FT3.52 Appropriate O&M of WSSF

Phnom Penh’s Experience

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Land: 181,035 km²
Population: 13 millions

PHNOM PENH CITY
375 km²
1.3 Million
1993
- Over staff, not qualified, 22/1,000 connections
- Low salary, self interest, low discipline
- Very poor service, no clean water, 2m, <10 hr/day
- High NRW 72%, 1,945 public underground tanks
- Very low willingness to pay, collection <50% of 26,800 bill
- Heavy subsidy, >50% of operation cost
- No maintenance, no investment
Opportunities
- Different International Assistances: Japan, France, UNDP
- Loans available from WB, ADB
- New Leader

Need to Change or Die!

1. Policy:
   from Gov. Subsidy to Full Cost Recovery

2. Operator:
   from By Chance to Effective O&M
Since 2000

- Service extension
- Social responsiveness
- Quality of service

1993-1996

- Prepare for Autonomy
- Rehabilitation Period
- Autonomous in Dec. 1996
- Accountable Tariff in 1997

Domestic

<table>
<thead>
<tr>
<th>Block (m³/month)</th>
<th>Tariff (Riel/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 7</td>
<td>550</td>
</tr>
<tr>
<td>8 - 15</td>
<td>770</td>
</tr>
<tr>
<td>16 - 50</td>
<td>1,010</td>
</tr>
<tr>
<td>&gt; 50</td>
<td>1,270</td>
</tr>
<tr>
<td>flat rate</td>
<td>1,030</td>
</tr>
</tbody>
</table>

Commercial and Industrials

<table>
<thead>
<tr>
<th>Block (m³/month)</th>
<th>Tariff (Riel/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 100</td>
<td>950</td>
</tr>
<tr>
<td>101 - 200</td>
<td>1,150</td>
</tr>
<tr>
<td>201 - 500</td>
<td>1,350</td>
</tr>
<tr>
<td>&gt; 500</td>
<td>1,450</td>
</tr>
<tr>
<td>flat rate</td>
<td>1,030</td>
</tr>
</tbody>
</table>

Accountable Tariff in 1997

- Block Tariff (m³/month) (Riel/m³)
  - 0 - 7: 550
  - 8 - 15: 770
  - 16 - 50: 1,010
  - > 50: 1,270
  - Flat rate: 1,030

- Table for Domestic and Commercial/Industrial

65,000 m³/d
150,000 m³/d
20,000 m³/d
PPWSA’s Ownership

- Strong Leadership
- Example from the Top
- Commitment to Improve
- Effective Management
- Effective Investment
  - on Hardware
  - on Software
PPWSA’s Ownership ...

- **Effective O & M**
  - Maximum Billing
    - Computerized Customers Management & Billing System
    - Surveying & Updating Customers File
    - Proper Water Meter Reading
  - Maximum Collection
    - Disconnection of Late Payment
    - Dept monitoring

- **Maximize NRW**
  - 24hrs Leak Repair Team
  - Active Detection of Leak & Illegal Use
  - Regular Meters Maintenance & Replacement
Decreasing NRW
Maximum Billing Ratio

2006-03 WWF4-Mexico
March 2006
The Differences

<table>
<thead>
<tr>
<th></th>
<th>1993</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>10hr/d</td>
<td>24hr/d</td>
</tr>
<tr>
<td>Pressure</td>
<td>2 m</td>
<td>25 m</td>
</tr>
<tr>
<td>Coverage area</td>
<td>25%</td>
<td>95%</td>
</tr>
<tr>
<td>Connections</td>
<td>26,881</td>
<td>138,000</td>
</tr>
<tr>
<td>Network</td>
<td>65,000 m³/d</td>
<td>235,000 m³/d</td>
</tr>
<tr>
<td>Production</td>
<td>72%</td>
<td>100%</td>
</tr>
<tr>
<td>NRW</td>
<td>12%</td>
<td>100%</td>
</tr>
<tr>
<td>Metering</td>
<td>48%</td>
<td>28%</td>
</tr>
<tr>
<td>Collection ratio</td>
<td>200%</td>
<td>100%</td>
</tr>
<tr>
<td>Operating ratio</td>
<td></td>
<td>11%</td>
</tr>
<tr>
<td>Staff/1,000 Connections</td>
<td>22</td>
<td>4</td>
</tr>
</tbody>
</table>
Water for the Poor

- Find Out the Poor & Poor Communities
- Consultation with the Poor
- Broadcasting of Supply Policy:
  - Low Cost for Basic Need
  - Installment Payment 10, 15, 20 month (1998)
  - Same Quality of Service
  - 30%, 50%, 70%, 100% subsidy for the poorest (2005)
1. 5 to 10 times cheaper. Savings round 300,000 Riels (USD75) /Family/Year

2. Alleviate Burden of Women & Children

3. Health Improvement by Quality
Thank you for your attention