Subsidies

Johan Kruger Afcap Consulting
March 2017
Learning Objective

To provide World Bank TTL’s with material to assist:

- Government to formulate an appropriate subsidy policy and approach to support water utilities in pursuit of clean water for all (utility as receiver)
- To support utilities with an approach that would ensure that the most vulnerable of society will have access to safe water (utility as provider)
Outline

1. Rationale for utility subsidies
2. Government support to utilities
3. Pro-poor Policies to support individual customers
Key Messages

Having a policy on subsidies and the instruments that can be used is important for the creditworthiness of a water utility.

- Subsidies can potentially impact revenues, alter user perception, and therefore impact the opinion of credit rating agencies.

An inadequate subsidy policy can lead to financial problems and a hardship for the poor

The achievement of SDG 6 is also tied to subsidy policy.
Discussion Point

Do utilities in your region?
1. Receive subsidies?
2. Are they adequate?
3. Are they targeted?
4. Is there an opportunity to assist Government and utility with rationale subsidy policy approaches
5. Don’t Know
Rationale for Utility Subsidies
Characteristics of Financing Needed by Water Utilities

- Water and sanitation projects are often large investments with long-term benefits.
- Assets are not suitable to use as collateral (often unknown, underground and not maintained).
- Funding through the budget in a single year is not possible.
- Long term financing is needed to match the useful life of projects and ensure intergenerational equity.
- Mismatch between funding and assets economic life.
- Revenue (tariffs) can be subject to political influence.
- Break-even point can take some time due to long design horizons and construction times.
Characteristics of Financing Needed by Utilities (2)

- Maintenance often neglected with substantial rehabilitation costs
- Revenue and costs relatively inflexible
- Foreign exchange risk to be avoided as all income is domestic
- Natural Monopoly requires regulation
The Rationale for Government Support

1. To improve the quality of life of its citizens.
2. To enable utilities and municipalities to meet the SDG of government.
3. To ensure that the population enjoys access to clean water and safe sanitation.
4. To reduce the costs of the education and health budget and to promote higher productivity.
5. To facilitate projects with high economic return but low financial viability.
6. To ensure the implementation of strategic projects
Hierarchy of Utility Financial Sustainability

- **Fully Financially sustainable**
  - Can cover O&M and capital costs
  - Build up reserves
  - Creditworthy

- **Nearly Financially sustainable**
  - Covers O&M and some contribution capital works

- **Partially Financially Sustainable**
  - Can cover O&M costs but requires Capital Transfers
  - Some Pay as You Go works

- **Not financially sustainable**
  - Cannot recover all O&M costs and requires Transfer

- **Financially Unviable**
  - Capital and some operating subsidies essential to keep utility afloat

- **Unviable Loss Making Utilities**
  - Requires full subsidization

**Commercial Finance**

**Public support required**

**Credit enhancements**
But Operational Feasibility Sometimes also Challenging

- Subsidy required
- Subsidy required

- Capital costs including loan servicing

- Surplus & reserve creation

- Fully viable and all cost recovered

- Contribution O&M

- Contribution to salaries and energy

- Operational costs

- O&M
Government Financial Support to Utilities

Government can provide predictable formula driven regular transfers to utilities as a general subsidy
- An example is in South Africa where municipalities get an equitable share transfer used to provide free water
- Such transfers positively influences creditworthiness

More common in developing economies is that government provides ad hoc transfers (subsidies) on a ad hoc project base or for bail outs
- Creditworthiness is relatively neutral to project subsidies but negative to bail outs

Government can also provide credit enhancement
- This would imply that government provides guarantees for the financial exposure of utilities
Appropriate Basis for Government Support

The project must be economically viable.

The economic benefits must exceed the value of the contribution from the government.

Government must be able to absorb the fiscal impact.

Global and local economic and fiscal conditions must be very stable if long term government subsidy commitments are to be sustainable.

The subsidy must be targeted: too many countries unintentionally subsidize utility inefficiencies and (even worse) the more affluent customers and the commercial industrial consumers.
Instruments for Support Interventions

Government can provide direct subsidies to utilities through…

- Viability Gap Funding (VGF)
- Official Development Assistance (ODA) allocation
- Up-front capital contribution
- Temporary operating deficit contributions
- Concessionary loans that decrease the weighted average cost of capital (WACC)
- Annual Interest rate subsidies
A Common Problem…

If subsidies are not targeted to the poor or specific projects, there is a high risk in terms of subsidising:

1. Inefficiency of the utility
   For example, a utility with low billing/collection efficiency asking for subsidies to finance their inefficiencies – (implicit)

2. Overstaffing

3. Inadequate management

4. The affluent part of the community
Government Project Support

Objectives, Mechanisms, and Outcomes
Provide Subsidies When a Project is Economically but Not Financially Feasible

- **Economic net benefits**
  - Costs
  - Benefits

- **Financial viability gap**
  - Costs
  - Revenue
# Summary Matrix of Government Support

<table>
<thead>
<tr>
<th>Financially Viable</th>
<th>Non-Bankable</th>
<th>Bankable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initially not financially viable</td>
<td>• If not bankable because of high perceived risk, Government can provide Partial Credit Guarantees</td>
<td>No support required unless there is no financing available because of market constraints. In this case, government can co-finance</td>
</tr>
<tr>
<td></td>
<td>• If payback period is too long and greater than available private finance terms. Govt. can support to extend maturities.</td>
<td>Longer term funding through Government agencies or intermediaries</td>
</tr>
<tr>
<td></td>
<td>If economically viable, Government can provide VGF and guarantees through:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Direct Grants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Concessional Loans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Tax and Other Financial Incentives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Policy Risk Guarantees</td>
<td></td>
</tr>
<tr>
<td></td>
<td>These comprise the bulk of projects requiring govt. support, an example is PPPs</td>
<td></td>
</tr>
</tbody>
</table>

**Bankable**

- Initially financially viable
- No support required unless there is no financing available because of market constraints. In this case, government can co-finance
Other Types of Government Support

1. Provide credit guarantees when a project is financially feasible, but risk is too high.
2. Provide demand (sales volume) guarantees when demand is unstable or hard to predict.
3. Facilitate access to funding when the project can’t raise capital because of capital market failures.
4. Stretch out repayment obligations with long term government credits, hence increasing bankability.
5. Co-invest directly or through intermediaries.
6. Provide tax incentives.
Other Factors Affecting Utilities Creditworthiness

- Interest expenditure until the project becomes income generating requires substantial reserves or operational surpluses.
- If funds are raised before the tender is awarded to obtain surety that funds will be available, it impacts on the interest costs.
The Cash Flow Impact of Infrastructure Projects

- Revenue adjusted for inflation
- Additional revenue from project
- Revenue adjusted for inflation
- Opex adjusted for inflation and Project
- Resulting Cash Flow
- Loan servicing
Discussion point: How Can Initial Negative Cash Flows be Covered?

1. Utilize reserves?
   For operating expense reasons this is challenging because it depletes reserves which should be at least 3 Months

2. Increase tariffs?
   Not always equitable or possible

3. Accelerate income generation?
   Some projects don’t lend themselves to acceleration

4. Phase into smaller projects?
   In WSS projects this may not always be feasible

5. Over-borrow?
   Creates extra cost burden

6. Obtain an initial subsidy or initial viability gap funding (VGF)
The Utility as Provider (Pro-Poor approach)
Society, and especially public entities, have an obligation towards the poor and the disadvantaged. Since water is essential to life, it is even more crucial to accommodate the poor and disadvantaged. But

Utilities need to be creditworthy to be able to deliver a service and this requires cost recovery, i.e., tariffs
Pro-Poor Options

- Block tariffs, with 1\textsuperscript{st} block subsidized as lifeline (low-cost or free)
- Lowered connection fee (also incentivizes poor households to connect to system)
- Prepaid cards for access to automated standpipes (Pay per use, also helps in lowering default rate in the utility and enable poor households to become customer of the utility)
- Community infrastructure (such as community toilets, stand pipes, kiosks, community taps etc.)
Consequences of A Lack of a Targeted Subsidy Approach

Poor suffer inadequate access to safe water
Affluent benefits the most
Administrative wastage
Behavioral patterns not conducive to conservation
Inherent Conflict

Tariffs affordable to the Poor

Cost recovery tariffs to create creditworthy Utilities

Caution: Tariffs apply only to the connected customers, and in case of lack of connection subsidies, the poor may remain unconnected. Unconnected water is way costlier! Recall any example of unconnected settlements. They either pump their own water (cost/quality /reliability issues), or buy water from informal sellers (cost/quality issues).
Who Pays for the Subsidy?

1. More-privileged customers (e.g. cross-subsidization through block tariffs);
2. Central government agencies paying per capita subsidies;
3. Donors, through, For example:
   1. Traditional grant-in-aid programs for capital equipment; or
   2. Output-Based Aid (OBA)
Means of Targeting Subsidies to the Poor

- Income surveys
  - But, this often has a high administrative cost and is subject to manipulation
- Registration
  - But, this often has a high administrative cost and is subject to manipulation
- Vouchers at kiosks
- Free facilities in low income communities
- Consumer classification and consumption levels determine tariff paid (Block Tariffs)
- Institutionalisation of innovative solutions: e.g., the instruments that condense atmospheric water vapour.
Consumption Subsidies: Progressive Block Tariff

Block tariff

- Subsidised Consumption
- Operating Cost recovery
- Full Cost Recovery
- Full Cost Recovery + Operating Margin for future expansion (profit)

Consumption vs. Price per unit

Production costs

[Diagram showing consumption and price per unit with various cost recovery components labeled.]
Discussion point

What would you advise utilities in your area as the foundation of an approach that also serves the poor

1. Provide cheaper water to kiosks
2. Introduce an aggressive block tariff
3. Use registration system and a voucher (token)
4. Free water below a certain consumption level
5. Ignore the poor and assume they will use bottled water
6. Others and please share
Connection Subsidies

- Consumption subsidies assume that the user benefits from the rates charged for water used – many of the poor do not consume water from the network because they cannot afford the cost of the connection.
- Connection subsidies enable the poor to gain access to the network and for the WSP to expand the coverage and increase revenues.
- Enables better targeting of poor communities.
- Output subsidy rather than an input.
Economic Rationale of Connection Subsidies

• Consumption subsidies assume that the user benefits from the rates charged for water used - many of the poor do not consume water from the network because they can not afford the cost of the connection

• Without connections to the network the poor pay more for lower quality water and utilities record lower revenues

• Connection subsidies can be targeted and reduced over time – also included in initial project costs
Policies on water subsidies enable governments to address providing WSS to the poor and the sustainability and creditworthiness of the water utility.

Important to gradually replace input subsidies with output subsidies.

An inadequate un-transparent subsidy policy can lead to financial problems and poor quality of service.
THANK YOU
Other Rationale for Subsidies

Subsidies can be justified for financially unviable projects if the economic benefits exceed the cost of the project plus the subsidy, or

If the project is of national strategic importance, or

The government wishes to show commitment to various stakeholders, through steps such as…. Subsidies!
Mechanisms for Government Intervention

Providing financial support (in terms of viability gap funding) for economically viable but financially unviable projects

Provide credit support for projects that are financially viable but not bankable

Combinations of these conditions

Types of support
- Capital subsidies
- Operating subsidies