LESSONS LEARNED

Senegal Output-based Aid Sanitation Project

DEVELOPMENT CHALLENGE

The water sector in Senegal is one of the most developed in Sub-Saharan Africa. Access to water in urban areas is almost universal, but sanitation lags behind. The government’s urban sanitation strategy calls for the development of on-site solutions at municipal level, based on the approach of the Programme d’Assainissement Autonome des Quartiers Peri-urbains de Dakar (PAQPUD). The predecessor of the OBA project, PAQPUD was a large result-oriented, pro-poor program that provided 63,000 facilities, as well as small-bore sewers, increasing sanitation coverage by 22 percent in the target areas in four years. PAQPUD ended in 2005 for lack of funds, leaving demand for 74,000 demands unmet.

THE PROJECT AND ITS PARTNERS

The government requested a US$5.8 million grant1 to the Global Partnership on Output-based Aid (GPOBA) in 2007 to build 15,100 on-site facilities in five municipalities originally targeted by PAQPUD. In OBA schemes, payments are linked to the delivery of pre-defined “outputs.” The OBA Senegal project linked payments to the installation of adequate sanitation facilities in households. Unit costs varied depending on the type of facility.1 Beneficiaries provided 20 percent of total costs upfront and received a subsidy for the remaining amount. Service delivery was contracted out by the Office National de l’Assainissement du Sénégal (ONAS) to the national agency for public works, the Agence d’Exécution des Travaux d’Intérêt Public contre le sous-emploi (AGETIP), which prefinanced the facilities. Local firms performed the works, consulting firms provided technical studies and supervision, and neighborhood community-based organizations (CBOs) carried out social intermediation, hygiene promotion, monitoring, and collected user contributions. Municipalities engaged in information and communication activities. Disbursements to AGETIP were made quarterly in three tranches, with final payment after a technical audit, which included field visits to a representative sample of beneficiaries to certify construction and operating standards.

RESULTS ACHIEVED

By December 2011, when the project closed, more than 103,000 people had benefited from an improved sanitation facility at home, representing 95 percent of end-of-project targets (11,495 facilities installed). Other notable results included:

- **Effective pro-poor targeting.** Slums for intervention were identified geographically, using urban characteristics (lack of sewer connections, traditional compounds, and narrow streets) as proxies for income. All households within these areas were eligible as long as they would pay the upfront contribution. In addition, self-targeting ensured that only poor households would participate (excluding options typically attractive to higher-income communities). CBOs that had detailed knowledge about communities ensured that the project could reach the poorest households.

- **Cost-effectiveness of project technological choices.** An analysis comparing unit costs and subsidy rates of various sanitation solutions showed that the subsidies needed to build individual or condominium sanitation facilities are 2.0 to 2.5 times lower than those required for conventional sewers.

- **Subsidy efficiency.** The average subsidy was US$45 per person, well below the US$54 per person maximum set at the beginning of the project.

- **Capacity building.** Stakeholders at all levels acquired specialized skills, including social communication, operation, and management. Local firms, selected through competitive bidding, built capacity to deliver works compliant with standards, which is likely to further attract private investment in the sector. They also employed artisans and local workers, which benefited communities economically.
Lessons Learned

1 A demand-based and flexible approach is key to triggering and sustaining user uptake. A demand-based approach can spur user uptake and mobilize support, while project rules should be flexible (and project funds fungible) to adjust to changing circumstances affecting demand. The project had two phases. During the first 28 months, only 7 percent of the planned facilities were realized. The global economic crisis had reduced household willingness to invest in sanitation. The low uptake was also due to a history of highly subsidized schemes and lack of credit facilities for household. In response, the team reallocated some of the project budget to promotion activities to reinforce outreach, combining mass communication and social marketing. The latter also provided valuable feedback about household motivations and hygienic practices (such as pride of owning “modern” facilities, or living in a clean environment), which was used to refine the menu of options (for instance, the possibility of connecting to simplified sewers was introduced). Because demand for sanitation is typically low, OBA schemes in this sector should develop strategies and allocate sufficient resources to capture household motivations, unlock demand, and organize community mobilization at the outset. Another factor affecting user demand was the subsidy structure itself, which was defined as a percentage of costs, covering both the facility and its superstructure. The team decided to reinstate in-kind contributions and staged payments. Moreover, the intervention areas were expanded, “following” the demand, and a 21-month extension was approved. These remedies triggered further gains: in particular, the line ministry provided an additional contribution of US$360,000 dedicated to the poorest households. AGETIP immediately mobilized to use this additional budget in the form of two promotional campaigns focusing on the most requested sanitation facilities. This boosted progress. In the end, 90 percent of all facilities were built during the extension period. Notably, 67 percent of facilities were built in the new neighborhoods, and one quarter of the built facilities represented technical options which were only introduced after the restructuring.

2 Drawing on experience and pursuing creative approaches can help overcome challenges, ultimately instilling a “culture of results”. The project clearly benefited from the qualified teams and partners that had implemented PAQPUD. For instance, AGETIP was used to manage a large number of contracts. But in addition to dealing with the above unforeseen challenges, the team was creative in addressing design issues, such as the three-stage claim calculation (based on projections, then actual installations, and final verification), which had led to delays in invoicing and payments, and the cumbersome monitoring and reporting system. The team created a spreadsheet that automatically tracked outputs and calculated payments, and tightened coordination and supervision. Finally, it instilled a stronger performance-based culture by establishing innovative contracts for CBOs (which were paid against collection targets for user contributions), and which were eligible for extensions based on satisfactory performance.

3 Sustaining project benefits requires strong ownership by beneficiaries, and complementary actions downstream on the value chain. The project had a number of direct and indirect benefits. According to an environmental and social audit, beneficiaries realized savings by lowering their expenditures on health care (reductions averaged 46 percent); moreover, their costs to maintain sanitation and wastewater facilities and remove wastewater were reduced. In particular, the workload and time spent on these activities fell for women—who invariably perform these tasks in Senegal—and children. Women and children saw their workload and time spent on this task reduced. In addition, women played an active role in choosing the facilities. The technical audits during implementation provide assurance that, with regular maintenance, the facilities (which use simple techniques and permanent materials) will continue to perform beyond ten years after construction. The end-audit also shows that households generally carry out proper use and maintenance of the facilities. This in turn helps sustain user satisfaction and ownership. Finally, through complementary investments for disposal and treatment, the government is now able to ensure adequate sludge management in a comprehensive manner, resulting in benefits to an even larger population and the wider urban environment.

4 Well-designed subsidy structures can leverage limited public and private resources. The level of subsidy was relatively high and is currently beyond the means solely of public funding. As the subsidy was a percentage of unit cost, local entrepreneurs had limited incentives to reduce prevalent costs. This can be avoided in future schemes by setting the subsidy as a pre-agreed fixed amount, and also leveraging larger investments from households. Setting the subsidy as a portion only of the core facility would also allow households to provide the superstructure at lower cost (unsubsidized), and reduce their mandatory contribution. Other financing innovations combined with policy reform could be explored as well, such as redirecting the sanitation surcharge on the water tariff to on-site sanitation.

5 Top-level commitment is essential to improve municipal sanitary conditions at scale. The project ensured that the government’s vision for urban sanitation remain priorities. However, organizational changes undermined ownership. Strengthening ONAS leadership, and ensuring that its dedicated on-site sanitation department is adequately staffed and resourced, remain essential if successor programs are to be implemented to reach the target of 78 percent urban sanitation coverage by 2015, and achieve the water and sanitation Millennium Development Goals. Beyond metropolitan Dakar, all actors, from city leaders, private developers, and households, should contribute to the expansion of sustainable sanitation services city-wide.

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1 Meeting the outstanding demand for 74,000 facilities would have required US$54.5 million, which was more than five times the annual national sanitation budget.
2 From US$230 to US$824, including hardware, software, and project management.
3 Fifty-three percent of the sanitation facilities built were washing basins. Users’ priority was to prevent the dumping of wastewater to improve their living environment, a choice clearly influenced by population density and land occupancy in low-income areas.
4 Under PAQPUD, AGETIP was able to jump from 1,000 to 20,000 then to 40,000 constructed facilities per year.