Finance Options: Session 3 :Tools

Module 4 Session 3

Tools for Assessing Options

- Cost Recovery
  - Willingness to Pay
  - Affordability to Pay
- Financial Analysis
- Economic Analysis

Mechanisms for Cost Recovery

- Cost recovery is key to any WWM project financing as well as for its O&M.

- Principles of cost recovery should balance three critical and interrelated aspects:

  (1) quality of the service
  (2) investment costs and
  (3) tariffs that users are willing and able to pay.

- Users should receive an adequate service sensitive to their ability to pay and to their contributions to pollution: "*water user pays*" and "*polluter pays*" principles are prerequisites for achieving sustainability.

Cost Recovery Mechanisms (cont'd)

- Cost Recovery Mechanisms include:
  - Consumption based user charges (user charge based on the volume of wastewater discharged and/or characteristics of wastewater, often directly related to consumption of potable water)
  - Effluent charges (based on a fixed amount per household, or in the case of industry on a proxy such as production, number of employees, etc.) and
  - Discharge permits (charges/levies can be incorporated in discharge permits);

Cost Recovery Mechanisms (cont'd)

Operational Mechanisms for Setting User Charges

- Estimation of Ability To Pay (ATP) --based on income as well as revealed preference method-- and Willingness To Pay -- based on contingent valuation method-- is crucial for setting appropriate service charge.

- Cross-subsidization principle should be used to make service charge affordable to the poor and low-income families. Any loss of revenue should be offset by charging higher fees to the well-off residents.

Willingness to Pay

How to estimate:

- Affordability rule of thumb – assumption that people can afford to pay a proportion of their income (typically 3-5 percent) for water and sanitation.
- Revealed Preference methods measure demand directly by examining current behaviour eg price paid for communal toilets, for septic tank emptying or wastewater removal via local sewers /leach pits.
- Contingent Valuation in which people are asked what they would be willing to pay for different water and sanitation services within a ‘hypothetical scenario’. More complicated and requires specialist inputs.

Financial Analysis

- Financial Analysis considers the financial viability of a system by considering cash flows of both:
  - Expenditures E = capital costs (CC) plus operation and maintenance costs (O & M) and;
  - Revenues R =.Taxes plus User Charges plus Government Payments.

Financial Planning

- Financial planning involves setting expenditure needs (Ê) for providing the wastewater management services to a set number of households and determining the revenues required (R) to meet the capital cost (CC) and operation and maintenance cost (O&M).

Accounting

- Itemizing the cost (land, construction, machinery, laboratory equipment, wages and salaries, rent, office supplies, electricity, transport, etc.) and revenue (user fees, revenue from sale of bi-products) fully is central for sound financial management.

Accounting System

- An appropriate accounting system to record all transactions in an accessible form is a key requirement for doing all that have been noted above.

- All work activities and corresponding costs and revenues must be recorded.

- Payments and receipts should be recorded (with date and description) separately under subgroups for common expenses.

Read session note