

PUBLIC PRIVATE PARTNERSHIP SOLUTIONS TO WASTE MANAGEMENT IN DEVELOPING COUNTRIES IN AFRICA

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SUMMARY: In a number of instances the waste management services in major cities across Africa is either in a limited state of operation, or has stopped almost completely due to various reasons. One of the main challenges facing these cities is to start providing such services again, or to substantially improve the existing services, but within the realities of limited technical and/or financial resources or institutional capacity.

A number of cases where cities decided to investigate the possibility of using Public Private Partnership solutions to address their waste management problems are addressed. Specific problems encountered and also some successes are addressed. The aim of this paper is not to describe the Public Private Partnership transaction implementation methodologies, but rather point out some restraints to successful implementation, and also provide some guidelines to improving the success rate.

One of the biggest challenges of any PPP solution to rendering of municipal services, in this instance waste collection and disposal services, is to get political buy-in from the officials and municipal Councillors into the process. PPP solutions, if properly structured and implemented can limit corruption by putting in enough conditionalities into the contractual arrangements, and to allow for external monitoring and audits by independent organisations. In the case of disposal services external monitoring of environmental issues is quite often a legal requirement as well, and the total audit and monitoring function can be combined.

The paper will also show that PPP solutions are however not necessarily always the best solution and should only be used when you are sure that the organisation can actually benefit from a financial benefit from the private partner's involvement. It is thus important that the public partner must be able to show, through either a history of honouring their commitments (including paying in time) or by being flexible enough to allow a system whereby they can guarantee payments.

The issue of payment for PPP waste services are also addressed as well as the practical aspects of rendering accounts and collecting the money, which can be a limiting factor. There are actually a number of pre-paid systems which can be used and are discussed.

1. INTRODUCTION

In a number of instances the waste management services in major cities across Africa is either in a limited state of operation, or has stopped almost completely due to various reasons. One of the main challenges facing these cities is to start providing such services again, or to substantially improve the existing services, but within the realities of limited technical and/or financial resources or institutional capacity.

One of the possible solutions to this problem which has been identified by a number of municipalities, and which either has been implemented, or is being considered, is the use of Public Private Partnership contractual arrangement with private contractors as a means of addressing the waste management service delivery.

2. DEFINITION OF A PPP SERVICE DELIVERY SOLUTION

“Public private partnership” or *“PPP”* means a commercial transaction between an institution and a private party in terms of which the private party

- performs an institutional function on behalf of the institution; and / or
- acquires the use of state property for its own commercial purposes; and
- assumes substantial financial, technical and operational risks in connection with the performance of the institutional function and/or use of state property; and
- receives a benefit for performing the institutional function or from utilizing the state property, either by way of:
 - consideration to be paid by the institution which derives from a revenue fund or, where the institution is a national government business enterprise or a provincial government business enterprise, from the revenues of such institution; or
 - charges or fees to be collected by the private party from users or customers of a service provided to them; or
 - a combination of such consideration and such charges or fees;

In other words it can be said that a PPP is a partnership contract between a public sector institution and a private party, in which the private party assumes substantial financial, technical and operational risk in the design, financing, building and operation of a project.

3. CASE STUDIES

In the following section a couple of cases where cities decided to investigate the possibility of using Public Private Partnership solutions to address their waste management problems are discussed. It will address specific problems encountered and also some successes. The aim is not to describe the total Public Private Partnership transaction implementation process and methodologies, but rather to point out some restraints to successful implementation, and some guidelines to improving the success rate will follow later.

3.1 Case Study 1: Republic of South Africa: Outsourcing of Thabazimbi Municipality’s Waste Services

3.1.1 BACKGROUND

A MSP (*Municipal Service Partnership*) study was started in November 1999 to investigate the possible outsourcing of some, or all, of the services of the Waste Division of the

Thabazimbi Municipal Council. Please note that the term MSP is now used in South Africa in place of the term PPP (*Public Private Partnership*) which was used previously. Thabazimbi is a small town in the north-western part of South Africa. This was a project partly funded by USAID. After all studies were completed it was recommended that the municipality outsource all their waste management services as this seemed to be the most economical and financially feasible solution.

Tender enquiry documents for the operation of the landfill, the collection of all waste and street cleansing were compiled and advertised. After a competitive bidding process an adjudication of the tenders received was done, and a Preferred Bidder selected. The final negotiations with the Preferred Bidder and Interested and Affected parties were finalised and it led to the first successful service contract of such a waste project in South Africa. The contract was awarded for an initial period of 3 years, with the option to extend the contract for a further 2 years.

The audit of the contract for a 6 month period was also done, and at the end of the initial 3 year contract period an extension of the contract by two years was negotiated with the private partner. The reason for the audit was that there has been a high turnover of municipal staff, as well as a political change in the Council, which meant that there was no one left with any knowledge of the agreements still at the municipality. A number of misconceptions created the perception that the contract was not reaching its intended goal, which the audits showed was not the case.

3.1.2 Discussion of Project

The Thabazimbi Municipality appointed the transaction advisors in 1999 to conduct an investigation into possible private sector participation or an MSP (Municipal Service Partnership), concerning solid waste collection and disposal sites. A team consisting of financial, legal, technical and community liaison experts handled the investigation and their inputs were used in all evaluations.

The first step was to identify all the major stakeholders that could be influenced by such a process, and further, to notify them of the study that would be undertaken. Subsequently a meeting was held with labour union representatives to obtain their inputs on the procedure to be used to notify the workers of the process. The following step was to submit this document for public review, after which a public meeting was held. The identified stakeholders were notified of the meeting and an advertisement was placed in the local press to inform the general public of the meeting. The only real issue that became apparent at the public meeting was the inclusion of the surrounding areas into the proposed service delivery alternative, which was then addressed in the further processes.

A technical assessment was also performed of the current waste management situation in Thabazimbi. This included waste generation volumes, volumes of waste collected, waste collection systems, street cleansing and the landfill. Evaluations were done of the various collection methods, and certain technical recommendations were made concerning the current methods of operation.

A detailed evaluation was also performed on the existing landfill, evaluating aspects such as permit conditions, access to the landfill, method of operation, and equipment utilised. A new operating plan and design was prepared.

The legal team investigated the legislation concerning the handling and disposal of medical waste, as well as how this would influence the Municipality's by-laws — it is a permit condition that no medical waste may be disposed of at the landfill. Recommendations were made on the manner in which the Municipality should handle medical waste in the future. The legal team also ensured that the process was in line with the South African municipal

legislative framework requirements and they also addressed the matter of fitting the alternative service delivery options to the municipality's by-laws.

The option of utilising small emerging entrepreneurs on the project was also investigated as this is quite an important issue in South Africa at the moment. The one option was a system whereby local people from the community would be contracted to perform the collection service with a wheelbarrow, or small vehicle, collecting waste from approximately 100 houses per week per contractor. The other option was based on an entrepreneur utilising a tractor and trailer system, handling normal collection.

Based on the assessments it appeared that the most cost-effective option would be to have a Municipal Service Partnership in the form of a service contract for the operation of the landfill. The restructuring of the Cleansing Department also had to be investigated as part of the TOR. Based on the assessments, it seemed that the status quo was providing an acceptable service, but a more cost-effective service might be possible with total outsourcing.

A cost analysis was prepared on the current collection and disposal system and budget prices were obtained from private waste operators to perform the service. A detailed financial feasibility study was then performed to evaluate the financial implications of the alternatives.

The financial assessment also evaluated the historical financial performances of the municipality over the previous three financial years, to obtain service increase trends and a general overview of the finances of the Cleansing Department. From this a financial model was drafted and financial projections made for the next 10 years.

With all the available data on the various aspects of the Cleansing Department, an evaluation was done on four selected MSP options, namely:

- Management Contract.
- Service Contract.
- Concession.
- Employee Buy-Out.

The MSPs were evaluated in terms of a detailed set of key performance indicators and assessment criteria, which was compiled to determine the most suitable MSP model, if any, concerning Thabazimbi's waste situation.

3.1.3 Conclusions

The following was concluded from the project:

- The quality of the service being provided by the Municipality was of an acceptable standard.
- The rates being levied for cleansing services are in line with other local authorities of the same stature.
- Disposal of medical waste required urgent attention, as it was being disposed of on the landfill. The landfill permit issued by the National Authorities prohibits this practise.
- The operational landfill cell would have had to be expanded in the near future. A new conceptual design and operating plan was compiled as well.
- The rear-end loading (REL) mobile compactor truck and the tractor-trailer combination of the Municipality had to be replaced in the near future, since the maintenance costs thereof were escalating. This implied an increase in the operational costs.
- From the cost evaluations done, it was evident that the budget prices provided by the private operators were more cost-effective when compared to the budget of the municipality.
- From the evaluation of the MSP alternatives and cost evaluation, a service contract seemed to provide the most cost-effective solution for the Municipality concerning collection and disposal services. The Municipality seemed to be able to provide a more cost-effective

street cleansing service when compared to the budget prices from the private contractors. This might, however, change in a competitive tender scenario.

3.1.4 Implementation

- Based on the findings of this study the Thabazimbi Municipality decided to proceed with the implementation of service contracts for the collection and disposal operation, and they decided to include street cleansing in the collection contract, as a more cost-effective service could be provided under one contract.
- A Phase I public hearing commenced which enabled the team to incorporate their comments into the report, whereafter a final tender enquiry document could be prepared.
- Tender enquiry documents for the operation of the landfill, the collection of all waste, and street cleansing were compiled and advertised.
- After a competitive bidding process an adjudication of the tenders received was done, and a Preferred Bidder selected.
- The final negotiations with the Preferred Bidder and interested and affected parties were finalised and it led to the first successful service contract of such a waste project in South Africa. The contract was awarded for an initial period of 3 years, with the option to extend the contract for a further 2 years.

3.1.5 Lessons Learnt

A number of important lessons were learnt in this project, but I can also say that it can be seen as a very successful solution both from a technical and financial point of view.

In short the main benefits of this project are seen as follows:

- Service is now of a higher technical standard;
- Total service costs less than what it used to cost the municipality, so the ratepayers save money;
- More job opportunities were created;
- A small entrepreneur was trained by the main contractor and is doing the street cleaning on a subcontract basis.
- Although a large national waste company got the contract, only one imported manager from outside the municipal area was involved in the project. All other staff were either persons taken over from the municipality, or recruited locally.
- Negative aspects
- The municipal labour unions were very upset because they lost members, as the private operator's staff belongs to other unions. The municipal workers labour union is also politicized and has a very socialistic point of view towards privatisation.

3.1 Case Study 2: Establishment of a Waste Utility Company for the Johannesburg Metropolitan Council

3.2.1 Background

A multi-functional team was appointed to undertake an investigation into the possible forming of a Waste Utility company for the Johannesburg Metropolitan Council in 1999. This process went through various stages which culminated in the establishment of the Pikitup Waste Utility Company.

From evaluations made during involvement with this Utility a number of observations can be made, unfortunately not all positive, but which are important for future similar exercises.

What happened in essence was that the existing Waste Department of the Metropolitan Council was restructured as a “Private” Utility Company. Initially the idea was that about 51% of the shares would be kept by the Council, and the rest be sold to outside companies and also some to the staff. In the end the Council was not prepared to sell any of the shares as they wanted full political control and although the utility was formed and structured as a private company, the Johannesburg Council kept 100% of the shares. At the same time the Council took similar decisions on some of their other departments, which included the ownership and management of all municipal plant, equipment and vehicles to a Utility named Fleet Services, with a large financial concern as the managing partner. This meant that all their plant was “sold” to Fleet Services and they are now renting all equipment and vehicles from this company at highly inflated prices, mainly because of the fact that almost all trucks were replaced with new ones.

The Council compiled a Service Level Agreement (SLA) with the Waste Utility, describing the services that had to be rendered, as well as all the conditions, payments etc. This SLA must be reviewed every 5 years.

The Council agreed to still invoice ratepayers and to pay the Utility their part of the income. The Council thus however retained the risk of non-payment for services as they pay the Utility irrespective of whether the beneficiary of the service has paid his bill. The Utility thus has very limited financial risk and no effective risk transfer occurred.

3.2.2 Comments

Herewith observations/comments on this project:

- It is not really a public-private partnership as the municipality still has all the shares, so the contractor is still publicly owned.
- The Council also kept most important decision making authorities for themselves, such as appointment of senior management staff, approval of budgets, etc. Because of this the company was without a Managing Director for more than 18 months at one stage due to political haggling about who should be appointed.
- All existing staff went over to the new entity with very little re-structuring of the company. Salaries of staff were increased significantly because of the perception that in the private sector one must earn more!
- From the outside very little improvement can be seen in productivity.
- The Utility are presently trying to limit the operations of other, real, private operators by putting pressure on the Council not to issue private licences through new by-laws which give the Utility “ownership” of all the waste in the municipal area.
- As all expertise left the municipality with the forming of the Utility, there was no one left to really monitor the performance of the Utility and they basically regulate themselves.
- One advantage to the operation of the service is that the financial decision making processes on day-to-day matters has been streamlined significantly by the fact that all decisions do not have to go to Council anymore. This has significantly improved the process of awarding contracts.

3.2 Case Study 3: Payment problems in PPP contracts

4.3.1 Background

There is a case where a capitol of an African state has embarked on waste service delivery by means of a PPP and have appointed private partners to deliver a waste collection service with waste being disposed free of charge at the landfill. Payment of the system consisted of a system whereby the private partner has to collect the service charges from businesses and

high income clients by means of rendering accounts and receiving or collecting the payments, while the municipality will provide a top-up payment for services rendered to low income clients in the service area. The city was divided into a number of service areas and contracts were negotiated with three different private companies after an initial competitive bidding process. For the first 9 months the project worked quite well.

The problem which arose was that the officials neglected to budget for the municipality's cost contribution in the following year's budget, which meant that payments to the private partners stopped once the new financial year started, and a delay of several months occurred before payment was reinstated. This caused some of the private contractors to stop working and almost caused their bankruptcy. This obviously also created a situation of very bad faith in the relationship between the contractors and the municipality, which will seriously affect any future contract pricing and negotiations. Situations such as this will also keep any international contractors, who may bring much needed skills to the country from submitting tenders for this municipality.

A related problem which was picked up in another country was that although a contract was entered into in good faith, payments were made very erratically which obviously also creates a situation of mistrust in the municipality.

4. SUMMARY OF CHALLENGES

4.1 Political support from councils

One of the biggest challenges of any PPP solution to rendering of municipal services, in this instance waste collection and disposal services, is to get political buy-in from the officials and Municipal Councillors into the process. There is however still a general lack of understanding of what the PPP process entails and the benefits that such a solution can bring to service delivery. They tend to fear that the solution will let them lose control over the functioning of their department. One of the main reasons for this is that municipal officials, and especially councillors, have in my mind totally lost sight of what their main function is supposed to be, namely rendering of communal services to their ratepayers at the lowest possible cost and highest possible standard, and they tend to see the financial assets of the municipality as something with which they can do as they please.

4.2 Corruption

There are also a number of cases still in the world where corrupt practises exist whereby officials enrich themselves by commanding bribes for any approvals, allocation of contracts, etc. In such cases they will want to remain in a position where they can see the most personal benefits. PPP solutions, if properly structured and implemented can limit corruption by putting in enough conditionalities into the contractual arrangements, and to allow for external monitoring and audits by independent organisations. In the case of disposal services external monitoring of environmental issues is quite often a legal requirement as well, and the total audit and monitoring function can be combined.

4.3 Cash Flow

It is important to note that the private sector is capitalistic in nature and, except for their profit motive, they can only exist if they have a positive cash flow, as they have to pay their staff, pay for materials, fuel and equipment, etc. It is thus important that the public partner must be

able to show, through either a history of honouring their commitments (including paying in time) or by being flexible enough to allow a system whereby they can guarantee full payments on time.

If the private partner will render accounts directly and collect the income, the PPP agreement must be structured in such a way as to assist this process and all the new arrangements must be properly publicised to the clients.

4.4 Servicing low income areas

It remains difficult to service low income areas due to high density of housing units and generally very poor access. A potential solution is to use a type of PPP where use is made of small local community contractors. In this way each Community Contractor is given the opportunity to start his/her own business. She/he becomes the owner of the business and employs people to undertake the waste collection, normally with very basic labour intensive methods. The Community Contractor will to be advised and assisted with the establishment of their business and must be suitably guided and trained to deliver the service.

Typical assistance which will have to be provided to the Community Contractor in setting up his/her business is as follows:

- Recruiting staff: Assistance is provided to the Community Contractor in terms of recruiting and training staff (sub-contractor).
- Purchasing the equipment: Where possible loans should be arranged for the Community Contractor for the purchase of the required equipment. Special interest rates must be negotiated in this regard. The contract with the municipality, built-in controls by a Financial Administration Company and the supervisory, advisory and training service should be offered as surety for this loan. The loan will normally be for a 5-year period, after which the Community Contractor owns the equipment.
- Operational procedures: The Community Contractor is assisted in establishing the operating procedures for his business including for example daily routes, ordering of equipment, payment of staff etc.
- Improving the living conditions and health standards within the target community can be attained by facilitating an effective service by committed Community Contractors who have a stake in the area in which they work. The experience has been that due to the relationship between the Community Contractor and the community, illegal dumping is reduced. This can be improved through the involvement of any existing structures and forums in the community e.g. Environmental forum, civil society organisations, education programmes and awareness campaigns.

4.5 Partnership vs. normal service contract

A very important factor which must be noted is that a PPP is a partnership contractual arrangement and not a normal contract between a client and a service provider. Because of this, as well as due to the fact that the final contract is negotiated with a preferred bidder, it is important that the municipality's procurement regulations allow for this different type of procurement.

It must however be noted that PPP solutions are not necessarily always the best solution and must only be used when you are sure that the organisation can actually benefit from a financial and technical point of view from the private partner's involvement.

5. PAYMENT FOR PPP SERVICES

A further issue which must be addressed in detail in any PPP contract is the issue of how payment will be effected for PPP waste services. If it is the duty of the private partner of the partnership on waste collection services to collect his own revenue, a problem may arise in that it is difficult for a private partner to collect service charges in low income areas as the residents may have a very low income and feel that it is really not a priority for them to pay towards a waste collection fee. If the service is stopped to residents not paying their accounts, it will not necessarily deter them as this is a low priority for them and they in general will just dispose of their waste in the street, where it then becomes the municipality's responsibility anyway. The practical aspects of rendering accounts and collecting the money, as well as the cost thereof which is relatively to the income, can also be a limiting factor.

The total financial administration of the service must be done by the contractors, but within the parameters stated by the municipality. The following methods can be utilised as potential billing or income collection methods:

- Advance payments for service. The residents who subscribe to the service pay their dues monthly in advance on an invoice rendered basis, and the service is not delivered if payment is not received before a due date. This is quite an effective system but involves significant administration. In developing countries the cost of administrative staff is however in general very low, so it is possible to do this within acceptable cost norms.
- Sale of special coloured, or printed with specific information or logos on it, plastic waste bags, where the cost of the service is recovered through the sale of the bags. A different colour bag is introduced on a monthly basis. In this instance only the specified bags will be collected from households.
- Coupon system. This system may be open to abuse and theft of coupons.

The private partner will be required to keep proper financial and collection/disposal records. They will also be required to pay a levy, based on actual turnover, to the municipality for the overhead administration costs as well as for other cleansing services not covered by them. This levy must however be ring-fenced so as to limit it to waste services and it must never be allowed to be re-appropriated for other municipal services. It is suggested that a ceiling be fixed for the percentage which the levy will be and as a maximum should be 10%.

6. CLIENT PARTICIPATION AND CUSTOMER RELATIONSHIP

One very important matter is the fact that it is imperative to involve and inform the residents in communities about all planned actions and revised service delivery and revenue collections methods. Once the PPP contract is underway, it remains important to facilitate ongoing liaison between the Contractors, the municipality and the Community. In this regard regular meetings should be arranged between the stakeholders. These meetings are also used as an opportunity to educate community members about health aspects, risks due to uncontrolled waste, illegal dumping and waste separation.

As part of an awareness campaign residents must also be made aware of the "polluter pay" principle, which applies to them as well, not only to the manufacturer of the item. They did in fact, as an example, buy the tin of cool drink, and disposed of the empty tin, so why must "someone else" pay for the disposal thereof?

7. CONCLUSION

By establishing a public/private partnership with regards to waste refuse collection, it was found that it can be a solution to the waste collection and disposal problems experienced in many cities in the developing world. It is also a method whereby improved technologies can be implemented in dealing with waste.

Although most off the above examples discussed waste collection and transportation to landfill, the operation of a landfill is even more a specialised task which can be contracted under a PPP contract.

ACKNOWLEDGEMENTS

The Author wishes to thank Mr. Gerrie le Roux for his valuable help in the development of solutions