

Financing of Waste Management

Kremena Ionkova

Global Lead for Solid
Waste Management
and Circularity

World Bank

Africa Clean Cities
Platform

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Role and function	Central government tier	Local government tier	Intermediate tier
Financing			
Operational financing	<p>The operational financing of waste management services is primarily a local responsibility. Nevertheless, many countries support operations at the local level via transfers from the state budget or from other sources of public finance.</p> <p>EPR is also a key potential revenue source.</p>	<p>Primary responsibility for financing waste management services sits with the local level. Funding can be provided from earmarked local taxes, service fees or direct transfers from the local budget.</p>	<p>In some countries funding support for operational expenditures is provided via intermediate level government transfers to local authority budgets.</p>
Setting fees and tariffs	<p>The rules for setting tariffs for waste management services are usually defined at national level.</p>	<p>Local government has responsibility for determining and levying user charges (tariffs), assessing their affordability to users, and deciding on the appropriate mix (if any) of user charges and budget transfers needed to operate the services on an affordable and sustainable basis.</p>	<p>In some countries the fees applied at local level are regulated at regional level.</p>
Capital finance for development of waste infrastructure and purchase of equipment and vehicles	<p>Central government will often provide grant support to part finance municipal investments in waste management infrastructure. Support can be in the form of transfers from the state budget or financing through various state managed programs or funds</p>	<p>Local authority has prime responsibility for funding capital infrastructure but will often do this by seeking support from intermediate tier or central government and/or through private investment.</p>	<p>Intermediate level government often provides support towards capital intensive waste management projects.</p>

Institutional roles and responsibilities in financing solid waste management

Defining the costs: a first step to secure financing

- Municipalities should know the full cost of operating their SWM systems and the individual components that comprise them.
- Municipal councils are more likely to approve requests to raise budget allocations and tariffs when they are supported by a full-cost analysis. If costs are not known, budgets are likely to be assigned according to prior funding allocations and available municipal resources.
- Cost information is needed to plan future strategy and services, prepare realistic capital and operational budgets, define the scope for cost recovery via user charges, and assess the financial implications of involving the private sector in service delivery.
- Without knowing the full costs of baseline services, it is hard to plan system improvements. It enables calculation of unit costs and unambiguous cost comparisons between various systems. Only then municipalities can establish the incremental costs of planned new investments and operations.
- Once full costs are known, the annual revenue required to cover these costs can be established and indicative user tariffs estimated.

Typically observed in LICs and LMICs

- Most municipalities are unaware of the full costs of their services.
- Municipalities spend 80-90% of available funding for waste collection, transportation, litter cleaning and sweeping, and very little on waste treatment and disposal.
- There is strong focus on capital expenditure needs for equipment and infrastructure and underestimation that operating expenditures are almost always higher than the annualized capital costs of investments, with estimates showing them to account for 70 percent or more of total budget requirements.
- It is easier to mobilize funds for investment financing than it is to generate those needed to cover the recurrent operational needs of the system.
- Conversely, **experience shows that where cities have secured financial flows to predictably and reliably cover the running cost of end-to-end service provision, there is no shortage of private capital willing to work as service providers and to invest.**

Sources and overall financing

Sources of operational finance:

- **User charges** (incl. from commercial)
- **General municipal revenue** (mainly property tax but also general transfers from state level)
- Central transfer (earmarked for waste)
- Other (revenue from sell of electricity, heat, recyclables, RDF etc.)

Total financing to the sector:

- Powerful indicator on **what the sector is likely to be able to afford going forward**

Comparators:

- Public expenditure alone: 0.4% of GDP in EU vs. 0.1% each for wastewater, pollution abatement, protection of biodiversity, R&D
- ~10% of municipal budgets in low-income countries; 4% in high-income countries

Policy choices concerning sector financing

- Whether to apply the ***polluter pay principle*** and to what extent. Most countries aim to cover Opex by user charges.
- Whether to implement a **traditional charging mechanism** (revenue stability) or a **quantity-based charging mechanism** (incentives to minimize waste generation and separate waste for recycling).
- Whether to **collect user charges directly or designate this function to 3rd party** service providers. Both methods exist but direct billing and collection by municipalities is typically better.
- What **support to be given to low-income or vulnerable households**. User charges should be calibrated according to the mean affordability and low-income households should be supported with targeted assistance.
- Whether to charge **VAT (value added tax)**. Some countries either exempt or zero-rate waste services from paying VAT.
- **How to serve legal/commercial entities**. Some municipalities leave waste collection from legal entities entirely to the private sector. Others offer services, exploiting economies of contiguity, competing with private firms. Others yet provide the service to both households and legal entities and cross-subsidize households.
- Whether it should introduce a **separate, formal charge to cover costs beyond primary collection** in cases of primary waste collection provided for a fee outside the public system.

Affordability

- Affordability: household's ability to pay for waste services
- Measure of affordability: the share of average monthly household income that households might realistically spend on waste services
- Internationally accepted affordability threshold: 1% of average household income (from 0.7%-1.5%)
- Used to determine indicative size of maximum tariff
- **Observed in low-income countries: public tariffs are often well below affordability levels however payments to primary collectors outside the public system hover around the affordability threshold**
- Considerable variations between highest and lowest decile are likely in countries with high level of income inequalities
- In most high-income countries: waste management costs are below 1% but in low-income countries affordability threshold has greater relevance and influence: future extension of service or costly treatment method could make the service unaffordable

Some take aways on the way forward

- It should be recognized that waste volumes are likely to continue to increase. In a business-as-usual, the sector will have significant negative impacts on health, the environment, livability, local economic development, exacerbating floods, and burdening municipal budgets.
- At the same time, the sector offers tremendous potential in terms of jobs and circular economy.
- Recognizing the need for change and securing political support is the first step towards improving the performance of the sector.
- Waste management is a net-cost activity and needs financing. While revenues from waste by-products such as recyclables, energy tariffs, biofuels provide revenues, they are typically far smaller than the full cost of waste management.
- Strong focus on operational financing is required to unlock the potential for more private capital: reliable and predictable operational financing will go a long way to attract private sector and bring capital financing
- Municipalities may not realize that their constituencies are already paying enough to support a basic end-to-end waste system.

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