

Water Utility: PDAM Kabupaten Sleman (PDAM Sleman)

Kabupaten Sleman , D.I Yogyakarta , Indonesia

Contact Details: Director: , , Ir. Suratno
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Services Provided: Piped water, , , ,
Utility Type: , Government with separate reporting for WS&S, , , , ,

Private Sector Involvement: , Service Contract, , , , ,

Source of Raw Water: , , , Groundwater, Other: Spring

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

Water Supply System description:

Production capacity = 14,530 m3/day		Distribution network = 707 km		Storage capacity = 1,500 m3
Area of Responsibility		Present Service Area		
Area (sq km)	575	173		
Population	884,727	266,922		
No. of Towns = 1		Population served = 127,935		
<u>No. of connections:</u>	Domestic (Households) = 18,615	Non Domestic = 273	Total Connections = 18,888	
Typical service connection length = 4 m		Connections with operating meter = 18,888		
System input volumes:	Produced by W.U. = 5.3 million m3/year	Bulk water imported = zero		
Water consumption:	Metered cons. = 3.3 million m3/year	% Unmetered cons. = N/A	Ave. meter inaccuracy = 18% of metered cons.	
Water Sales:	Domestic = 3.1 million m3/year	Non Domestic = 0.1 million m3/year	Bulk Water sales = zero	
<u>System Performance:</u>	No. of connections with intermittent supply = 6,536		Typical duration of supply = 20.0 hours / day	
	No. of pipe breaks in distribution system = 52 / year		Typical water pressure in mains = 63 m.	
Chlorine Residuals:	Tests required = 355 / year	Tests carried out = 12 / year	Tests passed = 11 / year	

Human Resources (Staff)

<u>Type of employment:</u>	Permanent staff: salaried Government employees, Permanent staff: with contract, , , ,			
<u>No. of staff (FTE):</u>	Corporate Services = 198	Water Supply = 12	Other = zero	Total = 210
<u>Staff Training:</u>	No. Trained = 39 / year	Training days = 7 / year	Training costs = 1.50% of total operating budget	

Customer information

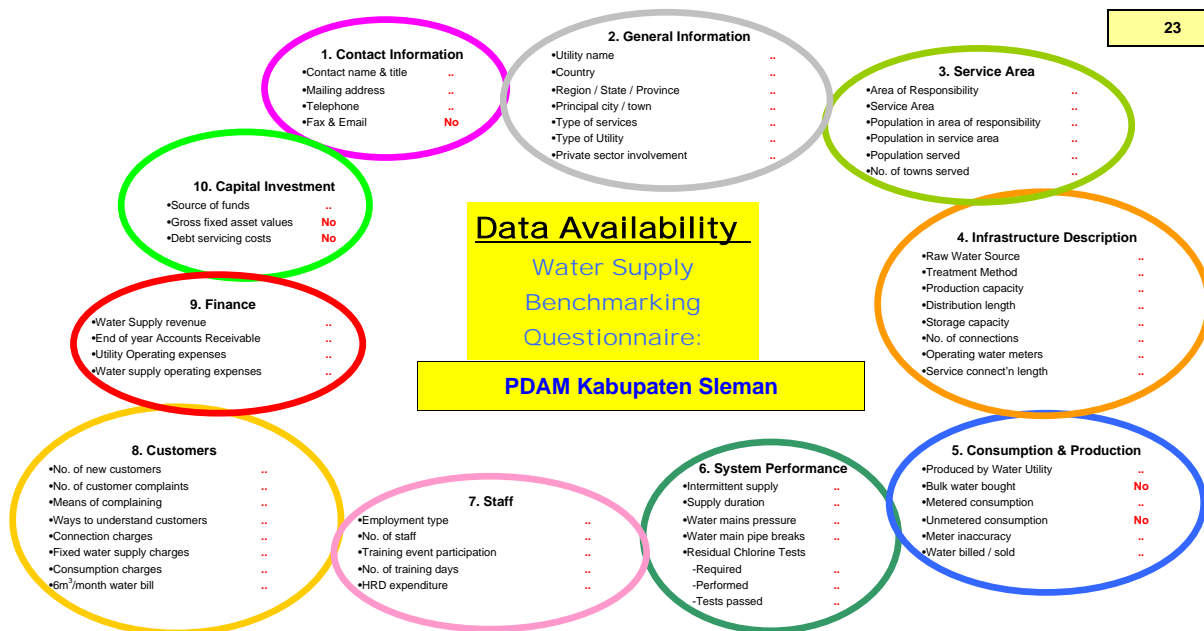
Customer interaction:	New connections = 1,101 / year	Customer complaints = 2,457 / year
Complaint method:	In person, By telephone, , By letter,	
Understanding customers by:	Customer interactions, Responding to complaints, Surveys, questionnaires, etc., ,	

Charges & Fees

<u>Typical connection charge:</u>	Domestic = 385,000IDR / conn. (42 US\$ / conn.)	Non Domestic = 397,000IDR / conn. (43 US\$ / conn.)		
<u>Fixed water charge:</u>	Domestic = 1,260IDR / month (0 US\$ / conn.)	Non Domestic = 2,530IDR / month (0 US\$ / conn.)	Bulk water sales = N/A	
<u>Water consumption tariff</u> (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 - 10	10 - 20	20
	Price (IDR / m ³)	1,312	1,525	1,977
	(US\$ / m ³)	\$0.14	\$0.17	\$0.22
Non Domestic	From - To (m ³)	0 - 10	10 - 20	20
	Price (IDR / m ³)	2,685	2,707	3,778
	(US\$ / m ³)	\$0.29	\$0.30	\$0.41
Bulk Water	From - To (m ³)			
	Price (IDR / m ³)			
	(US\$ / m ³)			
Water bill for household consuming 6 m ³ /month =		7,875 IDR / month	(0.86 US\$ / month)	

Finances

<u>Revenue:</u>	Water Sales	Other water related	Subsidies & grants	Total	Year end Accounts Receivable
IDR / year	5,352,099,900	zero	zero	5,352,099,900	1,226,066,410
US\$ / year	\$584,297	zero	zero	\$584,297	\$133,852
<u>Operating Expenses:</u>	Water supply	Other services	Company Overhead	Total	
IDR / year	3,530,859,544	zero	3,962,279,178	7,493,138,722	
US\$ / year	\$385,469	zero	\$432,568	\$818,037	
<u>Water Supply Operating breakup:</u>	Labor	Electricity	Chemicals & materials	Contracted out	Other expenses
IDR / year	2,282,814,571	908,087,580	42,620,000	zero	zero
US\$ / year	\$249,218	\$99,137	\$4,653	zero	zero
<u>Investment funds source:</u> Own internal funds, , Loan from Government Bank, , , , Other method: Third parties					
<u>Fixed Assets value:</u>	Water supply	Other services	Company Overhead	Total	Debt Servicing Costs
IDR	28,031,695,570	zero	zero	28,031,695,570	zero
US\$	\$3,060,262	zero	zero	\$3,060,262	zero



Calculation of Overall Performance Indicator (OPI)

Customer Indicators	Value	Rank
Service Coverage in existing service area (%)	47.9%	(36 / 45)
Meter coverage (% with operating water meter)	100.0%	(1 / 46)
Customer complaints / 1000 connections	130.1	(15 / 41)

Water Supply Systems O&M	Value	Rank
Supply Continuity (% of time water available)	83.3%	(39 / 47)
Residual Chlorine tests passed (%)	91.7%	(24 / 34)
Total Unmetered Consumption (% of metered cons.)		
Infrastructure Leakage Index [ILI]	#N/A	

Kabupaten Sleman
Indonesia
Water Supply
PDAM Kabupaten Sleman
(PDAM Sleman)

Overall Performance Indicator (OPI) = - 0.57
 Number of Standardized Indicators available = 11
 Overall Ranking = (45 / 47)

Human Resource Indicators	Value	Rank
Total water related staff / 1000 connections	11.1	(34 / 38)
Investment in staff training (days / staff)	0	(32 / 33)
Ave. cost of employment / staff (% of per capita GNI)	147%	(32 / 37)

Financial Indicators	Value	Rank
Operating Cost Coverage (water sales only)	0.71	(41 / 43)
Unit water cost (US\$ / m ³ of system input)	\$0.15	(28 / 43)
Water system asset value / Prod'n capacity (US\$ / m ³ /day)	\$211	(25 / 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)	0.71	Overhead expenses / Total Operating expenses ratio	0.53
Operating Cost Coverage (total revenue)	0.71	Labour costs / Water operating expenses	0.65
		Electricity costs / Water operating expenses	0.26
		Chemical & other materials costs / Water operating expenses	0.01
		Contracted out services costs / Water operating expenses	#N/A
<u>Revenue</u>		Unit water cost	(US\$ / m ³ of metered cons.) 0.25
Water sales revenue / Total revenue ratio	1.00		(US\$ / m ³ of system input) 0.15
Subsidies & Grants / Total revenue ratio	#N/A	Debt servicing ratio (% of total operating revenue)	#N/A
Revenue Collection period (months)	2.75		
Unit water price - ave. (US\$ / m ³ of metered cons.)	0.18		

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 ³ /day)	211
Asset value / pipe length (US\$ / m. pipe)	4
Asset value / Customer (US\$ / conn.)	162

System Input

Production capacity utilization (%)	100%
Bulk water imported (% of total system input)	0%
System Input Rate (litres/person/day)	114
(m ³ /connection/month)	23.0
System Input / Distribution ratio (m ³ /day per km pipe)	21.0
System Input / Storage ratio (m ³ /day per m ³ storage)	9.7
Supply Continuity (% customers with continuous supply)	65%
Supply Continuity (% of time water available)	83%

**Kabupaten Sleman
Indonesia
Water Supply
PDAM Kabupaten Sleman
(PDAM Sleman)**

OPI Ranking = 45 / 47

Human Resource Indicators

<u>Human Resource Utilisation</u>		<u>Human Resource Development</u>	
Overhead staff ratio (% of total FTE staff)	94%	Staff Training participation rate (% staff)	19%
Water supply staff ratio (% of total FTE staff)	6%	Staff Training duration rate (days / staff)	0.0
Total water related staff / 1000 connections	11.10	Investment in staff training (% of direct labour costs)	2.32%
Direct water supply staff		Investment in staff training (% of total operating costs)	1.50%
Staff / 1000 connections	0.60	<u>Human Resources Costs</u>	
Staff / 1000 m ³ /day system input	0.80	Ave. cost of employment / staff (% of per capita GNI)	1.47
Staff / 100 km of pipework	1.70	Contracting out services / in-house Labour costs ratio	#N/A

Distribution

Distribution / customer (m. pipe per connection)	37.4
Storage / customer (m ³ per connection)	0.10
Residual Chlorine	
Sampling compliance (%)	3%
Tests passed (%)	92%
Non Revenue Water (UFW)	
% of System Input	39%
m ³ / km / day	8.0
m ³ / connection / day	0.30
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.)	18%
Total Unmetered Consumption (% of metered cons.)	#N/A
Infrastructure Leakage Index [ILI]	#N/A
Mains failures ratio (breaks / km pipe / year)	0.10

Water consumption

Bulk water exported (% of total metered cons.)	0%
Average domestic water charges (% of per capita GNI)	#N/A
Metered consumption rate	
- Domestic (litres/person/day)	67
- Total Cons. (litres/person/day)	70
	(m ³ /conn/month)
	14
Total consumption - metered & unmetered	
	(litres/person/day)
	#N/A
	(m ³ /conn/month)
	#N/A
Domestic share of total metered consumption (%)	96%
Non Domestic share of total metered consumption (%)	4%

Demography

Average town / city size (persons / town)	884,727
Population density in area of responsibility (persons/sq.km)	1,539
Population density in existing service area (persons/sq.km)	1,539
Average Household size (persons / domestic connection)	7

Customer Interactions

Customer complaints / 1000 connections	130
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Connections

Service Coverage in area of responsibility (%)	15%
Service Coverage in existing service area (%)	48%
Domestic / Non-Domestic connections ratio	68.2
Domestic / Non-Domestic consumption rate ratio	24.1
New connection growth rate (% / year)	6%
New domestic connection cost (US\$ / connection)	42
New domestic connections (% of per capita GNI)	1%
Meter coverage (% with operating water meter)	100%
Billed unmetered consumption (% of metered cons.)	0%

Water Sales & Production Information

PDAM Kabupaten Sleman

