets)
		T8.5.4	Additional Number of Public Utilities with Sanitary Toilets by Target Year	T8.5.7	Number of Public Utilities with Sanitary Toilets in Phases I and II
		(3) Public utilities toilets - Present number of sanitary public toilets at municipal level (1994) - Projected number of sanitary public utilities toilets at municipal level by target year (new construction) - Additional public utilities toilets at municipal level by target year	T8.5.5	Population to be Served by Urban Sewerage in Phase II	
T8.5.6	Additional No. of Urban Households to be Served by Municipal Solid Waste System in Phase I				
8.5.4 Solid Waste	- Assumptions adopted to define service coverage - Population to be served by target year (2010)				
8.6 Facilities, Equipment and Rehabilitation to Meet the Target Services					
8.6.1 Water Supply	(1) Water supply facilities by service level by target year.	T8.6.1	Water Supply Facilities Required by Target Year	T8.6.1	Urban Water Supply Facilities Required by Target Year

Table - 1, Figure - F

* Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents		Contents	Main Report	Supporting Report	Data Report
8.6.2	Sanitation	<p>(2) Equipment:</p> <ul style="list-style-type: none"> - Well drilling equipment for water source development - Workshop bldg. and its equipment/tools - Major transportation equipment for construction and O&M <p>(3) Rehabilitation</p> <ul style="list-style-type: none"> - Wells and handpumps - Urban household toilets required by target year - Rural household toilets required at municipal level by target year - Public school toilets required at municipal level by target year - Public utilities toilets required at municipal level by target year 	<p>T8.6.2 Sanitation Facilities Required by Target Year</p>	<p>T8.6.2 Plan for Expansion of Existing Level III System</p> <p>T8.6.3 Rural Water Supply Facilities Required by Target Year</p>	
8.6.3	Urban Sewerage and Solid Waste	<ul style="list-style-type: none"> - Additional units of truck required to meet service coverage 	<p>T8.6.3 Number of Garbage Collection Trucks Required in Phase I</p>		
8.7	Identification of Priority Projects for Medium-Term Development	<p>(1) Criteria for identifying priority projects</p> <p>(2) Description of identified projects by mode of service in each sub-sector</p>		<p>T8.6.4 Urban Household Toilets Required by Target Year</p> <p>T8.6.5 Rural Household Toilets Required by Target Year</p> <p>T8.6.6 Public School Toilets Required by Target Year</p> <p>T8.6.7 Public Toilets Required by Target Year</p>	

* Questionnaire form Table - T, Figure - F

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents		Contents	Main Report	Supporting Report	Data Report
9.	SECTOR MANAGEMENT PLAN				
9.1	General				
9.2	Sector Management	<ul style="list-style-type: none"> - Situational Analysis: Developing the Vision - Service Provision Policies and Objectives - Operating Policies - Regulatory Policies - Financing System 	<p>F9.2.1 Sector Management Model</p> <p>F9.2.2 Flow of Funds</p>		
9.3	Institutional Arrangements				
9.4	Project Management Arrangements	<ul style="list-style-type: none"> - Level I - Level II - Level III 		F9.4.1 Formats for Level I Project Data and Level II Feasibility Study	
9.5	Community Involvement Models	<ul style="list-style-type: none"> - Policy: responsibilities - Potential future development needs 	T9.5.1 Summary of Community Development Study Sites		
9.6	Human Resources Development and Training	<ul style="list-style-type: none"> - Policy: responsibilities 			
10.	COST ESTIMATES FOR FUTURE SECTOR DEVELOPMENT				
10.1	General	<p>(1) Methodology adopted to cost estimates</p> <p>(2) Composition of cost estimates</p> <ul style="list-style-type: none"> - Costs for required facilities by urban and rural areas at municipal level; together with equipment for construction/rehabilitation and O&M 			

Table - T. Figure - F

• Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Main Report	Supporting Report	Data Report
10.2	Assumptions for Cost Estimates	<ul style="list-style-type: none"> - Costs for sector management and recurrent costs 		
	(1) Unit Cost of facilities	<ul style="list-style-type: none"> - Establish unit cost (per capital/HH or facility) by type and level of service based on: <ul style="list-style-type: none"> - Existing standard unit costs of sector agencies concerned (DPWH, LWUA and DOH) - Typical standards development for PWJSP (i.e., deep wells by different depths) 	<ul style="list-style-type: none"> T10.2.1 Unit Cost of Facilities by Type and Service Level 	<ul style="list-style-type: none"> T10.2.1 Unit Cost of Level I (Deep Well - 30m Depth)
	(2) Unit costs of equipment based on the standard unit cost and recent procurement record at sector agencies concerned (DPWH, LWUA, DOH)	<ul style="list-style-type: none"> - Establish unit cost (per capital/HH or facility) by type and level of service based on: <ul style="list-style-type: none"> - Existing standard unit costs of sector agencies concerned (DPWH, LWUA and DOH) - Typical standards development for PWJSP (i.e., deep wells by different depths) 	<ul style="list-style-type: none"> T10.2.2 Unit Cost of Equipment and Vehicle 	<ul style="list-style-type: none"> T10.2.2 Unit Cost of Level I (Deep Well - 50m Depth)
	(3) Sector management costs	<ul style="list-style-type: none"> - Establish percentages to base cost-of unit cost for following sector management activities: <ul style="list-style-type: none"> - Engineering studies - Community development and training - Health and hygiene education - Logistics support 		<ul style="list-style-type: none"> T10.2.3 Unit Cost of Level I (Deep Well - 70m Depth) T10.2.4 Unit Cost of Level I (Deep Well Rehabilitation) T10.2.5 Unit Cost of Level I (Shallow Well-18m Depth) T10.2.6 Unit Cost of Level II (600 Service Population) T10.2.7 Unit Cost of Level III (5,000 Service Population) T10.2.8 Unit Cost of Level III (10,000 Service Population) T10.2.9 Unit Cost of Level III (15,000 Service Population)

Table - T, Figure - F

- Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Tables & Figures	
		Main Report	Supporting Report
	(+) Recurrent costs Establish unit cost or percentage to base cost for following purposes: - Regular operation cost - Spare parts and equipment replacement, and - Management cost		<p>T10.2.10 Unit Cost of Flush Water Sealed with Septic Tank Toilet</p> <p>T10.2.11 Unit Cost of Pour Flush with Double Pit Latrine</p> <p>T10.2.12 Unit Cost of Ventilated Improved Pit Latrine (VIP)</p> <p>T10.2.13 Unit Cost of School Toilet</p> <p>T10.2.14 Unit Cost of Public Toilet</p>
10.3 Cost of Required Facilities and Equipment			
10.3.1 Cost of Required Facilities	- Costs of required facilities by type and service level of each sub-sector by municipality	T10.3.1 Construction Cost of Required Facilities by Municipality	Construction Cost of Water Supply Facilities Required for Phase I (2000)
10.3.2 Cost of Required Equipment and Vehicle	- Costs of required equipment (by municipality and province)	T10.3.2 Cost of Equipment and Vehicle	Construction Cost of Water Supply Facilities Required for Phase II (2010)
			T10.3.3 Costs of Sanitation Facilities Required for Phase I (2000)
			T10.3.4 Costs of Sanitation Facilities Required for Phase II (2010)

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- Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents		Contents	Main Report		Supporting Report		Data Report
10.4	Recurrent Cost	- Recurrent costs	T10.4.1	Recurrent Cost	T10.3.5	Breakdown of Community Development and Training Cost	
11.	FINANCIAL ARRANGEMENTS						
11.1	General	- Scope of the study with limitations and future development needs	F11.1.1	Sector Budget Allocation			
			F11.1.2	General Flow of Financial Arrangements for Relevant Sector Development			
11.2	Projection of IRA	- Study on fund availability: Internal Revenue Allowment and other sources to be negotiated/arranged	F11.2.1	Trial Allocation of Internal Revenue Allowment (IRA) to Municipalities for Relevant Sector Development			
			T11.2.1	Projected Internal Revenue Allowment for Medium-Term Sector Development			
			T11.2.2	Projected Allowment of IRA to the Relevant Sector by Component, 1996-2090			
11.3	Additional Funding Requirements	- Financial shortfall to implement Medium-Term Development Plan	T11.3.1	Financing Requirements for Sector Component for the Province	T11.3.1	Percentages for Annual Investment	
			T11.3.2	Additional Fund Requirements for the Medium-Term Plan			

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* Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Main Report	Supporting Report	Data Report
11.4 11.4.1 11.4.1.1	<ul style="list-style-type: none"> Medium-Term Implementation Arrangements Reference Scenarios in Different Funding Levels 	<p>T11.3.3 Internal Revenue Allocation for Water Supply and Sanitation Sector by Municipality (Medium-Term Development/1996-2000)</p> <p>F11.4.1 Relationship Between Funding Levels and Percent of Coverage for Water Supply Sector</p> <p>F11.4.2 Relationship Between Funding Levels and Percent of Coverage for Sanitation Sector</p>	<p>T11.4.1 Comprehensive Investment Need Ranking of the Municipalities</p>	
11.4.2	<ul style="list-style-type: none"> Alternative Countermeasures 	<p>T11.4.1 Municipal Investment Need Ranking for Urban Water Supply</p> <p>T11.4.2 Distribution of Provincial IRA to Municipalities for Urban Water Supply</p>		
11.5	<ul style="list-style-type: none"> Cost Recovery 	<p>T11.4.3 Municipal Investment Need Ranking</p>		

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* Questionnaire form

COMPOSITION OF FIGURES AND TABLES BY CHAPTER/SECTION

Table of Contents	Contents	Main Report	Supporting Report	Data Report
12. MONITORING				
12.1 General				
12.2 Sector Monitoring	<ul style="list-style-type: none"> - Monitoring activities with responsibilities in different administrative levels 			
12.3 Project Monitoring	<ul style="list-style-type: none"> - Monitoring activities at project level 			
12.4 Evaluation of Plan Implementation and Updating the PW4SP	<ul style="list-style-type: none"> - Manner of follow-up and feed back in planning and project implementation 		T12.4.1	Draft Formats for Annual Sector Performance Summary Report (Provincial and Municipal Levels)

Table - T - Figure - F

* Questionnaire form

2.6.2 Data Management

2.6.2.1 QUESTIONNAIRE FORMS

STRUCTURE OF QUESTIONNAIRE

Grouping of Questionnaire	Data Level						
	Nat. R	Reg. R	Prov. P	Mun. M	Bar. B	Sys/Fac. SF	Ind. I
1 SOCIO ECONOMIC DATA							
1.1 Administrative Composition				M 1.1	B 1.1		
1.2 Past Population				M 1.2.1	B 1.2.1		
				M 1.2.2	B 1.2.2		
1.3 Projected Population				M 1.3	B 1.3		
1.4 Household Number				M 1.4	B 1.4		
1.5 Services				M 1.5	B 1.5		
1.6 Occupation Category				M 1.6	B 1.6		
1.7 Family Income, Education and Literacy				M 1.7	B 1.7		
2 LAND USE DATA							
2.1 Existing Land Use				M 2.1	B 2.1		
2.2 Future Land Use				M 2.2	B 2.2		
3 HEALTH DATA							
3.1 Morbidity and Mortality				M 3.1	B 3.1		
3.2 Facility and Practitioner				M 3.2	B 3.2		
4 WATER SOURCE DATA							
4.1 General Information				M 4.1	B 4.1		
4.2 Water Source				M 4.2	B 4.2		
5 WATER SUPPLY SYSTEMS							
5.1 Level II Systems						S 5.1.1	
						S 5.1.2	
5.2 Level III Systems						S 5.2.1	
						S 5.2.2	
						S 5.2.3	
5.3 Level I Facilities						F 5.3.1	
						F 5.3.2	
						F 5.3.3	
6 ENVIRONMENTAL SANITATION							
6.1 Private Toilet				M 6.1	B 6.1		
6.2 School/Public Toilet				M 6.2	B 6.2		
6.3 Drainage Facility				M 6.3	B 6.3		
6.4 Solid Waste Collection and Disposal				M 6.4	B 6.4		
7 INVESTMENT DATA							
7.1 Previous annual Investment			P 7.1				
7.2 Planned Annual Investment			P 7.2				

Note: Barangay level questionnaire forms are for reference purpose only

1. SOCIO-ECONOMIC DATA

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Socio-economy - Administrative Composition				Date:	Page:	Filename: socio.xls						
Data Collection Level: Municipal				Prov. No.:	Sheetname: (M) Administrative Composition							
Region Number:				Prov. Name:	Form Number: M 1.1							
NEDA Geographic Code	Municipality	City	Municipal	Class	Established Year (YYYY)	Original Barangay Name Char.	Total Area (Hectare)	NO. OF BARANGAYS				
								City	Municipal	Urban	Rural	Total
								X	X	#	#	#
Provincial Total												

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Socio-economy - Past Population		Date:	Page:		Filename: socio.xls					
Data Collection Level : Municipal		Prov. No. :			Sheetname: (M) Past Population					
Region Number:		Prov. Name:			Form Number: M.1.2.2					
		PAST POPULATION (NSO)								
NEDA Geographic Code	Municipality	1980			1990			1994		
		Urban #	Rural #	Total #	Urban #	Rural #	Total #	Urban #	Rural #	Total #
Provincial Total										

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Socio-economy - Projected Population		Date:	Page:				Filename: socio.xls							
Data Collection Level: Municipal		Prov. No.:	Sheetname: (M) Projected Population				Form Number: M.1.3							
Region Number:		Prov. Name:	POPULATION PROJECTION											
NEIDA Geographic Code	Municipality	1995			2000			2010						
		Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total				
		#	#	#	#	#	#	#	#	#				
Provincial Total														

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Socio-economy - Household		Date:	Page:		Filename: socio.xls								
Data Collection Level : Municipal		Prov. No. :			Sheetname: (M) Household								
Region Number:		Prov. Name:			Form Number: M I.4								
NEDA Geographic Code	Municipality	NUMBER OF HOUSEHOLDS											
		1980 (Census by NSO)			1990			1995			Total #		
		Urban #	Rural #	Total #	Urban #	Rural #	Total #	Urban #	Rural #	Total #			
Provincial Total													

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Socio-economy - Services		Date:	Page:		Filename: socio.xls						
Data Collection Level: Municipal		Prov. No.:	Prov. Name:		Sheetname: (M) Services						
Region Number:		Form Number: M.1.5									
SERVICES (As of month-year)											
NEDA Geographic Code	Municipality	Elementary School			High School			College	Hospital	Market	Bank
		Public #	Private #	Total #	Public #	Private #	Total #				
Provincial Total											

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Socio-economy - Occupation		Date:		Page:		Filename: socio.xls		
Data Collection Level: Municipal		Prov. No.:		Occupation		Form Number: M 1.6		
Region Number:		Prov. Name:		PERSONS BY OCCUPATION CATEGORY				
NEDA Geographic Code	Municipality	Professional, Technical & Related Workers #	Administrative, Executive and Managerial #	Sales Worker #	Service Worker #	Agricultural, Animal Husbandry & Forestry workers, Fisherman and Hunters #	Production & related workers, Transport Equipment Operators and Laborers #	Occupation not adequately defined or reported #
Provincial Total								

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Socio-economy - Family Income, Education and Literacy															Filename: socio.xls		
Data Collection Level: Municipal															Page:		
Region Number:															Sheetname: (M) Family Income and Education		
															Form Number: M.1.7		
					Date:												
					Prov. No.:												
					Prov. Name:												
NEDA Geographic Code	Municipality	Number of Family by Income Class (Annual) (1990 Census)					Population by Highest Level of Education					Literacy of Population 10 Years and Over (1989 Survey)					
		Under P14,999 #	P15,000 to P29,999 #	P30,000 to P39,999 #	P40,000 to P59,999 #	P60,000 and over #	Pre-school #	Elem. #	Secondary (High School) #	Tertiary (College & Post Graduate) #	Literate #	Illiterate #					
Provincial Total																	

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Socio-economy - Administrative Composition			Date:	Page:	Filename: socio.xls					
Data Collection Level: Barangay			Mun. No. :	Sheetname: (B) Administrative Composition						
Region Number:			Prov. Name:	Form Number: B 1.1						
NEDA Geographic Code	Barangay	STATUS			NO. OF BARANGAY					
		City	Municipal	Class	Established Year	Original Barangay Name	Total Area	Urban	Rural	Total
		X		#	(YYYY)	Char.	(Hecture)	#	#	#
Municipal Total										

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Socio-economy - Past Population		Date:	Page:	Filename: socio.xls						
Data Collection Level : Barangay		Prov. No. :	Mun. No. :	Sheetname: (B) Past Population						
Region Number:		Prov. Name:	Mun. Name:	Form Number: B 1.2.2						
PAST POPULATION (NSO)										
NEDA Geographic Code	Barangay	1980			1990			1994		
		Urban #	Rural #	Total #	Urban #	Rural #	Total #	Urban #	Rural #	Total #
Municipal Total										

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Socio-economy - Projected Population		Date:		Page:		Filename: socio.xls	
Data Collection Level : Barangay		Prov. No. :		Prov. No. :		Sheetname: (B) Projected Population	
Region Number:		Prov. Name:		Prov. Name:		Form Number: B 1.3	
NEDA Geographic Code	Barangay	1995		2000		2010	
		Urban #	Rural #	Total #	Urban #	Rural #	Total #
Municipal Total							

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Socio-economy - Household		Date:	Page:	Filename: socio.xls						
Data Collection Level: Barangay		Prov. No.:	Mun. No.:	Sheetname: (B) Household						
Region Number:		Prov. Name:	Mun. Name:	Form Number: B 1.4						
NEDA Geographic Code	Barangay	1980 (Census by NSO)			1990			1995		
		Urban #	Rural #	Total #	Urban #	Rural #	Total #	Urban #	Rural #	Total #
	Municipal Total									

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Socio-economy - Services		Date:	Page:	Filename: socio.xls			
Data Collection Level : Barangay		Prov. No. :	Mun. No. :	Sheetname: (B) Services			
Region Number:		Prov. Name:	Mun. Name:	Form Number: B 1.5			
NEDA Geographic Code	Barangay	Elementary School	High School	College	Hospital	Market	Bank
		Public #	Private #	Total #	Public #	Private #	Total #
		Public #	Private #	Total #	Public #	Private #	Total #
Municipal Total							

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Socio-economy - Occupation		Date:	Page:	Filename: socio.xls				
Data Collection Level: Barangay		Mun. No.:	Sheetname: (B) Occupation.					
Region Number:		Prov. Name:	Form Number: B I.6					
NEDA Geographic Code	Barangay	Professional, Technical & Related Workers	Administrative, Executive and Managerial	Sales Worker	Service Worker	Agricultural, Animal Husbandry & Forestry workers, Fisherman and Hunters	Production & related workers, Transport Equipment Operators and Laborers	Occupation not adequately defined or reported
		#	#	#	#	#	#	#
Municipal Total								

2. LAND USE DATA

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Land Use - Existing Land Use		Date:	Page:		Filename: landuse.xls		
Data Collection Level : Municipal		Prov. No. :			Sheetname: (M) ExistingLandUse		
Region Number:		Prov. Name:			Form Number: M 2.1		
EXISTING LAND USE (IN HECTARES) YEAR:							
NEDA Geographic Code	Municipality	Forest Land	Grassland	Built-up	Agricultural	Mangrove, In-land Water Areas	Openlands
		#	#	#	#	#	#
Provincial Total							

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Land Use - Future Land Use		Date:	Page:	Filename: landuse.xls			
Data Collection Level: Municipal		Prov. No.:	Sheetname: (M) FutureLandUse				
Region Number:		Prov. Name:	Form Number: M 2.2				
		FUTURE LAND USE (IN HECTARES) YEAR					
NEDA Geographic Code	Municipality	Forest Land #	Grassland #	Built-up #	Agricultural #	Mangrove, Fishponds, In- land Water Areas #	Openlands #
Provincial Total							

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Land Use - Existing Land Use		Date:	Page:		Filename: landuse.xls		
Data Collection Level: Barangay		Prov. No.:	Mun. No.:		Sheetname: (B) Existing Land Use		
Region Number:		Prov. Name:	Mun. Name:		Form Number: B 2.1		
EXISTING LAND USE (IN HECTARES) YEAR:							
NEDA Geographic Code	Barangay	Forest Land	Grassland	Built-up	Agricultural	Mangrove, Fishponds, In-land Water Areas	Openlands
		#	#	#	#	#	#
Municipal Total							

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Land Use - Future Land Use		Date:	Page:	Filename: landuse.xls			
Data Collection Level: Barangay		Prov. No.:	Mun. No.:	Sheetname: (B) FutureLandUse			
Region Number:		Prov. Name:	Mun. Name:	Form Number: B 2.2			
FUTURE LAND USE (IN HECTARES) YEAR:							
NEDA Geographic Code	Barangay	Forest Land	Grassland	Built-up	Agricultural	Mangrove, Fishponds, In-land Water Areas	Openlands
		#	#	#	#	#	#
Municipal Total							

3. HEALTH DATA

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Health - Morbidity and Mortality			Date:	Page Number:		
Data Collection Level: Municipal		Region Number:	Filename: health.xls			
Prov. Number:		Mun. Number:	Sheetname: (M) Morbidity and Mortality			
Prov. Name:		Mun. Name:	Form Number: M 3.1			
Cause Group Diseases of	Disease No.	Name of Diseases (Group)	Water Related Diseases	Number of Cases		
				Morbidity	Mortality	Infant Mortality
Infective and Parasitic (001-136)	A.01	2-4/ Typhoid Parathyphoid	X			
	A.02	5-7/ Dysentary	X			
	A.03	8-10/ Intestinal Parasites	X			
	A.04	11-13/ Diarrhea	X			
	A.05	14-16/ Tuberculosis				
	A.06	17-19/ Conjunctivitis	X			
	A.07	20-22/ Whooping Cough				
	A.08	23-25/ Throat/Ear/Nose				
	A.09	26-28/ Tetanus				
	A.10	29-31/ Septicemia				
	A.11	32-34/ Cholera	X			
	A.12	35-37/ Varicella, Chickenpox				
	A.13	38-40/ Measles				
	A.14	41-43/ Dengue Fever	X			
	A.15	44-46/ Viral Hepatitis	X			
	A.16	47-49/ Malaria	X			
	A.17	50-52/ Schistosomiasis	X			
	A.18	53-55/ Filariasis	X			
	A.19	56-58/ Venereal Diseases				
	A.20	59-61/ Other Bacter./ Viral Dis.				
Neoplasms (140-239)	B.01	62-64/ Malignant Neoplasms				
	B.02	65-67/ Leukemia				
Endocrine, Nutritional & Metabolic (250-279)	C.01	68-70/ Diabetes Mellitus				
	C.02	71-73/ Nutritional Deficiencies				
	C.03	74-76/ Endocrine Disorder				
Blood & Blood Forming Organs (280-289) Mental Disorder (290-319)	D.01	77-79/ Anemias				
	E.01					
Nervous System and Sense Organs (320-389)	F.01	80-82/ Meningitis				
	F.02	83-85/ Nervous System				
Circulatory Systems (390-459)	G.01	86-88/ Heart Diseases				
	G.02	89-91/ Vascular Diseases				
Respiratory Systems (460-519)	H.01	92-94/ Bronchitis				
	H.02	95-97/ Pneumonia				
	H.03	98-100/ Influenza				
	H.04	101-103/ Obstructive Pulmonary				
	H.05	104-106/ ARI				
Digestive System (520-579)	I.01	107-109/ Appendicitis				
	I.02	110-112/ Gastroent. Coitis				
	I.03	113-115/ Chronic Liver Disease				
	I.04	116-118/ Other Diges. Diseases				
Genito-Urinary System (580-629)	J.01	119-121/ Kidney/ Nephritis				
	J.02	122-124/ Urinary Infections				
Complication of Pregnancy & the Puerperium (630-676)	K.01	125-127/ Prematurity				
Skin & Subcutaneous Tissue (680-709)	L.01	128-130/ Skin Diseases	X			
	L.02	131-133/ Scabies	X			
Musculoskeletal & Connective Tissue (710-739)	M.01	134-136/ Arthrop., Rheumatism				
Congenital Anomalies (740- 759)	N.01	137-139/ Congenital Anomalies				
	P.01	140-142/ Birth Trauma				
Certain Causes of Prenatal Morbidity & Mortality (760-779)	P.02	143-145/ Birth Injuries & Difficult Labor				
	P.03	146-148/ Resp. Fetus/Newborn				
	P.04	149-151/ Other Prenatal Causes				
Symptoms & Ill-defined Condition (780-799)	Q.01	152-154/ Scabily				
	Q.02	155-157/ Ill-Defined Condition				
Accidents, Poisoning & Violence (800-999)	R.01	158-160/ Burns				
	R.02	161-163/ Suffoc. Foreign Body				
	R.03	164-166/ Other Accidents				

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Health - Facility and Practitioner			Date:		Page No.		Filename: health.xls	
Data Collection Level: Municipal			Prov. No.:			Shiname: (M)FacilityPractitioner		
Region Number :			Prov. Name:			Form No. : M 3.2		
NEDA Geographic Code	Municipality	Number of Facilities			Number of Medical Practioners			
		Hospital #	RHU #	BHS #	Doctors #	Nurses #	Midwives #	Dentists #
Provincial Total								

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Health - Morbidity and Mortality				Date:	Page Number:	
Data Collection Level: Barangay		Region Number:		Filename: health.xls		
Prov. Number:	Mun. Number:	Bgy. Number:		Sheetname: (B) Morbidity and Mortality		
Prov. Name:	Mun. Name:	Bgy. Name:		Form Number: B 3.1		
Cause Group Diseases of:	Disease No.	Name of Diseases (Group)	Water Related Diseases	Number of Cases		
				Morbidity	Mortality	Infant Mortality
Infective and Parasitic (001-136)	A.01	2-4/ Typhoid Parathyphoid	X			
	A.02	5-7/ Dysentery	X			
	A.03	8-10/ Intestinal Parasites	X			
	A.04	11-13/ Diarrhea	X			
	A.05	14-16/ Tuberculosis				
	A.06	17-19/ Conjunctivitis	X			
	A.07	20-22/ Whooping Cough				
	A.08	23-25/ Throat Ear/Nose				
	A.09	26-28/ Tetanus				
	A.10	29-31/ Septicemia				
	A.11	32-34/ Cholera	X			
	A.12	35-37/ Varicella, Chickenpox				
	A.13	38-40/ Measles				
	A.14	41-43/ Dengue Fever	X			
	A.15	44-46/ Viral Hepatitis	X			
	A.16	47-49/ Malaria	X			
	A.17	50-52/ Schistosomiasis	X			
	A.18	53-55/ Filariasis	X			
	A.19	56-58/ Venereal Diseases				
	A.20	59-61/ Other Bacter/ Viral Dis.				
Neoplasms (140-239)	B.01	62-64/ Malignant Neoplasms				
	B.02	65-67/ Leukemia				
Endocrine, Nutritional & Metabolic (250-279)	C.01	68-70/ Diabetes Mellitus				
	C.02	71-73/ Nutritional Deficiencies				
	C.03	74-76/ Endocrine Disorder				
Blood & Blood Forming Organs (280-289)	D.01	77-79/ Anemias				
Mental Disorder (290-319)	E.01					
Nervous System and Sense Organs (320-389)	F.01	80-82/ Meningitis				
	F.02	83-85/ Nervous System				
Circulatory Systems (390-459)	G.01	86-88/ Heart Diseases				
	G.02	89-91/ Vascular Diseases				
Respiratory Systems (460-519)	H.01	92-94/ Bronchitis				
	H.02	95-97/ Pneumonia				
	H.03	98-100/ Influenza				
	H.04	101-103/ Obstructive Pulmonary				
	H.05	104-106/ ARI				
Digestive System (520-579)	I.01	107-109/ Appendicitis				
	I.02	110-112/ Gastroent. Colitis				
	I.03	113-115/ Chronic Liver Disease				
	I.04	116-118/ Other Diges. Diseases				
Genito-Urinary System (580-629)	J.01	119-121/ Kidney/ Nephritis				
	J.02	122-124/ Urinary Infections				
Complication of Pregnancy & the Puerperium (630-676)	K.01	125-127/ Prematurity				
Skin & Subcutaneous Tissue (680-709)	L.01	128-130/ Skin Diseases	X			
	L.02	131-133/ Scabies	X			
Musculoskeletal & Connective Tissue (710-739)	M.01	134-136/ Arthrop., Rheumatism				
Congenital Anomalies (740- 759)	N.01	137-139/ Congenital Anomalies				
Certain Causes of Prenatal Morbidity & Mortality (760-779)	P.01	140-142/ Birth Trauma				
	P.02	143-145/ Birth Injuries & Difficult Labor				
	P.03	146-148/ Resp. Fetus/Newborn				
	P.04	149-151/ Other Prenatal Causes				
Symptoms & Ill defined Condition (780-799)	Q.01	152-154/ Sensibly				
	Q.02	155-157/ Ill-Defined Condition				
Accidents, Poisoning & Violence (800-999)	R.01	158-160/ Burns				
	R.02	161-163/ Suffoc. Foreign Body				
	R.03	164-166/ Other Accidents				

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Health - Facility and Practitioner				Date:	Page No.	Filename: health.xls		
Data Collection Level: Barangay		Prov. No.:		Mun. No.	Shtname: (B)FacilityPractitioner			
Region No. :		Prov. Name:		Mun. Name:		Form No. : B 3.2		
NEDA Geographic Code	Barangay	Number of Facilities			Number of Medical Practioners			
		Hospital #	RIIU #	BHS #	Doctors #	Nurses #	Midwives #	Dentists #
Municipal Total								

4. WATER SOURCE DATA

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page:	Date:	Filename: h20-res.xls				
Data Collection Level: Municipal		Prov. No.	Sheetname: (M) General Information					
Region Number:		Prov. Name:	Form No.: M-4.1					
Municipal Number/Municipal Name								
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring	
General Information	1/ Total Number of Source	#						
	Implementation							
	2/ Government Agency	#						
	3/ Private	#						
	Usage							
	4/ Drinking	#						
	5/ Washing/Bathing	#						
	6/ Gardening	#						
	7/ Irrigation	#						
	8/ Industrial	#						
	Water Quality							
	9/ High Iron/Manganese Content	#						
	10/ High Chloride Content	#						
11/ Turbidity/Color/Smell	#							
Production								
12/ Less/No Water in dry season	#							
13/ Usable through the year	#							
Well Information	Technical							
	14/ Diameter < 100 mm (4")	#						
	15/ Diameter >= 100 mm (4")	#						
	16/ SWL < 5 m below ground	#						
	17/ SWL >= 5 m below ground	#						
	18/ Specific Capacity < 3 m ³ /hr/m	#						
	19/ Specific Capacity >= 3 m ³ /hr/m	#						
	20/ B-Value < 1,000 s/m ³	#						
	21/ B-Value >= 1,000 s/m ³	#						
	22/ C-Value < 60,000 s ² /m ⁶ (Well Loss Const.)	#						
23/ C-Value >= 60,000 s ² /m ⁶	#							
Aquifer Information	Technical							
	24/ T-Value < 0.001 m ² /s	#						
	25/ T-Value >= 0.001 m ² /s	#						
	26/ S-Value < 0.01	#						
	27/ S-Value >= 0.01	#						
	Geology							
	28/ Alluvial Formation	#						
	29/ Volcanic Formation	#						
30/ Limestone Formation	#							
31/ Sandstone Formation	#							
32/ Other Sediment Formation	#							
Spring Info.	Technical							
	33/ Minimum Yield < 10 m ³ /h	#						
	34/ Minimum Yield >= 10 m ³ /h	#						
	Other							
	35/ Tapped Using Gravity	#						
36/ Undeveloped Spring	#							
37/ Untapped Spring	#							

LEGEND: # - Specify figure

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page:	Date:	Filename: h20-res.xls			
Data Collection Level: Barangay		Prov. No.:	Mun. No.	Sheetname: (B) General Information			
Region Number:		Prov. Name:	Mun. Name:	Form No. : B 4 1			
Barangay Number/Barangay Name							
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring
General Information	1/ Total Number of Source	#					
	Implementation						
	2/ Government Agency	#					
	3/ Private	#					
	Usage						
	4/ Drinking	#					
	5/ Washing/Bathing	#					
	6/ Gardening	#					
	7/ Irrigation	#					
	8/ Industrial	#					
	Water Quality						
	9/ High Iron/Manganese Content	#					
	10/ High Chloride Content	#					
11/ Turbidity/Color/Smell	#						
Production							
12/ Less/No Water in dry season	#						
13/ Usable through the year	#						
Well Information	Technical						
	14/ Diameter < 100 mm (4")	#					
	15/ Diameter >= 100 mm (4")	#					
	16/ SWL < 5 m below ground	#					
	17/ SWL >= 5 m below ground	#					
	18/ Specific Cap. < 3 m ³ /hr/m	#					
	19/ Specific Cap. >= 3 m ³ /hr/m	#					
	20/ B-Value < 1,000 s/m ²	#					
	21/ B-Value < 1,000 s/m ²	#					
	22/ C-Value < 60,000 s ² /m ⁴ (Well Loss Const.)	#					
23/ C-Value >= 60,000 s ² /m ⁴	#						
Aquifer Information	Technical						
	24/ T-Value < 0.001 m ² /s	#					
	25/ T-Value >= 0.001 m ² /s	#					
	26/ S-Value < 0.01	#					
	27/ S-Value >= 0.01	#					
	Geology						
	28/ Alluvial Formation	#					
29/ Volcanic Formation	#						
30/ Limestone Formation	#						
31/ Sandstone Formation	#						
32/ Other Sediment Formation	#						
Spring Info.	Technical						
	33/ Minimum Yield < 10 m ³ /h	#					
	34/ Minimum Yield >= 10 m ³ /h	#					
	Other						
	35/ Tapped Using Gravity	#					
36/ Undeveloped Spring	#						
37/ Untapped Spring	#						

LEGEND: # - Specify figure

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - Untapped Spring Information		Page No.:
Data Collection Level: Barangay	Mun. No.:	Date:
Region Number:	Mun. Name:	Filename: h2o-res.xls
Prov. No.:	Brgy. No.	Shtname: (B) Spring
Prov. Name:	Brgy. Name:	Form no.: B 4.2
Description of Information	Number	Data
Owner of the Untapped Spring Site		
Production during dry Season (Liter/minute)		
Distance from the spring source to entrance of the service area.		
Number of Households in the service area.		
Elevation Difference between the spring source and the service area ensuring gravity		
SKETCH (Location of Spring, Service and Transmission Route)		

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - Well Information		Page No.:
Data Collection Level: Barangay	Mun. No.:	Date:
Region Number:	Mun. Name:	Filename: h2o-res.xls
Prov. No.:	Brgy. No.	Shtname: (B) Well
Prov. Name:	Brgy. Name:	Form no.: B 4.3
Description of Information	Number	Data
Owner of the Well		
Well Depth		
Water Level		
Use		
Abstract		
Water Quality		
Production		
Year Constructed		
Number of Household		
SKETCH (Location of Well, Service and Transmission Route)		

5. WATER SUPPLY SYSTEMS

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: WATER SUPPLY - Level II System		Date:	Page:	Filename h20supp.xls	
Data Collection Level: System		Prov. No.:	Mun. No.:	Shtname (S) Level II P1-2	
Region No.:	Province Name:	Mun. Name:	Form No.: S 5.1.1		
INFO. GROUP	INFO DESCRIPTION	CODE	DATA		
System Identification	2/ Identification (Source No.)	#			
	3/ Name/Owner of System	ch			
	4/ Coordinates Scheme Cntr.	#			
System Coverage	5/ Barangay a	#			
	6/ Barangay b	#			
	7/ Barangay c	#			
	8/ Barangay d	#			
	9/ Barangay e	#			
	10/ Barangay f	#			
Original Design Assumption Fill in: 14 -15 or 16-17	11/ Construction Year	#			
	12/ Population in Service Area	#			
	13/ No. of Households in Service Area	#			
	14/ Rural Pop. Served by Communal Faucets	#			
	15/ Urban Pop. Served by Communal Faucets	#			
	16/ No. of Rural HH Served by Communal Faucets	#			
	17/ No. of Urban HH Served by Communal Faucets	#			
	18/ Number of Communal Faucets	#			
Actual System Including Extension Fill in: 22-23 or 24-25	19/ Year of Update	#			
	20/ Pop. in Service Area	#			
	21/ No. of Households in Service Area	#			
	22/ Rural Pop. Served by Communal Faucets	#			
	23/ Urban Pop. Served by Communal Faucets	#			
	24/ No. of Rural HH Served by Communal Faucets	#			
Water Sources	25/ No. of Urban HH Served by Communal Faucets	#			
	26/ Number of Communal Faucets	#			
Distribution System	27/ Type of Source	#			
	28/ Source Capacity (m ³ /h)	#			
	29/ Length of Transmission Main (m)	#			
	30/ Length of Distribution Main (m)	#			
	31/ Number of Reservoirs	#			
	32/ Total Volume of Reservoirs (m ³)	#			
Service Level during Dry Season	33/ No. of Metered Communal Faucets	#			
	34/ No. of Unmetered Communal Faucets	#			
	35/ Supply Period (hrs/d)	#			
	Dirty Water				
	36/ a) Everyday	#			
	37/ b) Once a Week	#			
	38/ c) Once a Month	#			
	39/ d) Occasionally	#			
	Taste / Smell				
	40/ a) Good Taste	#			
	41/ b) Salty Taste	#			
	42/ c) Woody Taste	#			
	43/ d) Metallic Taste	#			
	44/ e) Others	#			
	Supply Interruption				
45/ - Power Failure (times/month)	#				
46/ - Pump Breakdown (times/month)	#				
47/ - Pipe Burst (times/month)	#				
48/ - Other (times/month)	#				
Water Pressure					
49/ - No. of Faucets w. Adeq. Pres. (% of total)	#				
50/ - No. of Faucets w. Inadeq. Pres. (% of total)	#				

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: WATER SUPPLY - Level II System		Date:	Page:	Filename: h20supp.xls
Data Collection Level: System		Prov. No.:	Mun. No.:	Sheetname: (S) Level II P2-2
Region No.:	Province Name:	Mun. Name:	Form No.: S 5.1.2	
INFO. GROUP	INFO DESCRIPTION	CODE	DATA	
Staff	51/ No. of Technical Professionals	#		
	52/ No. of Administrative Staff	#		
	53/ No. of Collectors	#		
	54/ Total No. of Staff	#		
Repair	Who does the repair ?			
	55/ a) Local Tradesman	x		
	56/ b) MEO/CEO	x		
	57/ c) PEO	x		
	58/ d) DEO	x		
Expenditures	59/ Annual Expenditures (Pesos/Yr)	#		
	60/ - Wages (Pesos/Yr)	#		
	61/ - Fuel, Chemicals, Materials (Pesos/Yr)	#		
	62/ - Transport (Pesos/Yr)	#		
	63/ - Repairs (Pesos/Yr)	#		
	64/ - Loan Repayment (Pesos/Yr)	#		
Tariff Structure	65/ - Others (Pesos/Yr)	#		
	66/ Consumers Payment (Pesos/year)	#		
	67/ a) Per pail (Pesos/pail)	#		
	68/ b) Per volume (Pesos/m ³)	#		
	69/ c) Per household (Pesos/HH)	#		
	70/ d) Others	x		
Billing	71/ Average Collection Efficiency (%)	#		
	72/ Annual Billings	#		
	73/ Billings to P.F. Consumers (Pesos/Yr)	#		
	74/ Billings to H.C. Consumers (Pesos/Yr)	#		
	75/ Expected Subsidies (Pesos/Yr)	#		
	76/ Others (Pesos/Yr)	#		
Revenues	77/ Annual Income (Pesos/Yr)	#		
	78/ - Payment by P.F. Consumers (Pesos/Yr)	#		
	79/ - Payment by H.C. Consumers (Pesos/Yr)	#		
	80/ - Subsidies (Pesos/Yr)	#		
	81/ - Others (Pesos/Yr)	#		

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: WATER SUPPLY - Level III System		Date:	Page:	Filename: h20supp.xls
Data Collection Level: System		Prov. No.:	Mun. No.:	Shtname (S): Level III P1-2
Region No.:	Province Name:		Mun. Name:	Form No.: S 52.1
INFO. GROUP	INFO DESCRIPTION	CODE	DATA	
System Identification	2/ Identification (Source No.)	#		
	3/ Name/Owner of System	ch		
	4/ Coordinates Scheme Cntr.	#		
System Coverage	Municipalities Covered by System			
	5/ Municipality a	#		
	6/ No. of Cov. Rural Bgys. in Mun. a	#		
	7/ No. of Cov. Urban Bgys. in Mun. a	#		
	8/ Municipality b	#		
	9/ No. of Cov. Rural Bgys. Mun. b	#		
	10/ No. of Cov. Urban Bgys. Mun. b	#		
	11/ Municipality c	#		
	12/ No. of Cov. Rural Bgys. Mun. c	#		
	13/ No. of Cov. Urban Bgys. Mun. c	#		
Original Design Assumption	14/ Construction Year	#		
	15/ Size of Service Area (ha)	#		
	16/ Population in Service Area	#		
	17/ Households in Service Area	#		
	18/ Area with Level III Services (ha)	#		
	19/ Area with Level II Services (ha)	#		
	20/ Area with Level I Services (ha)	#		
	21/ Area with No Services (ha)	#		
	22/ Rural Pop. with Level III Services	#		
	23/ Urban Pop. with Level III Services	#		
	24/ Population with Level II Services	#		
	25/ Population with Level I Services	#		
	26/ Population with No Services	#		
	27/ Rural Households w/ Level III Services	#		
	28/ Urban Households w/ Level III Services	#		
	29/ Households with Level II Services	#		
	30/ Households with Level I Services	#		
	31/ Households with No Services	#		
	32/ House Connections	#		
	33/ Population per House Connection	#		
34/ Households per House Connection	#			
35/ Communal Faucets	#			
36/ Population per Communal Faucets	#			
37/ Households per Communal Faucets	#			
Actual System Including Extension	38/ Year of Update	#		
	39/ Size of Service Area (ha)	#		
	40/ Population in Service Area	#		
	41/ Households in Service Area	#		
	42/ Area with Level III Services (ha)	#		
	43/ Area with Level II Services (ha)	#		
	44/ Area with Level I Services (ha)	#		
	45/ Area with No Services (ha)	#		
	46/ Rural Pop. with Level III Services	#		
	47/ Urban Pop. with Level III Services	#		
	48/ Population with Level II Services	#		
	49/ Population with Level I Services	#		
	50/ Population with No Services	#		
51/ Rural Households with Level III Services	#			
52/ Urban Households with Level III Services	#			
53/ Households with Level II Services	#			
54/ Households with Level I Services	#			
55/ Households with No Services	#			
56/ House Connections	#			
57/ Population per House Connection	#			
58/ Communal Faucets	#			
59/ Pop. per Communal Faucet	#			
60/ HH per Communal Faucet	#			

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: WATER SUPPLY - Level III System		Date:	Page:	Filename: h20supp.xls	
Data Collection Level: System		Prov. No.:	Mun. No.:	Shtname: (S)Level III P2-4	
Region No.:	Province Name:	Mun. Name:	Form No.: S 5.2.2		
INFO. GROUP	INFO DESCRIPTION	CODE	DATA		
Water Sources	61/ Main Source A: (Source Type)	#			
	62/ Source No.	#			
	63/ Source Capacity (m ³ /h)	#			
	64/ Operating Time (hrs/d)	#			
	65/ Main Source B: (Source Type)	#			
	66/ -Source No.	#			
	67/ -Source Capacity (m ³ /h)	#			
	68/ -Operating Time (hrs/d)	#			
	69/ Main Source C: (Source Type)	#			
	70/ -Source No.	#			
	71/ -Source Capacity (m ³ /h)	#			
	72/ -Operating Time (hrs/d)	#			
	73/ Main Source D: (Source Type)	#			
	74/ -Source No.	#			
	75/ -Source Capacity (m ³ /h)	#			
	76/ -Operating Time (hrs/d)	#			
	77/ Main Source E: (Source Type)	#			
	78/ -Source No.	#			
	79/ -Source Capacity (m ³ /h)	#			
	80/ -Operating Time (hrs/d)	#			
	81/ Main Source : F (Source Type)	#			
	82/ -Source No.	#			
	83/ -Source Capacity (m ³ /h)	#			
	84/ -Operating Time (hrs/d)	#			
	Other Well Sources				
	85/ -Number	#			
	86/ -Total Capacity (m ³ /h)	#			
	87/ -Total Production (m ³ /d)	#			
	Other Surface Water Sources				
	88/ -Number	#			
	89/ -Total Capacity (m ³ /h)	#			
	90/ -Total Production (m ³ /d)	#			
	Other Spring Sources				
91/ -Number	#				
92/ -Total Capacity	#				
93/ -Total Production	#				
Water Production					
94/ Grand Total Production	#				
Last Year's Production					
Production Statistics	95/ -January (m ³ /month)	#			
	96/ -February (m ³ /month)	#			
	97/ -March (m ³ /month)	#			
	98/ -April (m ³ /month)	#			
	99/ -May (m ³ /month)	#			
	100/ -June (m ³ /month)	#			
	101/ -July (m ³ /month)	#			
	102/ -August (m ³ /month)	#			
	103/ -September (m ³ /month)	#			
	104/ -October (m ³ /month)	#			
	105/ -November (m ³ /month)	#			
	106/ -December (m ³ /month)	#			
Transmission/ Distribution	107/ Length of Transmission Mains (m)	#			
	108/ Length of Distribution Mains (m)	#			
	109/ Number of Reservoirs	#			
	110/ Total Volume of Reservoirs (m ³)	#			

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: WATER SUPPLY - Level III System		Date:	Page:	Filename:h20supp.xls
Data Collection Level: System		Prov. No.:	Mun. No.:	Shiname:(S)Level III P3-4
Region No.:		Province Name:	Mun. Name:	Form No.: S 5.2.3
INFO. GROUP	INFO DESCRIPTION	CODE	DATA	
Service Level (Dry Season)	111/ Supply Period (hrs/d)	#		
	Dirty Water	#		
	112/ a) Everyday	#		
	113/ b) Once a Week	#		
	114/ c) Once a Month	#		
	115/ d) Occasionally	#		
	Taste / Smell	#		
	116/ a) Good Taste	#		
	117/ b) Salty Taste	#		
	118/ c) Woody Taste	#		
	119/ d) Metallic Taste	#		
	120/ e) Others	#		
	Supply Interruption	#		
	121/ - Power Failure (times/month)	#		
	122/ - Pump Breakdown (times/month)	#		
	123/ - Pipe Burst (times/month)	#		
	124/ - Other (times/month)	#		
	Water Pressure	#		
	125/ - Supply, 2nd floor (% of Total)	#		
	126/ - Supply, Ground floor (% of Total)	#		
127/ - Inadequate Pressure (% of Total)	#			
Consumer	Domestic H.C. Consumers	#		
	128/ - Number of Metered Connections	#		
	129/ - Consumption (m ³ /d)	#		
	130/ - Number of Unmetered Connections	#		
	Domestic P.F. Consumers	#		
	131/ - Number of Metered Public Faucets	#		
	132/ - Consumption (m ³ /d)	#		
	133/ - Number of Unmetered Public Faucets	#		
	Institutional Consumers	#		
	134/ - Number of Metered Connections	#		
	135/ - Consumption (m ³ /d)	#		
	136/ - Number of Unmetered Connections	#		
	Commercial Consumers	#		
	137/ - Number of Metered Connections	#		
	138/ - Consumption (m ³ /d)	#		
	139/ - Number of Unmetered Connections	#		
Industrial Consumers	#			
140/ - Number of Metered Connections	#			
141/ - Consumption (m ³ /d)	#			
142/ - Number of Unmetered Connections	#			
Staff	143/ No. of Technical Professionals	#		
	144/ No. of Operators	#		
	145/ No. of Technical Support Staff	#		
	146/ No. of Administrative Staff	#		
	147/ No. of Collectors	#		
	148/ Total No. of Staff	#		
Consumption	149/ Metered Consumption (m ³ /year)	#		
	150/ -January (m ³ /month)	#		
	151/ -February (m ³ /month)	#		
	152/ -March (m ³ /month)	#		
	153/ -April (m ³ /month)	#		
	154/ -May (m ³ /month)	#		
	155/ -June (m ³ /month)	#		
	156/ -July (m ³ /month)	#		
	157/ -August (m ³ /month)	#		
	158/ -September (m ³ /month)	#		
	159/ -October (m ³ /month)	#		
	160/ -November (m ³ /month)	#		
	161/ -December (m ³ /month)	#		
	162/ Last Year's Consumption (m ³ /year)	#		

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: WATER SUPPLY - Level III System		Date:	Page:	Filename: h20supp.xls
Data Collection Level: System		Prov. No.:	Mun. No.:	Sheetname (S): Level III P4-4
Region No.:	Province Name:	Mun. Name:	Form No.: S 5.2.4	
INFO. GROUP	INFO DESCRIPTION	CODE	DATA	
Consumption (continued)	163/ - Domestic (Pesos/m ³)	#		
	164/ - Institutional (Pesos/m ³)	#		
	165/ - Commercial (Pesos/m ³)	#		
	166/ - Industrial (Pesos/m ³)	#		
	167/ - Others (m ³ /yr)	#		
Expenditures	168/ Annual Expenditures (Pesos/yr)	#		
	169/ - Wages (Pesos/yr)	#		
	170/ - Fuel, Chem, Materials (Pesos/yr)	#		
	171/ - Transport (Pesos/yr)	#		
	172/ - Repairs (Pesos/yr)	#		
	173/ - Loan Repayment (Pesos/yr)	#		
	174/ - Others (Pesos/yr)	#		
Tariff Structure	Residential Consumption:			
	175/ 0 - 10 m ³ /month (Pesos/m ³)	#		
	176/ 11 - 20 m ³ /month (Pesos/m ³)	#		
	177/ 21 - 30 m ³ /month (Pesos/m ³)	#		
	178/ 31 - 40 m ³ /month (Pesos/m ³)	#		
	179/ 41 & Up m ³ /month (Pesos/m ³)	#		
	180/ Flat Rate per Month (Pesos/m ³)	#		
	Institutional Consumption:			
	181/ 0 - 10 m ³ /month (Pesos/m ³)	#		
	182/ 11 - 20 m ³ /month (Pesos/m ³)	#		
	183/ 21 - 30 m ³ /month (Pesos/m ³)	#		
	184/ 31 - 40 m ³ /month (Pesos/m ³)	#		
	185/ 41 & Up m ³ /month (Pesos/m ³)	#		
	186/ Flat Rate per Month (Pesos/m ³)	#		
	Commercial Consumption:			
	187/ 0 - 10 m ³ /month (Pesos/m ³)	#		
	188/ 11 - 20 m ³ /month (Pesos/m ³)	#		
	189/ 21 - 30 m ³ /month (Pesos/m ³)	#		
	190/ 31 - 40 m ³ /month (Pesos/m ³)	#		
	191/ 41 & Up m ³ /month (Pesos/m ³)	#		
	192/ Flat Rate per Month (Pesos/m ³)	#		
	Industrial Consumption:			
	193/ 0 - 10 m ³ /month (Pesos/m ³)	#		
	194/ 11 - 20 m ³ /month (Pesos/m ³)	#		
195/ 21 - 30 m ³ /month (Pesos/m ³)	#			
196/ 31 - 40 m ³ /month (Pesos/m ³)	#			
197/ 41 & Up m ³ /month (Pesos/m ³)	#			
198/ Flat Rate per Month (Pesos/m ³)	#			
199/ Avg. Collection Efficiency (%)	#			
Revenues	200/ Annual Revenues (Pesos/yr)	#		
	201/ - Residential (Pesos/yr)	#		
	202/ - Institutional (Pesos/yr)	#		
	203/ - Commercial (Pesos/yr)	#		
	204/ - Industrial (Pesos/yr)	#		
	205/ - Others (Pesos/yr)	#		
	Policy on Non-Payment			
	206/ - Time Before Disconnect (days)	#		
	207/ - Annual No. of Disconnect	#		
	208/ - Reconnection Fee (Pesos)	#		

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Supply - Level I Facility		Page:												
Data Collection Level: Municipal		Date:												
Region Number:		Province Number:												
NEIDA Geographic Code		Province Name:												
Municipality	Area	Public Facility						Private Facility				Total		
		Deep Well	Shallow Well	Covered/Improved Dug Well	Open Dug Well	Developed Spring	Sub-Total	Deep Well	Shallow Well	Covered/Improved Dug Well	Open Dug Well		Rain Collector	Sub-Total
	Urban													
	Rural													
	Total													
	Urban													
	Rural													
	Total													
	Urban													
	Rural													
	Total													
	Urban													
	Rural													
	Total													
	Urban													
	Rural													
	Total													
	Urban													
	Rural													
	Total													
	Urban													
	Rural													
	Total													
Provincial Total														