

LESSONS LEARNED



Lessons from West Bank Solid Waste Management

DEVELOPMENT CHALLENGE

In the West Bank and Gaza, decades of conflict had led to underinvestment in solid waste management. Hebron and Bethlehem, the poorest governorates in the West Bank and home to nearly one million people, generate 20 percent of the area's total solid waste. In 2009, 500 tons of waste produced daily were disposed of in unsanitary dumps, illegally abandoned, or burned. Local governments lacked a sanitary landfill as well as effective revenue administration that could tap citizens' willingness to pay for waste management. As a result, revenues were not enough to support comprehensive and sustainable solid waste collection and disposal, which endangered people's health and the environment.

THE PROJECT AND ITS PARTNERS

To remedy this situation, the World Bank Group and its development partners provided investment financing to the Joint Services Council of Hebron and Bethlehem (JSC-H&B) to construct a modern, sanitary landfill and two transfer stations. In 2013, the JSC-H&B (through the Palestinian Authority) received a grant of \$8.26 million from the Global Partnership on Output-Based Aid (GPOBA) for the Output-Based Aid (OBA) Pilot Solid Waste Management Project - West Bank. Made through GPOBA's International Finance Corporation (IFC) funding window, the project was designed to assist with the effective operations and maintenance of waste disposal services, and to ensure the environmentally safe management of the new landfill in Al-Minya. The IFC also provided support by structuring a public-private partnership (PPP) to allow a private company to operate the landfill.

The project sought to: (i) increase service quality, by bringing in an experienced landfill operator, compelling local governments to send their waste to the sanitary landfill, and supporting comprehensive planning and monitoring of the waste management system, and (ii) increase the financial sustainability of solid waste management services, by incentivizing better cost recovery, making subsidy payments, and providing technical assistance for tariff design and fee

collection. The working assumption was that better service quality would increase consumer willingness to pay and promote long term financial sustainability.

To incentivize service improvements, JSC-H&B disbursed the grant in the form of disposal fee credits to local governments, based on their performance on relevant metrics. They were scored based on cleanliness; the amount of waste being sanitarilly managed; fee collection; and cost recovery through billing. The subsidy was phased out as services improved and local tariffs and fee collection rates increased. The subsidies assured regular payments that attracted a private sector company to operate the landfill.

Technical assistance was also provided to local governments and the JSC-H&B to: create a new institutional framework (including new accounting and fee collection practices); develop plans for closing unsanitary plants and improving public awareness of the need for better waste management; and create a management information system (MIS) to harmonize data collection and management, improve data quality, and support monitoring and evaluation.

RESULTS ACHIEVED

The project, which ended in 2017, improved the quality of solid waste management services for an estimated 840,000 people served by 50 municipalities and village councils. The target values for all four indicators measuring improvements in waste management delivery and financial sustainability were achieved and, in some cases, exceeded.

Cleanliness scores improved substantially, and all waste was sanitarilly managed. The aggregate cleanliness index target of 78 percent was collectively met and exceeded, thanks to the provision of 2,300 additional waste containers; the expansion and improvement of services (including introducing mechanical street cleaning); and better maintenance (waste containers are periodically washed, and trucks are better maintained to prevent leakage). All waste was either disposed of sanitarilly in a landfill or recycled.

The target of collecting 80 percent of fees was achieved, and the billing-to-cost ratio exceeded its target. Fee collection rates almost doubled overall; only four local governments fell short and were disqualified from receiving subsidy payments. Improved fee collection was attributable to the technical assistance (including better billing practices, such as attaching solid waste fees to electricity bills) and the subsidy incentives. Billing-to-cost ratios at the aggregate level increased from 76.7 percent to more than 84 percent. This allowed municipalities to meet their financial obligations despite the increased cost of improved services.

The concession agreement with the private landfill operator set a precedent for public-private partnership in the West Bank. As the first of its kind, it required significant time for the agreement to be formulated and concluded, requiring the project closing date to be extended by one year. However, it established a model that can be copied in projects in other sectors.

Additional benefits included institutional strengthening; the establishment of an environmental plan and waste management standards; and the creation of new jobs. A new institutional framework for solid waste management was set up, with better monitoring and reporting. The project supported the development and implementation of an environmental plan to manage unsanitary dumpsites, resulting in the closing or rehabilitation of numerous sites. Standards for slaughterhouse and medical waste management were developed and implemented. Additionally, the project enabled the creation of about 170 new jobs at the JSC-H&B and at the municipal level.

LESSONS LEARNED

1 Securing private sector participation in a fragile and conflict-afflicted area required flexibility and a willingness to modify the standard PPP process. The project's context and novelty made it challenging to attract private sector investors, so the team shifted its focus to smaller, less experienced firms that had incentives to prove themselves.

2 Collaboration between the World Bank and the IFC enabled the provision of an integrated, cost-effective and participative solution. The public and private sectors, donors, and the World Bank Group considered this an important project for creating new opportunities for the people of the West Bank, and innovated, adapted and compromised to make it work. Collaboration between the World Bank and the IFC—building on long established relationships in the area, adapting organizational processes to the specific needs of the public sector, and being open to

original solutions—was essential to PPP participation.

3 A good monitoring and feedback system helped to ensure that objectives were met. The MIS was imperative to monitoring performance and promoting transparency for the formula based, quantitative approach to calculating and disbursing payments. The JSC-H&B also maintained clear and frequent communication with local governments regarding performance, changes in the incentive scheme, and opportunities and strategies to improve.

4 Carefully crafted incentive systems, with peer-to-peer comparisons, encouraged better performance. Poor-performing and high-performing participants were handled separately, and sub-par performers were given the opportunity to improve services and earn missed payments, thus incentivizing both groups for the duration of the project. The JSC-H&B also made results public, motivating local governments to improve their performance relative to their peers.

5 Focusing on stakeholder buy-in paid off. Focus group meetings were held to understand the concerns of stakeholders, and citizen questionnaires influenced the design of the performance indicators. Meetings were also held with local and regional management to understand their concerns and challenges. These consultations encouraged buy-in by citizens and municipalities.

6 Capacity building was essential, and substantial funding should be allocated to it from the start. Part-way through the project, some limited funding was allocated to technical trainings, advisories, and workshops relevant to the performance metrics. A more comprehensive and well funded capacity building program, which includes trainings on topics such as fee collection and citizen engagement that are applicable to other sectors, would be even more impactful.

7 Projects should be tailored to the local context. Adapting to the local context improved financial sustainability, by increasing fee collection rates. Fee collection instruments varied (waste management charges appeared on bills for things as diverse as marriage certificates and building permits), in line with each local government's jurisdiction over local assets.

8 Flexibility helped to drive results. Several project components were fine-tuned or redesigned as needs and local constraints evolved—for example, some targets were raised after local governments exceeded the original targets.