

**Water Utility: PDAM Kabupaten Pandeglang (PDAM Pandeglang)**

Kabupaten Pandeglang , Banten, Indonesia

**Contact Details:** Section Head of Treasury : Ridwan , Asep

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**Services Provided:** Piped water, , , ,

**Utility Type:** , , Statutory organisation, , , ,

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

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

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

**Water Supply System description:**

Production capacity = 10,600 m3/day		Distribution network = 17 km		Storage capacity = N/A
Area of Responsibility		Present Service Area		
Area (sq km)	82	20		
Population	59,530	25,122		
No. of Towns = 1		Population served =		
<u>No. of connections:</u>	Domestic (Households) = 7,709	Non Domestic = 173		Total Connections = 7,882
Typical service connection length = 12 m		Connections with operating meter = 7,882		
System input volumes:	Produced by W.U. = 2.8 million m3/year	Bulk water imported = zero		
Water consumption:	Metered cons. = 2.6 million m3/year	% Unmetered cons. = N/A		Ave. meter inaccuracy = N/A
Water Sales:	Domestic = 1.8 million m3/year	Non Domestic = 0.0 million m3/year		Bulk Water sales = zero
<u>System Performance:</u>	No. of connections with intermittent supply = N/A		Typical duration of supply = 24.0 hours / day	
	No. of pipe breaks in distribution system = 32 / year		Typical water pressure in mains = 10 m.	
Chlorine Residuals:	Tests required = 184 / year	Tests carried out = 20 / year		Tests passed = 19 / year

**Human Resources (Staff)**

<u>Type of employment:</u>	, Permanent staff: with contract, Casual/part-time: contract staff, , ,			
<u>No. of staff (FTE):</u>	Corporate Services = zero	Water Supply = zero	Other = zero	Total = 91
<u>Staff Training:</u>	No. Trained = N/A	Training days = N/A	Training costs = N/A	

**Customer information**

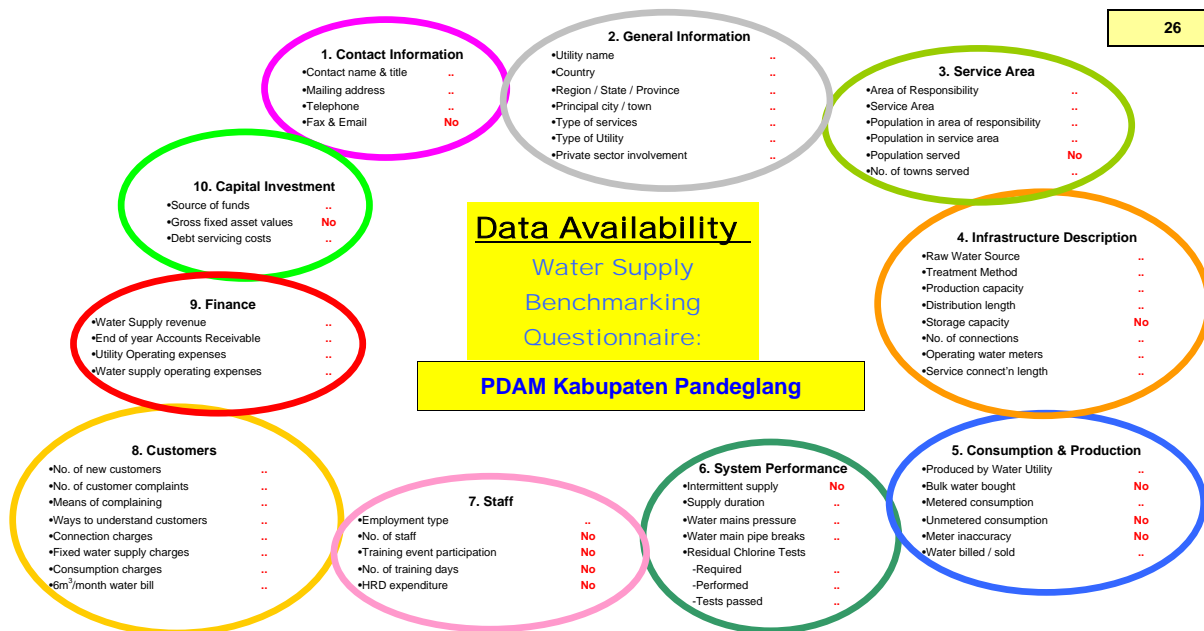
Customer interaction:	New connections = 744 / year	Customer complaints = 1,245 / year
Complaint method:	In person, By telephone, , ,	
Understanding customers by:	Customer interactions, Responding to complaints, , ,	

**Charges & Fees**

<u>Typical connection charge:</u>	Domestic = 454,410IDR / conn. (50 US\$ / conn.)		Non Domestic = 500,000IDR / conn. (55 US\$ / conn.)	
<u>Fixed water charge:</u>	ic = 1,185IDR / month (0 US\$ / conn.)	Non Domestic = 2,540IDR / 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 <sup>3</sup> )	0 - 10	10 - 20	20
	Price (IDR / m <sup>3</sup> )	600	700	750
	(US\$ / m <sup>3</sup> )	\$0.07	\$0.08	\$0.08
Non Domestic	From - To (m <sup>3</sup> )	0 - 10	10 - 20	20
	Price (IDR / m <sup>3</sup> )	800	1,100	1,250
	(US\$ / m <sup>3</sup> )	\$0.09	\$0.12	\$0.14
Bulk Water	From - To (m <sup>3</sup> )			
	Price (IDR / m <sup>3</sup> )			
	(US\$ / m <sup>3</sup> )			
Water bill for household consuming 6 m <sup>3</sup> /month =			10,000 IDR / month	(1.09 US\$ / month)

**Finances**

<u>Revenue:</u>	Water Sales	Other water related	Subsidies & grants	Total	Year end Accounts Receivable
	IDR / year	2,171,372,693	zero	zero	518,690,837
	US\$ / year	\$237,052	zero	zero	\$56,626
<u>Operating Expenses:</u>	Water supply	Other services	Company Overhead	Total	
	IDR / year	2,560,003,078	zero	2,560,003,078	
	US\$ / year	\$279,479	zero	zero	\$279,479
<u>Water Supply Operating breakup:</u>	Labor	Electricity	Chemicals & materials	Contracted out	Other expenses
	IDR / year	1,116,997,915	528,775,520	zero	zero
	US\$ / year	\$121,944	\$57,727	zero	zero
<u>Investment funds source:</u> Own internal funds, Grant from Government or ODA project, , , ,					
<u>Fixed Assets value:</u>	Water supply	Other services	Company Overhead	Total	Debt Servicing Costs
	IDR	zero	zero	4,471,844,541	1,992,080,101
	US\$	zero	zero	\$488,198	\$217,478



## Calculation of Overall Performance Indicator (OPI)

Customer Indicators	Value	Rank
Service Coverage in existing service area (%)	#N/A	
Meter coverage (% with operating water meter)	100.0%	(1 / 46)
Customer complaints / 1000 connections	158	(12 / 41)

Water Supply Systems O&M	Value	Rank
Supply Continuity (% of time water available)	100.0%	(1 / 47)
Residual Chlorine tests passed (%)	95.0%	(20 / 34)
Total Unmetered Consumption (% of metered cons.)		
Infrastructure Leakage Index [ILI]	#N/A	

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**Overall Performance Indicator (OPI) = 0.10**  
Number of Standardized Indicators available = 6  
Overall Ranking = (16 / 47)

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

Financial Indicators	Value	Rank
Operating Cost Coverage (water sales only)	0.85	(38 / 43)
Unit water cost (US\$ / m <sup>3</sup> of system input)	\$0.10	(19 / 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)	0.85	Overhead expenses / Total Operating expenses ratio	#N/A
Operating Cost Coverage (total revenue)	0	Labour costs / Water operating expenses	0.44
		Electricity costs / Water operating expenses	0.21
		Chemical & other materials costs / Water operating expenses	#N/A
		Contracted out services costs / Water operating expenses	#N/A
Revenue			
Water sales revenue / Total revenue ratio	#N/A	Unit water cost (US\$ / m <sup>3</sup> of metered cons.)	0.15
Subsidies & Grants / Total revenue ratio	#N/A	(US\$ / m <sup>3</sup> of system input)	0.10
Revenue Collection period (months)	2.87	Debt servicing ratio (% of total operating revenue)	#N/A
Unit water price - ave. (US\$ / m <sup>3</sup> of metered cons.)	0.13		

**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 (%)	71%
Bulk water imported (% of total system input)	0%
System Input Rate (litres/person/day)	#N/A
(m <sup>3</sup> /connection/month)	29.0
System Input / Distribution ratio (m <sup>3</sup> /day per km pipe)	456.0
System Input / Storage ratio (m <sup>3</sup> /day per m <sup>3</sup> storage)	#N/A
Supply Continuity (% customers with continuous supply)	#N/A
Supply Continuity (% of time water available)	100%

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OPI Ranking = 16 / 47

**Human Resource Indicators**

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

**Distribution**

Distribution / customer (m. pipe per connection)	2.1
Storage / customer (m <sup>3</sup> per connection)	#N/A
Residual Chlorine	
Sampling compliance (%)	11%
Tests passed (%)	95%
Non Revenue Water (UFW)	
% of System Input	34%
m <sup>3</sup> / km / day	153.5
m <sup>3</sup> / connection / day	0.32
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)	1.90

**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)	#N/A
- Total Cons. (litres/person/day)	#N/A
	19 (m <sup>3</sup> /conn/month)
Total consumption - metered & unmetered	
	#N/A (litres/person/day)
	#N/A (m <sup>3</sup> /conn/month)
Domestic share of total metered consumption (%)	98%
Non Domestic share of total metered consumption (%)	2%

**Demography**

Average town / city size (persons / town)	59,530
Population density in area of responsibility (persons/sq.km)	730
Population density in existing service area (persons/sq.km)	1,244
Average Household size (persons / domestic connection)	#N/A

**Customer Interactions**

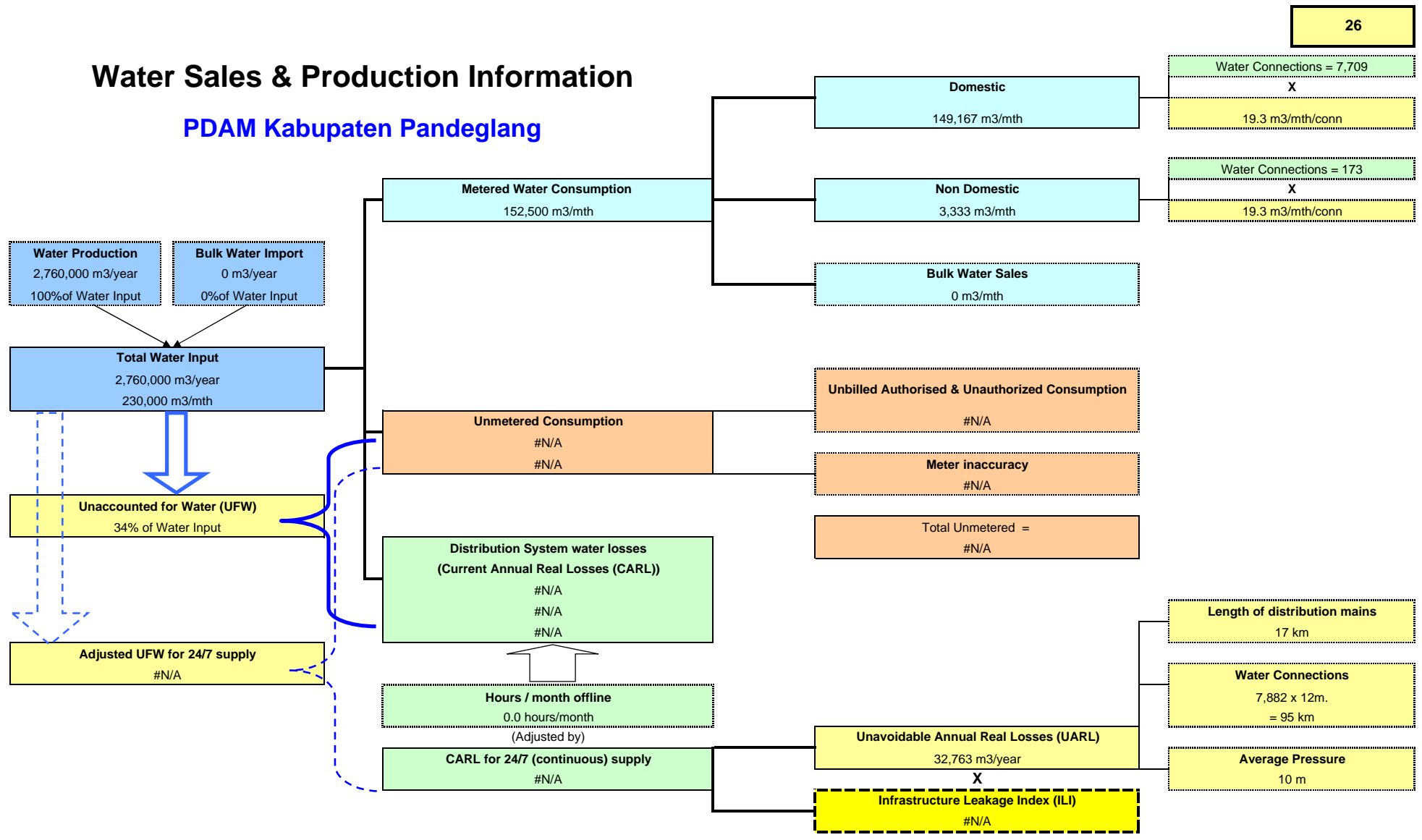
Customer complaints / 1000 connections	158
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**Connections**

Service Coverage in area of responsibility (%)	#N/A
Service Coverage in existing service area (%)	#N/A
Domestic / Non-Domestic connections ratio	44.6
Domestic / Non-Domestic consumption rate ratio	44.8
New connection growth rate (% / year)	9%
New domestic connection cost (US\$ / connection)	50
New domestic connections (% of per capita GNI)	#N/A
Meter coverage (% with operating water meter)	100%
Billed unmetered consumption (% of metered cons.)	-30%

# Water Sales & Production Information

## PDAM Kabupaten Pandeglang



26

Water Connections = 7,709

X

19.3 m3/mth/conn

Water Connections = 173

X

19.3 m3/mth/conn

Domestic

149,167 m3/mth

Non Domestic

3,333 m3/mth

Bulk Water Sales

0 m3/mth

Unbilled Authorised & Unauthorized Consumption

#N/A

Meter inaccuracy

#N/A

Total Unmetered =

#N/A

Distribution System water losses  
(Current Annual Real Losses (CARL))

#N/A

#N/A

#N/A

Hours / month offline

0.0 hours/month

(Adjusted by)

CARL for 24/7 (continuous) supply

#N/A

Unavoidable Annual Real Losses (UAARL)

32,763 m3/year

X

Infrastructure Leakage Index (ILI)

#N/A

Length of distribution mains

17 km

Water Connections

7,882 x 12m.  
= 95 km

Average Pressure

10 m