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waste management

Solid Waste Management, West Bank and Gaza

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***On this page:** A case study on Solid Waste Management, West Bank and Gaza. Find more at the [Municipal Public-Private Partnership Framework - Project Summaries](#) section for brief summaries of around 100 projects from around the world, examples of successes and challenges, as well as innovative ideas on solutions, or visit the [Guidelines on Innovative Revenues for Infrastructure](#) section.*

Project Summary:

Background

Decades of conflict have led to underinvestment in infrastructure and the provision of public services in the West Bank and Gaza, especially in solid waste management. This is true in the case of Hebron and Bethlehem, which house nearly 1 million people and are the poorest governorates in the West Bank. Of the 500 tons of waste generated daily in Hebron and Bethlehem, most was abandoned, illegally dumped, or deposited in unsanitary dumps. The amount of solid waste was predicted to grow, yet the governorates were lacking in a sanitary landfill space and funding – presenting health and environmental risks to the residents of the West Bank. To address the existing unsanitary dumpsites, the Palestinian Authority established the Joint Services Council for Hebron and Bethlehem (JSC-H&B) to oversee the solid waste management system. It also sought help from the World Bank Group and other donor partners to finance a sanitary and modern landfill equipped with access roads and transfer stations at Al Minya.

The Palestinian Authority invited IFC to help design a PPP for the operation and management of the landfill and related facilities tailored for the region. The Palestinian Authority also requested IFC's help to secure a qualified private partner willing to manage the facility.

Project Structure

The project was structured using mixed financing, as follows.

- i. USD 28 million was raised from the authority and local governments as well as from donors such as the World Bank, European Union, United States Agency for International Development (USAID), and Islamic Development Bank, among others; and
- ii. USD 8.3 million would come from the Global Partnership on Output-Based Aid (GPOBA) (now known as Global Partnership for Results-Based Approaches (GPRBA)). The USD 8.3 million would be disbursed based on specific service improvements, including adequate waste gathering and transferring solid waste to the landfill, and financial sustainability targets as set by local stakeholders.

The GPOBA's involvement reassured the private sector bidders, as it supported JSC-H&B's ability to pay the private operator. The GPOBA also incentivized the performance of the selected private company and at the same time encouraged local governments to use the landfill.

Seven international and regional private sector operators expressed interest in the project. Of the seven, three private operators were pre-qualified and submitted bids, namely Hera Holding (Spain), WATT S.A.-MESOGEOS SA & EPEM SA (Greece), and Entag-Ecaru-Comeback (Egypt-Palestine). Through a two-stage selection process involving a technical evaluation and a financial bid, the Greek consortium was awarded the project in 2013. The concession has a flexible term with a minimum of five years and a possible extension of up to two years. The continuation is contingent on the outstanding volume in the landfill cells.

The private operator is responsible for the operation and maintenance of two transfer stations at Tarqoumiya and Hebron and the Al-Minya landfill, including the long-haul transfer of waste from the transfer stations to the landfill. JSC-H&B is responsible for paying charges per ton of waste managed at the Al-Minya landfill and the two transfer stations, as well as providing a minimum waste guarantee of 500 tons per day to the operator. Meanwhile, waste and user fee collection was the responsibility of the local governments.

As a result of this project, greenhouse gas emissions are expected to be reduced by 13,400 tons over seven years, or 3.2 million tons of carbon dioxide equivalents (CO₂e) within 20 years of the project's economic life.

Lessons Learned

Approximately 840,000 people in Hebron and Bethlehem have directly benefitted from the improved quality of solid waste management services. In return, customers are now more willing to pay for the service as evident from the steadily improved fee collection rates and billing-to-cost ratio for services in Hebron and Bethlehem since implementation.

A report showed that both governorates had recovered around 82 percent of billed fees, 42 percentage points higher than at the start of the project. It was also reported that JSC-H&B now covers 84 percent of its operating costs from its revenues – indicating improved financial sustainability of the project. The project has also expedited the closure 17 unsanitary dumpsites.

In the future, JSC-H&B is planning to set up centers for the customers to pay service fees and file quality-related complaints. It also plans to bundle waste management fees with other public services fees that citizens regularly pay.

The following lessons can be learned from this project.

- i. There is value in adaptability and flexibility. As it was difficult to attract private companies willing to invest in a fragile and conflict-afflicted area, considerable effort was made to improve the project scope and structure during the bidding and tendering phase. Consequently, the project had to be redesigned to attract smaller firms, which may have more incentive to invest in a challenging operating environment. Flexibility was also key in successfully implementing the project across different local authorities. For instance, the type of instrument used to collect waste charges was permitted to vary from one locality to another.
- ii. Assistance is available from experienced IFIs, such as the World Bank and IFC. The JSC-H&B acknowledged their weakness in not having sufficient expertise to unilaterally deliver a solid waste PPP. Accordingly, they sought help from experienced IFIs to overcome this gap in internal capacity. The World Bank helped with funding the landfill and building institutional capacity, while IFC helped with structuring the PPP and securing GPOBA funding.
- iii. Engage with stakeholders early and often. The JSC-H&B communicated directly with local government participants and encouraged them to proactively contribute to the project, especially in setting the project's target. It conducted several focus group meetings at the initial stages of the project

to understand the concerns of stakeholders and ensure their early and continuous engagement.

- iv. Performance-based payments help to align incentives. GPOBA's performance-based disbursements helped to enforce the private operator's compliance with the KPIs set by JSC-H&B, as this was necessary to safeguard its revenue stream and return on investment. GPOBA funding also made the project more bankable and incentivized local governments to improve fee collection rates.¹

Footnote 1: Case source(s): <https://www.worldbank.org/en/about/partners/brief/west-bank-andgaza-cleaner-citiesppps-and-innovativefinancing-approaches> Accessed May 31, 2019

<https://library.pppknowledgelab.org/both/documents/2028> Accessed May 31, 2019

<http://documents.worldbank.org/curated/en/330331546546200432/pdf/icr00004568-final-12282018-636818041626273401.pdf> Accessed August 8, 2019

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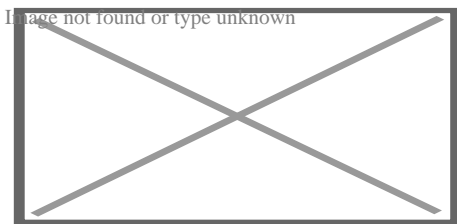
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