

EFFICIENCY IN THE PUBLIC SECTOR

the case of WASHINGTON DC'S Water Utility

Eric GUTIERREZ

New Rules, New Roles: Does PSP benefit the poor?



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Eric Gutierrez is Policy Officer at WaterAid's London office. On a May 2001 visit to Washington DC to attend a conference at the World Bank, he was surprised to find that the most influential institution at the heart of the water privatisation debate was in fact being served by a utility that has deliberately been kept public. He obtained copies of feasibility studies, presentations and other materials from the District of Columbia Water and Sewer Authority (WASA) and carried out a desk study, on which Michael S. Marcotte, Deputy General Manager and Libby Lawson, Public Affairs Director of WASA, provided comments. Eric Gutierrez wishes to express his warmest thanks to WASA for the most generous support they have provided for this study.

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Acronyms

BOOT	Build Own Operate Transfer
BOT	Build Operate Transfer
CII	Continuous Internal Improvement
DBO	Design Build Operate
EPA	Environment Protection Agency
IMF	International Monetary Fund
O&M	Operation and Maintenance
OECD	Organisation for Economic Cooperation and Development
PPP	Public Private Partnership
WASA	District of Columbia Water and Sewer Authority
WASUA	District of Columbia Water and Sewer Utility Administration
WB	World Bank
WSSC	Washington Suburban Sanitary Commission
WWTP	Wastewater Treatment Plant

I. Executive Summary of the Synthesis Report

Governments, both northern and southern, have rightly placed themselves under much pressure to achieve better water and sanitation coverage. The Millennium Development Goals aim to halve the proportion of people without access to water and sanitation services by 2015. Millions die every year from lack of access to safe water and adequate sanitation. On one hand there is an undeniable urgency about these issues that makes prolonged discussion frustrating and a questionable use of resources. But on the other, the risk of the blanket promotion of one debatable method of reform is an unnecessary waste of scarce resources.

Most southern governments have consistently failed to deliver affordable and sustainable water and sanitation to the poor. It is difficult to summarise the causes for this failure as each situation is different and complex. However, some broad problems cut across many public utilities and municipal services: bad financial management, low funding priority, lack of staff experience and qualifications, absent or weak customer service orientation, political interference, little or no independent regulation and an absence of civil society consultation. Many of these problems have been described as attributable to weak government capacity – equally acute in urban and rural contexts.

Our research shows that the policy of private sector participation (PSP) does not comprehensively tackle the underlying causes of water utilities' failure to serve the poor. In four key areas capacity building, community participation, finance and institutional reform, major problems persist, making it unlikely that the multinational private sector is going to play any significant role in achieving the Millennium Development Goals.

Currently the pursuit of a policy of PSP generally undermines local and national government capacity. For one, it limits the ability of the public sector to take services back should PSP fail or when contracts end. Private sector contracting must not result in irreversible dependence on private companies, and there must be clauses in contracts to prevent this dependence.

Without adequate government capacity, no reform processes can be successful. The private sector cannot be contracted without tackling failing government. The government's role to facilitate, monitor and regulate is as much an essential element in PSP as in public and user-managed utilities. Yet, it seems that this requirement is being practically ignored in the rush to establish PSP. It is essential that donors refocus efforts to building government capacity at local and central levels.

The involvement of local communities is often lacking in PSP reform programmes. Where PSP has failed to deliver the promised gains, the case often is that the poor are seen mainly as recipients, rather than contributors to development. Whether projects involve large or small-scale PSP, the focus is on giving contracts or concessions to the private sector. Social mobilisation and community participation, proven time and again as prerequisites for sustainable development, are seen as burdens and non-essential components of the task. Failure to consult communities means that the interests of the poor are often not being represented. It results in a lack of ownership over projects and an absence of accountability between users and service providers. It seems that the lack of community involvement that led to previous failures is continuing, raising serious doubts over the sustainability of PSP projects.

Cost recovery and capital cost contributions are in most cases necessary for water services to be sustainable. However, there are problems in the application of these principles, which often results in denying the poor access to services. Expensive technology choices and a failure to consider the non-cash contribution of the poor are widespread in PSP contracting. Donors are guilty of promoting an approach that is narrow and mechanistic, allowing for little flexibility and absence of perspectives incorporating community action and considering the complexities of poverty.

Changing the role of government, by effectively reducing its capacity through reductions at central level, but not increasing personnel at local government levels, erases benefits that could be gained from decentralisation per se (such as responsiveness to people's needs, greater accountability etc.). Weak decentralised agencies cannot be expected to quickly learn about tenders or forms of contracting and keep track, monitor and supervise the activities of contractors fanning beyond provincial capitals.

In the rural areas that were studied, reduced government roles had a detrimental impact as work was often sub-standard leaving the communities with a costly and unreliable service. The rural case studies also show that there are, so far, no improvements in accountability. In some respects, accountability was compromised in the dilution of responsibilities that accompanied the change in roles. Because projects are between governments and contractors (communities are typically not a party in the contract), the supposed beneficiaries are in no position to seek redress for sub-standard work. Accountability is lost in the commercial/ contractual, quick-fix arrangements of private sector involvement.

Political interference has been seen as contributing to the failure of many public utilities to deliver to the poor. In established democracies there is 'interference' in the running of utilities but this is seen as government exercising its duty to keep institutions to account. There is a fine line between 'interference' and the need for accountability, the difference seems to be the depth and strength of democratic institutions in individual countries.

Civil society working to strengthen the hand of government through, for example, commenting on tender documents prepared by external advisors, increases the likelihood that reforms will further the concerns of the poor. It is in the interests of government to involve a broad constituency, especially one that represents the interests of the poor and poor people themselves in the shaping of privatised basic services. Pro-active openness and transparency by government in reform processes lessens the possibility of civil strife.

With these findings, we are opposed to donors pressuring developing countries to accept PSP in

water services as a condition of aid, trade or debt relief. To promote a policy regardless of specific contexts increases the likelihood of failure especially when the likelihood of success of that policy is intensely contested. Furthermore, the enforcement of PSP as the central policy reform limits the options for governments and civil society to improvise and innovate using the best possible arrangements. We believe rather that policies should be used to ensure that in any reform process the poor will be protected, their access to services increased, and the process itself actively seeks the opinion of civil society.

This does not mean that we are rejecting private sector involvement. The private sector has a role that should not be denied. But, where there is corruption and/or political resistance to serve the poor, the private sector can do very little and can, in fact, compound the problem. Where there is lack of information, participation and democratic processes, the situation is thrown wide open to opportunistic behaviour from the private sector. However, given a situation with stable rules, enough political commitment to address the underlying causes, good governance and an informed and active citizenry, the private sector can be a responsible partner in development and an important player in reforming and improving water services.

In order to move forward on this contentious issue, a multi-stakeholder review should be undertaken. We believe that it is only through such a review (similar to the World Commission on Dams) that the final, authoritative word can be made on whether PSP benefits the poor. We also believe in the necessity of building the capacity of civil society actors to influence privatisation processes and to hold governments and the private sector to account. This needs to start with improving their knowledge and understanding of the issues surrounding failing water services, and enabling civil society groups around the world to learn from each other's experiences of intervention in privatisation processes.

II. Case Summary

When the centuries old water utility supplying Washington DC reached breaking point in the late 1980s, District governors considered privatisation as a means of improvement. They rejected selling the utility in favour of a semi-autonomous, publicly owned, entity to run it. The utility adopted what is called as "Continuous Internal Improvement", now widely regarded as a success. The case should challenge the notion that privatisation of water utilities is always the preferable option to gain efficiency. The promotion of water privatisation in developing countries should especially be considered in this light.

In the late 1980s and early 1990s the water and sewerage utility in the US capital, Washington DC, was at breaking point. The century-old network of pipes and sewers was breaking down, drinking water was becoming contaminated, and the Department for Public Works, which ran the utility, faced deepening financial problems. It couldn't keep up with the rising cost of repairs, especially as income revenues reduced.

In the mid 1990s there was a great debate on how to improve the system, which at over 8840 miles of pipe was one of the US's biggest water utilities. Privatisation took centre stage in the discussions and feasibility studies but was finally rejected in favour of a public-owned alternative. District governors were convinced they could deliver the same efficiencies that privatisation would have otherwise brought. The District of Columbia Water and Sewer Authority (WASA) was created, a semi-public body which had financial autonomy, had powers to raise its own finance and charge customers, but was ultimately responsible to the District.

In 1999, a similar discussion took place over the future of the Blue Plains Waste Water Treatment Centre in DC, the largest advanced water treatment centre in the world. Again, DC rejected privatisation, and ownership and management of the plant passed to WASA.

The WASA project demonstrates not only the effectiveness of innovative public-run water utilities, but confirms that models of privatisation or public

finance for water utilities must depend on local conditions. Compared with France and the United Kingdom, the US lagged behind in the implementation of privatisation. France has grown a private sector big enough to take over large-scale public utilities. It currently has four multi-national private water companies that, between them, manage the water supply delivered to three-quarters of the French population, and collect and treat the waste of one-third. Two French water companies account for three-quarters of all international private sector water activity in the world. In the UK, the privatisation of regional water authorities has not been replicated anywhere else in the world. England and Wales was able to privatise because of the creation in 1974 of regional water authorities that consolidated ownership of water assets. This consolidation made it easy for Margaret Thatcher to sell these assets to private investors in 1989. Water assets in the US, in contrast, have complex layers of ownership, making an outright sale extremely difficult.

In the mid 1990s, the US thus was simply not ready for the water privatisation of France and the UK:

- The US did not have a private sector capable of taking over public utilities.
- The trend since the 1800s had been for public authorities, as they grew, to take over private utilities.
- US authorities were generally sceptical about the privatisation of their public utilities. By 1998, eight out of ten US government bodies had opted not to fully privatise public services.
- The US water industry is fragmented, and ownership and control often cuts across different layers of government. A network of pipes serving contiguous areas may be owned by different municipalities and authorities (as was the case in Washington DC). Privatisation in these conditions is extremely complex.

Despite strong pressure from pro-business lobbyists, there appears to be a clear reluctance by US policy-makers to adopt the privatisation policies advocated by US think-tanks and promoted around the world by the World Bank.

In August 1996 the US congress and the DC Government decided to reject privatisation of the city's water utilities, and instead established the District of Columbia Water and Sewer Authority (WASA), a semi-autonomous public body, which in the end still answered to the District. WASA is a publicly-owned and semi-autonomous utility. It is overseen by a governing body, made up of representatives from Washington DC City and local counties, but run by a general manager along corporate and commercial principles. It assumed all the financial liabilities of the DC government relating to the utility. It has the obligation, and the power, to raise the funds needed to upgrade and expand the infrastructure, by issuing revenue bonds. It has the right to use, but not the ownership, of all the original property and assets related to water distribution and collection and treatment. Finally, all its operating costs are paid through revenue generation, thus protecting its independence from the District.

One of WASA's first tasks was to consider the sale of the Blue Plains water treatment plant to the private sector. A 1999 feasibility study by the DC government pointed out that the retention of Blue Plains in public hands was more desirable than privatisation. The full asset sale of Blue Plains was rejected, and so was the contracting out of most of Blue Plains services. Instead, the study recommended the plant was also given over to Continuous Improvement under public ownership and control. Blue Plains was retained by WASA with the expectation that it would reduce operating costs, otherwise privatisation would be reconsidered.

WASA and Blue Plains today remain in public hands, operating under a Continuous Internal Improvement Programme. District leaders still believe the option "can produce better long-term results", matching or exceeding what the private sector can deliver.

In 2000 reports showed that WASA was on its way to meeting the basic internal improvement targets. Commentators said WASA's cash position had

more than doubled since 1995, and that continued financial strength was ensured. Despite some economic weaknesses, WASA's "relatively affordable rates for service, the essentiality of the service, and recent improvements in billing collections" tempered them. In July 2001 it was confirmed that WASA had not violated any drinking water regulations since 1996.

Washington's experience provides a reference point for a review of the assumptions of PSP. One such assumption is that efficiency is most easily and substantially achieved within by profit-making, and therefore private, operation. The public sector can perform as well as, or even better than, the private sector. Local conditions are important to the performance of public or private utilities. In the case of WASA, financial autonomy and control over procurements, capital improvements and human resources were key to its success. WASA also needed the power to set rates and fees according to its own structures, and free from undue political interference. The programme could only be measured against local conditions. Continuous Internal Improvement may, therefore, be only a viable option when public sector managers are given the opportunity to 'compete' with the private sector.

Washington's experience is an example of public officials having faith in their water utility, even when failing. This approach may have something to offer in informing practice elsewhere around the world. Would the public-private debates on water in various capitals around the world have taken a different turn had the public operator been given the chance to make its own offer, prior to the bidding process?

Continuous Internal Improvement is an alternative that governments considering privatisation today – like Tanzania, Ghana and Nepal – should seriously consider.

If water privatisation could not be implemented even if desired in a country like the US, a question emerges as to what form of water privatisation is being promoted in developing countries.

III. Introduction

In the early 1990s, the problems of Washington DC's water utility took a turn for the worse. Breakdowns in its century-old network of pipes and sewers became more frequent. Contaminated water seeped through and the utility was found violating safe drinking water laws. Then cash flow problems became acute, compounded even further by the sheer lack of resources needed to upgrade the infrastructure. A great debate took place on how to solve these problems. A number of solutions were considered, the most prominent of which was privatisation. Months of discussions ensued, with numerous public hearings, the commissioning of feasibility studies and the involvement of the federal government. Finally, in August 1996, the US Congress passed a law that created a new body and authorised the selling of bonds to raise funds. The new body that emerged, the District of Columbia Water and Sewer Authority (WASA), was still publicly owned and governed by a board of directors appointed by elected officials. However, it now had financial autonomy and was mandated to operate under more commercial principles to ensure that it was able to pay the hundreds of millions of dollars in liabilities it had assumed. Selling the wastewater treatment plant and sewerage services to the private sector was then

considered, in order to gain financial solvency for the troubled utility. Again, the decision taken was not to privatise.

These decisions are significant, not only because of Washington DC's prominence as the seat of the US federal government and of the World Bank, but also because of the nature of the alternative that was proposed. The "Continuous Improvement Program" that was introduced aimed to deliver the same efficiency gains that privatisation would have otherwise brought to the water utility. This study will look into the dynamics of that decision-making – why Washington DC opted not to privatise its water supply utility (one of the largest in the United States) and the Blue Plains Waste Water Treatment Plant (the largest advanced wastewater treatment plant in the world and known for the complexity of its service area). This work will also describe and attempt to analyse the Continuous Improvement Program that was put in place to maximise efficiency gains that many economists argue only markets can provide.

This study is but a preliminary inquiry into the lessons that may be learned from Washington DC's experience.



The Blue Plains Water Treatment Plant. Photo from WASA

IV. Background – The District of Columbia Water and Sewer Authority (WASA)

What is known as the “Washington Area” is made up of a number of local government units that include Washington DC, the capital, and adjacent counties in the states of Maryland and Virginia. Today, this area uses around 438 million gallons of water per day, delivered via an elaborate network of pipes that is a century old in most parts and made mostly of cast iron. Within the Washington Area are four major distribution systems. The Washington Suburban Sanitary Commission (WSSC) is the biggest and has 4,700 miles of pipes. Next is WASA which has 1,300 miles of pipes, followed by Fairfax County Water Authority which has 2,600 miles, then American Water Co. which has 240 miles of pipes ([Spayd, 30 Jan 1994](#)). While several Maryland and Virginia utilities operate both water and wastewater treatment facilities, the District of Columbia obtains its water from a government body called the Washington Aqueduct, a division of the US Army Corps of Engineers, which controls and operates the water sources. The Washington Aqueduct has its own facilities to treat water for sedimentation, filtration and disinfection, prior to delivery to Washington DC and two Virginia jurisdictions – Arlington County and the City of Falls Church ([WASA website](#)).

By the 1970s, problems with the ageing network of water pipes had become serious. Many sections fell apart and broke down, and tap water became an increasingly unreliable commodity in and around the US capital. Programmes were launched to replace most of the dilapidated sections, but as the engineers observed, the system was “ageing faster than money [was] being invested” and “the price tag of catching up was staggering and could not be possibly covered by the rates customers were paying”. WSSC, for instance, began a large-scale infrastructure programme in 1979, spending US\$151 million over six years to replace ruptured or leaking pipes. By 1986, they had identified US\$700 million worth of repair, maintenance and upgrading projects that were urgently needed. Over the years, so many more projects came up that the WSSC stopped calculating the level of

funding that would have been required to carry them out. “We just don’t have the money to do it,” said its general manager ([Spayd, 30 Jan 1994](#)).

The utility then known as the District of Columbia Water and Sewer Utility Administration (WASUA) – that serves the capital – will be the focus of this report. From 1938 to 1996, WASUA was part of the DC government, operated from within the DC Department of Public Works. On top of its water distribution system, WASUA runs the Blue Plains Wastewater Treatment Plant (WWTP), which is the largest advanced wastewater treatment plant in the world. The Blue Plains WWTP is considered a critically important facility, as it serves an area which is the fastest growing in the United States and its operations are responsible for cleaning up the Potomac River and its tributaries, a major input to Chesapeake Bay. Around 1,800 miles of collector sewers, nine sanitary pumping stations, and 22 metering stations deliver between 370 million to one billion gallons of wastewater per day to the Treatment Plant in South Western Washington. Its service area covers Washington DC, parts of Prince George’s County and Montgomery County in Maryland, parts of Fairfax County and Loudoun County in Virginia, and the City of Vienna. These suburban jurisdictions pay the full cost for their use of facilities and services based on a funding formula worked out in the Blue Plains Inter-Municipal Agreement. In all, over two million people are covered ([Hazen and Sawyer, 1-8 to 1-10](#)).

In the late 1980s and early 1990s, WASUA reported cash flow difficulties. Net income steadily declined, reaching a deficit by 1993. This was largely caused by a decline of around 10 per cent in total revenues and an increase of around 33 per cent in operating expenses. The revenue decline was attributable mainly to the decrease in collections from residential and commercial water users, who together provided 56 per cent of the utility’s income. On the other hand, the increase in expenses came from water purchases, depreciation of assets, amortisation

payments, increased personnel costs and payments for outsourced services. Also, WASUA had to service long-term debts from the Treasury, the DC government and other creditors. At the same time, from 1988 to 1996, WASUA's capital investments varied widely, showing that there was no central plan to address the most important problem it was facing: upgrading and improving its ageing infrastructure ([Hazen and Sawyer, 1-4 to 1-6](#)).

WASUA's financial difficulty was a serious blow to the DC government. Historically, the water and sewer fund – the revenues collected from ratepayers – generated the cash reserves that have been tapped to help balance the rest of the city budget. In 1994, the city was ordered by the US Congress to cut its budget by US\$140 million, and Congress requested an analysis of the water and sewer fund. Congress ordered these measures because of the increasing financial problems of the District. By December 1994, in order to avoid bankruptcy, the DC government stopped paying some of its bills. In December 1995, a budget impasse caused the DC government to slow down operations, and temporarily almost shut down on 15 December because of the sheer lack of funds. Consultants were commissioned to look at the options. To keep the water and sewer fund solvent, the consultants recommended a 71 per cent rate increase and an additional 6 per cent increase in the following years. The consultants also recommended the sale of the waste water treatment plant as an alternative to the increase, since the costs of operating the plant were going up at a time when water use, and consequently revenues, were going down ([Schneider, 19 Jan 1995 and 6 Dec 1995](#)).

Many other related problems that generated widespread public indignation emerged. Harmful bacteria were discovered in an increasing number of Washington neighbourhoods. By 1995, Environment Protection Agency (EPA) officials conducted an investigation and found WASUA guilty of four violations of the federal safe drinking water law. The EPA was set to penalise the city government with a crippling fine of US\$25,000 a day, but a "consent agreement" was worked out by July 1996. Under this agreement, extra chlorine was infused into the

treated water, and a Water Distribution System Improvement Plan was developed. The plan identified specific initiatives to repair pipes and storage facilities, improve operations and tell the public more quickly about safety violations. Had WASUA and the District government failed to come up with this plan, WASUA would have met other penalties from the EPA ([Cohn, 14 July 1996](#)).

In August 1996 WASUA was abolished through an Act of Congress. In its place was created the District of Columbia Water and Sewer Authority (WASA), a semi-autonomous public entity, subject to certain federal oversight provisions. WASA's creation was seen as a first step towards resolving Washington's water problems. WASA was a publicly-owned, corporatised utility. The new independent agency's governing board had 11 members, six of them appointed by the District, two each by Montgomery and Prince George's and one by Fairfax. The Board then appointed a general manager to run the utility, based on corporate, commercial principles. However, WASA had to assume all the water-related liabilities of the DC government, which ran into hundreds of millions of dollars. This included a requirement on WASA to reimburse the District for payments the city government was making on its general obligation debts amounting to US\$303 million, from which the proceeds were used to finance water and wastewater projects. WASA also had the obligation to raise the funds needed to upgrade and expand the infrastructure. The set-up was thus quite unique. WASA as a public corporation had the responsibility to raise money, make the water utility financially solvent and even profitable, plan and implement capital investments, and assume all risks. But the owners of the original infrastructure, as well as all related assets, remained the DC government. WASA owns only those assets that were built from the new capital investments it implemented. The Act gave WASA the right to use – but not the ownership – of all the original property and assets related to water distribution, storm water conveyance, and wastewater collection and treatment. This greatly reduced the burdens on the DC government. All the "headaches" were transferred to WASA, but the DC government remained the real owner of the utility ([Washington Post, 2 Aug 1996](#)).

In order to fulfil its mandate, WASA was given the power to finance capital improvements, establish water and sewer rates and fees for its services, determine the use of revenues, and procure the goods and services required. WASA now oversees the hundreds of millions of dollars in repairs that are needed on the water distribution lines and at Blue Plains. The Act changed the home rule charter so that WASA could issue revenue bonds and make other changes necessary to ensure both its independence and its financial responsibility. WASA's rate-setting powers are not subject to District oversight or regulation. However, all of WASA's operating costs must be paid through the generation of revenues – and no district funds will be used for this purpose. Since the District owned the assets, WASA could not sell

any of them without District approval and participation ([Washington Post, 2 Aug 1996](#) and [Hazen and Sawyer](#)).

WASA's daily operations – the provision of water and wastewater services to its residential and commercial customers – are controlled by a general manager who reports to the 11-member board of directors. The board first met on 26 September 1996 and holds a meeting each month. The board members appointed by the District of Columbia set the rates for the services. This new organisational structure “enables WASA to respond quickly to changes in the industry, to create its own regulations and policies for procurement, human resources and finances, to negotiate its own contracts and labour agreements and to sell bonds”.

V. Whether to privatise or not

The first question to ask then is why, instead of simply privatising WASUA and selling off the Blue Plains Wastewater Treatment Plant as recommended by the commissioned consultants, the DC government and the United States Congress took the route of creating a new body called WASA. Some explanations can be found by looking at the larger privatisation picture.

Compared with France and the UK, the United States lagged behind in the implementation of privatisation. One reason could be that the US did not have a private sector that was capable of taking over public utilities. In the last 100 years, France is the only Organisation for Economic Cooperation and Development (OECD) country that has retained and grown a private sector big enough to be able to take over public utilities. Many big cities in the United States, like Chicago and New York, started in the 1800s with having water utilities run by private companies. But as the cities and their public authorities grew and became stronger, they took over the privately run utilities. As a result, only a few of these private companies remained. In contrast, private companies grew in France, on the strength of concessions and leases from municipalities, in

what are now called “public-private partnerships”. The municipalities retained ownership of the assets while the private companies were given the task of operation, maintenance and investment. This created up to four national private water companies, who now manage the water supply delivered to 78 per cent of the French population, and collect and treat the wastewater of 32 per cent. It is therefore not surprising that, by the 1990s, the only country in the world with big private water companies was France. The two biggest water multinationals that account for three-quarters of all private sector activity in the world are French companies: Vivendi, which emerged from Générale des Eaux, and Ondeo, which was formerly known as Suez Lyonnaise des Eaux ([Hall, June 2001](#) and [Blokland et al 1999](#)).

The story in the United Kingdom is quite different. In 1974, the UK government consolidated the provision of water supplies, the management of water resources (like rivers), and sewerage services – previously delivered by municipalities and different public bodies – into single regional water authorities. Thus in 1989 when Margaret Thatcher's government made the decision to sell off these water systems, proprietary rights over the

pipe systems, treatment plants and other assets were clear and uncontested. It was from this sale of regional water authorities with clear ownership rights that the multinational British water companies, such as Thames Water Plc and Severn Trent Plc, emerged. This so-called full divestiture or complete privatisation has not been replicated on such a scale anywhere else in the world. It should be noted that after privatisation, 12 per cent of the UK's population still received their water and sewerage services from public bodies. It was only in England and Wales, and not in Scotland and Northern Ireland, where the privatisations were implemented (Green, 2002).

Thus, it can be seen quite clearly that the United States was not ready for the privatisation that happened in France and the UK. In fact, France and the UK are the only two countries in Europe where private water companies are dominant. In all others it is public utilities or some form of publicly-owned utilities that are running water and sanitation systems (Hall, June 2001).

The French and British privatisations should be contrasted with the kind of privatisation that took place in developing countries. Some developing countries in the late 1980s laid the groundwork for privatisation as a result of donor pressure for structural economic reforms. The Philippine government set up the Committee on Privatisation in 1986, and by 1992 had sold off 122 government-owned and controlled corporations, worth about US\$2 billion, as part of its debt restructuring and structural adjustment programmes signed with the International Monetary Fund – World Bank (IMF-WB). The Philippines successfully awarded the Manila water concession to private companies in 1996 – identified by the WB as the world's largest water privatisation (Dumol, July 2000). Mozambique, one of the poorest countries in the world, started its own privatisation programme in 1989, also as part of the structural adjustment package with the IMF. By 1998, it had sold off some 1,200 small and medium enterprises, and 58 out of 68 large parastatals, to the private sector. It finally privatised the water utilities in its seven largest cities in 1999 (FT, 2000).

The USA, like most European countries, did not follow the French or the British examples, and was not subject to the same external pressure to

privatise as developing countries. But the US was also the worldwide leading centre of neoliberal thought, and many thought that it was not doing enough to go down the route of free-market economics. This perceived inertia was criticised by some politicians both inside and outside the federal government. In June 1989, Representative Dana Rohrabacher (Republican, California), who once served as special assistant to President Ronald Reagan, placed on the congressional record a report from a California-based think tank, the Reason Foundation, that criticised the United States as “virtually alone in having no serious national commitment to privatisation”. The report described privatisation as a worldwide trend, and a “mainstream tool of good government”, especially in terms of getting the most from the taxpayer's dollar. It estimated that some \$316 billion in potential revenues could be obtained from the sale of federal assets and enterprises – including federal timber lands, electricity operations, the postal service, airports and air traffic control (Rohrabacher, 1989). The Foundation identified 34,461 water systems in the US with an estimated market value of US\$23.9 billion and another 15,300 wastewater facilities with a value of US\$30.8 billion that could be sold to the private sector (Glassman, 21 Dec 1994).

Yet despite these arguments, local US authorities were generally sceptical about privatising their public utilities. In 1996, seven years after Rohrabacher's speech in Congress, the Reason Foundation was still busy lobbying US authorities to privatise their water utilities. A 1998 survey of state governments showed that 80 per cent of US government bodies took the “safe” route of contracting out services or portions of their services to the private sector, rather than selling assets (0.4 per cent), issuing franchises (1.5 per cent) or engaging in public-private partnerships (4.3 per cent) (Council of State Governments, 1998).

One reason cited for this slow movement in the privatisation of water and wastewater utilities is that the US water industry remains largely fragmented. For instance, a network of pipes serving contiguous areas may be owned by different municipalities and authorities (as is the case in the Washington DC area), making the sale of such a network very complicated even when all the authorities concerned co-operate.

In other cases, some private residential or commercial user may have invested to upgrade portions of the system for their own benefit from the user fees they pay, thus effectively entitling them to be co-owners of the system. Also, operation and control may cut across different layers of government – from the municipal, state to the federal government. Some water utilities, like that in Washington DC itself, are funded by sharing arrangements between municipal and federal government. Overall therefore, there has been no dramatic rush to privatisation in the US such as that seen in the UK, France and other countries. In 2000, market share for private contract operations of municipal utility systems remained at less than 5 per cent of the US\$35 billion that government spent on water and wastewater. Surveys now show that there will be increasing growth in water and wastewater privatisation in the United States in the next five years (RPPI 2001). However, other recent reports from both academics and consultants conclude that public sector provision is likely to remain the dominant form of water provision in the USA, with privatisation remaining around the long-term historic level of 15 per cent (WSTB 2002) and that any growth in privatisation is likely to be slow (Farkas Berkowitz 2001).

The legislation needed for privatisation in water and sanitation in the US came over a few years in the early 1990s. Executive Order 12803 on Infrastructure Privatisation was signed by President George Bush (Sr) in 1992. This allowed the sale of federally funded publicly-owned treatment works. The Order also provided for a priority system for repayment of debt in the event of an asset sale. If Blue Plains were to be sold, for instance, the District government would be repaid first, followed by the state, both at current market value. Federal grants would be repaid next at their depreciated value. In 1993, the new President, Bill Clinton, signed Executive Order 12875 that directed federal agencies to review their regulatory requirements with a view towards increasing opportunities in wastewater privatisation. Perhaps most important was Executive Order 12893 that directed agencies to seek private sector participation in infrastructure investment and management. This Order also directed agencies to work with State and local entities to

minimise legal and regulatory barriers to private sector participation in the provision of infrastructure facilities and services. These laws, combined with other laws and regulations, therefore set up the framework to facilitate privatisation by reducing administrative hurdles in grant repayment, public bid law requirements and tax liabilities¹ (Hazen and Sawyer, 1-8 to 1-10).

There were observers who noted, however, that the Clinton administration had a different strategy on privatisation. While many Republicans start with the premise that government should not be in certain businesses at all, it was argued that Clinton's main emphasis, despite his signing of two Executive Orders to facilitate privatisation, was to make government run these services more efficiently. As *Washington Post* columnist James Glassman noted, "He (Clinton) wants to deliver improved services at a lower cost, often using market-oriented techniques. But he is not an avid asset-seller". What emerges from Clinton's approach, continued Glassman, was new government-supervised corporations with the power to collect fees. However, in so far [as] privatising government water and sanitation utilities were concerned, it is state and local legislatures, not the federal government, which ultimately make the decisive move.

In January 1996, the Reason Foundation released a study entitled, "Restructuring America's Water Industry: Comparing Investor-owned and Government Water Systems". It made the following findings:

¹ The 1986 Tax Reform Act and a series of Internal Revenue Service regulations provided greater flexibility for public agencies and reduced tax liabilities for firms involved in privatisation. The US Environmental Protection Agency also came up with its Guidance Manual on Privatisation. Finally, the Clean Water Act amended rules for the regulation of privately-owned treatment works. It should be noted that the Clean Water Act limited the ownership of wastewater treatment plants to companies that are majority US-owned and controlled, financially strong, technically qualified and do not receive subsidies from a foreign government. However, the authors note that this does not affect most foreign privatisers since they have created US subsidiaries that are not subject to these restrictions.

- Investor-owned water companies provide comparable water services to consumers at the same price as government-owned water companies even though they pay taxes and do not receive extra non-operating income
- Government-owned water companies receive generous tax subsidies that otherwise could be used to lower taxes or fund other government projects with higher priorities
- The net cost of capital is higher for government-owned water companies than for investor-owned water companies
- The real water bill is higher for government-owned water companies than for investor-owned water companies
- Investor-owned companies are substantially more efficient in their operation of water services than government-owned water companies
- Government-owned water companies receive a substantial amount of non-operating income from excess cash balances and investments
- It is likely that government-owned water companies spend more on facilities than investor-owned water companies, although the data on this issue is not entirely conclusive
- Water service is highly regulated whether it is operated by an investor-owned company or a government-owned company
- Government can better regulate an investor-owned water company than a government-owned water company

The study boldly called on California and other states to “adopt policies which encourage the termination of government provision (of water and wastewater treatment)”. It argued that private companies “can provide this same function at the same cost without subsidies or tax exemptions”. Also, such termination would have minimal impact on consumers, “since the price of water is approximately the same for public or private provider”, and that, “revenues generated could be used to reduce taxes or to fund other, higher-priority government programs” (Neal, et.al 1996: 1-2).

However, the decision of the US Congress and the DC government in August 1996 was something remarkably different – the creation of WASA. This policy decision appears to be a rejection of the privatisation option, and the adoption of the ‘Clinton approach’. This appears to have been a trend seen throughout most of the United States. Another figure issued by the US Environmental Protection Agency in 2001 indicates that private water utilities serve only 15 per cent of the US population and only 6 per cent of the potential wastewater market in the US is in private hands, quoted in Johnson and Moore, Aug 2001. Quoting from an issue of *Public Works Financing*, the consultants commissioned by the DC government in 1999 reported that the top 14 private firms operated only 736 out of 15,300 wastewater treatment plants (less than 5 per cent) in the US, covering 775 municipalities. Altogether, these plants have a total design capacity of only 2,947 million gallons per day (mgd) – equivalent to the average capacity of eight Blue Plains Waste Water Treatment Plants (WWTPs). They also reported that only four wastewater systems had undergone or were in the process of signing an asset sale or long-term contract allowed under IRS procedure 97-13 and Executive Order 12803. These are: (i) The 4 mgd plant in Franklin, Ohio; (ii) Cranston, Rhode Island; (iii) Fairbanks, Alaska; and (iv) Danbury, Connecticut. There are also only five large WWTPs that have been privatised in some form. These are: (i) Milwaukee, Wisconsin – 300 mgd; (ii) Indianapolis, Indiana – two plants with 125 mgd capacity each; (iii) New Orleans, Louisiana – 122 mgd; (iv) Wilmington, Delaware – 90 mgd; and (v) Oklahoma City, Oklahoma – four plants with a combined capacity of 101 mgd (Hazen and Sawyer, 3-1).

There appears therefore to be a clear reluctance by US policy-makers to adopt privatisation policies advocated by US think-tanks and promoted around the world by the World Bank. It is quite ironic that right inside what is considered as the heartland of neoliberalism, politicians are hesitant to implement water utility privatisation and in keeping with the fundamental neoliberal principle of keeping governments small. Washington DC's experience offers some insights into why this has been the case in the US.

VI. The Blue Plains privatisation

As soon as it was set up, a key item on WASA's agenda was the consideration of sale of the Blue Plains WWTP to the private sector. In 1999, the DC government commissioned a feasibility study that looked closely at this option. Contrary to the pro-privatisation studies that had been made, this feasibility study pointed out the reasons why the retention of Blue Plains in public hands was more desirable than various forms of privatisation.

The feasibility study rejected outright the concession and "greenfields" option of privatisation. A concession option, where the private firm is given full long-term control of the utility without an asset sale, was deemed not feasible for Washington because the water and sewer agency was a regional body serving multiple municipalities, instead of dealing directly with end users. The principal customers of WASA were not residential or commercial sewer users, but the DC government and the other adjacent municipalities. The relationships were governed by legal texts such as inter-municipal agreements, which imposed a layer of obligations and responsibilities that would complicate a concession agreement. The "greenfields" option on the other hand, better known by the acronyms BOT (Build Operate Transfer), BOOT (Build Own Operate Transfer) or DBO (Design Build Operate) was also not considered because it is an arrangement used mainly for the construction of new facilities or for the extensive renovation and reconstruction of existing facilities.

Three options were considered in detail: (i) a full asset sale at fair market price and private operations; (ii) full contract operations; and (iii) continuous improvement under public ownership and operation.

Full asset sale

The idea of full asset sale was to involve the purchase of Blue Plains assets by a private entity, which would operate the facility and charge WASA for its services. Initially, this would

present a number of advantages. WASA would remain a public entity, and continue to set user charges and bill its customers, so the private buyer of the assets would not deal directly with end users. The transaction would therefore not be subject to approval and regulation by the local Public Service Commission, and WASA would still be responsible for monitoring the contract, ensuring the quality of service and administering the industrial pretreatment programme.

However, a number of "serious negative considerations" for a full asset sale were identified. First, this option would have been difficult to implement because of the "contractually complex structure of owners, lessees and users". The study found that, when WASA was created, "the District of Columbia retained ownership of the existing facilities while new facilities were owned by WASA. Outside users have paid off capital investment as part of their user fees. The most critical issue therefore will be the division of the proceeds among the communities – a consensus will have to be reached among the Blue Plains users as to the disposition of funds resulting from the sale".

There was also concern over prices following an asset sale. The study said that an asset sale would require local debt to be transferred to the private entity, which would then look for a way to refinance this debt. The private entity would be able to get refinancing only at commercial rates, and the debt would also lose its tax-exempt status. This would then result in "significantly higher financing cost", estimated at US\$31 million per year, which would have an impact on prices. But it can be argued that even with higher financing costs, the price of sewerage services need not necessarily go up because there would be operating cost savings anticipated with private operation. The net result would be that a full asset sale "provides no economic advantage over the status quo". In fact, the study found out that if the existing facilities at Blue Plains were to be sold at US\$600 million, the private entity would have to increase rates by 33 per cent to recover

investments. This is less desirable when compared to the potential rate reduction that could be brought about by the next option – full contract operations.

Full contract operations

Under full contract operations, the private operator would operate the treatment plant, sludge dewatering facilities, laboratory, and the intercepting sewers and pumping stations. It would perform plant maintenance, purchase equipment, chemicals and supplies, and provide overall management services. The operator would be required to comply with all permits and consent decrees, but WASA would remain a public wastewater treatment entity. WASA would retain the liability as the permittee for all permits, bill its users, continue to monitor industrial pretreatment and continue to be responsible for overall co-ordination among the participating municipalities. WASA would also retain responsibility for the capital improvement programmes.

The study considered the full contract operations option to be a feasible alternative to the status

quo. It projected that this option would generate savings in operation and maintenance of between US\$17 million and US\$23 million per year resulting from staff and contract services reductions.

The study, however, recommended the third option – continuous improvement under public ownership and control – after a comparative industry analysis revealed that the “best performing” public utilities actually perform better than contract operated utilities. Although the Continuous Internal Improvement approach provides no guarantees, said the study, it does reflect the opportunities that might be achieved with a best performing public utility. It set down certain baselines, saying that in order to match the benefits provided by the full contract operations option, WASA would have to reduce operating costs by between 2.5 per cent and 3.8 per cent annually. Therefore it said, if WASA believes it is capable of meeting or exceeding these annual reductions, it should consider the continuous improvement alternative; otherwise, contract operations appears to be the more advantageous alternative.

VII. The continuous internal improvement alternative

WASA and the District's political leaders concluded that they themselves could meet the challenge of reducing operating and maintenance costs and generating savings, while providing a better quality of service. As such, WASA and Blue Plains today remain in public hands, operating under a “continuous internal improvement” (CII) programme. This option, they believe, “can produce better long-term results”. This approach basically means getting a publicly-owned and operated utility to match or exceed what the private sector can deliver. Before WASA made its decision, the CII alternative had been found to be successful for some publicly operated utilities in the United States. The next step for WASA was then to set the financial, safety, human resources and operational targets on which “continuous internal improvements” would be made.

The most difficult task was to achieve substantial reductions in operation and maintenance (O&M) costs. In 1999, WASA's total O&M costs were US\$91.6 million. In a survey of 107 utilities conducted by the Association of Metropolitan Sewerage Authorities (107), WASA's costs were found to be 19 per cent more than that of the average industry performer. The comparable “best performers” on the other hand, were able to bring down O&M costs to 85 per cent of what “average performers” spend. The feasibility study recommended that WASA should be able to bring down its O&M costs by between 2.5 per cent and 3.8 per cent each year in order to match the benefits of private contracted services. For the first year however, they would need to make a jump – and bring O&M costs down by over one-third, to around US\$59 million.

Staffing was found to be the largest single component of the WASA operating budget. Of the 107 participants in the survey, WASA had the highest number of staff even though it was only ninth highest in terms of the population served. Even before WASA's creation, the reduction of staff constituted the most difficult and politically sensitive issue in the utility's restructuring. In December 1995, for instance, DC council members openly insulted each other in an emotional debate over the package of benefits for workers displaced by the planned restructuring efforts. The DC council passed a package of special city-funded benefits that included generous severance pay and other perks, and a protection of the pay of union workers hired by private contractors. However, the DC financial control board sent the measure back to the council on the basis that it could not be funded. In 1999, the feasibility study found that WASA's staff (this includes staff hired directly and outsourced staff hired through private contracts) was still 60 per cent above the industry average.

In 2000, a succession of reports showed that WASA was on its way towards meeting the basic internal improvement targets. In April 2000, Moody's Investor Service upgraded WASA's standing from A1 to A2, which reflected the "continued strengthening of the Authority's financial position". The upgrading also resulted from WASA's "substantial US\$1.6 billion 10-year capital plan, the establishment of a strong management team, and the expected stability of the Authority's service area". Moody's said that WASA's cash position had more than doubled

since 1995, and that the rates it had set that included payment for its debts and financial obligations ensured continued financial strength. Moody's noted that there were still economic weaknesses, but these were tempered by WASA's "relatively affordable rates for service, the essentiality of the service, and recent improvements in billing collections" (Moody's, 20 Apr 2000).

In September 2000, WASA reported to a conference on Environmental Law organised by the Organization of American States more detailed internal improvement plan principles that included goal developments and business practice improvements. WASA reported that it was focusing on labour team building, the development of more detailed internal improvement programme tasks to meet adopted goals and objectives, and the establishment of quarterly monitoring and reporting. On 24 July 2001, the US Environmental Protection Agency reported that the WASA had not violated any drinking water regulations since 1996. This compliance record, the EPA believes, is "the result of the combined efforts of the Washington Aqueduct and DC WASA to not only comply with the regulations but to provide the highest quality water possible to the District" (Binetti, 24 July 2001).

While there are still a number of intractable problems related to pricing, costs of capital improvement, and billing efficiency, there is in general increasing optimism that WASA is on its way to being another "best performing" public utility that delivers better than the privately-operated utilities in the United States.



One of Washington's first pumping stations. Photo from DC WASA.

VIII. Conclusion: The significance of Washington's experience

In many ways, Washington's experience provides a reference point for a review of the assumptions of private sector participation. One such assumption is that efficiency is most easily and sustainably achieved within the context of profit-making and therefore private operation. Market mechanisms and competitiveness make it imperative for private sector companies constantly to innovate, reduce costs, and generate savings whilst providing a better quality of service. The flipside of this assumption is that public sector delivery is governed by a completely different set of ethos.

Washington's experience and the study it conducted shows that in principle, the public sector can perform as well as, or even better than, the private sector, as seen through the "best performing" public utilities to which the Blue Plains WWTP was compared.

In the case of Washington, we can identify a number of conditions which were important to this performance gain. They include having financial autonomy and control over procurements, capital improvements and human resources. WASA also needed the power to set rates and fee structures according to its own processes and "sanitised" from undue political interference. WASA was also given the power to negotiate its own contracts and labour agreements, and the power to sell bonds so it could raise capital freely in the same way as some private operators do.

A question that can be asked is, what can take the place of market mechanisms and competition to "force" a public utility to innovate and improve service quality at lower costs? Or, how can techniques, innovation and resources available to private contract operators be made available to a publicly-owned and managed utility? Washington's answer is its "continuous internal improvement" programme. However, as emphasised by the feasibility study, the parameters of a continuous internal improvement programme are difficult to define. The programme could only be evaluated against the

status quo and the full contract operation options. This means that the "continuous internal improvement" may only be a viable option when public sector managers know what the private sector has to offer and then decide whether they can outbid that offer.

A key analytical tool for the decision-makers was the feasibility study's quantification of what "efficiency" means. It generated the standard applicable for WASA – that it had to reduce costs by 2.5 per cent annually if it was to be comparable to the benefits that could be obtained from "conservative" full contract operations; and by 3.8 per cent annually if it was to match the benefits of "aggressive" full contract operations. The quantification of benefits therefore may be the most significant step in clarifying issues in the private-public debate.

Washington's *de facto* privatisation process may also have something to offer in informing practice elsewhere around the world. The usual privatisation processes involve competitive bidding, where interested private buyers, concessionaires or operators are asked to evaluate technical, operational and financial options and submit bids at their own expense. There are many different ways that bidding processes have been structured to meet the objectives of governments. The private sector bidder who presents the most desirable bid or offer wins. However, there is one fundamental flaw that can be ascribed to such competitive bidding process: the public sector operator or manager of the utility is not invited to make a bid. Washington's process allowed the public sector utility – WASA – to be part of the bidding process. The DC government paid for a feasibility study to be made, which quantified the potential benefits to be gained from privatisation. When WASA showed that it could match or even exceed the expected benefits from private operation, the running of the utility was awarded to them. Had WASA decided that it could not compete with the private sector, then the next logical step would have been to structure a bidding process and invite private firms to participate.

The question that may be asked now is “Would the public-private debates on water in various capitals around the world have taken a different turn had the public operator been given a chance to make its own offer, prior to the bidding processes?” Washington’s experience is an example of faith given by public officials to their water utility, even when the utility was suffering severe efficiency and financial problems like those in other capitals. WASJA was transformed into WASA and then given a chance as well as the powers (e.g. the sale of bonds) to shape itself up; otherwise, the private sector would have been given the job. The techniques that enable the private sector to be more efficient – to cut costs and improve the service – were made available to WASA. The CII option is an alternative that governments considering privatisation today – like Tanzania, Ghana and Nepal – should seriously consider.

There is also the larger picture to be considered, which is much more relevant to international development policy-makers. In this larger picture, it can be seen that the privatisation of water utilities is something that could not be driven by policies alone. The United States, given its global role in the promotion of free-market economics, can be considered to be a country where privatised water utilities would naturally emerge on a national scale, as in France and England. But the United States could not easily privatise its water utilities, even if it wanted to, because certain macro conditions for privatisation do not exist. In France, for example, well over a century of public-private partnerships gave rise to the emergence of private companies that were contracted by municipalities to do different kinds of work. Over

time, these private companies consolidated and grew, building up what today are the largest water and sanitation multinationals in the world, with decades of expertise and experience behind them. The United States does not have consolidated companies of this type. In England and Wales, privatisation was made possible by the 1974 consolidation of many utilities, municipal departments and other public bodies into self-standing regional water authorities. The Thatcher government would not have been able to sell these regional water companies had the property arrangements not been clarified by the 1974 consolidation. Big private water companies emerged in England after 1989, but were not able to merge or consolidate with each other, as the French companies did, because of a regulatory rule banning such mergers and prohibiting corporate take-overs. In the United States, the water industry remains largely fragmented. Different municipalities have conflicting property claims on pipe networks; and in many cases, even consumers also have such claims. This makes it extremely difficult to effect a privatisation, similar to that in England and Wales.

If water privatisation could not be implemented, even if desired, in a country like the United States which at present does not have those particular conditions seen in France and England, a question emerges as to what form of water privatisation is being promoted in developing countries. Public-private partnerships (PPPs) are promoted in developing countries on the basis of the potential efficiency they bring. The lessons from Washington suggest that a long, hard look should be taken at such PPPs.

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