

**Water Utility: Metro Carigara Water District (Metro Carigara WD)**

Carigara, Leyte, Philippines

**Contact Details:** General Manager: Regidor , , V. Caballes  
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**Services Provided:** Piped water, , , ,  
**Utility Type:** , Government with separate reporting for WS&S, , , , ,

**Private Sector Involvement:** None, , , , , ,

**Source of Raw Water:** , , Direct river abstraction, ,

**Treatment Method:** , Disinfection, , , , ,

**Water Supply System description:**

Production capacity = 11,364 m3/day		Distribution network = 28 km		Storage capacity = 133 m3	
Area (sq km)		Area of Responsibility		Present Service Area	
Population		112,782		24,258	
No. of Towns = 4		Population served = 24,812			
<u>No. of connections:</u>		Domestic (Households) = 3,279		Non Domestic = 204	
Typical service connection length = m		Total Connections = 3,483		Connections with operating meter = 2,926	
System input volumes:		Produced by W.U. = 1.1 million m3/year		Bulk water imported = zero	
Water consumption:		Metered cons. = 0.7 million m3/year		% Unmetered cons. = N/A	
Water Sales:		Domestic = 0.6 million m3/year		Non Domestic = 0.1 million m3/year	
<u>System Performance:</u>		No. of connections with intermittent supply = N/A		Typical duration of supply = 24.0 hours / day	
Chlorine Residuals:		Tests required = N/A		Tests carried out = N/A	
		No. of pipe breaks in distribution system = 825 / year		Typical water pressure in mains = N/A	
				Tests passed = N/A	

**Human Resources (Staff)**

<u>Type of employment:</u> Permanent staff: salaried Government employees, , , , ,			
<u>No. of staff (FTE):</u> Corporate Services = 17		Water Supply = 14	
Staff Training: No. Trained = N/A		Training days = N/A	
Other = zero		Total = 31	
		Training costs = N/A	

**Customer information**

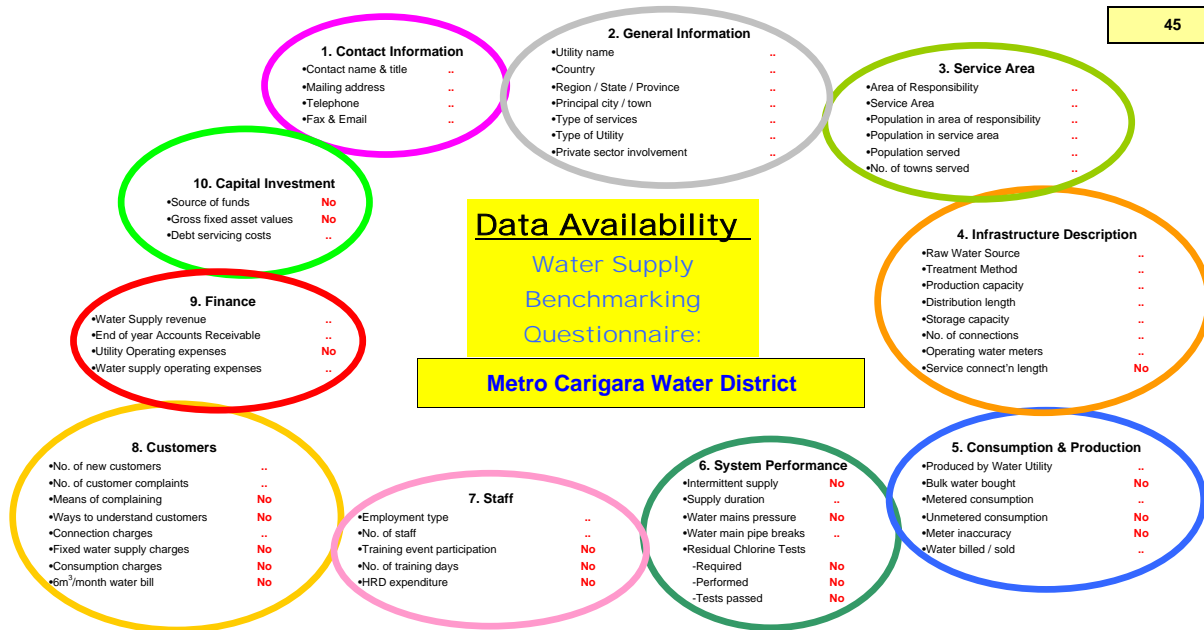
Customer interaction:		New connections = 129 / year		Customer complaints = 973 / year	
Complaint method: , , , ,					
Understanding customers by: , , , ,					

**Charges & Fees**

<u>Typical connection charge:</u>		Domestic = 3,004PHP / conn. (54 US\$ / conn.)		Non Domestic = N/A	
<u>Fixed water charge:</u>		Domestic = N/A		Non Domestic = N/A	
		N/A		Bulk water sales = N/A	
<u>Water consumption tariff</u> (typical of all towns and in each category):		N/A		N/A	
		Tariff Block 1		Tariff Block 2	
		Tariff Block 3		Tariff Block 4	
Domestic	From - To (m <sup>3</sup> )				
	Price (PHP / m3)				
	(US\$ / m <sup>3</sup> )				
Non Domestic	From - To (m <sup>3</sup> )				
	Price (PHP / m3)				
	(US\$ / m <sup>3</sup> )				
Bulk Water	From - To (m <sup>3</sup> )				
	Price (PHP / m3)				
	(US\$ / m <sup>3</sup> )				
Water bill for household consuming 6 m <sup>3</sup> /month =				N/A	

**Finances**

					Year end Accounts		
<u>Revenue:</u>		Water Sales		Other water related		Subsidies & grants	
PHP / year		14,093,094		zero		zero	
US\$ / year		\$252,474		zero		zero	
		Total		Total		Year end Accounts Receivable	
		14,093,094		\$252,474		2,186,304	
		\$39,167					
<u>Operating Expenses:</u>		Water supply		Other services		Company Overhead	
PHP / year		zero		zero		zero	
US\$ / year		zero		zero		zero	
		Total		Total			
		10,201,263		\$182,753			
<u>Water Supply Operating breakup:</u>		Labor		Electricity		Chemicals & materials	
PHP / year		3,771,110		110,895		1,538,339	
US\$ / year		\$67,558		\$1,987		\$27,559	
		Contracted out		Other expenses			
		zero		4,780,918			
		\$85,649					
<u>Investment funds source:</u> , , , , , ,							
<u>Fixed Assets value:</u>		Water supply		Other services		Company Overhead	
PHP		zero		zero		zero	
US\$		zero		zero		zero	
		Total		Total		Debt Servicing Costs	
		23,169,652		\$415,078		1,129,142	
						\$20,228	



## Calculation of Overall Performance Indicator (OPI)

Customer Indicators	Value	Rank
Service Coverage in existing service area (%)	102.3%	(1 / 45)
Meter coverage (% with operating water meter)	84.0%	(46 / 46)
Customer complaints / 1000 connections	279.4	(8 / 41)

Water Supply Systems O&M	Value	Rank
Supply Continuity (% of time water available)	100.0%	(1 / 47)
Residual Chlorine tests passed (%)	#N/A	
Total Unmetered Consumption (% of metered cons.)		
Infrastructure Leakage Index [ILI]	#N/A	

**Carigara**  
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**Overall Performance Indicator (OPI) = - 0.69**  
Number of Standardized Indicators available = 8  
Overall Ranking = (46 / 47)

Human Resource Indicators	Value	Rank
Total water related staff / 1000 connections	8.9	(28 / 38)
Investment in staff training (days / staff)	#N/A	
Ave. cost of employment / staff (% of per capita GNI)	202%	(21 / 37)

Financial Indicators	Value	Rank
Operating Cost Coverage (water sales only)	1.38	(12 / 43)
Unit water cost (US\$ / m <sup>3</sup> of system input)	\$0.16	(30 / 43)
Water system asset value / Prod'n capacity (US\$ / m <sup>3</sup> /day)	#N/A	
Debt servicing ratio (% of total operating revenue)		

**Financial Indicators: Annual expenses & revenue**

Operating Cost Coverage		Expenses	
Operating Cost Coverage (water sales only)	1.38	Overhead expenses / Total Operating expenses ratio	#N/A
Operating Cost Coverage (total revenue)	1.38	Labour costs / Water operating expenses	#N/A
		Electricity costs / Water operating expenses	#N/A
		Chemical & other materials costs / Water operating expenses	#N/A
		Contracted out services costs / Water operating expenses	#N/A
Revenue		Unit water cost	(US\$ / m <sup>3</sup> of metered cons.) 0.26
Water sales revenue / Total revenue ratio	1.00		(US\$ / m <sup>3</sup> of system input) 0.16
Subsidies & Grants / Total revenue ratio	0.00		
Revenue Collection period (months)	1.86	Debt servicing ratio (% of total operating revenue)	8.0%
Unit water price - ave. (US\$ / m <sup>3</sup> of metered cons.)	0.36		

**Fixed Assets**

Corporate Fixed Assets / Total Fixed Assets	#N/A
Water system asset values	
Asset value / Total water related assets	#N/A
Asset value / Prod'n capacity (US\$ / m <sup>3</sup> /day)	#N/A
Asset value / pipe length (US\$ / m. pipe)	#N/A
Asset value / Customer (US\$ / conn.)	#N/A

**System Input**

Production capacity utilization (%)	27%
Bulk water imported (% of total system input)	0%
System Input Rate (litres/person/day)	124
(m <sup>3</sup> /connection/month)	27.0
System Input / Distribution ratio (m <sup>3</sup> /day per km pipe)	110.0
System Input / Storage ratio (m <sup>3</sup> /day per m <sup>3</sup> storage)	23.2
Supply Continuity (% customers with continuous supply)	100%
Supply Continuity (% of time water available)	100%

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OPI Ranking = 46 / 47

**Human Resource Indicators**

Human Resource Utilisation		Human Resource Development	
Overhead staff ratio (% of total FTE staff)	55%	Staff Training participation rate (% staff)	#N/A
Water supply staff ratio (% of total FTE staff)	45%	Staff Training duration rate (days / staff)	#N/A
Total water related staff / 1000 connections	8.90	Investment in staff training (% of direct labour costs)	#N/A
Direct water supply staff		Investment in staff training (% of total operating costs)	#N/A
Staff / 1000 connections	4.00	Human Resources Costs	
Staff / 1000 m <sup>3</sup> /day system input	4.60	Ave. cost of employment / staff (% of per capita GNI)	2.02
Staff / 100 km of pipework	50.00	Contracting out services / in-house Labour costs ratio	#N/A

**Distribution**

Distribution / customer (m. pipe per connection)	8.0
Storage / customer (m <sup>3</sup> per connection)	0.00
Residual Chlorine	
Sampling compliance (%)	#N/A
Tests passed (%)	#N/A
Non Revenue Water (UFW)	
% of System Input	38%
m <sup>3</sup> / km / day	41.5
m <sup>3</sup> / connection / day	0.33
NRW adjusted for continuous supply (% of System Input)	#N/A
Unbilled Authorized & Unauthorized Cons. (% of metered cons.)	#N/A
Unmetered cons. due to meter inaccuracies (% of metered cons.)	#N/A
Total Unmetered Consumption (% of metered cons.)	#N/A
Infrastructure Leakage Index [ILI]	#N/A
Mains failures ratio (breaks / km pipe / year)	29.50

**Water consumption**

Bulk water exported (% of total metered cons.)	0%
Average domestic water charges (% of per capita GNI)	1%
Metered consumption rate	
- Domestic (litres/person/day)	68
- Total Cons. (litres/person/day)	77
	(m <sup>3</sup> /conn/month)
	17
Total consumption - metered & unmetered	
	(litres/person/day)
	#N/A
	(m <sup>3</sup> /conn/month)
	#N/A
Domestic share of total metered consumption (%)	89%
Non Domestic share of total metered consumption (%)	11%

**Demography**

Average town / city size (persons / town)	28,196
Population density in area of responsibility (persons/sq.km)	3,759
Population density in existing service area (persons/sq.km)	1,516
Average Household size (persons / domestic connection)	8

**Customer Interactions**

Customer complaints / 1000 connections	279
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**Connections**

Service Coverage in area of responsibility (%)	22%
Service Coverage in existing service area (%)	102%
Domestic / Non-Domestic connections ratio	16.1
Domestic / Non-Domestic consumption rate ratio	8.1
New connection growth rate (% / year)	4%
New domestic connection cost (US\$ / connection)	54
New domestic connections (% of per capita GNI)	1%
Meter coverage (% with operating water meter)	84%
Billed unmetered consumption (% of metered cons.)	0%

# Water Sales & Production Information

## Metro Carigara Water District

