INDONESIA’S WATER CHALLENGES
Australia Water Association Workshop and Indonesia-Australia Water Focus Group

JAKARTA, 28 JUNE 2016
Outline

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3. PDAM Water Service Performance
5. Strategy to Improve PDAM’s Performance
6. Policy Framework & Regulation on Water Supply Development
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8. Water Safety Plan (WSP)
10. Financing Scheme of Indonesia’s Water Safety Plan
11. Gaps/Challenges
1. General Overview

- Total Area: 1,910,931km$^2$
- Total Islands: 17,504
- Total Population: 268,920,484 inhabitants
- Population Growth: 1.4% per annum
- 52% of total population resides in urban areas. This number is estimated to increase up to 65 per cent by 2025.
- Indonesia is affected by floods every year. Between 1970 and 2011, almost 4,000 flood events were recorded.

Source: Central Bureau of Statistics Indonesia, 2015
2. Access to Safe Water

- Medium Term Development Plan (RPJMN 2015-2019) targeted **100% access to safe water by 2019**, which will be provided through **piped water service (60%)** and **non-piped water services (40%)**

- Nationally, 29.03% of total population (2015) or 77,986,940 people remains without access to safe water.

- Access to safe water in urban areas is relatively higher than in rural areas. However, due to high rate of urbanization, water demand in urban area exceeds supply.

- More than half of the population accessed their safe water through non piped water services.
3. PDAM Water Service Performance

Total Audited by BPKP (2015): 350 PDAMs

**Targets must be achieved by 2019:**
- 100% Healthy PDAM
- Reduce average NRW to 20%

**PDAM Based on NRW Level**
- <20%: 24%
- 20%-30%: 9%
- 30%-40%: 29%
- >40%: 38%

**Overall PDAM Performance**
- Healthy: 53%
- Less Healthy: 28%
- Sick: 20%

**PDAM Based on HC**
- <10.000: 47%
- 10.000-50.000: 7%
- 50.000-100.000: 4%
- >100.000: 42%

Water Service Performance

Our National Medium Term Development Plan (RPJMN 2015-2019) targeted **100% access to safe water by 2019**

Meeting with **4K** (Quality, Quantity, Continuity, Accessibility/Affordability)

- **QUANTITY**
  - Fulfills the standard of water demand per capita 60l/capita/day

- **QUALITY**
  - Fulfills the standard of Ministry of Health Regulation No. 492 of year 2010 Regarding Drinking Water Quality

- **CONTINUITY**
  - Continuous distribution of water (24 hours)

- **ACCESSIBILITY/AFFORDABILITY**
  - Easy to access & economically sound (tariff ≤ 4% income)
5. Strategy to Improve PDAM’s Performance

Current Condition (2014):
Healthy PDAMs: 184
Less Healthy & Sick PDAMs: 166

Improve the performance of 200 less healthy/sick PDAMs

40 PDAMs are targeted to be improved annually

Financially Supported by:
1. Central Govt Budget (APBN)
2. Local Govt Budget (APBD)
3. PDAM
4. others

Activities:
1. PDAM database
2. Performance evaluation & Recommendation for improvement
3. Project Assistance for PDAM
4. Capacity Building for PDAM Staff (CoE & WoPs)

Criteria:
1. Healthy PDAM
2. NRW ≤ 20%
3. Service coverage ≥ 60%
4. FCR Tariff

100% Healthy PDAM 2019
6. Policy Framework & Regulation on Water Supply Development

**STATE OF WATER SERVICE IN 2014**
- SAFE ACCESS: 68.36%
- PIPED WATER SERVICE: 18%
- NON-PIPED WATER SERVICE: 50.36%

**UTILIZATION OF IDLE CAPACITY**
- NRW REDUCTION
- INCREASING CAPACITY

**INCREASING SAFE WATER ACCESS**
- Improving water supply system to fulfill the minimum standard of service
- Improving water supply system in the attempt to support economy independency in national strategic region

**WATER RESOURCES**
- Bulk water provision for scarce water and coastal region and small islands
- Apply mixed domestic water

**TECHNICAL & TECHNOLOGY**
- Improve the quality of water supply construction through the application of standard quality management
- Increase the utilization of environmental friendly technology

**INSTITUTION & HUMAN RESOURCES**
- Improve the capacity of water operators (PDAM/UPTD/CBO)
- Increase stakeholders’ awareness on community’s right to safe water
- Create & socialize group of PPPs (large, medium, and small scale)
- Promote hygiene, save water & technical modul on non-piped water supply service

**FINANCING**
- Increase Central and Provincial Government budgeting through regional water supply development
- Accelerating PDAM’s debt settlement for independent water supply development

**LAWS & REGULATION**
- Prepare regulation/Presidential and Ministerial Decree and issued technical guidelines for water supply development
- Evaluate the application of laws & regulations

**MEDIUM TERM DEVELOPMENT PLAN TARGET 2015-2019**
- SAFE ACCESS: 100%
- PIPED WATER SERVICE: 35%
- NON-PIPED WATER SERVICE: 65%
7. Government Regulation No. 122 of Year 2015

**Article 2**
1) Water supply system is operated to provide communities with adequate water service to fulfill their right to adequate water.
2) Water supply system is operated to:
   a. Provide adequate water service to fulfill community’s right to water;
   b. Achieve good quality of management and service at affordable price;

**Article 33**
1) Water supply system must be operated in an integrated manner with sanitation to prevent contamination of water resources and secure the sustainability of water supply function.
3) Integrated water supply system with sanitation is done minimum through the preparation of master plan.
8. Water Safety Plan, WSP (1) Implementation of WSP in Indonesia

1. **WSP – WATER RESOURCES**
   - Catchment Area:
     - Alternative Water Resources (reclaimed water, rain water)
     - Conventional Water Resources (surface water & ground water)

2a. **WSP-OPERATOR**
   - Bulk Water Intake & Transmission
   - Production Unit/WTP
   - Distribution

2b. **WSP - COMMUNITY**
   - Bulk Water Intake & Transmission
   - Production Unit/WTP
   - Distribution

3. **WSP - Consumers**
   - Hygiene Promotion
   - Water treatment at household level

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Bulk Water

Drinking Water

K1, K2, K3

K1, K2, K3

K1, K2, K3

K1, K2, K3
Preparing WSP Document through advisory, training of trainers using COE's multilevel marketing approach and Water Operator Partnership (WOPs)

Implementing WSP by:
- Internalising WSP in PDAM's operational & maintenance system
- Implementing non physical and physical program

Monitoring & Evaluation

<table>
<thead>
<tr>
<th>Priority</th>
<th>Performance</th>
<th>Coverage</th>
<th>PDAM Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority I</td>
<td>Healthy</td>
<td>&gt;70%</td>
<td>40 PDAM (12%)</td>
</tr>
<tr>
<td>Priority II</td>
<td>Healthy</td>
<td>40-70%</td>
<td>67 PDAM (19%)</td>
</tr>
<tr>
<td>Priority III</td>
<td>Healthy</td>
<td>&lt;40%</td>
<td>67 PDAM (19%)</td>
</tr>
<tr>
<td>Priority IV</td>
<td>Less Healthy</td>
<td>&gt;40%</td>
<td>47 PDAM (13%)</td>
</tr>
<tr>
<td>Priority V</td>
<td>Less Healthy</td>
<td>&gt;40%</td>
<td>129 PDAM (37%)</td>
</tr>
</tbody>
</table>

12 PDAMs already Implemented WSP

- PDAM Kota Banjarmasin
- PDAM Kota Malang
- PDAM Kota Salatiga
- PDAM Kota Payakumbuh
- PDAM Kota Palembang
- PDAM Kota Denpasar
- PDAM Kota Bandung
- PDAM Kota Surabaya
- PDAM Kota Mataram
- PDAM Kota Medan
- PDAM Kota Pontianak
- PDAM Kabupaten Bandung
10. Financing Scheme of Indonesia’s Water Safety Plan

**Central Government Budget**
- Advisory in Preparing WSP Document (pilot 12 PDAM)
- Prepare Guideline & Training Modules
- ToT through CoE and WOPs Mechanism
- Physical Program which apply WSP in a system that is integrated with NRW reduction Program

**Local Government Budget**
- Replicate WSP

**PDAM**
- Prepare WSP Document
- Internalising WSP in O&M System
- Replicate WSP

**Donor**
- Replicate WSP
11. Gaps/Challenges

- To improve PDAM’s performance requires adequate amount of financing. Central Government Budget allocation for water supply development has been reduced in the past 2 years. Moreover, Government Regulation No. 122 of year 2016 regarding water supply system is limiting private sector involvement. Alternative financing needed.

- Securing bulk water for drinking water has been a real challenge due to various stakeholders involved (from upstream to downstream);

- WSP is not integrated in the operational and maintenance of water supply system;

- Not many PDAMs realize the benefit of implementing WSP in preparing PDAM’s business plan;

- WSP is targeted to be implemented by 174 PDAMs by 2019. Currently, only 12 PDAMs that is beginning to implement WSP.
THANK YOU...