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PUBLIC-PRIVATE PARTNERSHIPS BRIEFS

India: Berhampur Solid Waste Management



Overview

The municipal solid waste management system in Berhampur, a city in the Indian state of Odisha, is inadequate to meet the needs of its population and is not in compliance with national regulations. With little to no primary waste collection in about half the city, many citizens, mainly in low-income areas, are exposed to health risks resulting from pollution, water contamination, and untreated solid waste. The Department of Housing and Urban Development of the Government of Odisha and the Berhampur Municipal Corporation, seeking an affordable solution for delivering improved waste management services to its citizens, turned to IFC to help structure a PPP transaction and attract a private operator to improve the efficiency and management of the system.

UPL Environmental Engineers Limited, one of India's leading environmental engineering companies, was competitively awarded the 20-year concession. The concession agreement was signed on August 30, 2013. UPL will be responsible for collection and transportation of waste, development of a segregation line and composting facility, a greenfield sanitary landfill and the decommissioning of the existing dumpsite. Operations are expected to begin within one year of signing and will benefit over 350,000 people, including approximately 100,000 in low-income areas.

This project was supported with funds from DevCo, KfW, and the Ministry of Foreign Affairs of the Netherlands for copex grant and concessional financing.

This series showcases how the World Bank Group supports the development and implementation of public-private partnerships. This support comes in the form of public sector loans, private sector finance, sector and transaction advice, guarantees, and output-based aid.

Background

The Municipality of Berhampur, the third largest city in the Indian state of Odisha, is looking for innovative, sustainable ways to upgrade infrastructure and enhance public services. Currently, less than half of its population of 350,000 enjoys door-to-door waste collection, a service contracted to small private companies: many people habitually dump waste on the streets. Municipal workers carry waste to secondary collection points, including small open dumps on street corners, from where it is transported to a site 10 km from the city. The waste ends its journey in a dump without treatment or processing, exposing the surrounding environment and population to pollution, contaminated water, and foul odors. Although national regulations are in place for the collection, processing, and disposal of waste, the city does not have the resources to enforce them. Berhampur, like many municipalities throughout India, struggles to manage a financially viable and environmentally sustainable municipal waste management system. Reforming this system became a top priority for local authorities to improve people's lives in Berhampur and transform the city into a model of urban development in the state.

Public-private partnership (PPP) projects in the sector face two major issues. First, there is limited, proven high-end waste treatment technology. Composting remains the most suitable treatment for small quantities of waste below 500 tonnes per day. Second, financial viability is difficult to achieve, because the initial capital investment is large for private firms, and by-product markets are too small to recover costs and ensure profitability. The burden of paying the tipping fee lies solely on the municipality, which results in significant credit risk for the private operator. Berhampur, which does not yet charge user fees, is particularly vulnerable to this risk.

The Department of Housing and Urban Development Department of the Government of Odisha (H&UDD) and the Berhampur Municipal Corporation (BMC) turned to IFC as an experienced development partner for private sector issues to develop an effective solid waste management system that complies with regulations, provides better service, and serves as a model for other small cities.

Project Description

Typically in India, the tipping fee is the main and often sole source of revenues to the operator. However, in order to cover operational and financing costs and include a profit margin, the tipping fee would have to have been so high that the project would not be affordable for the municipality.

To ensure the financial viability of the project, the team introduced a capital grant and concessional loan during construction. The grant and concessional loan was provided by the Odisha Urban Infrastructure Development Fund (OUIDF), a specialized fund financed by KfW.

The tipping fee was fixed at an affordable level for the municipality. The concessional loan was fixed at 25 percent of the initial

project cost. The project was bid out on the basis of the amount of grant required by the private sector to make the project viable with a cap at 25 percent of the initial project costs.

Although the project financial viability had been established, several bidders were still concerned about the payment risk from the municipality. To address this, the team introduced an escrow account mechanism with a three-month reserve and an automatic release of funds upon receipt of the invoices on a monthly basis. The municipality's payment obligations were backed by a comfort letter from H&UDD.

Eight companies expressed interest in the project, and two ultimately submitted bids. The winning bidder was a consortium led by UPL Environmental Engineers Limited, a large Indian environmental engineering construction firm with 15 years of experience in solid and hazardous waste management, wastewater treatment, recycling and other environmental projects. The concession agreement was signed on August 30, 2013.

World Bank Group Role

IFC served as lead transaction advisor to BMC for the project. During the initial phase, IFC conducted an in-depth study of the existing system, including the regulatory framework and the financial situation of the municipality. Obstacles included environmental issues at the existing site, limited financial resources of the municipality, risks to workers affected by the project, and low private sector interest in a small project in a remote location.

IFC recommended an integrated approach whereby the private operator would be responsible for door-to-door collection, transportation, treatment, and disposal of municipal waste at a new site, as well as closing the existing site. IFC also developed an innovative financing structure to address viability issues. IFC recommended that the municipality retain responsibility for certain processes, such as drain cleaning, street sweeping, and bush and grass cutting, to minimize risks to existing employees. A key element of IFC's role was to facilitate consensus among stakeholders to gather broad support for the project.

Outcomes

- The private operator will manage a composting facility with a capacity of 150 tons per day;
- Over 350,000 residents, one-third of whom live in low-income areas of Berhampur, will benefit from daily door-to-door waste pickup services without increasing costs to the municipality;
- Environmental and health risks for the city's population will be reduced;
- The project will attract investments of \$10.3 million;
- There is a high potential for replication in other Indian municipalities, H&UDD is using the bid documents developed under this project for two other projects in Odisha.



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