

SEAWUN Benchmarking Survey for 2003 - Base Data

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Water Utility: Thua Thien Hue Water Supply & Sewerage Company (CTCTN Hue)

Thua Thien Hue Province, Thua Thien Hue, Vietnam

Contact Details: Chief Director of Planning Department: Nguyen, Khoa, Hien

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Services Provided: Piped water, . . .

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

Private Sector Involvement: None,

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

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

Water Supply System description:

Production capacity = 99,200 m3/day		Distribution network = 680 km		Storage capacity = 11,250 m3	
Area (sq km)		Area of Responsibility		Present Service Area	
Population		1,118,612		1,118,612	
No. of Towns = 9		Population served = 416,482			
No. of connections:		Domestic (Households) = 43,421		Non Domestic = 2,046	
		Typical service connection length = 17 m		Total Connections = 45,467	
				Connections with operating meter = 45,467	
System input volumes:		Produced by W.U. = 20.2 million m3/year		Bulk water imported = zero	
Water consumption:		Metered cons. = 17.3 million m3/year		% Unmetered cons. = N/A	
				Ave. meter inaccuracy = N/A	
Water Sales:		Domestic = 12.2 million m3/year		Non Domestic = 3.8 million m3/year	
				Bulk Water sales = zero	
System Performance:		No. of connections with intermittent supply = N/A		Typical duration of supply = 24.0 hours / day	
		No. of pipe breaks in distribution system = 1,697 / year		Typical water pressure in mains = 18 m.	
Chlorine Residuals:		Tests required = N/A		Tests carried out = 58,400 / year	
				Tests passed = 57,232 / year	

Human Resources (Staff)

Type of employment: Permanent staff: salaried Government employees, Permanent staff: with contract, Casual/part-time: contract staff, Casual/part-time: wages, Contracted out to			
No. of staff (FTE): Corporate Services = zero Water Supply = zero Other = zero Total = 487			
Staff Training: No. Trained = 164 / year Training days = 4,920 / year Training costs = 0.04% of total operating budget			

Customer information

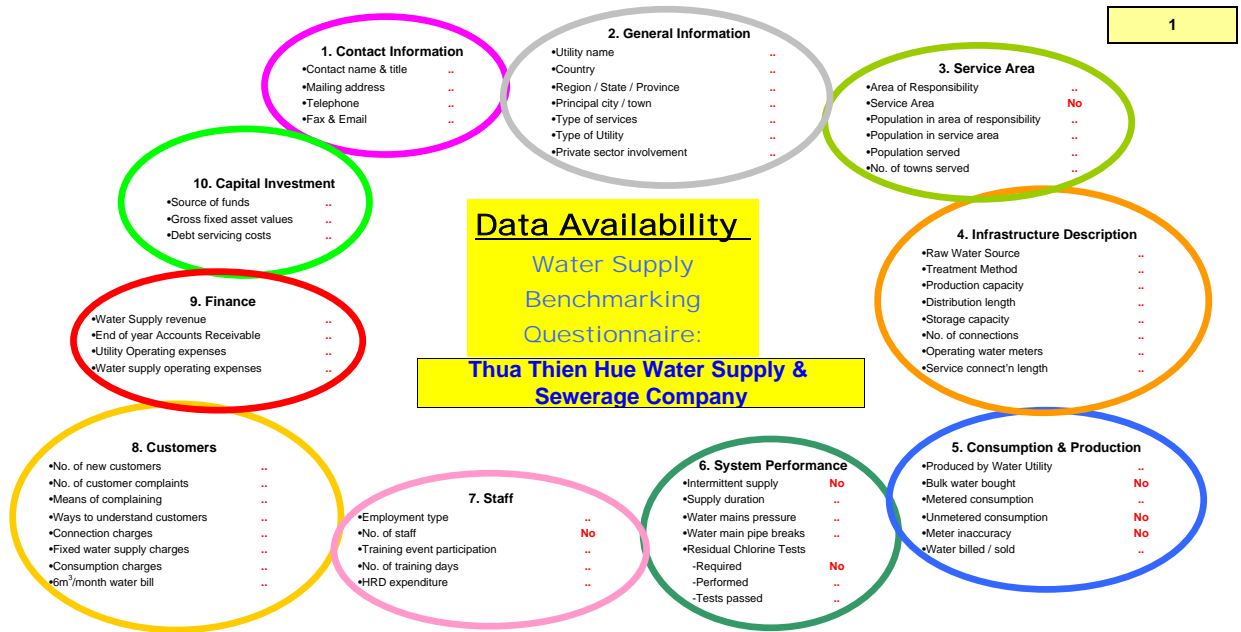
Customer interaction:		New connections = 8,541 / year		Customer complaints = 938 / year	
Complaint method:		In person, By telephone, By email, By letter,			
Understanding customers by: Customer interactions, Responding to complaints, Surveys, questionnaires, etc., . . . Other method: Through holding workshop/seminar to increase more customer					

Charges & Fees

Typical connection charge:		Domestic = 934,000VND / conn. (59 US\$ / conn.)		Non Domestic = N/A N/A	
Fixed water charge:		Domestic = 1,500VND / month (0 US\$ / conn.)		Non Domestic = 1,500VND / month (0 US\$ / conn.)	
				Bulk water sales = N/A N/A	
Water consumption tariff (typical of all towns and in each category):					
		Tariff Block 1		Tariff Block 2	
		Tariff Block 3		Tariff Block 4	
Domestic	From - To (m ³)	0 - 16	16 - 25	25 - 35	>35
	Price (VND / m3)	2,100	2,950	3,500	4,000
	(US\$ / m ³)	\$0.13	\$0.19	\$0.22	\$0.25
Non Domestic	From - To (m ³)				
	Price (VND / m3)	5,333			
	(US\$ / m ³)	\$0.34			
Bulk Water	From - To (m ³)				
	Price (VND / m3)				
	(US\$ / m ³)				
Water bill for household consuming 6 m ³ /month = 14,100 VND / month (0.89 US\$ / month)					

Finances

Revenue:					Year end Accounts Receivable
VND / year		Water Sales	Other water related	Subsidies & grants	Total
US\$ / year		35,354,760,000	16,016,075,000	zero	51,370,835,000
		\$2,242,042	\$1,015,668	zero	\$3,257,710
					\$214,826
Operating Expenses:					
VND / year		Water supply	Other services	Company Overhead	Total
US\$ / year		28,851,166,775	zero	1,742,313,606	30,593,480,381
		\$1,829,613	zero	\$110,490	\$1,940,103
Water Supply Operating breakup:					
VND / year		Labor	Electricity	Chemicals & materials	Contracted out
US\$ / year		7,129,744,982	2,612,539,240	842,596,284	zero
		\$452,137	\$165,676	\$53,434	zero
					\$1,311,109
Investment funds source: Own internal funds, Grant from Government or ODA project, Other method: Combination of annual budget fund & fund for national					
Fixed Assets value:					Debt Servicing Costs
VND		Water supply	Other services	Company Overhead	Total
US\$		122,196,728,043	zero	13,637,079,358	135,833,807,401
		\$7,749,174	zero	\$864,803	\$8,613,977
					\$628,946

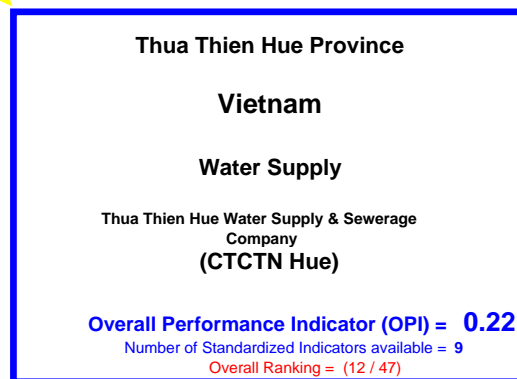


Calculation of Overall Performance Indicator (OPI)

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Customer Indicators	Value	Rank
Service Coverage in existing service area (%)	37.2%	(42 / 45)
Meter coverage (% with operating water meter)	100.0%	(1 / 46)
Customer complaints / 1000 connections	20.6	(30 / 41)

Water Supply Systems O&M	Value	Rank
Supply Continuity (% of time water available)	100.0%	(1 / 47)
Residual Chlorine tests passed (%)	98.0%	(16 / 34)
Total Unmetered Consumption (% of metered cons.)		
Infrastructure Leakage Index [ILI]	#N/A	



Human Resource Indicators	Value	Rank
Total water related staff / 1000 connections	#N/A	
Investment in staff training (days / staff)	10.1	(2 / 33)
Ave. cost of employment / staff (% of per capita GNI)	#N/A	

Financial Indicators	Value	Rank
Operating Cost Coverage (water sales only)	1.16	(22 / 43)
Unit water cost (US\$ / m ³ of system input)	\$0.10	(16 / 43)
Water system asset value / Prod'n capacity (US\$ / m ³ /day)	\$78	(11 / 35)
Debt servicing ratio (% of total operating revenue)		

Financial Indicators: Annual expenses & revenue			
Operating Cost Coverage		Expenses	
Operating Cost Coverage (water sales only)	1.16	Overhead expenses / Total Operating expenses ratio	0.06
Operating Cost Coverage (total revenue)	1.68	Labour costs / Water operating expenses	0.25
		Electricity costs / Water operating expenses	0.09
		Chemical & other materials costs / Water operating expenses	0.03
		Contracted out services costs / Water operating expenses	#N/A
Revenue			
Water sales revenue / Total revenue ratio	0.69	Unit water cost (US\$ / m ³ of metered cons.)	0.12
Subsidies & Grants / Total revenue ratio	#N/A	Debt servicing ratio (% of total operating revenue)	19.3%
Revenue Collection period (months)	1.15	Unit water cost (US\$ / m ³ of system input)	0.10
Unit water price - ave. (US\$ / m ³ of metered cons.)	0.14		

Fixed Assets	
Corporate Fixed Assets / Total Fixed Assets	0.10
Water system asset values	
Asset value / Total water related assets	#N/A
Asset value / Prod'n capacity (US\$ / m ³ /day)	78
Asset value / pipe length (US\$ / m. pipe)	11
Asset value / Customer (US\$ / conn.)	170

System Input	
Production capacity utilization (%)	56%
Bulk water imported (% of total system input)	0%
System Input Rate (litres/person/day)	
	133
System Input / Distribution ratio (m ³ /day per km pipe)	
	37.0
System Input / Storage ratio (m ³ /day per m ³ storage)	
	4.9
Supply Continuity (% customers with continuous supply)	#N/A
Supply Continuity (% of time water available)	100%

Thua Thien Hue Province
Vietnam
Water Supply
Thua Thien Hue Water Supply & Sewerage Company
(CTCTN Hue)
OPI Ranking = 12 / 47

Human Resource Indicators			
Human Resource Utilisation		Human Resource Development	
Overhead staff ratio (% of total FTE staff)	#N/A	Staff Training participation rate (% staff)	34%
Water supply staff ratio (% of total FTE staff)	#N/A	Staff Training duration rate (days / staff)	10.1
Total water related staff / 1000 connections	#N/A	Investment in staff training (% of direct labour costs)	0.16%
Direct water supply staff		Investment in staff training (% of total operating costs)	0.04%
Staff / 1000 connections	#N/A	Human Resources Costs	
Staff / 1000 m ³ /day system input	#N/A	Ave. cost of employment / staff (% of per capita GNI)	#N/A
Staff / 100 km of pipework	#N/A	Contracting out services / in-house Labour costs ratio	#N/A

Distribution	
Distribution / customer (m. pipe per connection)	15.0
Storage / customer (m ³ per connection)	0.20
Residual Chlorine	
Sampling compliance (%)	#N/A
Tests passed (%)	98%
Non Revenue Water (UFW)	
% of System Input	21%
m ³ / km / day	17.1
m ³ / connection / day	0.26
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)	2.50

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)	80		
- Total Cons. (litres/person/day)	105		
		(m ³ /conn/month)	29
Total consumption - metered & unmetered			
		(litres/person/day)	#N/A
		(m ³ /conn/month)	#N/A
Domestic share of total metered consumption (%)			76%
Non Domestic share of total metered consumption (%)			24%

Demography	
Average town / city size (persons / town)	124,290
Population density in area of responsibility (persons/sq.km)	221
Population density in existing service area (persons/sq.km)	#N/A
Average Household size (persons / domestic connection)	
	10
Customer Interactions	
Customer complaints / 1000 connections	21

Connections	
Service Coverage in area of responsibility (%)	37%
Service Coverage in existing service area (%)	37%
Domestic / Non-Domestic connections ratio	
	21.2
Domestic / Non-Domestic consumption rate ratio	
	3.2
New connection growth rate (% / year)	
	19%
New domestic connection cost (US\$ / connection)	
	59
New domestic connections (% of per capita GNI)	
	1%
Meter coverage (% with operating water meter)	
	100%
Billed unmetered consumption (% of metered cons.)	
	-8%

Water Sales & Production Information

Thua Thien Hue Water Supply & Sewerage Company

