

MUNICIPAL SOLID WASTE INITIATIVE

Using Internal Revenue Streams and External Financing for Solid Waste Management Projects

The municipal solid waste management process consists of multiple stages, including upstream waste generation, midstream waste collection and processing, and downstream disposal. Each stage can generate revenues if adequately structured. Many of these potential revenue streams, however, are not effectively captured by cities, if at all. This is due to a range of challenges, including a lack of a regulatory framework for collecting fees, a lack of funds for household waste collection, and poor enforcement of fee and fine collection. Further, these revenue streams often do not generate enough profit to fund large, capital-intensive infrastructure projects, such as the construction of a new waste transfer station or sanitary landfill. In these cases, cities often need to seek external financing.

Identifying and accessing financing structures for solid waste management projects can be challenging. This fact sheet provides information to help cities understand both the internal revenue streams and the external financing options available for funding their projects.

THE SOLID WASTE MANAGEMENT PROCESS



*Municipal, Industrial, Manufacturing, Hazardous, Medical, Agricultural



The Penang State Government has embarked on an ambitious effort to introduce the “Waste Generator Pays Principle” for the commercial sector. The state has begun testing the financial model at the pilot-scale level.

THE CLIMATE AND CLEAN AIR COALITION MUNICIPAL SOLID WASTE INITIATIVE

unites national and local governments, international organizations, and other partners to reduce emissions of short-lived climate pollutants, such as methane and black carbon, from the municipal solid waste sector.



CLIMATE & CLEAN AIR COALITION
TO REDUCE SHORT-LIVED CLIMATE POLLUTANTS

Internal Revenue Potential along the Waste Management Process

Often there are inefficiencies or untapped revenue streams along the solid waste management process that could be capitalized to create value. By eliminating these inefficiencies and creating value, cities can generate consistent revenue sources, save funds for future waste projects (potentially eliminating the need for external financing), and demonstrate their dependability to investors.

	Challenges	Impact	Actions to increase revenue potential
 Upstream	No local or national frameworks or policies about solid waste management	No ability to collect either fees for waste collection or fines for waste violation	Develop solid waste management policies to create a framework for fee collection and fines for waste violations
	Lack of resident awareness about environmental and health impacts of open dumpsites	Residents do not dispose of waste properly, leading to less waste in the formal waste stream and, therefore, a lower value in fees from waste collection	Improve solid waste service delivery and fee collection
	Lack of resident awareness about solid waste management costs or inability/unwillingness to pay fees		Educate residents on the impacts of improper waste disposal and the value of proper waste collection to boost participation and fee generation
	Lack of policymaker awareness about costs	Waste disposal services might receive inadequate funding	Educate policymakers on the costs and benefits of proper waste collection to boost funding
 Midstream	Municipal solid waste mixed with medical and/or hazardous waste	Municipal solid waste is often mixed with medical and/or hazardous waste that cannot be deposited at the landfill; this decreases the fees generated from waste collection	Strengthen waste collection and transport in underserved communities to boost participation and fee generation
	Lack of funds to collect waste	Insufficient funds to collect household waste lead to less waste in the formal waste stream and, therefore, a lower value in fees from waste collection	Collect fees for waste pickup, particularly from large generators
	Poor enforcement of waste violations	Fewer fines are collected	Couple fees with waste violations and subsequent fines for improper disposal
 Downstream	No solid waste management regulatory framework	No ability to assess violations and charge fines for improper waste disposal	Promote source separation and recycling
	Lack of local capacity to develop proper disposal regulations	No ability to collect fees or charge fines	Work with industries to market and sell recovered materials (e.g., recyclables) Recover and sell waste by-products (e.g., landfill gas, biogas, compost, digestate)

External Financing Opportunities and Contractual Agreements

If a city has not accrued sufficient revenue from internal streams to fund large capital investment projects, it may need to seek financing opportunities from external sources. Cities may also elect to outsource part of all of its solid waste management process to a third party entity through contractual agreements. The following external financing options are the most common external finance sources for city governments:

Grants

- Ear-marked, non-repayable funds to the city, typically from a higher-level government agency, multilateral or bilateral financial institution, or foundation.

Loans (debt)

- Public or private loans from multilateral or bilateral financial institutions or banks.
- Fixed rate of repayment over a set period of time.

Bonds (debt)

- Debt obligations issued by a city, in which the city (the borrower) promises to pay back the principal (the bond's value) and interest at specified intervals to the institutions or individuals who have purchased the bonds (the lenders).

Public-Private Partnerships

- A cooperative agreement between the public and the private sector, which allows some of the financial constraints to be shifted from the public to the private sector.

Resources to Help Cities

The following resources contain information relevant for cities financing waste management projects:

[Primer for Cities for Accessing Financing for Municipal Solid Waste](#)

Projects – The Waste Initiative developed this primer to help cities make decisions about financing.

Municipal Solid Waste Financing Webinar – This Waste Initiative webinar provides an overview of the financial readiness toolkit, with a focus on policy and regulation, and gives an overview of the different funding and financing mechanisms available to cities to deliver municipal solid waste infrastructure.

Financing Readiness Questionnaire – Cities can use this Waste Initiative resource to identify their financing weaknesses and other potential risks.

C40 Cities Finance Facility (CFF) – The CFF provides technical assistance to mobilise financing for city-level sustainability projects. The CFF offers assistance with project preparation, capacity development, knowledge sharing, and partnerships between cities and investors; the accompanying Knowledge Library provides a variety of resources related to these topics.

PUBLIC-PRIVATE PARTNERSHIPS IN INDIA

In South Delhi, IL&FS manages and operates a composting plant to treat organic waste. The city provides the waste and land at a nominal fee.



In Pune, the municipality collects organic waste and processes it to make a slurry that is then trucked to an anaerobic digester operated by Noble. Noble uses the organic waste slurry to generate renewable natural gas to fuel vehicles.



MORE INFORMATION

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