Case Study for the 2006 HDR

PRIVATE VERSUS PUBLIC IN WATER PROVISION: ENCOURAGING CASE OF SRI LANKA

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Introduction

The euphoria of the late 1990s that the private sector will resolve much of the management needs and investment requirements for water supply and sanitation of the developing world is now mostly over. The multinational companies that were actively soliciting the management concessions for water supply and sanitation services for the major urban centres, during the second half of the 1990s, have now lost their enthusiasm. On the basis of current and foreseeable trends, it is highly unlikely that even under the most optimistic scenario, more than 15 percent of the people of the developing world are likely to receive their water-related services from the private sector by 2020. Hence, for the developing world as a whole, the most important question that has to be answered is how to make the public sector increasingly more efficient so that they can provide the necessary services to a continually expanding urban population, cost-effectively and equitably. It is essential that the poor receive better and more reliable access to clean water and sanitation than they are receiving at present, and at prices they can afford. The public sector must meet this challenge, since, at least for the next two decades, they will continue to be the main provider of these services.

There are signs of hope in that many urban areas of the developing world, the public sector has been becoming increasingly more efficient, especially during the past 5-10 years. A good example of this improving situation is the National Water Supply and Drainage Board (NWSDB) of Sri Lanka, an institution that is responsible for providing water supply and sanitation for the urban sector of the whole country. The efficiency of the NWSDB has consistently improved during the past 10 years in terms of nearly all the usual performance indicators.

The Sri Lankan National Water Policy stipulates that “safe drinking water and access to sanitation services is a fundamental element” for the social and economic development of the country. At present, nearly 27 percent of the national population receive piped water: access to sanitation services is somewhat lower. The national policy notes that “while coverage levels and service quality have improved markedly over the last decade, the need for water services has outstripped the government’s ability to provide sufficient water and sanitation and ensure equitable access to the citizens throughout the country.”

The policy points out that one of the important issues is the need for funds for capital investments for new water supply and sewerage projects. In addition to these funding requirements, efficient operation and maintenance of the existing projects will also become an increasingly important issue in the future, especially with an increasing number of new water supply and sewerage projects. Thus, with the current and continued expected shortages in the government funding, it is essential that the customers of the Board should pay at least for the full operation and maintenance costs for the services received, and, if feasible, increasing percentages of the investment costs. It will not be possible for the Sri Lankan Government to subsidize heavily the operation and maintenance costs for the services provided, as well as the high capital investment costs for all its projects, and concurrently meet the universal service provision targets.

In order to meet these challenges, the Government of Sri Lanka initiated a reform programme for the water sector which included, among other items, establishment of a regulatory commission for water supply and sewerage, and contracting private operators in selected regions to improve operational efficiency and to attract private sector investment finance. Both the sector reform programme, and the increasing involvement of the national private sector, are likely to be important factors which may improve the existing situations further.

The National Water Policy (NWSDB 2002) proposed some steps to improve the economic sustainability of the institution, which included the following factors:

- Water tariffs in the urban areas should be set at such a level that it should be possible to recover operating costs and depreciation, and should be gradually increased "to recover the full supply cost of providing services, including debt service and a reasonable rate of return".
- Sewerage tariff covering operation and maintenance costs should be introduced, based on water consumption for the sewered areas, and also as and when sewerage services are introduced to new areas.
- For low-income people, appropriate life- line tariff should be available to ensure the affordability of water of sufficient quantity and quality to satisfy both basic consumption and hygienic requirements.
- Operational efficiencies of the water supply systems should be improved, and the levels of non-revenue water should be significantly reduced from their current high levels, for both existing and new projects.
- Water demand management programmes should be implemented to reduce the levels of current consumption.

While the proposed policy is a step in the right direction, the main consideration for the future will not be the adequacy, or even the appropriateness and desirability of the policy, but its proper and timely implementation, especially as it will mean steady increases in the water and sewerage charges in the coming years with the final aim of full cost recovery. This also means that special attention needs to be paid in terms of equity, so that the poor families are not unduly penalised by higher water and sewerage charges, which they may not be able to afford.

Water Tariffs – The final decision to increase the water tariffs in Sri Lanka is primarily a political process, which means that the increases requested by the Board, may or may not be considered and approved by the politicians in a timely manner. The general experiences in developing countries have often been that politicians may prefer to "go slow" in terms of increasing tariffs, especially before elections.

The urban domestic water tariffs in Sri Lanka continue to be heavily subsidised by the Government, and by cross-subsidies between consumers, and also between various projects. These subsidies, however, have been steadily declining, especially during the past ten years. Current Government subsidies include:

- 50 percent subsidy for the foreign loan components; and
- 100 percent subsidy for the Sri Lankan Government contributions available in local funds.

At present, the Board is required to pay back to the Government only 50 percent of the foreign loans, at an annual interest of 10 percent, over a period of 24 years, with another two years of grace period, if necessary. Furthermore, the Board returns the funds to the Government in Sri Lankan rupees: the Government assumes the entire foreign exchange risk.

Revenue collection for the provision urban water services in Sri Lanka started in 1982. Considerable progress has been made since that time, especially during the post-1995 period. There have been continuous improvements in the methods used to set the tariff structures, levels of the tariffs, and the collection of the revenues outstanding from the consumers. The management information system that is currently operational in this overall area is one of the best functional systems in the developing world. This is provided by the private sector as an outsourced service.

An important factor that has an impact on the total revenue of the Board is the efficiency of its bill collection process. In terms of bill collection, the performance of the Board has been exemplary during the past decade, and this high level of revenue collection is unusual for most developing countries. The total bill collection efficiency has varied from a low of 89 percent to a high of 100 percent for the 1993-2004 period, as shown in Figure 1.

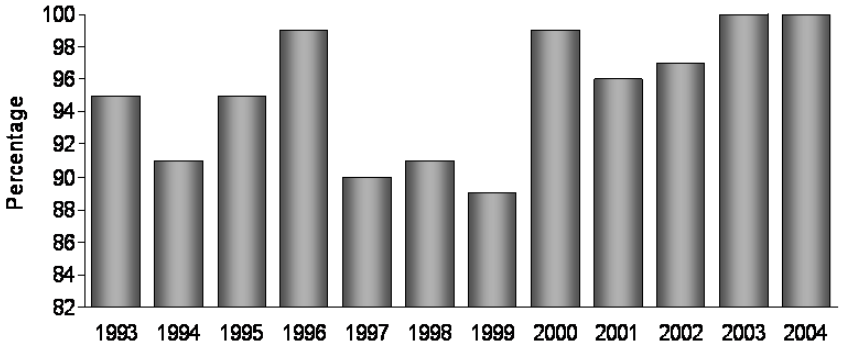

Figure 1. Bill collection efficiencies of the Board, 1993-2004

One of the reasons as to why the Board has an excellent bill collection record is because it has an elaborate, well-established and transparent process. Consumers are well aware of this process, and they are also aware that if the bill continues to be unpaid, the water connection will be cut-off. In addition to the disruptions and inconvenience it will invariably cause to the various household activities, there is an economic penalty in terms of an additional reconnection charge.

Non-revenue Water (NRW) – A very important economic loss to the Board has been due to the extent of non-revenue water (NRW), which is defined by the difference between the quantity of water produced and the quantity billed for. At present NWSDB is billing for only about 65 percent of the total amount of water it produces in the country. In other words, the balance of 34 percent of the water produced unfortunately does not generate any revenue. This means that if the entire non-revenue water loss can be completely eliminated (this of course is not possible), the Board's income could increase by more than 50 percent at the current prevailing water tariffs. While NRW was reduced from 35.58% of water produced in January 2002 to 33.64% in September 2005, these improvements were rather slow. Much more progress needs to be made in this area.

If Colombo City is considered, NRW accounted for more than half the quantity of water that was billed for in 2005. The NRW rates are high, but such high rates of NRW are not uncommon in the major urban centres of developing countries, which generally range from 35 to 60 percent.

The high rate of NRW in Colombo City is primarily due to the fact that it has an old water supply system, which needs major and expensive renovation. Losses from the informal settlements have been consistently high. Based on experiences from other developing countries, having similar political and democratic system as Sri Lanka, it would be a somewhat difficult task to reduce the losses from these settlements because of likely political constraints and interference.

While the Board has considered NRW to be high, and has taken several policy measures to improve the situation, improvements during the recent years have been somewhat

slow. For example, for Sri Lanka as a whole, NRW was reduced from 35.58% in January 2002 to 33.64% in September 2005. This is an area that would require significant improvements in the coming years.

The economic implications of NRW to the Board can be best illustrated by the estimates made by the Ministry of Finance, Government of Sri Lanka, in 2002.

- Estimated NRW in 2002 was sufficient to supply 420,000 new households, assuming an average consumption per month, per household, of 25 units.
- Estimated loss of revenue due to NRW in 2001 was Rs. 2,016 million.
- Operation and maintenance (O&M) cost per m^3 of water in 2001 was Rs. 20.20. If NRW could be eliminated, the cost could be reduced to Rs. 13.01.
- If NRW could be reduced to 30 percent, the Board could have earned Rs. 4,108 million in 2002, with the same production but without any tariff increase. In this case the additional cash requirements from water tariffs would have been only Rs. 162 million, and not Rs. 665 million, as was forecasted by the Board.

Staffing – There is no question that the Board was heavily overstaffed a decade ago. For example, in 1991 the ratio of staff members per thousand connections was extremely high, at 33. The ratio has declined steadily, and by 2004, it had come down to 9, which is only about 28% of what it was only 14 years ago. This is shown in Figure 2. In spite of this progress, this ratio is still high, when compared to the situations in other countries:

Singapore: 2 employees per 1,000 connections; and
Developed countries: mean 2.1-2.2 employees per 1000 connections

In 2002, the personnel cost as percentage of the total operating cost was approximately 43 percent for the Board. In the developed world the corresponding figure is around 30 percent. Thus, there is still considerable scope to make the Board increasingly more efficient in the future.

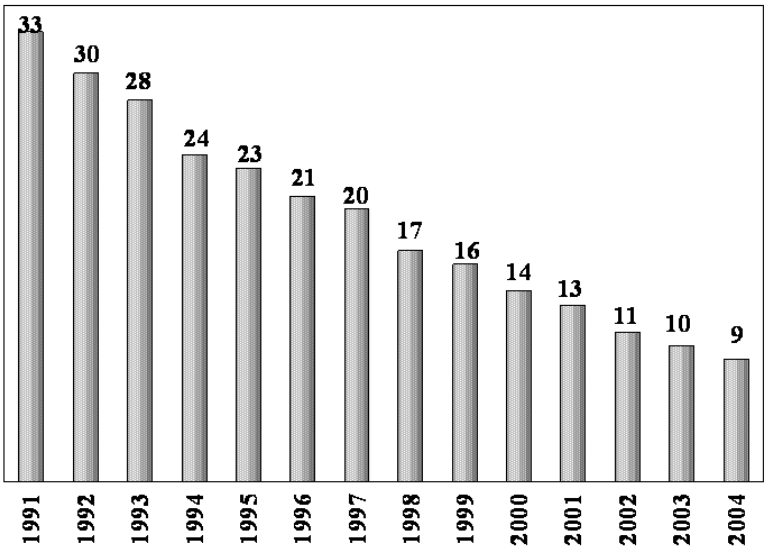

Figure 2. Staff members per 1,000 connections

Private Sector Involvement – By outsourcing its information technology to the private sector, the Board has shown a new form of public-private partnership, where overall services are provided by public sector, but with private sector participation in specific areas where three performances are more cost-effective. Outsourcing of additional specific activities can make the Board increasingly more efficient.

One possible area for future outsourcing could be meter-reading. The current practices of the Board, where meter-readers are given specific areas to cover consistently over long periods of time, have not produced good results in most developing countries. Such territorial control by meter-readers often has resulted in increases in their unauthorized incomes, since for some staff members, personal interest may override the overall public interest.

Such a problem can be addressed in two ways. First, the meter-reading could be outsourced to a national private sector company, perhaps with an incentive payment which could be directly linked to the generation of additional income for the Board. Second, the levels of corruption could be reduced if the meter-readers are regularly rotated in terms of areas they cover so that they do not have opportunities to establish individual fiefdoms.

It would probably be a difficult political process for the Board to outsource meter-reading to the private sector, or change the territories of the meter-readers, who are highly organised and are politically well-connected. It is highly likely that the meter-readers, will resist such moves very strongly because of their own personal vested interests. Outsourcing of the meter-reading to the private sector is likely to improve the present situation very significantly. It could significantly reduce the systemic corruption in meterreading. Also, the overall cost of meter-reading could also be reduced appreciably

since not only the number of meter-readers will be less, but also the private sector is unlikely to pay the existing high salaries and fringe benefits that they currently receive.

The Board could provide an incentive to the private sector in that they could receive a percentage of additional revenues that could be generated from the existing consumers by better practices. Such steps could improve the net income of the Board, in terms of generating additional revenues and reducing costs.

There are some other activities that the Board could outsource to the private sector, among these possibilities are:

- leakage detection and repair:
- bill collection;
- new water connections; and
- vehicle maintenance and fleet management

All these activities, both individually and collectively, are likely to contribute to steady advances in the sustainability of the water supply and sanitation programmes through better public-private partnership arrangements.

The case study of NWSDB is important for at least one important reason: it has the potential to become the paradigm for a new type of institutional arrangement where public sector companies will be primarily responsible for providing the water and sanitation services. However, during this process, public sector will receive strong support from national private sector companies which will provide very specific services, especially in areas where they can be more cost-effective.

In other words, the private sector is likely to play an increasingly important role within this new evolving institutional paradigm, but not as a manager of concessions of major urban centres, but as providers of specific services like information technology, meterreading, billing, bill collection, leak detection and repair, and vehicle management, to the public sector. Also, these private sector companies will be primarily national, compared to the multinational companies which have been active in this overall area during the past decade. Furthermore, in the past, the multinational companies were interested only in managing large urban concessions. In contrast, national private groups are likely to provide services to large, medium and small public sector institutions. This is likely to be a positive development.

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