Philippines Small Towns Water Utilities Performance

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Presentation Outline

- Benchmarking Study Objectives
- Performance Results – comparison of Management Models
- Why Water Districts Perform Better
- Integrated (Aggregated) Water Districts Study – comparison with single town Water Districts
- Conclusions
Benchmarking Study Objectives

A study of management models for small towns was recommended under the Water Supply and Sanitation Enhancement Project (WPEP)

Objectives:

• Support small water utilities measure their performance and review tariffs
• Have a solid foundation for business planning including improvement programmes, capex and expansion
2003 and 2004 data

- In 2003: 20 utilities, 5 management models, 641 to 4,291 connections*
- In 2004: 45 utilities, 5 management models, 687 to 607, 729 connections* (includes 20 small water utilities in 2003 study)

* Of 1,600 known piped networks in the country, over 90% have less than 5,000 connections
Five Management Models

Managed by Institutions

- Water district
- Local – government operated (LGU)
- Private

Managed by Users/Community

- Cooperative (multi-purpose cooperative)
- Rural waterworks and sanitation associations (RWSA)
### Performance Results – Comparison by Management Models

<table>
<thead>
<tr>
<th>Performance Indicators (# utilities)</th>
<th>Water Districts (18)</th>
<th>LGUs (10)</th>
<th>RWSAs/Coops (9)</th>
<th>Private Operators (8)</th>
<th>Overall Average (45)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage (%)</td>
<td>69.4</td>
<td>53.2</td>
<td>65.8</td>
<td>68.8</td>
<td>64.7</td>
</tr>
<tr>
<td>Availability (hrs/day)</td>
<td>22.8</td>
<td>17.8</td>
<td>20.1</td>
<td>21.9</td>
<td>21.0</td>
</tr>
<tr>
<td>Consumption (lpcd)</td>
<td>119.7</td>
<td>94.9</td>
<td>127.2</td>
<td>135.9</td>
<td>118.6</td>
</tr>
<tr>
<td>NRW (%)</td>
<td>26.8</td>
<td>36.2</td>
<td>17.7</td>
<td>43.4</td>
<td>29.6</td>
</tr>
<tr>
<td>Metering (%)</td>
<td>98.0</td>
<td>92.7</td>
<td>97.3</td>
<td>92.8</td>
<td>95.7</td>
</tr>
<tr>
<td>Operating ratio</td>
<td>0.93</td>
<td>1.58</td>
<td>1.00</td>
<td>0.94</td>
<td>1.10</td>
</tr>
<tr>
<td>Collection period (mo.)</td>
<td>1.3</td>
<td>2.3</td>
<td>2.6</td>
<td>1.6</td>
<td>1.8</td>
</tr>
<tr>
<td>Staff/1000 connections</td>
<td>6.9</td>
<td>8.7</td>
<td>6.6</td>
<td>5.8</td>
<td>7.1</td>
</tr>
</tbody>
</table>

Source: Philippine Towns Water Utilities Data Book 2004
Water Districts perform best

- Water Districts perform better than non-water districts – best performer in all indicators except for NRW and staff/1000 connections, but both still lower than the overall average
- LGUs are the worst performers – lowest coverage, availability and consumption, highest operating ratio, longest collection period, highest staff/1000 connections, second highest NRW and lowest metering level
Why water districts perform better

Financing (this is a major bottleneck)

- Water districts have access to loan financing from the Local Water Utilities Administration (LWUA) sourced mostly from ODA funds
- Loans are for performance improvement, capital development and expansion
- Loans include provision for management and operational/technical assistance
Why water districts perform better

Training and technical support

- Water District staff can avail of LWUA’s training programs; some large and mature water districts also provide training through the Philippine Association of Water Districts (PAWD)
- LWUA advisers are available on call to Water Districts to help them with management and operational/technical problems
Why water districts perform better

Performance monitoring and setting tariffs

• Regulation of performance and tariff reviews are consolidated under the National Water Resources Board (NWRB)

• Metering is almost universal and tariffs cover O&M costs and some expansion leading in some cases to higher coverage and 24 hour water supply
Integrated (Aggregated) Water Systems Study

Study on Integrated Water Supply Systems by LWUA with support from WSP-EAP

- Integration means combined provision of service by a single entity across municipal jurisdictions
- It can be:
  - Unified system (single system across municipalities)
  - Cluster system (several systems under single management)
  - Bulk water provider (bulk supply to several operators)
Evaluation Methodology

• 45 integrated Water Districts were compared with 93 single-town Water Districts with similar connection size*

*For 9 size classifications from 1,000 to > 30,000 connections
Integration brings economies of scale

Integration of water supply systems can

- Bring high returns to scale
- Benefit those towns which suffer due to lack of water source availability or prohibitive development cost
- Introduce management and technical/operational skills
But ... integration does not guarantee utility performance improvements

Integrated systems performance are affected by

• Inefficiencies (mismanagement or excesses) that exist prior to integration

• Operational scope (larger area, more towns, more facilities, more dispersed households)
Study findings

- Integrated systems have larger operating costs combined with inefficiencies – higher NRW, higher staff/1000 connections ratio, lower collection efficiencies, lower connection growth rate
- Customers of integrated systems are paying more compared to single systems, except for gravity systems
- Clusters generally perform better than unified systems
Conclusions

• Small utilities need assistance (financial, management, technical/operational) in asset maintenance, improving efficiency, and to expand services

• Governments should provide the enabling policy and regulatory framework to support small utilities, including financing, benchmarking performance, tariff reviews, help desk/training, and technical support
Conclusions

- In the Benchmarking Studies, efficiency is not a function of size - a small utility of 3,500 connections was the best performing Water District.
- In the Integrate Water Supply Systems Study, operational efficiency (customer service, water resources, financial and human resources management) is a pre-requisite to attaining the benefits of economies of scale.
End of Presentation

Thank you!