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Karachi results-based municipal services

Strengthening municipal finance and solid waste management services with results-based financing approaches – Experiences from South Asia

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The report was authored by Charis Lypiridis with contributions from Suhaib Rasheed and it was reviewed by Catalina Marulanda.

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Strengthening municipal finance and solid waste management services with results-based financing approaches – Experiences from South Asia

1. Development Challenge

From the near 20 million metropolitan city of Karachi, in Pakistan to the 400,000 person city of Pokhara, in Nepal, mayors and decisions makers are struggling to raise financing for capital investments in their cities that could deliver improved services to their communities, with the key priority being the solid waste management (SWM) services.

The Municipal Finance (MuFi) challenge is common among metropolitan or secondary cities in less developed countries and is associated with their limited capacity to address a range of issues, including: i) limited revenue generation from services and recovery of costs; ii) opaque institutional settings with fragmented mandates and overlapping responsibilities; iii) non-informed capital investment planning; and iv) ineffective strategies for partnerships with the private sector. All of these factors result in inadequate creditworthiness profiles for municipalities and municipal agencies to attract private capital on market terms. The fundamental prerequisite to increase the creditworthiness of municipalities is that operating income (which includes government grants) exceed operating expenditures (which includes interest on existing debt). Such a surplus can then be used to make service payments on any new loan. Municipalities that already have a sound revenue base may merely have to make some critical enhancements—for example, to its accounting and reporting systems, credit control operations, and cash flow management. Other municipalities, however, may have little prospect of ever achieving an investment-grade credit rating because of their deficient revenue base compared to expenditures, the unpredictability of grants from higher levels of governments (often ad-hoc or irregular bail-outs), or the shortcomings of their organizational structure and financial performance.

Solid waste management is a primary sector that suffers from ineffective municipal financing. When averaged across the globe, local governments cover about 50 percent of investment costs for waste systems, and the remainder comes mainly from national government subsidies and the private sector.¹ Also, about two-thirds of countries have created targeted legislation and regulations for solid waste management, though enforcement varies drastically. Direct central government involvement in waste service provision— other than regulatory oversight or fiscal transfers— is uncommon, with about 70 percent of waste services being overseen directly by local public entities. At least half of services, from primary waste collection through treatment and disposal, are operated by public entities and about one-third involve a public-private partnership. In any case, it should be noted that the metropolitan areas in many less developed countries have unique contexts in terms of institutional arrangements between metropolitan and local mandates, and the ability to cover investment costs and leverage public-private partnerships.

Overall, investments in solid waste management programs require addressing the municipal finance context, and investments that target municipal finance program set the ground for improvements in the delivery of solid waste management services.

2. The context for applying Results-Based Financing Solutions

Result-based financing (RBF) is an umbrella term for financing models that disburse funds only after measurable, pre-agreed results have been achieved and verified. Results typically include: i)

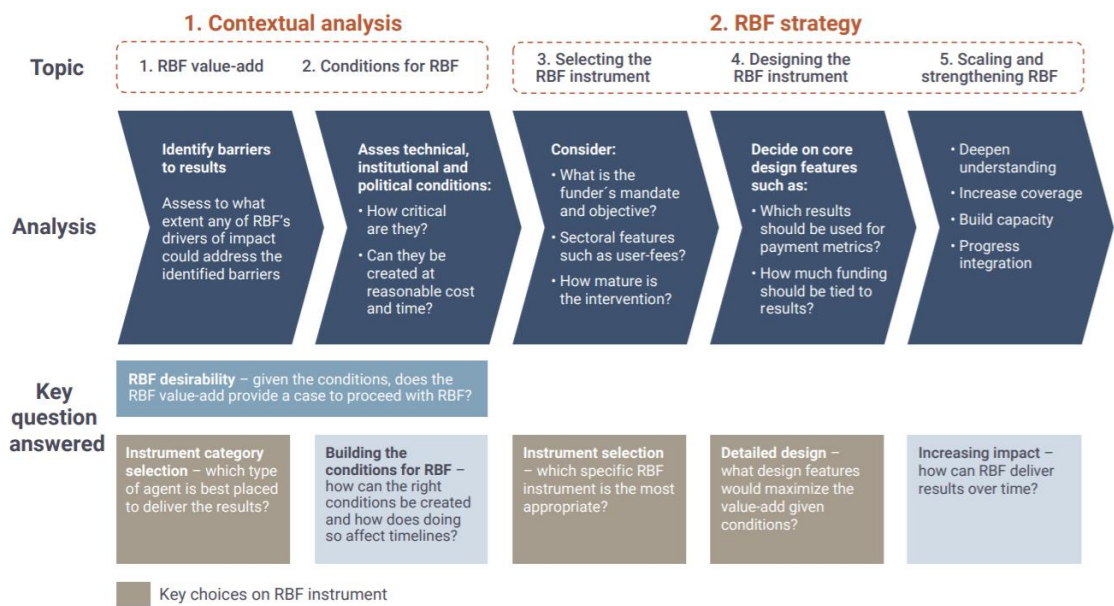
¹ What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050. Urban Development; Washington, DC: World Bank.

institutional activities (e.g. establishment of dedicated accounts for SWM in municipal budget); ii) outputs (e.g. distribution of collection bins, conducting awareness campaigns); and iii) outcomes (increase in revenues from the collection of SWM fees, increased recycling rates, or improved SWM service delivery performance). In the context of MuFi and SWM, results-based financing approaches can target results across the SWM value chain in institutional setting, service delivery and infrastructure investments.

The World Bank has typically implemented RBF programs through the Program for Results (PforR) instrument, by establishing Disbursement Linked Indicators (DLIs) in Investment Project Financing (IPF) operations or through multi-donor trust funded facilities such as the Global Partnership for Results-Based Approaches (GPRBA), which focuses on supporting RBF programs. Figure 1 describes a diagnostic framework developed by GPRBA.

By linking payments to results, RBF schemes strengthen accountability in project delivery. Additionally, by focusing on the delivery of outcomes or outputs, RBF programs have been observed to facilitate the building of local capacity and the development of innovative solutions that are difficult to realize in programs where financing is provided upfront with hopeful ties to intended results. RBF should be not considered a panacea, and there are important limitations to consider in applying RBF programs, such as the capacity of the service provider to pre-finance a program towards pre-agreed results. For example, RBF approaches couldn't be a suitable option for financing a landfill or a waste-to-energy facility that require significant upfront capital investments. Furthermore, it's critical for RBF programs to operate within a supportive institutional environment that will enable service providers (public or private) to focus on achieving results.

Figure 1: Diagnostic Framework for Developing RBF Programs



3. Applying RBF in Municipal Finance and SWM Operations

Experiences across sectors demonstrate that RBF can support the development of well-targeted approaches on issues of strategic importance, such as the financing framework of local governments and city-managed service provision targets.

There are close linkages in the underlying drivers for applying RBF programs on MuFi and SWM operations. These drivers are associated with i) improving the institutional capacity and

performance of municipal entities and selected municipal agencies, such as the ones who manage solid waste; ii) optimizing the allocation of scarce public resources that could foster greater private investment in city infrastructure and services; and iii) enhancing municipal service delivery in an integrated way that incentivizes effective coordination between key institutions. Table 1 provides illustrative examples of RBF programs versus traditional input-based financing in SWM and MuFi.

Table 1: Paying for Inputs and Activities versus Paying for Results

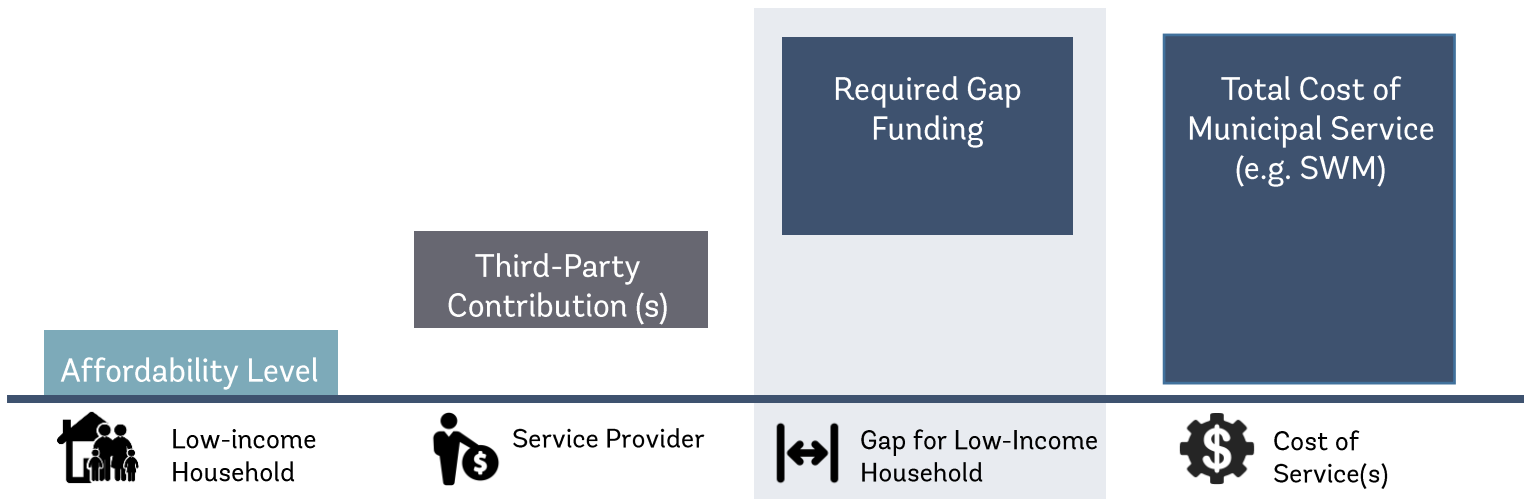
Program Objective	Paying for Inputs and Activities (indicative examples)	Paying for Results (indicative examples)
Strengthening municipal finance practices	Funders pay municipal entities, implementing agencies and service providers: <ul style="list-style-type: none"> • Hiring staff (administrative, legal, service provision) • Purchasing equipment and accounting software packages 	Funders pay municipal entities, implementing agencies and service providers: <ul style="list-style-type: none"> • Transparent and accountable investment plans and expenditures • Enforcement of good accounting, social and environmental practices • Meeting budget targets as per pre-agreed plans • Increase in fee collection
Improve SWM practices	Funders pay municipal entities, implementing agencies and service providers: <ul style="list-style-type: none"> • Hiring staff for service provision • Purchasing equipment (e.g. trucks, bins etc.) 	Funders pay municipal entities, implementing agencies and service providers: <ul style="list-style-type: none"> • Increase in waste treatment rates (recycling, composting etc.) • Increase in collection of SWM fees • Enforcement of sound social and environmental practices

Overall, the application of RBF schemes should always consider the enabling environment and the project development objectives. The RBF project design typology is associated with the scope of funding and the disbursement approach

RBF approaches can be developed under a gap-funding or incentive-driven framework and can be tailored to public-private partnerships (PPPs), depending on the funding scope of the project. All three of these approaches could be developed either on a project basis by a financier or under the fiscal transfer model from central to local governments.

Gap-funding approaches can support municipal agencies develop projects that fall short of funding in targeting the poorest households or communities, due to high perceived re-payment risks by the beneficiaries. This is done by subsidizing part of the cost of extending the service to the targeted households or communities. Once defined, the allocated subsidy amount is provided upon verification that the service has been delivered to the targeted households and communities according to agreed-upon standards (Figure 2).

Figure 2: Gap-Funding Approaches Applying RBF for Municipal Finance Services



Incentive-driven approaches can support system-level changes in the operational model of service delivery of cities and municipal agencies. Such support could incentivize: i) attention to citizen satisfaction in transactions with local government agencies; ii) quick expansion of services on issues of significance for the municipal agenda; and iii) the building of trusted delivery-focused programs in conflict-affected areas.”. Furthermore, for first fiscal transfer systems with legal and institutional complexities, such schemes could incentivize public authorities to intervene and identify solutions that couldn’t be realized without incentives. In these cases, all parties (funders, implementing agencies and service providers) agree on commonly-realized needs and associated measurable targeted outputs and outcomes that are closely monitored. In principle, the financing structure is not different between gap-funding and incentive-driven RBF approaches.

Hybrid schemes that bring together gap-funding with incentive-driven approaches are relevant to the development of PPPs. Such schemes could mobilize funding in phases of the PPP transaction where there is a funding gap in the bankability of the project and, apply incentives in the performance of the private party—or penalties, if the performance of the public and private parties doesn’t meet the PPP conditions. In the context of commercial viability of the project (or “bankability”), RBF can strengthen the reliability of cash flow in phases of the project with perceived high risk for the private party.

There are some basic approaches on how to structure the criteria to trigger results-based payments. Depending on the focus area of the RBF program, this could be classified in the following:

- **Minimum conditions** that establish essential institutional and operational frameworks for effective project delivery, such as the development of a monitoring and evaluation process, systems for tracking expenditure and procurement, and processes mitigating social and environmental impacts. These approaches tend to focus on technical assistance that builds such bare-minimum systems and institutional capacities. Additionally, establishing meaningful minimum conditions at an early stage of the project that do not require capital investments could be a modality that will allocate financing to service providers that could be used to pre-finance investments for a later project stage. In this context, setting minimum conditions for financing

could address the limited pre-financing capability of implementing agencies, which constitutes a significant obstacle in RBF programs

- **Performance-based models** that establish a series of easily-quantifiable targets, which are monitored periodically on areas of strategic importance. Such approaches are particularly relevant to incentivize sound monetary and fiscal actions, as well as well-realized priorities for the public (e.g. increase in recycling and composting rates in SWM)
- **Score-card approaches** that combine sets of actions that could range from institutional improvements and financial management matters to service delivery targets. Typically, scorecard approaches apply weighting factors for actions, as well as a minimum scoring threshold to be achieved

Municipal financing is the backbone of waste management. Results-based approaches can benefit the SWM sector by ensuring that funds are used efficiently and transparently to produce verified results. Experience so far in designing RBF projects in SWM has clarified some key considerations. As cities and municipalities have great variation in their practices, problems and capacities, SWM projects should focus on a set of results tailored to context-specific needs, with service providers and municipalities deciding which service-delivery models can best achieve results locally. These models should meet established environmental standards and be capable of achieving a level of financial viability that may lead to the sustainable provision of services. Overall, experience in applying RBF in the SWM sector includes the following categories:

1. Improving solid waste service delivery and fee collection: This is an appropriate model for lower income countries where service delivery is poor or non-existent, and where fee collection to support waste collection and disposal is a major challenge. It is also a helpful model to jump-start the solid waste services in fragile and post-conflict situations where the private sector may be reluctant to enter.

2. Promoting source separation and recycling: For middle-income countries where municipal solid waste collection is already high, governments tend to focus on improving the financial and environmental sustainability of the sector. Results-based financing can be used to design projects that incentivize household-level source separation and recycling.

3. Strengthening waste collection and transport in under-served communities: This model is applicable to both low- and middle- income cities but is most relevant where the focus is to improve services for under-served and low-income communities. These project designs could be integrated into community and slum upgrading projects.

A key aspect in the management of funding is the development of an RBF formula that will govern the financing, especially for projects that apply performance-based approaches and scorecards. The formula needs to be reflective of the program objectives, and not allow maneuvers that result in funding allocations without meaningful improvements in project delivery. Furthermore, it should strive for simplicity so that it can be realized easily by all stakeholders and establish a transparent financing system.

4. A South Asian tale - Features of RBF schemes in Karachi and Nepal

Karachi faces substantial challenges in urban management and service delivery. A recently approved World Bank lending operation, called Competitive and Livable City of Karachi Project (CLICK), was designed to initiate an engagement that will tackle critical bottlenecks. Acknowledging that the scale and complexity of challenges are significant, the operation aims to confront some of these constraints

in an incremental and systematic way through selected interventions. It is envisaged that activities under CLICK will help put the city on a long-term path towards achieving adequate service provision and a competitive business environment. The design of the operation was supported by GPRBA's technical assistance window considering the potential it presents to draw lessons for developing RBF schemes in MuFi operations.

In just over a decade, Nepal's population has grown by 67 percent, adding pressure to a SWM sector that has not been managed properly. Municipalities are responsible for providing SWM services in Nepal, but technical and financial constraints limit their capacity. Furthermore, the unwillingness-to-pay for people who may receive these services escalates the problem. To address these constraints, GPRBA implemented a project for municipal SWM in 2013. The project used an incentive-based approach with a gradual diminishing subsidy as municipalities strengthened capacity and gained the resources to sustain the program on their own.

Analyzing comparatively the design of these two RBF operations supported by GPRBA could provide important insights and lessons learned for practitioners in the RBF and cities agenda. While the project in Karachi has a holistic approach in its design, including the modernization of the urban property tax administration system and the improvement of the city's competitiveness and business environment, the analysis here will focus on the design of the performance-based approaches for the Karachi local councils (LCs). Table 2 highlights some of the RBF features of the two operations.

4.1 Strengthening Municipal Finance in Karachi

The project finances the provision of performance-based grants (PBGs) to LCs upon achievement of specified institutional strengthening measures, to incentivize LCs to improve management capacity and enhance city competitiveness. LCs will use these grant funds to implement subprojects for infrastructure and services under their mandate, in line with the needs of citizens and businesses. Subprojects to be implemented by LCs will be selected based on comprehensive screening and risk reduction procedures. The project provides three types of annual grants to LCs as incentives to incrementally improve their capacity:

1. Capacity building financing subject to achieving access conditions: providing resources to LCs to address capacity needs as identified by them. LCs will be able to access this grant upon fulfilling simple access conditions every year.

The access conditions to qualify for the capacity building grant are associated with basic coordination and institutional matters, including the i) signing of Memorandums of Understanding (MoU) and agreements between participating project agencies, and ii) development of well-thought out capacity needs assessments.

2. Capital infrastructure financing subject to achieving minimum conditions (MCs): financing capital infrastructure subprojects of LCs in a way that builds a basic level of institutional systems in fiduciary and social and environmental management.

MCs include: i) investment planning and progress reporting; ii) systems for social and environmental management, including screening subprojects to avoid major impacts, and social and environmental management plans to mitigate any risks; iii) basic procurement and financial management processes, including requirement for non-disclaimed audits; and (iv) improving the workplace for female staff.

3. Capital infrastructure financing subject to performance measures: financing infrastructure subprojects in a way that incentivizes LCs to achieve more advanced institutional improvements. The

financial allocation will be accessible upon achieving specified performance measures annually, which build on foundations laid by the MCs.

The performance measures are structured in scorecard format focusing on improvements in the following areas: (a) investment planning, including incorporating needs identified by women; (b) systems for procurement, FM and expenditure performance; (c) competitiveness and business environment, including streamlined business permitting within the mandate of LCs; (d) own source revenue improvement; (e) engagement with citizens, especially women, and the private sector in investment planning; and (f) access to information and grievance redress systems for citizens and local businesses.

The financing allocation will be based on a simple formula that channels funds proportional to the LCs' performance, LCs will receive a higher or lower amount based on performance.

An Annual Performance Assessment (APA) will determine the achievement of minimum conditions and performance measures. The APA will be conducted by an independent third party, and its findings will determine the allocations for the infrastructure grants for LCs. The capacity building grant will be divided equally among all eligible LCs.

Overall, the eligibility criteria to receive each grant are intended to serve as incentives for LCs to achieve progressively more advanced institutional capacity measures. These grants will be introduced in a phased manner as LC capacity grows, with capacity building grants available from the first year, and capital infrastructure grants available from the second year and increasing thereon.

With regards to the grant allocation formula and funds transfer system, the Capacity Building grant will be divided equally among all eligible LCs every year. The Capital Infrastructure Grants will be allocated to LCs in proportion to each LC's performance scores, as determined by the APA, and weighted by a sharing scheme in the total allocation, associated primarily with the tax system and fiscal transfers from the central government.

4.2 Strengthening Delivery of Solid Waste Management in Selected Municipalities in Nepal

The GPRBA operation in Nepal developed an incentive-structured scheme focused on the SWM agenda of five municipalities, in alignment with the local municipal finance framework. The project aimed to build upon the municipalities' existing systems and make them more sustainable, rather than developing new systems. The participating municipalities were incentivized to:

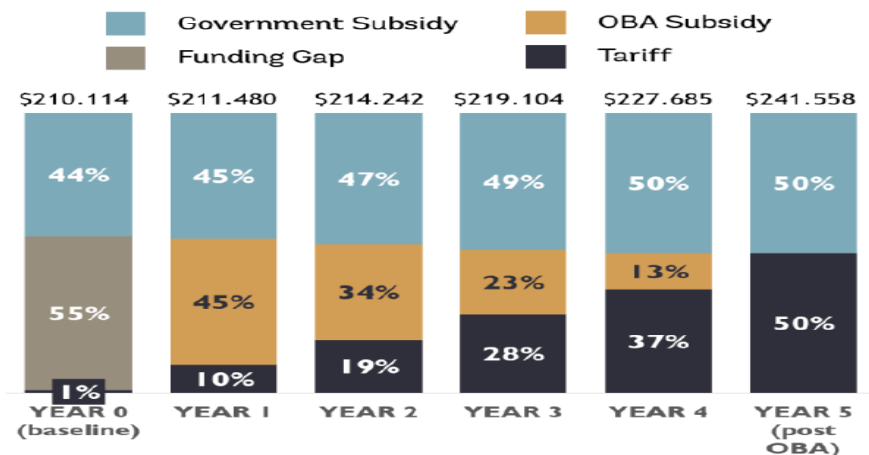
- i. Develop SWM Service Improvement Plans (SWM-SIPs) that identified improvements in service delivery;
- ii. Choose a service delivery model (either using the municipality's own in-house team, or contracting with private sector/non-governmental organizations);
- iii. Carry out improvements in service delivery and implement fees and revenue collection; and
- iv. implement gradual increases in the fee structure.

Similar to the Karachi operation, the project applied a performance-based approach through the development of a scorecard approach for each of the participating municipalities, but applied a different approach in verifying the results and allocating the funding to participating municipalities. To measure results, the project provided two separate and independent stages of verification. The first stage would — through a review of technical scorecards and sample on-site verification of the service provided by an independent technical verification agent — confirm that an acceptable standard of SWM services had, in fact, been provided. If this condition is met, then the second stage of verification by an independent financial verification agent would be triggered, to confirm the level of fees collected from beneficiaries based on the amounts deposited into the municipality's account for SWM services. The service quality was measured through indicators that tracked the performance of each municipality in:

1. Implementation of the approved SWM plan;
2. Collection and disposal solid waste against defined targets;
3. Provision of satisfying services to households, through sampled household reporting that waste collection and street cleaning services provided by the municipality have met or exceeded their expectations in the key areas of reliability, frequency, improvement in environmental quality, convenience and responsiveness;
4. Improvement of financial sustainability: this was measured through financial performance indicators, which track fee collection, cost recovery, and efficiency of the system, such as increase in SWM fee charged to all waste generators, annual revenues from collected SWM fees, and percentage O&M cost recovery from SWM fees.

With regards to funding allocation, an output-based subsidy (OBA) model was adopted to increase the capacity of the municipalities. The OBA subsidy was designed to close the gap between the O&M costs of delivering the expected service improvements, and the SWM fees collected. The subsidy would 'match' the SWM fees collected according to an agreed-upon multiplier, and would be phased out over four years. Over the life of the project, the multiplier would vary such that the amount of subsidy gradually declines until it is phased out entirely after four years. In addition, there would be a maximum limit of subsidy that a municipality could receive in a given year, regardless of the amount of verified fees collected. The project's financing model also assumes that apart from the subsidy funding and SWM fees collected, part of the total cost delivering the improved SWM services in each municipality would be covered by government funding (through municipal subsidies, grants from the central government, blended loan/ grants, etc.). The graph below illustrates the funding model as reference.

Figure 2: Performance-based funding model, in the GPRBA-supported SWM in Nepal*



*OBA subsidy contribution to total revenues (in US\$); subsidy as a multiple of collected revenues (local currency) in the Dhankuta municipality

Table 2: Features of the RBF Scheme in two selected RBF operations

Program Objective	Karachi: Municipal Framework	Nepal: Strengthening SWM service delivery
Disbursement Scheme	<ul style="list-style-type: none"> Block Grants approach with mix of criteria incentivizing the achievement i) of minimum conditions, and ii) performance-based targets to access the grant Gradual horizon of the project over time Focus of Performance Targets: Institutional, Financial Management, Environmental and Social Management actions 	<ul style="list-style-type: none"> Subsidy Approach: the subsidy was designed to bridge the gap between the costs of delivering improved SWM services and the revenues collected The amount of the subsidy was designed to decrease as services improved and as more fees were collected, helping to recover costs Focus of Performance Targets: Institutional, Service Delivery, Own Source Revenue collection
Verification Approach	<ul style="list-style-type: none"> Annual basis Performance Assessment (APA) conducted by an independent third party 	<ul style="list-style-type: none"> Every four months Two levels of verification: technical and financial by independent third parties. The financial verification occurred only after successful technical verification
Funding Allocation Mechanism	<ul style="list-style-type: none"> Formula that channels fund proportional to the local government performance and size (economic/population) terms 	<ul style="list-style-type: none"> Formula that channels funds based on commonly agreed upon multiplier associated primarily with fee collection and service improvement plans in each municipality

5. Conclusion – Lessons Learned

As city authorities and development agencies struggle with limited financing and weak institutional capabilities to deliver services, RBF approaches can be important vehicles in initiating reforms that strengthen transparency in policy planning and accountability in service delivery, in areas such SWM. While the design of RBF schemes should always be informed by the local institutional and financial context and could be structured in a diverse way to meet the objectives of each operation, there are some key lessons learned from global experiences regarding the general design of RBF schemes and municipal financing. Lessons learned include the following:

- 1. Results-based investments needed to be coupled with comprehensive capacity building programs for communities and municipal staff.** The capacity building programs need to be designed flexibly to address the communities' needs and improve opportunities; for example, in the promotion of recycling and composting programs. Additionally, technical assistance interventions are typically needed for strengthening systems and improving human resources and skillsets for municipalities; for example, in developing processes for evidence-based and responsive investment planning, leveraging public-private partnerships for infrastructure development, and improving contract management, etc. Overall, having a system of supply and demand-driven capacity building enables entities to respond to incentives.
- 2. The performance assessment cycle or independent verification is more impactful if it is synchronized with agencies' planning and budgeting calendar.** This approach allows the agencies to assess their performance, plan activities efficiently based on successes and failures from previous cycles and avoid duplication in assessing performance and expenditures.

3. RBF programs should focus on a critical set of performance measures addressing major constraints. In a certain context, RBF programs can be applied to every practice that would benefit from accountability, but such an approach would put institutional practices in stress and would add little value to beneficiaries overall. Thus, RBF programs should concentrate on incentivizing actions in key identified areas that unlock crucial bottlenecks and bring larger improvements in downstream processes.

4. It is important to balance simplicity, transparency and effectiveness when designing disbursement approaches and the mechanisms for funding allocation. The formulas for funding allocation should have a simple structure and be aligned with the institutional context for financing and transfer of funds between government agencies. Furthermore, all stakeholders should have confidence that disbursements are managed transparently, with payment amounts subject only to performance measured against pre-agreed-upon and commonly known standards.