Cost Recovery and Subsidies for Water Supply: A Scorecard for India

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Magnitude of water subsidies

- India spends at least US$1.1bn per year on subsidizing the water sector
  - Equivalent to 4.0% of government subsidies
  - About 98% comes from State budgets
  - Absorbs 0.5% of GDP
## Overview of pricing practices

<table>
<thead>
<tr>
<th></th>
<th>Metropolitan cities %</th>
<th>Smaller cities and towns %</th>
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<tbody>
<tr>
<td><strong>Metered</strong></td>
<td></td>
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<tr>
<td>Uniform volumetric tariffs</td>
<td>58</td>
<td>77</td>
</tr>
<tr>
<td>Increasing block tariffs</td>
<td>42</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
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<tr>
<td><strong>Unmetered</strong></td>
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<tr>
<td>Flat-rate charge</td>
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<td>72</td>
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<td>Ferrule-based charge</td>
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<td>ARV-based charge</td>
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<td>5</td>
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<td>Tap-based charge</td>
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</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
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</tbody>
</table>
India: volumetric charges

Cost recovery benchmark? >Rs.15/m³
India: fixed charges

At cost recovery tariffs Rs.45 buys no more than 3m$^3$/mo.?
South Asian cities: IBT structures

Figure 1  Domestic Tariff Structures (2001)
Are cost reflective tariffs affordable?

Based on WHO 5% affordability threshold
Distribution of subsidies

US$/month

Decile

Kathmandu
Bangalore
Kathmandu: comparing subsidies

Source: own calculations for Kathmandu

Diagram showing the comparison of subsidies and errors of exclusion and inclusion in different consumption statuses and target conditions.
Bangalore: comparing subsidies

Source: own calculations
Results for two city study

- Three quarters of subsidy resources in Kathmandu and Bangalore fail to reach the poor.
- 95% of subsidies go to private taps (US$10-15) and the remaining 5% to public taps (US$1-4).
- Subidies to public taps are much more equitably distributed, 60-90% captured by the poor.
- Nevertheless, water subsidies are still more equitably distributed than income.
Results for two city study

- Geographical or individual targeting can double the share of subsidies reaching poor.
- Unfortunately, errors of exclusion also rise dramatically up to 80%.
- If objective is to reach the poor cost-effectively, then targeting mechanisms make sense.
- If basic water needs are really unaffordable, an argument for IBTs could always be made.
- However, connection subsidies are at least as effective at targeting resources to the poor, while at the same time avoiding the exclusion problem.
Scorecard for water tariffs

- *Cost recovery*—average prices an order of magnitude below likely economic costs
- *Economic efficiency*—about half of customers are metered but many meters are not functional
- *Fairness*—tariff structures may penalize metered customers relative to those without meters
- *Affordability*—a poor family can afford to buy 10m$^3$ per month for only 1-2% of income
Scorecard for water subsidies

- **Justification**—poor could afford to pay four times as much, but probably not cost-reflective tariffs

- **Targeting**—all users are subsidized, however there is some limited self-selection via public taps

- **Administrative cost**—minimal due to absence of any targeting system

- **Consequences**—intermittent supply leads to phenomenon of coping costs and wastage
Bibliography

Water Tariffs & Subsidies in South Asia

- Paper 1: Understanding the Basics
- Paper 2: A Scorecard for India
- Paper 3: Tariff Structures in Six South Asian Cities
- Paper 4: Do Current Water Subsidies Reach the Poor?
- Paper 5: Can Subsidies be Better Targeted?