

SEAWUN Benchmarking Survey for 2003 - Base Data

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Water Utility: Ho Chi Minh Water Supply Company (HCMWSA)

Ho Chi Minh City, Ho Chi Minh, Vietnam

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Services Provided: Piped water, , ,

Utility Type: , , , State Owned Enterprise, , ,

Private Sector Involvement: , Service Contract, Management Contract, , , BOOT, BOT Contract,

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

Treatment Method: , Disinfection, Filtration, Flocculation and sedimentation, , ,

Water Supply System description:

Production capacity = 975,000 m3/day		Distribution network = 3,422 km		Storage capacity = 153,470 m3	
		Area of Responsibility		Present Service Area	
Area (sq km)		2,095		1,551	
Population		5,630,192		5,143,998	
		No. of Towns = 1		Population served = 3,539,421	
<u>No. of connections:</u>		Domestic (Households) = 381,697		Non Domestic = 11,572	
		Typical service connection length = 6 m		Total Connections = 393,269	
				Connections with operating meter = 392,178	
System input volumes:		Produced by W.U. = 286.7 million m3/year		Bulk water imported = 58.1 million m3/year	
Water consumption:		Metered cons. = 209.4 million m3/year		% Unmetered cons. = 39% of metered cons.	
				Ave. meter inaccuracy = 5% of metered cons.	
Water Sales:		Domestic = 154.6 million m3/year		Non Domestic = 54.8 million m3/year	
				Bulk Water sales = zero	
<u>System Performance:</u>		No. of connections with intermittent supply = 1,091		Typical duration of supply = 23.6 hours / day	
		No. of pipe breaks in distribution system = 15,335 / year		Typical water pressure in mains = 5 m.	
Chlorine Residuals:		Tests required = 8,760 / year		Tests carried out = 8,760 / year	
				Tests passed = 8,760 / year	

Human Resources (Staff)

<u>Type of employment:</u> Permanent staff: salaried Government employees, Permanent staff: with contract, Casual/part-time: contract staff, , ,			
<u>No. of staff (FTE):</u> Corporate Services = 268 Water Supply = 1,821 Other = zero Total = 2,089			
<u>Staff Training:</u> No. Trained = 568 / year Training days = 180 / year Training costs = 0.20% of total operating budget			

Customer information

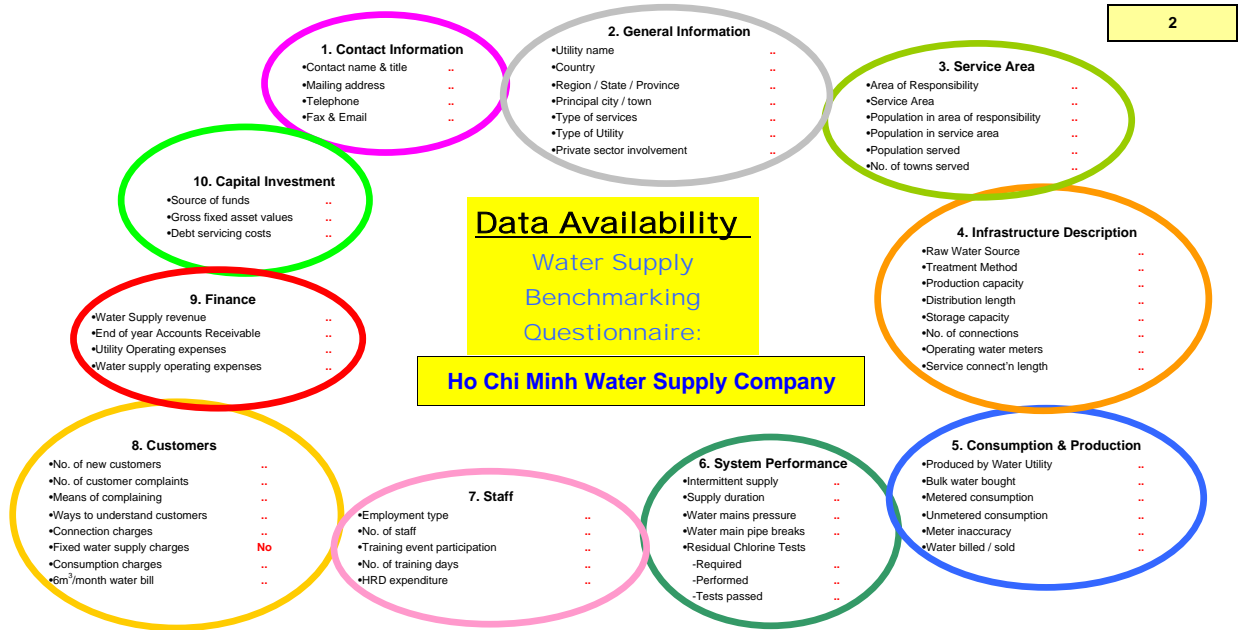
Customer interaction:		New connections = 34,724 / year		Customer complaints = 484 / year	
Complaint method:		In person, By telephone, , By letter,			
Understanding customers by:		Customer interactions, Responding to complaints, Surveys, questionnaires, etc., ,			

Charges & Fees

<u>Typical connection charge:</u>		Domestic = 1,375,000VND / conn. (87 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 ³)	0 - 4		4 - 6	
	Price (VND / m ³)	1,700		2,500	
	(US\$ / m ³)	\$0.11		\$0.16	
Non Domestic	From - To (m ³)	6 - 10		>10	
	Price (VND / m ³)	3,200		4,000	
	(US\$ / m ³)	\$0.20		\$0.25	
Bulk Water	From - To (m ³)				
	Price (VND / m ³)				
	(US\$ / m ³)				
		Water bill for household consuming 6 m ³ /month =		10,200 VND / month (0.65 US\$ / month)	

Finances

<u>Revenue:</u>					Year end Accounts Receivable
VND / year					43,013,520
US\$ / year					\$2,728
<u>Operating Expenses:</u>					
VND / year					415,454,053,297
US\$ / year					\$26,346,252
<u>Water Supply Operating breakup:</u>					
VND / year					65,667,816,225
US\$ / year					\$4,164,361
<u>Investment funds source:</u> Own internal funds, , Loan from Government Bank, Loan from ODA sources, , ,					
<u>Fixed Assets value:</u>					Debt Servicing Costs
VND					179,714,613,966
US\$					\$11,396,703



Calculation of Overall Performance Indicator (OPI)

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Customer Indicators	Value	Rank
Service Coverage in existing service area (%)	68.8%	(26 / 45)
Meter coverage (% with operating water meter)	99.7%	(42 / 46)
Customer complaints / 1000 connections	1.2	(38 / 41)

Water Supply Systems O&M	Value	Rank
Supply Continuity (% of time water available)	98.3%	(36 / 47)
Residual Chlorine tests passed (%)	100.0%	(1 / 34)
Total Unmetered Consumption (% of metered cons.)		
Infrastructure Leakage Index [ILI]	68.8	(21 / 26)



Human Resource Indicators	Value	Rank
Total water related staff / 1000 connections	5.3	(13 / 38)
Investment in staff training (days / staff)	0.1	(30 / 33)
Ave. cost of employment / staff (% of per capita GNI)	433%	(5 / 37)

Financial Indicators	Value	Rank
Operating Cost Coverage (water sales only)	1.39	(11 / 43)
Unit water cost (US\$ / m ³ of system input)	\$0.08	(9 / 43)
Water system asset value / Prod'n capacity (US\$ / m ³ /day)	\$18	(2 / 35)
Debt servicing ratio (% of total operating revenue)		

Financial Indicators: Annual expenses & revenue

<u>Operating Cost Coverage</u>		<u>Expenses</u>	
Operating Cost Coverage (water sales only)	1.39	Overhead expenses / Total Operating expenses ratio	0.09
Operating Cost Coverage (total revenue)	1.5	Labour costs / Water operating expenses	0.18
		Electricity costs / Water operating expenses	0.22
		Chemical & other materials costs / Water operating expenses	0.05
		Contracted out services costs / Water operating expenses	0.38
<u>Revenue</u>			
Water sales revenue / Total revenue ratio	0.93	Unit water cost (US\$ / m ³ of metered cons.)	0.13
Subsidies & Grants / Total revenue ratio	0.00	(US\$ / m ³ of system input)	0.08
Revenue Collection period (months)	0.00	Debt servicing ratio (% of total operating revenue)	28.8%
Unit water price - ave. (US\$ / m ³ of metered cons.)	0.18		

Fixed Assets

Corporate Fixed Assets / Total Fixed Assets	0.79
Water system asset values	
Asset value / Total water related assets	0.22
Asset value / Prod'n capacity (US\$ / m ³ /day)	18
Asset value / pipe length (US\$ / m. pipe)	5
Asset value / Customer (US\$ / conn.)	44

System Input

Production capacity utilization (%)	81%
Bulk water imported (% of total system input)	17%
System Input Rate (litres/person/day)	267
(m ³ /connection/month)	73.0
System Input / Distribution ratio (m ³ /day per km pipe)	276.0
System Input / Storage ratio (m ³ /day per m ³ storage)	6.2
Supply Continuity (% customers with continuous supply)	100%
Supply Continuity (% of time water available)	98%

Ho Chi Minh City Vietnam Water Supply

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(HCMWSA)

OPI Ranking = 21 / 47

Human Resource Indicators

<u>Human Resource Utilisation</u>		<u>Human Resource Development</u>	
Overhead staff ratio (% of total FTE staff)	13%	Staff Training participation rate (% staff)	27%
Water supply staff ratio (% of total FTE staff)	87%	Staff Training duration rate (days / staff)	0.1
Total water related staff / 1000 connections	5.30	Investment in staff training (% of direct labour costs)	1.10%
Direct water supply staff		Investment in staff training (% of total operating costs)	0.20%
Staff / 1000 connections	4.60		
Staff / 1000 m ³ /day system input	1.90	<u>Human Resources Costs</u>	
Staff / 100 km of pipework	53.20	Ave. cost of employment / staff (% of per capita GNI)	4.33
		Contracting out services / in-house Labour costs ratio	2.10

Distribution

Distribution / customer (m. pipe per connection)	8.7
Storage / customer (m ³ per connection)	0.40
Residual Chlorine	
Sampling compliance (%)	100%
Tests passed (%)	100%
Non Revenue Water (UFW)	
% of System Input	39%
m ³ / km / day	108.4
m ³ / connection / day	0.94
NRW adjusted for continuous supply (% of System Input)	40%
Unbilled Authorized & Unauthorized Cons. (% of metered cons.)	34%
Unmetered cons. due to meter inaccuracies (% of metered cons.)	5%
Total Unmetered Consumption (% of metered cons.)	39%
Infrastructure Leakage Index [ILI]	68.80
Mains failures ratio (breaks / km pipe / year)	4.50

Water consumption

Bulk water exported (% of total metered cons.)	0%
Average domestic water charges (% of per capita GNI)	2%
Metered consumption rate - Domestic (litres/person/day)	120
- Total Cons. (litres/person/day)	162
(m ³ /conn/month)	44
Total consumption - metered & unmetered (litres/person/day)	225.00
(m ³ /conn/month)	62.00
Domestic share of total metered consumption (%)	74%
Non Domestic share of total metered consumption (%)	26%

Demography

Average town / city size (persons / town)	5,630,192
Population density in area of responsibility (persons/sq.km)	2,687
Population density in existing service area (persons/sq.km)	3,316
Average Household size (persons / domestic connection)	9

Customer Interactions

Customer complaints / 1000 connections	1
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Connections

Service Coverage in area of responsibility (%)	63%
Service Coverage in existing service area (%)	69%
Domestic / Non-Domestic connections ratio	33.0
Domestic / Non-Domestic consumption rate ratio	2.8
New connection growth rate (% / year)	9%
New domestic connection cost (US\$ / connection)	87
New domestic connections (% of per capita GNI)	2%
Meter coverage (% with operating water meter)	100%
Billed unmetered consumption (% of metered cons.)	0%

Water Sales & Production Information

Ho Chi Minh Water Supply Company

