



Calculation of Overall Performance Indicator (OPI)

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Customer Indicators	Value	Rank
Service Coverage in existing service area (%)	61.9%	(31 / 45)
Meter coverage (% with operating water meter)	99.8%	(41 / 46)
Customer complaints / 1000 connections	17.2	(31 / 41)

Water Supply Systems O&M	Value	Rank
Supply Continuity (% of time water available)	83.3%	(39 / 47)
Residual Chlorine tests passed (%)	100.0%	(1 / 34)
Total Unmetered Consumption (% of metered cons.)		
Infrastructure Leakage Index [ILI]	9.2	(11 / 26)



Human Resource Indicators	Value	Rank
Total water related staff / 1000 connections	6	(16 / 38)
Investment in staff training (days / staff)	4.9	(3 / 33)
Ave. cost of employment / staff (% of per capita GNI)	375%	(7 / 37)

Financial Indicators	Value	Rank
Operating Cost Coverage (water sales only)	1.49	(8 / 43)
Unit water cost (US\$ / m ³ of system input)	\$0.08	(10 / 43)
Water system asset value / Prod'n capacity (US\$ / m ³ /day)	\$173	(24 / 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)	1.49	Overhead expenses / Total Operating expenses ratio	0.11
Operating Cost Coverage (total revenue)	2.97	Labour costs / Water operating expenses	0.45
		Electricity costs / Water operating expenses	0.27
		Chemical & other materials costs / Water operating expenses	0.05
		Contracted out services costs / Water operating expenses	0.09
<u>Revenue</u>		Unit water cost	(US\$ / m ³ of metered cons.) 0.11
Water sales revenue / Total revenue ratio	0.50		(US\$ / m ³ of system input) 0.08
Subsidies & Grants / Total revenue ratio	0.00		
Revenue Collection period (months)	0.75	Debt servicing ratio (% of total operating revenue)	20.3%
Unit water price - ave. (US\$ / m ³ of metered cons.)	0.16		

Fixed Assets

Corporate Fixed Assets / Total Fixed Assets	0.03
Water system asset values	
Asset value / Total water related assets	0.99
Asset value / Prod'n capacity (US\$ / m ³ /day)	173
Asset value / pipe length (US\$ / m. pipe)	38
Asset value / Customer (US\$ / conn.)	168

System Input

Production capacity utilization (%)	99%
Bulk water imported (% of total system input)	1%
System Input Rate (litres/person/day)	121
(m ³ /connection/month)	29.0
System Input / Distribution ratio (m ³ /day per km pipe)	217.0
System Input / Storage ratio (m ³ /day per m ³ storage)	9.0
Supply Continuity (% customers with continuous supply)	65%
Supply Continuity (% of time water available)	83%

Dong Thap Vietnam Water Supply

Dong Thap Urban Water Supply, Sewerage & Environment Company (DTWSEC)

OPI Ranking = 19 / 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)	29%
Water supply staff ratio (% of total FTE staff)	40%	Staff Training duration rate (days / staff)	4.9
Total water related staff / 1000 connections	6.00	Investment in staff training (% of direct labour costs)	3.63%
Direct water supply staff		Investment in staff training (% of total operating costs)	1.63%
Staff / 1000 connections	5.20	<u>Human Resources Costs</u>	
Staff / 1000 m ³ /day system input	5.30	Ave. cost of employment / staff (% of per capita GNI)	3.75
Staff / 100 km of pipework	115.80	Contracting out services / in-house Labour costs ratio	0.20

Distribution

Distribution / customer (m. pipe per connection)	4.5
Storage / customer (m ³ per connection)	0.10
Residual Chlorine	
Sampling compliance (%)	#N/A
Tests passed (%)	100%
Non Revenue Water (UFW)	
% of System Input	30%
m ³ / km / day	64.8
m ³ / connection / day	0.29
NRW adjusted for continuous supply (% of System Input)	32%
Unbilled Authorized & Unauthorized Cons. (% of metered cons.)	2%
Unmetered cons. due to meter inaccuracies (% of metered cons.)	25%
Total Unmetered Consumption (% of metered cons.)	27%
Infrastructure Leakage Index [ILI]	9.20
Mains failures ratio (breaks / km pipe / year)	10.40

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)	59
- Total Cons. (litres/person/day)	85
(m ³ /conn/month)	21
Total consumption - metered & unmetered	
(litres/person/day)	108.00
(m ³ /conn/month)	26.00
Domestic share of total metered consumption (%)	69%
Non Domestic share of total metered consumption (%)	31%

Demography

Average town / city size (persons / town)	36,622
Population density in area of responsibility (persons/sq.km)	1,610
Population density in existing service area (persons/sq.km)	1,595
Average Household size (persons / domestic connection)	9
Customer Interactions	
Customer complaints / 1000 connections	17

Connections

Service Coverage in area of responsibility (%)	60%
Service Coverage in existing service area (%)	62%
Domestic / Non-Domestic connections ratio	13.0
Domestic / Non-Domestic consumption rate ratio	2.2
New connection growth rate (% / year)	9%
New domestic connection cost (US\$ / connection)	58
New domestic connections (% of per capita GNI)	1%
Meter coverage (% with operating water meter)	100%
Billed unmetered consumption (% of metered cons.)	2%

Water Sales & Production Information

Dong Thap Urban Water Supply, Sewerage & Environment Company

