

# **PUBLIC-PRIVATE PARTNERSHIP STUDY**

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## **Background:**

Public private partnership (PPPs) is a powerful paradigm that has emerged in many countries to improve infrastructure national, regional and local level. The PPP was used for promoting in many countries to ensure competitiveness, sustainability, and effective management of various projects. PPP is being used like an option for the common goals needed to improve the local infrastructure and service-organizations by unified the public sectors and particular interests for projects promotions having the target to solve the infrastructure problems. The use of PPP must taking into account the local conditions with regarding: the legislation, financial aspects and the level of knowledge for the promotion of this option. At the world level there are many successful and bad experiences in the using of PPP.

Taking into account all the risks in the using of PPP the option to be used must be taken after a strong analyses of the advantage and disadvantage of this option.

## **What is a Public Private Partnership?**

PPP's are essentially partnerships between public sector organizations and private sector investors and businesses for the purpose of designing, planning, financing, constructing and/or operating infrastructure projects normally provided through traditional procurement mechanisms by the State. PPP is not just about the private sector financing capital projects in return for an income stream, but also makes use of private sector skills and management expertise to deliver and operate public projects more efficiently over their lifetime.

Public Private Partnerships recognize that both the public sector and the private sector, in certain circumstances, have certain advantages relative to the other in the performance of specific tasks. By allowing each sector to do what it does best, public services and infrastructure can be provided in the most economically efficient manner.

The overall aim of Public Private Partnerships is therefore to structure the relationship between the public sector and the private sector, so that the responsibilities and risks are borne by those best able to control them and

increased value is achieved for public services through the exploitation of private sector means and competencies.

*The basic advantages of public-private partnership projects include:*

- ⌚ more efficient and higher quality process of construction and operation of the infrastructure and provision of required services by entities of the private sector, compared with the public sector entities; what is essential from this point of view is ensuring a project respecting the principles of economy and usefulness (utility), where one of the important things is the fact that usually the projected costs are not exceeded and the given deadlines are met; also, we cannot forget the importance of the innovational efforts of the private sector contributing to increasing the quality and efficiency;
- ⌚ they solve the problem of limited disposable sources of the public sector, where the capital power of the private sector entities can be sensibly used for implementation of the projects whose execution would not be possible without their partnership, and thus they also enable a faster development of the infrastructure; at the same time, the faster implementation of projects leads to lower cost rates of the projects resulting from the effects of the time value of money or the inflation pressure;
- ⌚ more benefits and satisfaction for the citizens resulting from utilization of the know-how of private companies in applicable operational areas and from their distinct motivation formed by the possibility of long-term income while meeting all contractual terms and conditions concerning the quality of the provided services, while the required standard is continuously evaluated and controlled by the public sector;
- ⌚ strengthening the public administration resulting from entrance of new purposively and economically thinking partners into provision of public services and meeting public interests and needs, shortening the process of decision-making a diminishing the rate of bureaucracy; strengthening the public administration resulting from entrance of new purposively and economically thinking partners into provision of public services and meeting public interests and needs, shortening the process of decision-making a diminishing the rate of bureaucracy;
- ⌚ from the macro-economic point of view, we can find an important advantage in the fact that when this type of project is being

applied, a substantial part of the risk is transferred to the private entity, and so no state securities are required.

*The basic disadvantages of public-private partnership projects include:*

- \* the PPP Projects prefer the economic aspects of the project to the social, environmental or other aspects;
- \* slow preparation of individual PPP Projects, which may take up to two years if the preparation of the project is to be of high standard;
- \* demandingness as for ensuring transparent relationships, whether while selecting a partner, defining the terms and conditions, competences and responsibilities or while concluding contracts itself, which is also escalated by the long-term and complicated character of the concluded contracts;
- \* considerably negative financial impacts in the case the partnership has to be repudiated;
- \* possible transfer of risks from the private sector to the public sector, e.g. risk of bankruptcy;
- \* insufficient experience of the partners, particularly of the public sector while contracting such projects, where we can notice an informational asymmetry operating in favor of private companies, which naturally use their endeavor and potential to negotiate better conditions for themselves;
- \* from the macro-economic point of view, we can see a substantial disadvantage in the fact that as a consequence of the long-term character of these projects, the mandatory expenses grow and the hidden debt arises, and this debt will exist for a lot of years, and thus it can affect negatively the fighting power of the future governments and burden significantly the future generations.

The risks are identified from the outset and a key aspect of PPP's is that risks are placed with the party best able to manage them. As a number of risks associated with the designing, building and operation of the asset may be transferred to the private partner, the risks facing the local authority are lowered. As the private sector is paid according to their performance, the incentive to perform is heightened.

***Why involve the private sector ?***

***What are the advantages of private sector participation ?***

- \* The private sector has shown that it can provide a more efficient or cost-effective service.

- \* The private sector often has better access to capital financing and so it is able to use more efficient equipment.
- \* The private sector may have easier access to specialist skills.

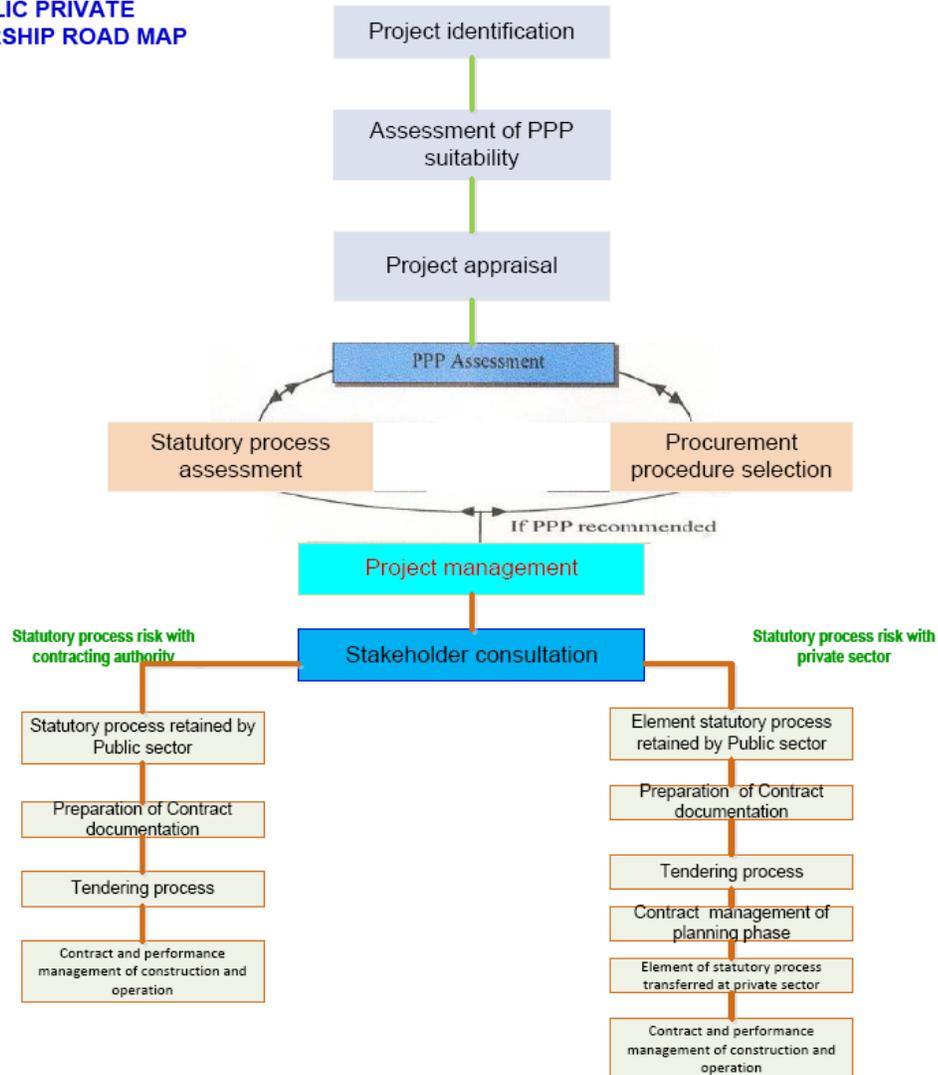
### **Understanding PPP:**

Public private partnership is a win-win relationship between the government and various private sector players for the purpose of delivering a project or service by sharing the risks and rewards of the venture. [World Bank, 2007]. In the PPP projects, the private sector is the active party who undertakes activities, depending on the model, from the stage of design, up to the stage of operation and maintenance for the lifetime of the infrastructure and service. The financial participation, again based on the model, may be zero for the government or for the private sector, or any combination of financial sharing. In most of the cases, PPP allows private sector into areas of business, where the government holds control over infrastructure or service before such partnership.

Potential benefits of adopting a PPP approach including:

- ↳ To increase the speed at which capital projects are brought to development;
- ↳ To allocate risk better between the public and private sectors;
- ↳ To source alternative financing for major infrastructural developments, and
- ↳ To reduce project costs by virtue of the synergies and innovative approaches that the private sector can bring to the project.

**PUBLIC PRIVATE  
PARTNERSHIP ROAD MAP**



## Roles and Responsibilities

Every successful public-private partnership requires a clear understanding of the roles and responsibilities of the partnering organizations. Claims that privatization of solid waste services will eliminate government involvement in the solid waste management process and put the public at risk are nonsense.

Experience has proven that privatization actually requires an important regulatory role from the municipality.

Government cannot disengage from its responsibility to protect public health, safety and the environment. Therefore, the primary responsibility of a city official is to protect the public. In municipalities where solid waste services have been privatized, city officials serve as watchdogs by

monitoring performance and enforcing contracts. They are the foundation for planning activities directly associated with a successful, long-term management of solid waste.

The job of the private sector is to fulfill the terms of the contract, which has proven to be a quality-assured, cost-effective solution to solid waste services. The investment of capital to purchase collection vehicles, hire staff and construct facilities is the risk the private sector acquires to ensure the collection and safe disposal of societal waste.

The private sector also plays a vital role in the planning process by providing advice and insight to professional planners.

By privatizing, budgeting for services is also much more predictable as contracts are for a fixed amount. The single most important responsibility of waste collection firms is to respect the municipality as the “customer.” The goal is to always provide the customer with services that exceed the highest expectations.

## **PPP Models and their Relevance**

PPPs can follow a variety of structures and contractual formats, all incorporate three key characteristics:

- \* a contractual agreement defining the roles and responsibilities of the parties,
- \* sensible risk-sharing among the public and the private sector partners, and
- \* financial rewards to the private party commensurate with the achievement of pre-specified outputs.

A successful PPP is designed with careful attention to the context or the enabling environment within which the partnership will be implemented. Where the operating environment can be reformed to be more conducive to the goals of PPP, this should be accomplished. Where elements of the operating context cannot be changed, the PPP design must be tailored to accommodate existing conditions.

To be successful, PPPs must be built upon a sector diagnostic that provides a realistic assessment of the current sector constraints. Specifically, the sector diagnostic will cover:

- technical issues;
- legal, regulatory, and policy frameworks;
- institutional and capacity status; and
- commercial, financial, and economic issues.

The basic PPP contract types are:

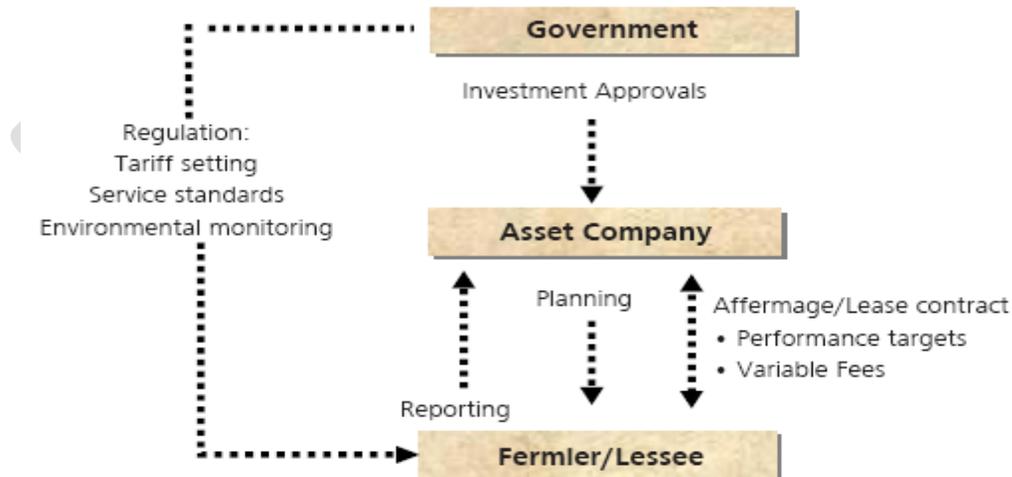
- 🕒 service contracts;
- 🕒 management contracts;
- 🕒 afterimage or lease contracts;
- 🕒 build–operate–transfer (BOT) and similar arrangements;
- 🕒 concessions; and
- 🕒 joint ventures.

There are seven models for undertaking and implementation of PPP projects. A few of the available models are elaborated below.

### Affermage or Lease Contracts

Under a lease contract, the private partner is responsible for the service in its entirety and undertakes obligations relating to quality and service standards. Except for new and replacement investments, which remain the responsibility of the public authority, the operator provides the service at his expense and risk. The duration of the leasing contract is typically for 10 years and may be renewed for up to 20 years.

Responsibility for service provision is transferred from the public sector to the private sector and the financial risk for operation and maintenance is borne entirely by the private sector operator. In particular, the operator is responsible for losses and for unpaid consumers' debts. Leases do not involve any sale of assets to the private sector.



An affermage is similar, but not identical, to a lease contract. Unlike a lease where the private sector retains revenue collected from customers and makes a specified lease payment to the contracting authority, an affermage allows the private sector to collect revenue from the customers, pays the contracting authority an affermage fee, and retains the remaining

revenue. The affermage can be more appealing to the private partner as it reduces some risks associated with low-cost recovery in sales. The affermage fee is typically an agreed rate per every unit sold. An affermage is similar, but not identical, to a lease contract. Unlike a lease where the private sector retains revenue collected from customers and makes a specified lease payment to the contracting authority, an affermage allows the private sector to collect revenue from the customers, pays the contracting authority an affermage fee, and retains the remaining revenue. The affermage can be more appealing to the private partner as it reduces some risks associated with low-cost recovery in sales. The affermage fee is typically an agreed rate per every unit sold.

### **Potential strengths**

Under lease and affermage contracts, the private partner's profits depend on the utility's sales and costs. The key advantage of this option is that it provides incentives for the operator to achieve higher levels of efficiency and higher sales. The principal drawback is the risk of management reducing the level of maintenance on long-lived assets, particularly in the later years of the contract, in order to increase profits. Further, the private partner provides a fee to cover the cost of using the assets although the private partner does not provide investment capital.

### **Potential weaknesses**

The key issue in moving from service and management contracts to a lease is that the contractors' revenues are derived from customer payments and, hence, the question of tariff levels becomes increasingly sensitive. This may require structuring and revising complex tariff arrangements. In addition, the responsibility for capital investment remains with the government and no private investment capital is mobilized.

### **Build Own and Operate (BOO):**

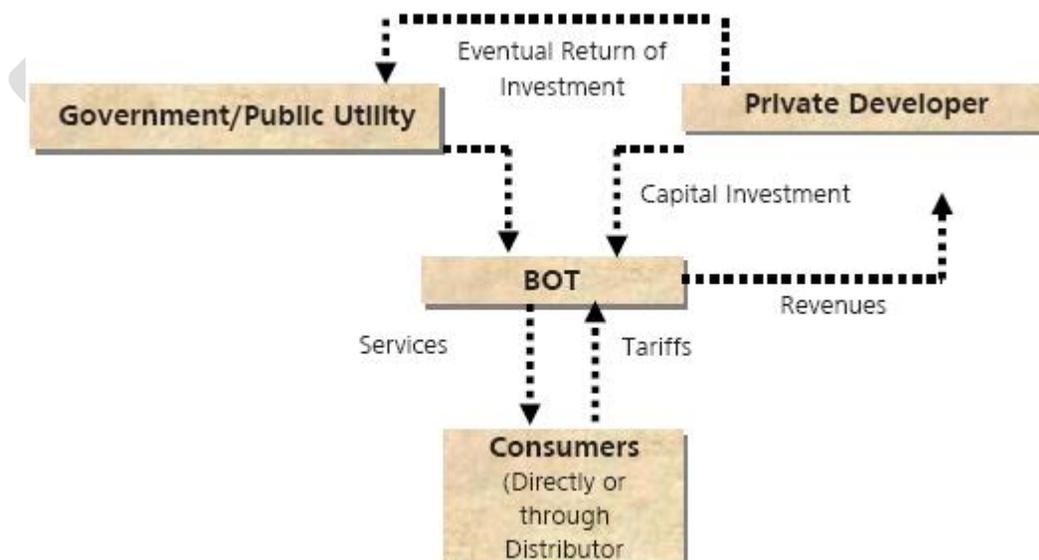
In this model the private sector or a consortium designs, builds, and operates a facility or service delivery over its lifetime. The private entity remains sole owner of the facility or group of assets. Government usually does not manage the infrastructure developed under this model. The

private entity bears the operating revenue risk and retains any additional revenue gains. This model is commonly adopted by governments in projects that involve large scale deployment of human resources to maintain the facility for its entire life time.

BOD is similar with Built Own Operate and Transfer (BOOT) and the advantage and disadvantage are similar with this.

### **Build Operate and Transfer (BOT):**

Under the BOT model a private entity or consortium designs, builds, and operates a facility or service delivery for a certain period of time, after which the government takes over the facility or service delivery and knowledge and operational responsibilities are transferred to the government. Depending on the revenue generation scopes, the government finances and bears operating revenue risk. However, in some cases, the government does not invest at all. In return, it retains additional gains in the project. The model is used in infrastructure projects across the world. Sometimes, the private sector remains responsible for maintenance of the facilities. Thus, it is also called as design-build-operate-maintain (DBOM) model. Land record management and land registration services may be a good project under this model, where the government does not have to pay for building the system, and private sector may introduce the services and recover investment from revenue sharing.



Under BOTs, the private partner provides the capital required to build the new facility. Importantly, the private operator now owns the assets for a

period set by contract—sufficient to allow the developer time to recover investment costs through user charges.

#### *Potential strengths*

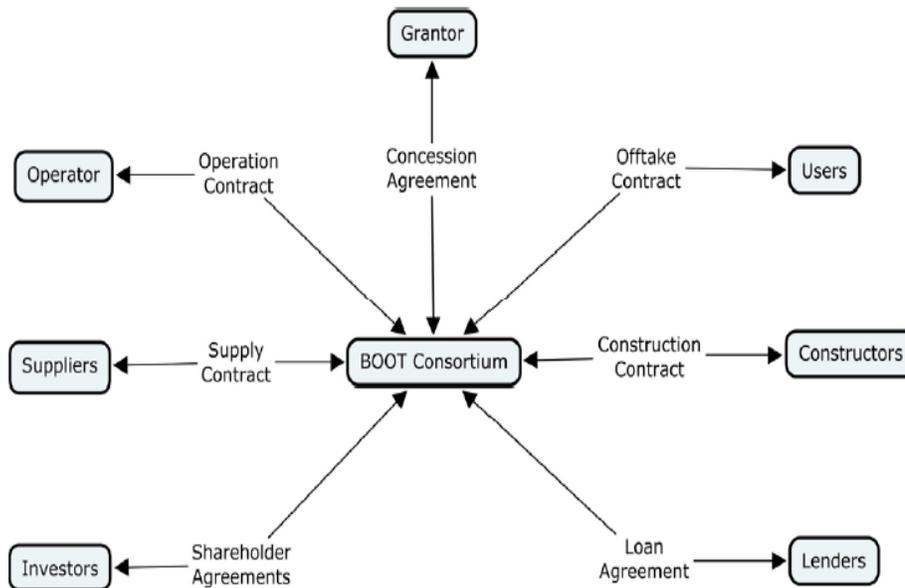
BOTs have been widely used to attract private financing to the construction or renovation of infrastructure. BOT agreements tend to reduce commercial risk for the private partner because there is often only one customer, the government. The private partner must be confident however that the purchase agreement will be honored.

#### *Potential weaknesses*

BOTs have a project-specific application so they are potentially a good vehicle for a specific investment, but with less impact on overall system performance. It can be difficult to link the increases in production brought about by a BOT with commensurate improvements on the demand side. While initial capital construction costs may be reduced through the private sector's experience, private debt may be an expensive substitute for public financing where a take-or-pay agreement is in place.

### **Built Own Operate and Transfer (BOOT):**

This is an extended version of the BOT model. Under this model the ownership and management belongs to the private sector until a specified time. After expiry of the term, ownership and management is transferred to the government. This model is adopted for projects of systems that are self-sustainable and require little effort and skill from the government for maintenance, after contract with the private entity is ends. Return on investment is generally high for projects under this model.



### Advantages.

The BOO and BOOT models offer several advantages to the enterprise customer. It saves:

- ✓ time because the service provider is presumably more expert at assembling the infrastructure and obtaining local regulatory consents;
- ✓ money (and maybe market share) because the benefits of the new infrastructure can be enjoyed sooner;
- ✓ effort because the service provider is performing the effort, presumably at lower salaries.

### Disadvantages.

The BOO and BOOT models have certain drawbacks for the enterprise customer.

- ❖ Additional costs are incurred to pay a profit to the service provider for the value of its know-how and time in assembling the service delivery infrastructure.
- ❖ Tie-in effects arise, since the enterprise customer commits to work with the particular service provider (as in any class outsourcing model) and cannot escape for low switching costs until the service provider's investment is amortized or recaptured.
- ❖ Inflexibility results from the enterprise customer's commitment to purchase the infrastructure, whether up front, by imputed self-

amortizing “mortgage” payments or at the end. This ties up the enterprise customer’s capital and credit, unless the enterprise customer can structure the financial risk so that the service provider retains ownership until the customer exercises, in effect, a call option to acquire the service center infrastructure.

### **Buy-Build-Operate (BBO):**

A BBO is a form of asset sale that includes a rehabilitation or expansion of existing public infrastructure. The government sells an asset to the private sector entity, which then makes the improvements necessary to operate the facility in a profitable manner.

### **Concessions**

Concession includes a number of variations of contractual arrangements, such as Build and Transfer (BT), Build-Lease-Transfer (BLT), Build - Operate-Transfer (BOT), Build-Own- Operate (BOO), Build-Transfer-Operate (BTO), Contract-Add-Operate (CAO), Develop- Operate-Transfer (DOT), Rehabilitate-Operate-Transfer (ROT), Rehabilitate-Own-Operate (ROO), etc.

A concession is awarded, for instance, by a municipality to a private company to Design-Build-Operate (DBO) a facility for the transfer, treatment, or disposal of solid waste.

A concession makes the private sector operator (concessionaire) responsible for the full delivery of services in a specified area, including operation, maintenance, collection, management, and construction and rehabilitation of the system.

Variations include Build-Own-Operate (BOO) when a private sector company provides funding, and Build-Own-Transfer (BOT) when ownership transfers to the public authorities on an agreed date. Concession agreements are commonly long-term agreements wherein the private firm provides the capital investment for a new facility. However, a concession also means that a private firm is given the opportunity to generate revenue from the waste management activity, typically by charging a gate fee for receiving waste and through the sale of compost or recyclables.

Under concession arrangements, the private sector finances and owns SWM facilities during the period contractually agreed. In return, the municipality typically grants and enables access to a specified quantity and

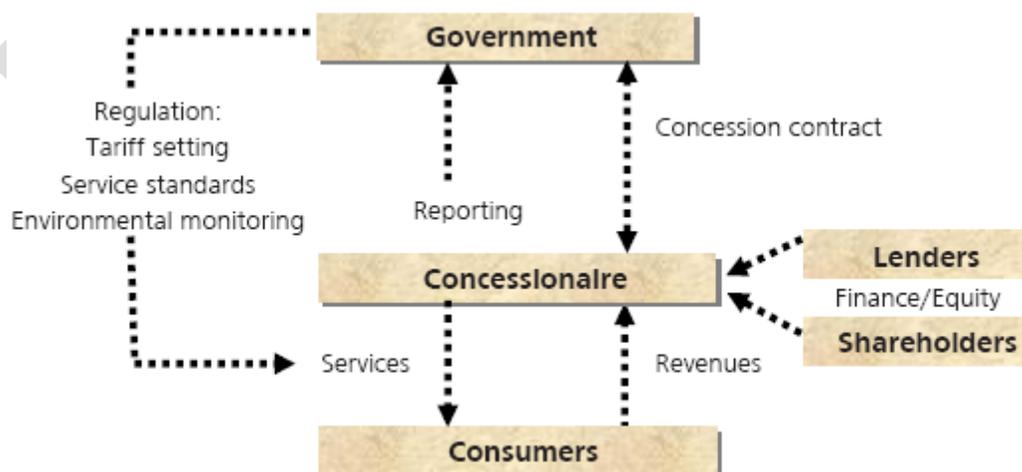
quality of SWM services and provides some fees. The concession agreement might specify performance standards, methods of judging performance, liquidated damages for delay or non-performance, risk assignment, dispute resolution, standards for worker safety, health protection and environmental standards, and so forth. A concession arrangement generally lasts between 10 and 45 years. The private company makes all the investments, including major ones.

Concessions for sanitary landfill operations are a highly interesting business opportunity for the international private sector because they have significant economies of scale and major environmental spillover effects, along with greater investment and skills requirements.

These characteristics offer opportunities for private-sector involvement through comprehensive management contracts, lease contracts, or concession arrangements to build and operate disposal and recycling facilities

The concessionaire is responsible for any capital investments required to build, upgrade, or expand the system, and for financing those investments out of its resources and from the tariffs paid by the system users. The concessionaire is also responsible for working capital.

The public authority may contribute to the capital investment cost if necessary. This can be an investment “subsidy” (viability gap financing) to achieve commercial viability of the concession



### Potential strengths

Concessions are an effective way to attract private finance required to fund new construction or rehabilitate existing facilities. A key advantage of the concession arrangement is that it provides incentives to the operator to

achieve improved levels of efficiency and effectiveness since gains in efficiency translate into increased profits and return to the concessionaire. The transfer of the full package of operating and financing responsibilities enables the concessionaire to prioritize and innovate as it deems most effective.

### **Potential weaknesses**

Key drawbacks include the complexity of the contract required to define the operator's activities. Governments also need to upgrade their regulatory capacity in relation to tariffs and performance monitoring. Further, the long term of the contracts (necessary to recover the substantial investment costs) complicates the bidding process and contract design, given the difficulty in anticipating events over a 25-year period. This drawback may be countered by allowing a periodic review of certain contract terms in the context of the evolving environment.

There is additional risk that the operator will only invest in new assets where it expects payback within the remaining period of the contract unless provisions for these events are set out in the contract.

### **Lease Agreement:**

This model is applicable for an infrastructure, which is turned into service delivery through its innovative use. The private partner has right to generate revenue under this model.

### **Structuring a PPP: Selecting the Option**

Selecting an appropriate PPP option is based on a diagnosis of:

- ⌚ PPP options available;
- ⌚ technical constraints and goals of the sector (as identified in the diagnostic);
- ⌚ legal and regulatory constraints (as identified in the diagnostic), institutional issues (as identified in the diagnostic);
- ⌚ commercial, financial, and financing requirements and constraints (as identified in the diagnostic);
- ⌚ interest of the market (local and international as described below), and special requirements of the sector based on characteristics of the system or population.

The list of reform objectives should be compared with the results of the diagnostic and features of each contract type, its advantages and disadvantages, likely outcomes and prerequisites. From this analysis, it is possible to determine which option is most likely to succeed at meeting the greatest number of (or the most critical) objectives.

## **CONSIDERATIONS FOR PRIVATE SECTOR PARTICIPATION IN WASTE MANAGEMENT**

It is relatively easy to improve solid waste collection and disposal by involving the private sector. Private sector participation is successful only when service improvements are financially sustainable and cost-effective.

To achieve successful private sector participation the following actions are recommended:

- ❖ Maintain a balance between the private sector and government for optimum contestability.
- ❖ Negotiate with labor unions or representatives over restrictive labor practices and redundancy, seeking a phased program of improvements and staff reductions which minimizes adverse social impacts.
- ❖ Develop contractual periods that enable economic depreciation of assets and repayment of loans.
- ❖ Develop techniques and facility sizes that are appropriate and economic.
- ❖ Define private sector service zones that are equitable and comparable for optimum competition.
- ❖ Achieve economies of scale and optimum spans of management.
- ❖ Rationalize collection and transfer haul distances to minimize costs.
- ❖ Seek harmony and competition with private sector partners for win-win contractual and operational relationships.
- ❖ Build government capacity to work as an effective partner in contracting and performance monitoring, as well as a contestable service provider in competitive zones of service.
- ❖ Encourage private sector joint ventures that bring in foreign expertise and optimize the use of local knowledge and skills.

### **Clear Expectations**

In addition to each partner understanding its own particular responsibilities, successful public-private relationships have a clear understanding of the roles and expectations of the other partner.

First, the municipal officials conduct a thorough evaluation and review of the solid waste services options. This may include considering the type of privatization that best suits the needs of the municipality. It is critical for a municipality to understand all of its costs of operation so that when they decide to privatize, they can be sure that they understand the financial impact to their actions.

Next, the municipality must create a well-designed, fair and complete procurement process. Unfortunately, there appear to be more problems in this phase than anywhere else in the privatization process. The desires of the municipality must be explicitly detailed in the bidding document. One will usually include.

In addition, the municipality would like protection from irresponsible bidders and will require a bid bond and a performance bond equal to usually half or the entire amount of the contract value. Other special services such as brush pickup and community clean up days are also generally included.

If a municipality is privatizing, one of the biggest desires is to have the contractor interview and hire the present workforce which is relatively standard. In addition, they want to be out of the waste business so they want the cost of disposal and transport of waste to be the responsibility of the concessionaire. Discounts for senior citizens are also another common desire.

Finally, most cities would like to see predictability in their pricing throughout the term of the agreement for budgeting purposes.

A clear definition of the scope of work required is imperative. Simply relying on a low price bid does not always lead to the best solution and often can cause a privatization to fail as expectations are not clearly defined.

Solid waste collection can involve an array of different services. Successful privatization requires that government define which of these services should be transferred to the private sector and those they may decide to keep.

Once the scope of service is defined, public officials need to clearly define minimum service-level requirements. This includes such matters as frequency of collection, permitted hours of operation, insurance and bonding requirements, health and safety restrictions, permissible service complaint levels and other basic service parameters.

Finally, once a contract is signed, both sides need to work diligently to be fair throughout the life of the contract. Make no mistake; the hard work for both the contractor and the municipal officials commences following vendor selection. Successful public-private partnerships use the contract as a guardrail on how to manage the arrangement as opposed to using the contract as a baseball bat.

There is no single best way to structure the contracting of solid waste and recycling collection services. However, in any contracting decision, the twin goals of service quality and competitive cost should guide the design of the bidding process and the delineation of contract details. Ultimately, long-term success of contracting depends on depoliticizing the contracting

decision as much as possible, using clear quantitative and qualitative performance standards and clearly spelling out the responsibilities of the public and private sectors.

### **Win-Win Relationships**

Successful public-private partnerships are often referred to as “win-win” relationships. Examining the “wins”, we see that the public sector benefits when they are able to provide quality services at lower costs by using their purchasing power to strike favorable terms with private waste collection firms.

The private sectors “wins” are measured by profitability—the return that a company realizes on invested capital. Good general managers of waste collection companies carefully and diligently work to ensure that quality services required by the contract are being delivered with the utmost efficiency to ensure a profit.

Carelessness or a lack of attention to the delivery of quality service can result in a financial as well as a public relations disaster.

Experienced, business-savvy public sector administrators know that the ability to lower organizational costs and improve the quality of service is related to route density typically found in residential waste collection. The length of contract and specific requirements for insurance, equipment, staffing, billing and reporting are other factors that can also influence the price of service.

There have been many “win-win” relationships over the years in the solid waste industry. The private sector has proven its ability to provide cost-effective solid waste services. Subsequently, municipalities have saved millions of taxpayer dollars without adversely impacting the quality of service to residents or the safety of their communities.

### **Conclusion**

The SWM sector in developing countries will face increasing strain under rapidly growing urbanization. Alternatives to the present mode of delivering service by the public and private sector working in isolation may become imperative to maintain a minimum quality of service.

Theoretical and practical considerations indicate that there is a good potential for public–private partnerships in the SWM sector also in developing countries.

To create conducive conditions, the design and approach for this partnership must be carefully constructed.

Partnerships will not be effective and sustainable unless there is incentive for both public and private bodies to enter into it.

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