Water Tariffs and Subsidies in Latin America: Impact on Expansion of Water Services and Sustainability of Utilities

Capacity Building Workshop on
Partnerships for Improving the Performance of Water Utilities in the Latin America and Caribbean Region

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David le Blanc,
UN-DESA

Talk Outline

- Urban access to water: Regional Panorama
- Delivering subsidies to consumers: some difficulties
- Impact of utility subsidies on sustainability of utilities
- Impact of utility subsidies on expansion of water services
- Some Recent Trends
Latin America offers a contrasted picture in terms of access to water

Great variety among countries in:
- access rates
- water availability / quality, given network connection
- institutional frameworks
  - Responsibility for providing access to water and sanitation
  - Ownership / management combinations
  - Number of providers
  - Regulatory framework, including pricing and subsidies
- business models
- Moreover, the water sector has been undergoing reforms in many countries of the region
Tariffs and subsidies

- Due to the variety of institutional arrangements, water tariffs are set differently across countries
  - Uruguay: annual presidential decree
  - Colombia, Chile: the law gives a formula
  - In some countries tariffs are determined at the municipal level
- The Law sometimes requires full cost recovery by utilities (Colombia). However, implementation takes time
- Social tariffs, combined or not with cost recovery principle
  - Consumption subsidies through tariffs (IBT)
  - Cross-subsidies between rich and poor neighborhoods (Colombia)
  - Direct subsidies to poor households (Chile)

Tariff structures

- Varies a lot, but IBT predominant tariff structure
- Often IBT + fixed charge.

![Graph showing current residential water tariff for Uruguay, Montevideo, and Interior areas](graph.png)

Source: Government of Uruguay, 2007
Connection to the network: the main obstacle to subsidy outreach

- Expenditures for W&S: on average, 3 – 5 % of total expenditures of poor households
- not “too high”, BUT …
  - highly variable
  - can be very high for those with no access to public connections
- Guayaquil, Ecuador
  - US$3.50 / m³ for water provided by roving tanquero trucks
  - US$.35 / m³ for piped water
- Loma Fresca, Cartagena, Colombia:
  - US$ 40 / month buying the burroducto water,”
  - US$8 / month for potable water that flows 24 hours a day.
- Need for targeted subsidies for poorest households
- Households not connected to the network do not get water subsidies!

Connection to the network: the main obstacle to subsidy outreach (2)

- Overall, goodness of targeting and coverage of poor populations of consumption subsidies critically depend on network access rates
- Network access rates vary across countries, within countries
- The poor are less covered, due to:
  - General low cost recovery of water utilities often precluded expansion of networks to new areas (where the poor are overrepresented)
  - No incentives for utilities to extend network (more connections => more losses)
    - Regulation may impose uniform tariff which make marginal areas unprofitable
    - Legal dimension: companies’ intervention perimeter, impossibility to provide services to illegal neighborhoods
    - Affordability (poverty): households living in recent suburbs are typically poorer than average: they fall into subsidized parts of tariffs
Access to piped water increases with income

Piped water connections by income quintile
Urban areas

Source: World Bank, 2005

Further difficulties with IBTs (1)

A series of bottlenecks constrain the delivery of services and associated consumption subsidies to the poor.

Practical problems:
Beyond having lower access rates, poor households usually fare worse on:
- Connection given access
- Metering rates
- Quantity of water consumed (the more you consume, the higher the subsidy)

Design problems:
In many countries analyzed in the World Bank review paper (2005)
- The size of the first block (the most subsidized) is too high, and/or
- Too many blocks are priced below costs
Difficulties with IBTs (2)

As a result of design and practical problems
- Coverage of the poor population can be weak (high proportion of poor do not get subsidies)
- Targeting is often deficient (A large portion of subsidies go to high income households)

Impact of differences in access, connection, and consumption on the distribution of consumption subsidies - Cape Verde

<table>
<thead>
<tr>
<th>Factors affecting distribution between groups</th>
<th>Proportion of ratio</th>
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<tbody>
<tr>
<td>Network access</td>
<td>0.8</td>
</tr>
<tr>
<td>Uptake ratio</td>
<td>0.6</td>
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<tr>
<td>Rate of subsidization</td>
<td>0.4</td>
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<tr>
<td>Ratio of consumption</td>
<td>0.2</td>
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<tr>
<td>Ratio of subsidies</td>
<td>0.8</td>
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Difficulties: Administrative targeting

Alternative strategies: Administrative targeting
- Geographic
- Means testing (Chile)
- Combination of administrative, tariff and quality targeting
- Colombia:
  - all neighborhoods in country divided into 6 strata based on housing quality. Bottom 3 strata receive subsidies, top 2 strata pay surcharge.
  - Combined with IBT

<table>
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<th>Administrative targeting</th>
<th>Advantages</th>
<th>Drawbacks</th>
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<tr>
<td></td>
<td>Tracks income and poverty more closely</td>
<td>Costly administrative system</td>
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<td>Flexible over time</td>
<td>Coverage issues</td>
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<tr>
<td>Geographic targeting</td>
<td>Easier to implement, less costly</td>
<td>Less precise than means testing for poverty targeting</td>
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<td>Targeting improves on simple tariff subsidy</td>
<td>Careful balancing of strata needed to ensure cost recovery</td>
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Impact of Utility Subsidies: Sustainability of Utilities

Structural tendency to underfinancing by governments, reluctance to make people pay “too much” for water, used to result in:
- Declining quality of service
- Low incentives to efficiency improvement for utilities
- Structural utility deficit does not allow for new investment
- No incentives to extend network

New context: reform of the water sector
- Restore/improve quality of service
  - Explicit output and quality targets
  - Management contracts based on delivery targets
  - Better management of existing assets
- Improve coverage of water access, attracting additional investment
- Provide better incentives for utilities and governments
  - Separate subsidies from finance
  - Make subsidies more transparent (consumer versus utility) and efficient (targeted versus across-the-board)

Expansion of Water Services

- Most utilities are not able to finance network extension and related production capacity through cost recovery alone
- Connection costs, if charged to new customers alone, is often far too high for poor households
- In European countries, network expansion has typically been cross-subsidized (expenses for network extensions shared between all consumers)
- Need to find incentives for utilities to expand network
  - Output-based subsidies: companies bid on lowest subsidy given government contribution per connection (or vice-versa)
  - Used in Paraguay for water
  - Results seem encouraging
- Need of strong and sustained government commitment to provide funds for investment
Expansion of Water Services: Colombia

Colombia: Ley de Servicios Publicos, 1989, and further legislation
- Colombia’s water regulation authority established a system for setting rates throughout the country, plus system of cross-subsidies.
- Fixed percentage of federal government budget transferred to local governments for financing water and sanitation projects.
- Local governments take care of capital investments.
- Operational management: municipalities can hire private companies to operate the services on a contract basis.
- Some municipalities have strengthened their public operators (Bogota, Medellin)
- Others adopted “mixed capital” companies (Baranquilla and Cartagena): city owns controlling stake in water utility and secures financing for infrastructure projects.

- Barranquilla AAA:
  - 1996: 66% of bills collected
  - 2006: 99% water coverage, 87% of bills collected
- Cartagena ACUACAR:
  - 1996: 73% water coverage, 45% functional metering; 40-45% of bills collected.
  - 2006: 98% water coverage, generalized metering, 92% bill collection.

Providing water to the poor in Latin America: some trends

Governments:
Better target subsidies
- Who needs subsidies?
  - WTP estimates show that proportion of households needing subsidies may be lower than what current tariffs imply.
- Collect data and information:
  - Who are the recipients of current subsidies?
  - What factors are limiting take-up in connected areas?
  - How do households not connected to the network cope? How much do they spend on water?

Policies should be focused on increasing access to safe drinking water (and sanitation).
- How to finance network extension?
- How to incorporate alternative providers in the global picture?
Providing water to the poor in Latin America: some trends (2)

Providers:
Know customers and adopt flexible business models

- Work close to the customer.
  - "on-site" (mobile) payment facilities;
  - partnerships with existing networks (grocery stores, shops, banks, etc.)
  - weekly or by-weekly bills instead of monthly bills
  - Payment of upfront connection fee by installments (Paraguay)
  - Prevention of non-payment
    - mobile "payment stations where utility’s agents can negotiate for payment schedules with clients (convenios de pago)
    - bill collection contractors

- Communication and awareness campaigns (how much does it cost to provide the service? how are bills calculated?) on a permanent basis

- Intensive use of IT to manage client relations (customized billing software), handle repairs and maintenance quickly

THANK YOU!