

Profitability and the poor: Corporate strategies, innovation and sustainability [☆]

David Hall ^{*}, Emanuele Lobina

Public Services International Research Unit, Business School, University of Greenwich, Park Row, Greenwich, London SE10 9LS, United Kingdom

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Abstract

Based on empirical evidence, the article looks at the implications of private sector participation (PSP) for the delivery of water supply and sanitation to the urban and peri-urban poor in developing countries, with particular reference to Africa and Latin America. More precisely, the article addresses the impact produced by multinational companies' (MNCs) strategies, in light of the pursuit of profitability, on the extension of connections to the pipeline network. It does so by questioning the assumptions that greater private sector efficiency and innovation, together with contract design, will enable the sustainable extension of service coverage to low income dwellers. The strategies of the major water MNCs are considered both in relation to the global expansion of their operations and the adjustment of local strategies to commercial considerations. The latter might result in identifying profitable markets, modifying contractual provisions, attempting to reduce costs and increase income, reducing risks and exiting from non-performing contracts. The evidence reviewed allows for re-assessing the relative roles of the public and private sectors in extending and delivering water services to the poor. First, the most far reaching innovative approaches to extending connections are more likely to come from communities, public authorities and political activity than from MNCs. Secondly, whenever MNCs are liable to exit from non-profitable contracts, the public sector has no other option than to deal with external risks affecting continuity of provision. Finally, market limitations affecting MNCs' ability to serve marginal populations and access cheap capital do not apply to well-organised, politically led public sector undertakings.

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1. Introduction: why private sector?

In the 1990s arguments have been advanced for expecting the international private sector, that is to say multinational companies, to provide a better solution to extending

water supply to the poor in developing countries. They refer to the three private sector virtues of efficiency, financial capacity, and proactive management which operates by matching the service supplied with the effective demand of the poor, as concisely summarised by Franceys (1997):

“Private sector participation is seen to increase efficiency and introduce new sources of finance but above all to require a new emphasis on proactive, performance oriented, commercial management that aims to match the demand of its customers with their willingness to pay realistic charges and tariffs”.¹

[☆] *Company names:* The French groups in particular have used various names for both the groups and the water sections since 1990. Throughout this article, for the sake of clarity, the two largest groups will be referred to as ‘Suez’ and ‘Veolia’, even when referring to dates before these names were formally used; the next two will be referred to as ‘Thames’ and ‘SAUR’. The principle names associated with these groups are: Suez = Lyonnaise des Eaux; Ondeo. Veolia = Generale des Eaux; Vivendi.

^{*} Corresponding author.

E-mail addresses: d.j.hall@gre.ac.uk (D. Hall), e.lobina@gre.ac.uk (E. Lobina).

¹ Richard Franceys: Private Sector Participation In The Water And Sanitation Sector ‘Private Waters? – A Bias Towards The Poor’ Department For International Development Occasional Paper No 3 1997.

The leading private companies, notably Suez, have themselves supported this argument by publishing statements of their ability to extend services to the poor in developing countries: see for example *Lyonnaise des Eaux* (1998) and *Suez* (2001). A number of private water operations in developing countries are claimed as successful examples of the private sector delivering water to the urban poor.

This paper discusses these arguments and tests the claim that the private sector will deliver better results for the poor by considering the general strategies and practice of the private water companies in relation to the poor in cities in developing countries.

It concludes that

Expectations of the private sector were flawed by failing to anticipate the impact of commercial strategies on determining the boundaries of expansion, the economics of service, and exit strategies the community-based techniques used by the private companies in extending water services to the poor are not innovations but borrowed from public sector and community initiatives the requirements of profit-maximisation and risk reduction strategies of the private companies define the scope of private expansion at a narrower and less sustainable boundary than the public sector.

2. The case for private water

2.1. Innovation, participation and contract design

From the late 1980s to the early 1990s, the literature promoting PSP in water supply and sanitation insisted on the inadequacy of the public sector in providing good quality services at acceptable costs and achieving universal coverage. One central theme of this argument was that private companies are more innovative and results-oriented, and so could deliver wider coverage more rapidly. *Roth* (1987, pp. 230–231, 263) attributed poor performance in quantity and quality of water operations in developing countries to poor management of the public sector, and urged the introduction of PSP as a faster solution to the magnitude of the global water crisis:

“Management in the public sector can often be improved, but the involvement of the private sector can bring quicker results, and the dimensions of the various problems cry for quick results”.

Winpenny (1994, pp. 29–51) recommended the introduction of privatisation and full cost pricing, to solve the problem of increasing needs for finance for capital investment, but also argued that increasing water prices through full cost recovery would, counter-intuitively, be of greater benefit to the poor, because extension of the piped network would give them cheaper water than they had from vendors, and stepped tariffs could provide cross-subsidies:

“In developing countries the poor ... regularly pay prices per unit for their water (from private vendors)

many times higher than those paid by wealthier people with their own connections. Any reform that raises charges, improves cost recovery and generates funds for expanding and improving the system promises to be socially progressive, even if charges to piped consumers are raised. The structure of tariffs can further promote distributional goals by offering low “lifeline” rates for minimum levels of consumption”.

(*Winpenny*, 1994, pp. 110–112).

Serageldin (1995, pp. 1–10) also emphasised the inequity of the urban poor having to pay high prices and spend a high proportion of their income in buying water from private street vendors, and added the importance of stakeholder participation as a way of delivering services to informal settlements, citing as an example the Orangi Pilot Project (OPP) in Karachi, Pakistan (*Serageldin*, 1995, pp. 25–26).

Briscoe and Garn (1995) set out evidence that better results could be achieved by stakeholder participation, new technical approaches to informal settlements, and the case for eliminating subsidies. They referred not only to the Orangi Pilot Project (OPP), but also the extension of service provision to the periphery of São Paulo, Brazil to show “how forcefully poor people demand environmental services, once the primary needs for water supply are fulfilled”. While the OPP case study was centred around community participation in the extension of sewerage services to 600,000 poor people, in São Paulo water and sanitation connections for the favelas exploded between 1980 and 1990. The emergence of democracy in Brazil was seen as the key factor, prior to which SABESP had defined its role narrowly and technocratically: it

“did not consider provision of services to the *favelas* to be its responsibility, since it was not able to do this according to its prescribed technical standards, and because the *favelas* were not “legal”. Before the legitimization of political activity in Brazil in the early 1980s, SABESP successfully resisted pressures to provide services to the *favelas*”.

However, a smaller municipal water company, COBES, introduced a new technical and institutional approach:

“On the technical side this [involved] reducing the cost of providing in-house services by using plastic pipe and servicing of narrow roads where access was limited. On the institutional side it meant the community assuming significant responsibility for community relations, and for supervising the work of the contractors... Since COBES had shown how it was, in fact, possible to serve the *favelas*, SABESP had no option but to respond”.

The authors added that “There are many reasons – efficiency, innovation and separation of provider and regulator – suggesting that it is often appropriate to involve the private sector in the provision of these services” and elaborated on the potential of the private sector in mobilising finance for investment too.

Rivera (1996) claimed that the argument was supported by the actual achievements of private water operators in six developing countries, in terms of improved service quality and expanded coverage, for example in Buenos Aires. The most influential corporate publications (Lyonnaise des Eaux, 1998; Suez, 2001) also asserted the claim of superior innovation:

“Private groups are trained to intervene quickly, and to achieve tangible, verifiable results. They are ready to pursue their effort by inventing technical, contractual and financial solutions suited to the reality of local conditions, under the supervision of public authorities in each country.” (Suez, 2001)

The contract is seen as the key to delivering targets: indeed, the World Water Council (2000) argued that the need to regulate the private sector generates a solution to the problems of inefficiency and unaccountability in the public sector: “because a private monopolist needs to operate under a defined contract (that is, it needs to be regulated)”. Flexibility is seen as necessary to make a contract work: Johnstone et al. (1999, pp. 11–12) acknowledge the problem of ‘cherry-picking’ by private companies of profitable connections in wealthy areas, but still propose that contract specifications for expansion should be designed, using household surveys, by specifying different service levels for different areas “consistent with household preferences and their ability to pay for services.... Expansion targets cannot be met if services are unaffordable and/or inappropriate”. Rosenthal and Alexander (2003)² also argue for such flexibility, which they see as ‘technically straightforward’, but state that it is also necessary to respond to political opposition from ‘vested interests’ who have doubts about the private sector’s interest in serving the poor, the use of foreign companies, and the effect on jobs and prices.

2.2. Corporate interests: expansion, profitability and risk in a non-competitive sector

These arguments include detail on the expected benefits to political targets of private company involvement, but have relatively little to say about what is in it for the companies. The incentive for private companies to serve the poor is presented principally as deriving from their general incentive to expand. The poor without water connections were identified as a particularly interesting market, because they were forced to spend such a high percentage of their income on water from vendors, and “the high expenditures incurred by lower-income households are not only a reflection of social deprivation, but also of commercial opportunity” (Wood, 2000). Capturing this market would therefore

² ‘Private sector participation and the poor: realizing the full potential of transactions in the water sector’ Shane Rosenthal and Ian Alexander International Journal of Regulation and Governance June 2003, 3(1) 33–58.

enable the firm to maximise its potential sales, lead them to devise optimal forms of revenue collection, and protect these customers because of “an underlying survival mentality which produce continuous improvement so as not to lose sales or a contract to the competition” (Franceys, 1997).

International expansion into new markets was an important element in company strategies in the 1990s, but the statements of Suez and Veolia (then Vivendi) to shareholders reflect two paramount considerations which affect their strategies in respect of the poor: return on capital, and risk. These were much more important factors than competition for the water companies: the global private water market is dominated by Suez and Veolia: in 2002 they shared 60% of the 320 million customers, and about 70% of the \$35 billion sales (see Chart 1); this dominance was maintained by a variety of techniques, including the creation of joint ventures between themselves and other private companies (see Chart 2) (Lobina and Hall, 2003, pp. 5–8, 19–20).

In the mid-1990s both the major French water companies went through significant restructuring. In 1996, Lyonnaise des Eaux was absorbed by Compagnie de Suez, a financial holding company (created by compensation paid by Egypt after the nationalisation of the Suez canal in 1956). The old board of directors were all replaced with a new management team under Gérard Mestrallet, of Suez, and non-core activities were sold off. The company reports emphasised international growth in “the markets of the future (*les marchés d’avenir*)”, that 60% of the group’s central business was now international, and that profitability had been improved by this (Suez, 1998a), but a presentation to shareholders at the same time emphasised that the company was aware of the risks involved and was limiting its exposure:

“Emerging countries (Asia, America, Latin America, former USSR) = <5% group consolidated revenues; Russian exposure practically non-existent. Development by “projects”: Equity shared with local partners and multilateral organisations... Cover for political risks, contractual mechanisms of monetary protection, setting up general risk provisions for emerging countries, Conservative foreign exchange and interest rates risk management” (Suez, 1998b).³

Generale des Eaux was renamed Vivendi and went through a similar process, appointing a young financial executive, Jean-Marie Messier, and also embarking on a programme of eliminating non-core activities and international expansion: Vivendi too claimed that it was controlling risk, by basing growth on increasing profitability, not merely sales: “Careful choice of investments, based on in-depth analysis of risks and profitability”. (Vivendi, 1999)⁴ In both cases,

³ Suez (1998b) G. Mestrallet CCF – *Valeurs Françaises* Presentation to shareholders. September 2 1998.

⁴ Vivendi Annual Report 1998.

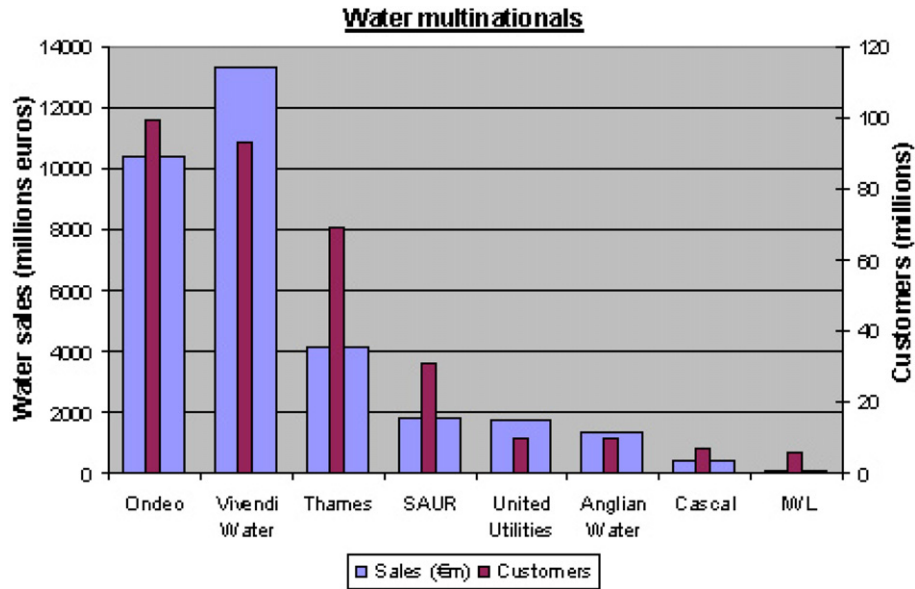


Chart 1.

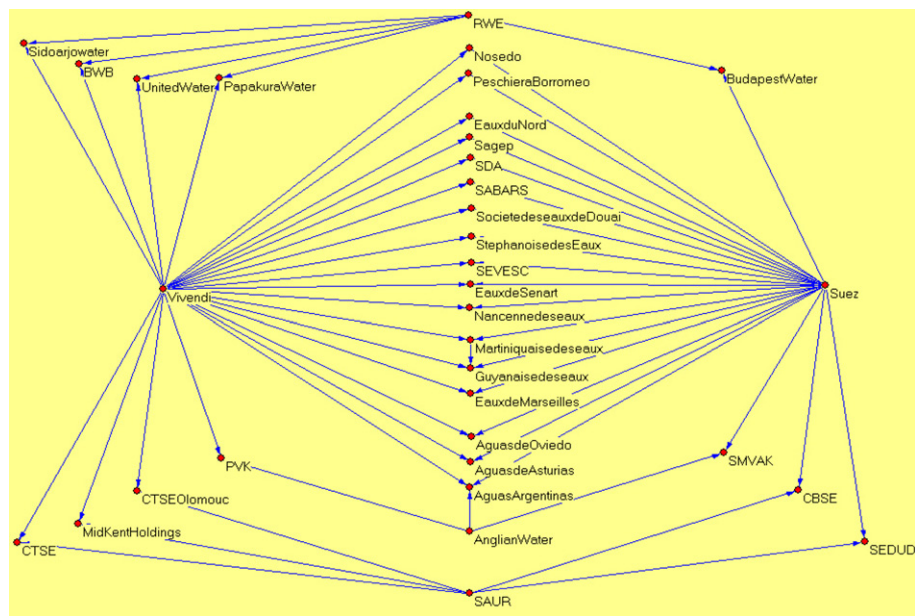


Chart 2.

most spectacularly with Vivendi⁵, these strategies failed to protect shareholders, arguably because they were too attracted by growth regardless of the risk/profitability assessment. This was abruptly corrected by Suez in 2003, in their five point ‘action plan’ for 2003–2004 to reduce the company’s debts⁶, including the reduction of its exposure in

developing countries by one-third. Suez specified that it would exit from business which is not generating sufficient profits now or is thought to be subject to risk, retaining only ‘activities which offer a better risk/return ratio and enhanced cash generation’. The company in future would prioritise “currency risk-exempt financing”, and “the quickest free cash flow generating projects and contracts” which finance all their investments out of their own cash flow. Suez CEO Gérard Mestrallet summarised the company’s approach as: “reduce investments; freeze financing in strong currencies; and, with multilateral institutions, perfect appropriate intervention procedures; ensure that concession granting authorities and partners stick to their

⁵ Vivendi’s expansion into communications and media led to its collapse and restructuring, including the separation of the water and waste business as a separate entity again, named Veolia. See for example Le Monde 09/06/2002.

⁶ SUEZ introduces its 2003–2004 action plan: refocus, reduce debt, increase profitability Paris, January 9, 2003 www.suez.com.

commitments, failing which – prepare to depart”.^{7,8} By 2004 Suez was emphasising that 80% of its operations were in safe developed countries in Europe and North America.⁹

2.3. Corporate strategies for marginal customers

From this perspective (and with the benefit of hindsight), it is possible to construct a more realistic scenario of how private companies could be expected to treat the potential markets in developing countries. For each firm, supplying water or sewerage services to marginal populations in developing countries is no different from providing support services for advanced aircraft factories in France: each activity is a commercial opportunity, as long as it achieves an optimal return on capital employed (ROCE), adjusted for the risks of the project. The firm itself has no other objectives. Populations in developing countries without water supply are a potential market: where they are profitable, then the firm will want to obtain that market, and displace the main competitor, which is the local public sector; where they are not profitable, the firm will not want that market. Political objectives such as the MDGs are intrinsically irrelevant, but organisations with political objectives may be used to capture markets from incumbents and help the firm to reduce risks or increase profitability. Firms may also be expected to seek contract terms which deliver these objectives, and avoid those which do not; to maximise profitability of any group of potential customers by reducing specifications, reducing costs and/or increasing income. If the risk-adjusted ROCE falls below what could be obtained elsewhere, then the firm will abandon these markets for other more profitable ones – and it cannot be prevented from doing so.

As shown by the following cases, the behaviour of the water companies in relation to the marginal poor can be expected to fall into a simple set of categories.

1. Identifying profitable customers – e.g., by avoiding informal settlements.
2. Respecifying contract terms – e.g., by changing service levels or connection targets.
3. Reducing costs to make markets profitable – e.g., by using voluntary labour.

⁷ Suez 2003–2004 Action Plan http://www.suez.com/documents/english/print_VA_010903.pdf.

⁸ The model here is presumably the action by MIGA, the World Bank's own investment guarantee agency, which underwrote one of Enron's projects in Indonesia. When the currency and the dictatorship of Indonesia collapsed in 1998, Enron's project could not be afforded: so MIGA paid Enron full compensation of \$15 m for their investment, and has now repurchased it by forcing the Indonesian government to pay for Enron's insurance as a condition for covering further investment in Indonesia. FT Energy Newsletters – Power in Asia March 6, 2001 Indonesia/Finance: MIGA restores risk guarantees.

⁹ Financial Times 10 Feb 2004: “Timely treatment sets Suez on a new course” By Paul Betts.

4. Increasing income – e.g., by new subsidies or cross-subsidies, collection of charges by community.
5. Reduce risks – e.g., by obtaining guarantees, political support, legal protection.
6. Exit from non-performing contracts.

2.4. The limits of business

The limits imposed by this approach have been clearly set out by the companies themselves. A presentation made in January 2002 to the World Bank water division by the chief executive of SAUR International, the fourth largest water company in the world, used the challenging title: “Is the water business really a business?” (Talbot, 2002).¹⁰ He referred to the huge scale of the needs in developing countries, acknowledged that the extension of water supply was necessary for sustainable development, but openly asked “*is it a good and attractive business?*”. He then rejected assumptions about the role of the private sector as an investor, the compatibility between political regulation and profitability, and the feasibility of cost recovery – and concluded by insisting that subsidies and soft loans are essential to sustain the private sector's interest. He rejected the assumption that privatisation would automatically tap into private funds, criticising: “*An often premature or simply unrealistic emphasis on concession contracts and full divestiture... A belief that any business must be good business and that the private sector has unlimited funds*”. Moreover the private sector simply did not have the financial capacity: “*The scale of the need far out-reaches the financial and risk taking capacities of the private sector*”.

He warned that tighter contracts, regulation, high standards and ambitious connection targets all make things worse from a business perspective: the general increase in risk was made worse by: “*Unreasonable contractual constraints Unreasonable Regulator power and involvement... An emphasis on unrealistic service levels ... Attempts to apply European standards in developing countries The demand for “connections for all” in developing countries*”. Finally, he rejected the possibility of cost recovery from users: “*water pays for water is no longer realistic in developing countries: Even Europe and the US subsidise services... Service users cannot pay for the level of investments required, not for social projects...*”

The solution to these problems, in his view, was for public sector subsidies, soft loans and guarantees: “*substantial grants and soft loans are unavoidable to meet required investment levels...The considerable dependence of the growth of the water sector in the developing world on soft funding and subsidies*”. The role of the World Bank would be to coordinate the supply of these soft loans and subsidies, tell developing countries what to do, and act as a partner to private companies: “*a key role of the WBG as investment financier*”

¹⁰ ‘Is the Water Business Really a Business?’ Mr J.F. Talbot, CEO Saur International World Bank Water and Sanitation Lecture Series 13th February 2002 <http://www.worldbank.org/wbi/B-SPAN/docs/SAUR.pdf>.

... *A political role with respect to the mobilization of international funding agencies ... a definite role as policy advisor with respect to the water sector in developing and highly indebted countries... A partner, not a counterbalance to private sector interests*". He concluded that, without these subsidies and soft loans coordinated by the World Bank, the multinationals would pull out: "*If it does not happen the international water companies will end up being forced to stay at home*".

Veolia also emphasised the twin requirements of profitability and risk-avoidance at a conference on water in Africa in 2001, in Kampala, arguing that private firms are able to invest in water in Africa only if the profits are available and the risks are controlled (Veolia, 2001). This depends on '*Sufficient and assured revenues from the users of the service*' – effectively, their ability to pay – and on '*Guarantees securing the flow of payments by the municipalities or Governments*'. This limits the potential for investment to '*big cities where the GDP/capita is not too low*'.¹¹ Contracts should also provide for a fair adjustment of the fixed fee and incentive compensation if an event significantly increases the operator's real costs and expenses, alters the environment in which the operator carries out its obligations, or causes material hardship to the operator.¹²

Suez, which has been the most active of all the companies in developing the case that the private sector can provide innovative solutions to the objective of extending water services to the poor in developing countries, developed the most explicit management strategies, with its own manual on how to make water services to poor districts commercially viable, called '*Recommended social engineering practice in low income districts*' (Suez, 2002).¹³ The manual emphasised the objective of profitability: '*Providing a service to disadvantaged districts must be a profitable operation*' (emphasis in original) and identified cost reduction by '*simplifying technologies to reduce investment costs*', and income maximisation by use of community organisation, as the key techniques to make projects directly profitable. Where this is not possible, in some cases profitability can be achieved by direct or indirect subsidies, for example through rising block tariffs. Before entering into these exercises, districts are pre-selected according to whether they can technically be made profitable, e.g., by proximity to main pipe network, and according to whether they can meet the economic criterion of sufficient demand. A large proportion of households – around 70% on average – needs to be potential customers to make extension commercially

viable, and community organisations can help in this market research. To minimise costs, the community can provide labour, not only for construction and maintenance but also for collection of charges:

"the active participation of the community in the construction of the networks, their maintenance and in cost recovery means that operational costs can be reduced. This makes the service more economically affordable for poorer families".

The company may 'delegate a more or less important proportion of the commercial functions to an associative type of structure', and create 'a micro-credit system for connections'. Techniques for 'normalising' an area which is not paying enough include information-gathering on illegal connections, ownership, reasons for non-payment; seminars with the regulatory and municipal authorities on what options are available; public information meetings aimed at recreating a normal commercial relationship; and 'Setting up of commercial management methods adopted by common agreement between the concessionary company, the local authority and the customers in the district'.

The basic thrust of this strategy is thus to firstly exclude the unprofitable, but to maximise the proportion of the poor who are profitable – through the mechanisms of using community organisations, voluntary labour, collective provision of materials, and cross-subsidy from the richer to the poorer. None of these are market mechanisms – Suez themselves refer to a non-monetary barter of free labour for water supply. It is also worth noting that they place none of the economic burden on the company – the community donate resources of labour, goods, or finance: the company responds by providing a water supply service, which is not provided if the community does not make the donation.

An examination of cases of privatisation enables these processes to be seen in practice.

3. Cases: companies and the poor

3.1. SAUR: exit from local liabilities in Mozambique

In 1999, Mozambique awarded a private concession for water in five cities, which was part of the extensive privatisation required as a condition for the WB/IMF US\$3.7 billion debt relief under the Heavily Indebted Poor Countries (HIPC) initiative.¹⁴ The concession was given to Aguas de Mocambique, a consortium led by the French company SAUR, and including the Portuguese Aguas de Portugal, and Mozambique companies and NGOs. In the year 2000, the worst floods in living memory wrecked many of the water supply installations, particularly in Maputo and Matola. Instead of embarking upon new investment to expand the water service, Aguas de Mocambique was

¹¹ Marie-Marguerite Bourbigot & Yves Picaud, Vivendi Water, 'Public-Private Partnership (PPP) for Municipal Water Services' Regional Conference on The Reform of the Water Supply and Sanitation Sector in Africa, February 2001, Kampala Uganda.

¹² Marie-Marguerite Bourbigot & Yves Picaud, Vivendi Water, 'Public-Private Partnership (PPP) for Municipal Water Services' Regional Conference on The Reform of the Water Supply and Sanitation Sector in Africa, February 2001, Kampala Uganda.

¹³ Recommended social engineering practice in low income districts' Ondeo Service. February 2002. www.psuru.org/others/soceng.htm.

¹⁴ 01 July 1999 Mozambique – US\$3.7BN HIPC Debt Relief: Africa Financing Review, World Reporter.

forced into emergency repairs of the existing installations. However, “*the consortium’s financial plans were based on rapidly increasing the amount of water it sold. This proved impossible: heavy losses were made in 2000*”. Saur, which held 38.5% of the shares, wanted to declare Aguas de Mocambique bankrupt at the end of 2001, which would have had the effect of reducing the liabilities of the parent company. But the other shareholders – Aguas de Portugal and the Mozambican companies – disagreed. Saur left, selling its shares to the others, who then embarked on re-negotiating the contract and agreeing a new investment programme.¹⁵

3.2. SAUR: Gweru: negotiations suspended

In 1999, the municipality of Gweru, Zimbabwe, selected SAUR, apparently through its UK subsidiary SAUR UK, as the private company to take over the water operation. Negotiations to develop a contract included discussion of a number of issues including the level of investment, the regulatory framework and the level of the tariff, and were said to be proceeding smoothly until two major problems arose: (a) the 50% devaluation of the Zimbabwe dollar in the crisis of 1999–2000, (b) the municipality’s “*commitment to gradual increase in tariffs and their rejection of the 100% increase proposed by SAUR (UK)*” (though the council is reported to have introduced massive price increases itself since then). The negotiations remain suspended.¹⁶

3.3. SAUR: Dolphin Coast: financial crisis, re-negotiation and price rises

In 1999, Saur was awarded a 30-year contract to provide water supplies and purification services to the resort of Dolphin Coast, worth FFr/R 33 m per year. The area covers the resorts of Kwazulu-Natal’s Dolphin Coast (population 56,000), mostly peri-urban villages serviced by the Joint Services Boards.¹⁷ SAUR formed a local Company, Siza Water Company (SWC) – 58% owned by SAUR Services, and four South African empowerment partners own the remainder of shares, viz.: Metropolitan Life Ltd. (23% of shares); Women’s Development Bank Investment Holdings (5% of shares); The Investment Progress Group Holdings (IPG) (5% of shares); NANO Investment Holdings (Pty) Ltd (5% of shares).¹⁸ The contract was seen as a pioneering example of privatisation, justified by government ministers on the grounds of lack of municipal capacity and lack of their

ability to raise finance.¹⁹ It was controversial from the outset because it was signed “*just six weeks after the South African government and local authorities signed a framework agreement with the trade unions, which says that public sector provision is the preferred option, and privatisation is only a ‘last resort’ after all other avenues have been exhausted...*”²⁰ Over a year into the contract, a research study of the concession warned that “*It faces the difficulties of further enlargement of the municipal area, and of possible opposition to the higher charges it makes for water provision to the poor. There is significant opposition to the policies of the concession by the poor in the shadow communities. An evaluation of the local policy framework in relation to water provision concludes that the rationale in decision-making is largely one of private sector participation, cost reduction and recovery rather than one based on an explicitly pro-poor policy*”.²¹

In 2001, the company hit financial problems and in April Siza Water refused to pay the scheduled R3.6m lease payment due to the municipality of KwaDukuza. The company successfully demanded a re-negotiation of the contract in its favour and asked for relief under the contract, which allows for re-negotiation if returns are either above or below a predetermined range. The problem was said to be that the development of middle-income and mass housing has fallen far short of projections. The result was a serious shortfall in Siza’s revenues of about R12m a year. The alternative to re-negotiation according to Andrew Ferguson, KwaDukuza’s acting municipal manager, was “*to go off to the contract guarantor (a bank) and take back the performance bond*”.²² The local authority approved a revised contract in May 2001, under which water prices were immediately increased by 15% to restore profitability; Siza’s investment commitment was reduced from R25m to R10m over five years; in exchange Siza would ease the municipality’s fiscal burden by taking over R11.4m of its debt. Both parties will ‘examine ways of reducing costs’, including a possible reduction in the management fee paid by Siza to Saur, but also of the concession fee paid to KwaDukuza, which would increase the cost on the municipality. As a result of the restructuring, Siza claims it will just break even over the first five years of the 30-year contract, and make a small profit over the first 10 years – shareholders are unlikely to receive a dividend before the 10-year mark. However SAUR will continue to receive its fixed payment from Siza, in the form of the management fee.²³

3.4. Veolia: Parana, Brazil

The contract of the privatised water company Sanepar, in Paraná, Brazil (controlled by Veolia) provided for the

¹⁵ Water Company Announces New Image *Agencia de Informacao de Mocambique* (Maputo) September 4, 2003 <http://allafrica.com/stories/200309040442.html>.

¹⁶ Preparing a Concession: Working towards Private Sector Participation in Water and Sanitation Services in Gweru, Zimbabwe. Janelle Plummer with Godfrey Nhemachena. GHK International WORKING PAPER 442 04 January 2001 <http://www.ghkint.com/downloads/gweru.pdf>.

¹⁷ *Les Echos* 02/02/1999”; BUSINESS DAY 30/03/1999.

¹⁸ IMIESA, ‘Dolphin Coast Concession signed’ February 1999.

¹⁹ Financial Mail 05/02/1999.

²⁰ Business Report 10/02/1999; Business Day 08/02/1999; SAPA 10.2.99.

²¹ Business Report 10/02/1999; Business Day 08/02/1999; SAPA 10.2.99.

²² 06/06/01 Business Day ‘Municipal partnership pioneer in a squeeze’.

²³ Sources: No. 5599: – Business Day 06/06/2001 ‘Municipal partnership pioneer in a squeeze’.

company to charge poor customers a discounted social rate, some 50% the ordinary rate (R\$11.25 per month as opposed to the minimum ordinary monthly rate of R\$22.75), irrespective of consumption. In April 2002 councillors stated that Sanepar was applying the discounted social rate for water supply and sanitation to only 2% of consumers in the state of Paraná, although up to 20% of the population was entitled to the favourable treatment. Those entitled to benefit from the discounted social rate included families earning up to two minimum salaries, living in properties of up to 60 square metres and consuming no more than 10 cubic metres of water per month.²⁴ In the area of Vila Democracia local authorities stated that consumers were being forced to use contaminated water as they could not afford to pay for the bills issued by Sanepar.²⁵

3.5. Suez: Aguas Cordobesas, Argentina

In Cordoba (1.4m population), the water concession has been run by Suez-ONDEO subsidiary Aguas Cordobesas since 1997. The concession agreement required Aguas Cordobesas to extend water supply coverage from 83% to 97% over the 30-year duration of the concession. “By mid-2000 service coverage for water had reached 87%, compared with only 40% for sewerage”: but it remained unclear whether the projected 97% coverage ratio included low-income areas. The contract also limited the operator’s responsibility to building and extending the primary network and not residential connections, which remained the responsibility of the municipality or individual households. Residents in low-income neighbourhoods objected to this limitation, as well as to the tariff structure which was criticised as being effectively regressive, with a larger impact on low-income than on high-income consumers. As for employment levels, “Staff numbers fell from around 1300 before the concession was awarded to 436, in 1999”. The unclear distinction of responsibilities between the provincial government, which owned the infrastructure, and the municipality weakened the regulatory capacity of the public authorities, and also their bargaining power with the private company: this was made worse by high turnover of senior and middle-management in the provincial government and its regulatory body, so that the private operator had a superior knowledge of the concession arrangement. The regulatory framework lacked transparency and public participation, in that there was no citizen committee monitoring the contract and the performance targets to be met by the concessionaire are not in the public domain.”²⁶

²⁴ Source: Observatório Social; “Tarifa social atende menos de 1% de usuários da Sanepar”, *Diário de Maringá* (PR), 26/04/2002.

²⁵ Source: Observatório Social; “Consumidores da região metropolitana de Curitiba não contam com tarifa social de água”, *Paraná Online* (PR), 08/01/2003.

²⁶ Andrew Nickson: “The Cordoba water concession in Argentina” January 2001 (<http://www.ghkint.com/publications.asp#wpapers>).

3.6. Suez: Cartagena, Colombia

In 1994, a public–private joint venture was set up to provide water supply and sanitation to Cartagena de Indias (900,000 inhabitants). Aguas de Barcelona – part of the Suez group – was the only bidder for a 45.91% stake. The city council owned 50% and a number of private investors, of whom company employees were a majority, owned the remaining 4.09%. In 1995, the newly elected mayor of Cartagena was fiercely opposed to the lack of transparency and potential corrupt inducements in the privatisation, and wanted to annul the contract and remunicipalise the water services, but the World Bank made clear that it would make funding conditional to privatisation. As a result, the mayor simply re-negotiated the terms of the arrangements with Aguas de Barcelona.²⁷ Local democratic control over water services is weak, with the municipality lacking technical capacity for negotiation: “To all intents and purpose it is a sleeping partner.” (Footnote 27).

Immediately after being awarded the 26-year affermage-style contract, ACUACAR signed a fee-based management contract with Aguas de Barcelona, so that Aguas de Barcelona was remunerated both through dividends and the management fees. This arrangement has allowed Aguas de Barcelona to extract increasing revenues from its Cartagena operations, as management fees were calculated as a growing percentage of Acucar’s gross income: in the first four years of operation, this management fee was fixed at 2.94%, 3.37%, 3.82% and 4.25%, respectively, of gross income: in 1999, when AGUACAR declared profits of \$1.96 m, AGBAR received \$900,000 from its dividend share and \$1,200,000 from its management fee (Lobina and Hall, 2003, pp. 24–25). The municipality also retained responsibility for payment of pensions to the staff of the former municipal-owned water company, a financial obligation of 16,000m pesos per year (\$8m), which reduces the funds available for social investment in health and education... and thus creates a negative impact on the urban poor.

Acucar had a responsibility for operating water supply and sanitation, but limited responsibility for financing investments. The main investments were financed through a \$117.2m project, of which \$85m was funded by the World Bank, \$20m from the central government, \$7.6m from Cartagena and just \$4.6m from Acucar itself, though Acucar is also responsible for repaying 10% of the World Bank loan; and a subsequent project of \$40.5m, with \$24.3m coming from the IDB. ACUACAR claims that water coverage increased from 73% in 1995 to over 90% in 1999, and sanitation from 55% to 75%, a growth rate of 5–8%, which is not remarkable given the scale of external investment (\$157.7m).

However, even these figures overstate the company’s success. The company maintains it has no contractual

²⁷ Andrew Nickson: “Establishing and Implementing a Joint Venture – Water and Sanitation Services in Cartagena, Colombia” GHK International January 2001.

Table 1
APSF (Santa Fe, Argentina), amount of investments provided for in original concession agreement and in second re-negotiation (millions of pesos/dollars)

Five-year period	Investments provided for in original contract	Investments provided for in second re-negotiation
1996–2000	290.00	245.00
2001–2004	211.00	80.00
2005–2008	206.00	80.00
Total	707.00	405.00

Source: Muñoz (2002).

responsibility for people living in unofficial settlements, and as a result many of the poor are ‘invisible’ to the contractor: the company claimed that over 90% of the population were connected by 1999, whereas a World Bank report the same year stated that “Nearly one-third of the population, mostly in poor neighbourhoods, is without running water and basic sanitation services”.²⁸

3.7. Suez: Aguas de Santa Fe

In September 1995, a Suez-led consortium, Aguas Provinciales de Santa Fe (APSF), was awarded a 30-year concession for the provision of water supply and sanitation in the province of Santa Fe, Argentina. The concession then followed a pattern of persistent re-negotiation, price increases and downward revision of projected investments and operational targets. The first re-negotiation of the concession agreement started in May 1997, only 18 months after the beginning of operations, and provided for the postponement of projected investments by 6–7 years. In December 2000, a second re-negotiation provided for additional tariff increases and a substantial reduction in the amount of projected investments (see Table 1) which cut the investment targets for the first 12 years from \$707 m to \$405 m (Muñoz, 2002). In 2002, APSF claimed it had invested US\$ 250 m in the first 6 years of the concession. As the original concession agreement required the concessionaire to invest US\$ 356 m, APSF failed to realise US\$106 m or 29.8% of the originally agreed investments.²⁹

3.8. Suez: Buenos Aires – publicly financed extensions

The Buenos Aires concession to Aguas Argentinas has extended water supply to some of the poorest barrios. Along with La Paz, this is used as an example of privatisation leading to a successful pro-poor approach. Independent reports on the Buenos Aires concession however give a picture of local political initiatives which persuaded the company that there could be a profitable market in the barrios.

The extensions to the barrios were not part of the original contract with Aguas Argentinas, which did not oblige

the company to supply any resident on land where tenure was not regularised, and also allowed the company to finance new connections by charging \$600 to the user, which made connections unaffordable to the poor.³⁰ The company was also allowed to decide whether customers should be metered or not, and so they could and did provide meters which meant that the poor paid more rather than less.³¹ Aguas Argentinas did not have any division or policy for providing extensions to the barrios for 4 years, indeed it was “attempting to re-orient staff, most of whom had previously worked for the public utility, towards profit-maximising goals and behaviours”.³²

The company, according to a report from the NGO most closely involved “appeared to respond to pressure from the local government, and indirectly from IIED-AL and the community itself”, strengthened by the company realisation that some positive extensions might be better business than risking widespread illegal connections. The municipalities, who were excluded from discussions of the original contract, were crucial to the extension of services to the barrios because their agreement removed from the company the risk associated with supplying illegal settlements, and in half the cases acted as crucial mediators between the communities and the company. The four barrios involved in the main experiments did get water supply, which was a dramatic improvement of living conditions – and no other barrios had been connected before.

The economics of the extensions to the barrios depended on community contribution of labour, municipal contribution of materials, and a solidarity tax applied on all consumers. Aguas Argentinas spelt out the relative contributions to the works programme at a meeting with community representatives: “Aguas Argentinas presented a budget for the construction of the networks in each settlement, divided into three items: technical assistance, building materials, and labour. The utility could take responsibility for the first item, including training for specialised labour, and proposed that the community provide the labour and look for ways to obtain the materials (e.g., from the local government)”.³³ To finance the network extensions, the contract was re-negotiated, connection charges to new users were cut, and the programme was financed through a solidarity tax on all consumers – the Universal Service and Environmental Improvement fee (SUMA). This delivered most of the financing required for all the extensions, with little

³⁰ Experiences with water provision in four low-income barrios in Buenos Aires. R. Schusterman, F. Almansi, A. Hardoy, G. McGranahan, I. Oliverio, R. Rozensztejn, G. Urquiza WEDC/IIED. July 2002 <http://www.lboro.ac.uk/wedc/publications/pppBuenosaires.htm>.

³¹ World Bank working paper, p. 28: “Metering becomes profitable for Aguas Argentinas when the variable charge for metered water is more than half of the fixed charge (Abdala, 1996). Since those with low fixed charges are likely to be poor, in effect the tariff regime provides Aguas Argentinas with an incentive to meter those households that are the least able to afford the higher water bill”.

³² WEDC/IIED p. 17.

³³ WED/IIED, pp. 40–41.

²⁸ “Bring clean water to Cartagena’s poor”, World Bank press release, 21 July 1999.

²⁹ Source: Asamblea Provincial por el Derecho al Agua.

contribution from the company or external finance – the SU element of the SUMA (i.e., the universal coverage) plus another special charge for sanitation was projected to raise \$340 m. of a total investment programme of only \$450 m, leaving the company to find only \$110 m over 5 years – a level of investment that even its predecessor OSN could have provided.³⁴

The process can thus be understood in a context of political initiatives from municipalities, mobilising resources of free community labour, municipal goods, and public cross-subsidy, with a private company ensuring that the development remained profitable. This interpretation appears to be supported by other data on extensions and profits, which indicate that the company failed to meet connection targets. According to estimations by the Users' Committee at ETOSS³⁵, the company only reached 63% of the population in the original bid (1,078,000 inhabitants) for the potable water service, and 88% for the sewerage service (812,000 inhabitants) during the first five years.³⁶ At the same time however there was upward re-negotiation of prices (Lobina, 2005, pp. 75–76).

The water concessions prices were indexed to the US dollar. With the collapse of the Argentinian economy at the end of 2001, however, that indexation was no longer sustainable. In 2002, following Argentina's default on the external debt, a new law on "Public Emergency and Reform of the Exchange Regime" (Law No 25,561) abolished the parity between the Argentine Peso and the US\$ and specifically abolished the "dollarisation" of utility prices. The law also provided for the re-negotiation of the contracts with the privatised companies operating the utilities according to a number of criteria, to take into account "*the impact of prices on the competitiveness of the economy and the distribution of income; the quality of the services and the investing plans, when they were considered in the leasing contracts; the consumers' interests and the accessibility to the system; the security of the systems; and the profits of the firms*".³⁷

This has created a continuing conflict between Argentina and the water companies, including Suez' unilateral suspension of a number of obligations of Aguas Argentinas, including the investment objectives in the contract re-

negotiated as recently as January 2001.³⁸ At the time of writing Suez continued to sue the Argentina government for compensation before an ICSID arbitration tribunal, while the government was insisting on Suez fulfilling part of their investment obligations, or else face termination.³⁹

3.9. Suez: La Paz

The private concession in La Paz was awarded to the Suez-led Aguas Illimani in 1997 (presented in detail elsewhere). The contract included explicit targets for extending connections to poor households, including the El Alto area, but the contract was re-interpreted to allow a range of different services according to ability to pay.⁴⁰ The techniques used here by Suez to make the extensions profitable included involvement of community groups, the use of micro-credit schemes and voluntary labour by the inhabitants to make connections, and the use of the shallow 'condominial' sewerage system. All these elements were problematic, with community leaders organising protests at the working of the concession, and the economic viability of the condominial system is dependent on free labour.⁴¹ One further problem with making the service profitable was the careful consumption habits of the inhabitants of El Alto, with very low daily consumption levels.⁴² At the end of 2004 a community-based general strike in El Alto led to a demand for the end of the concession, which was conceded by the Bolivian government: Suez subsequently demanded compensation.⁴³

4. Discussion

4.1. Community and democratic activity

The innovative behaviour in Sao Paulo is analysed by Briscoe and Garn as arising from the pressure of democratic activity enabled by the ending of the dictatorship, coupled with the innovative approaches developed by a smaller municipality. Although the authors express the

³⁴ "Privatisation of the water and sanitation systems in the Buenos Aires Metropolitan Area: regulatory discontinuity, corporate non-performance, extraordinary profits and distributional inequality" by Daniel Azpiazu and Karina Forcinito (FLACSO). Presented to Prinwass meeting Oxford April 2002. <http://www.oxogen.com/prinwass/index.shtml>.

³⁵ See Users' Committee at ETOSS, "Propuesta de la Comisión de Usuarios frente a la revisión quinquenal del contrato de Aguas Argentinas", August 2000, mimeo.

³⁶ This period was further extended by eight months (till December 1998) through Decree No 1,167/97, granting a longer period for the company to alleviate its high degrees of non-performance.

³⁷ "Privatisation of the water and sanitation systems in the Buenos Aires Metropolitan Area: regulatory discontinuity, corporate non-performance, extraordinary profits and distributional inequality" by Daniel Azpiazu and Karina Forcinito (FLACSO). Presented to Prinwass meeting Oxford April 2002. <http://www.oxogen.com/prinwass/index.shtml>.

³⁸ Ibid.

³⁹ Francisco Olivera, "Crece el enfrentamiento entre el Gobierno y Aguas Argentinas; Crece el enfrentamiento entre el Gobierno y Aguas", La Nación (Argentina), 11th February 2005; "Argentina regulator says Suez unit needs to invest up to 900 mln pesos", *AFX European Focus*, 27th January 2005; "Suez offers to drop part of arbitration procedure launched against Argentina", *AFX European Focus*, 13th February 2004; Aguas Argentinas under gun to invest. *Global Water Report/Issue 188/6* February 2004.

⁴⁰ See Kristin Komives "Designing Pro-Poor Water and Sewer Concessions: Early Lessons from Bolivia", *Private Participation in Infrastructure Group at the World Bank* (1999), Conclusion, pp. 30–34.

⁴¹ Nina Laurie, Carlos Crespo. An examination of the changing contexts for developing pro-poor water initiatives via concessions. Final report, DFID project SSR Project R7895, 1st April – 2001, 30th June 2002.

⁴² New Yorker 8 April 2002 Letter from Bolivia. William Finegan.

⁴³ "Govt applies to ICSID for extension in Aisa case", *Business News Americas-English*, 22nd September 2005.

belief that private companies will be more efficient and raise more finance, neither Orangi nor Sao Paulo featured a private operator, and they fail to provide any comparative evidence why the private sector should be more likely to be innovative than the public sector. Their own examples of Orangi and Sao Paulo are drawn from the public sector, although in Orangi this was compounded by the substantial involvement of community-based organisations, and they could be extended with other examples of innovative institutional practices in the public sector, for example in Porto Alegre, Brazil (Hall et al., 2002).

They also identified autonomous political activity under democratic institutions as an important element in generating the effective political demand which forced the extension of services in Sao Paulo and Karachi, yet this is not a strong feature of privatised water concessions. A number of early water privatisations were established in undemocratic regimes – in Cote d'Ivoire's one-party state, in South Africa under the apartheid regime, in Indonesia under Suharto, in Morocco under King Hassan: even the flagship Buenos Aires concession was introduced under presidential decree. The construction of contracts for private operators is a process in which the poor have relatively little say and their interests are rarely addressed, according to Sohail and Cotton (2001): “poor and vulnerable groups exert little pressure; core issues in PPP development are financial and technical, and not those concerning poverty”.⁴⁴

4.2. Efficiency

In general, the evidence does not support an assumption that the private sector is more efficient (Hall and Lobina, 2005). The claims that private concessions have performed well can be criticised partly for over-optimistic interpretation of the evidence (see below), but also for a failure to make comparisons with public sector achievements. The extensions delivered by SABESP in Sao Paulo in the mid-1990s were at least as impressive as those achieved by any privatised concession (Lobina and Hall, 2000); public sector water operations have also shown their capacity to deliver performance improvements in countries as diverse as Cambodia, Honduras and Burkina Faso, Chile, Zimbabwe and Botswana (Ingram and Kessides, 1994; Nickson, 1996; Hall, 2001; MacIntosh, 2003⁴⁵). A study of the growth in water and sanitation connections in cities in Argentina, Bolivia and Brazil, covering cities which had private sector participation, and in cities which had no private sector involvement, concluded that “while connections appear to have generally increased following privatisation, the

increases appear to be about the same as in cities that retained public ownership of their water systems” (Clarke et al., 2004).⁴⁶ Econometric evidence also supports neutrality on the issue of efficiency: “Probably the most important lesson is that the econometric evidence on the relevance of ownership suggests that in general, there is no statistically significant difference between the efficiency performance of public and private operators in this sector... For utilities, it seems that in general ownership often does not matter as much as sometimes argued. Most cross-country papers on utilities find no statistically significant difference in efficiency scores between public and private providers” (Estache et al., 2005).

The belief that private enterprises are necessarily more efficient than public enterprises is not securely founded. The assumption of efficiency derives from competitive behaviour rather than ownership: ‘the efficiency benefits from involving the private sector are closely linked to competitive pressures, rather than deriving simply from the presence of a private owner’ (World Bank, 1996). This argument is generally less convincing in industries with low contestability and natural monopolies, of which water supply is a good example. In such oligopolistic or monopolistic markets, Willner (2001)⁴⁷ has shown that political intervention should produce better results: he supported this by a wide-ranging review of empirical evidence from comparative studies in a number of sectors, including water, and found that this evidence was inconclusive, with public ownership found to be no less efficient in more than half of the studies. Even in more competitive sectors, the argument for superior private sector efficiency is based almost entirely on looking at profitability comparisons, while ignoring the wider economic impact, and relies too much on static comparisons which fail to address the dynamics of the process, its wider context, and the importance of nation-building (Chang, 2003a,b).

Other studies used to support the efficiency argument cannot sustain the weight placed upon them. For example, a World Bank study on water supply in 50 cities in Asia in 1995 demonstrated not only the inconclusiveness of the data but also the creative contribution of methodology: the first version, published as a World Bank paper (Estache and Rossi, 1999)⁴⁸, concluded confidently that the results showed that “the private operators are more efficient”; but the final report, published in 2002 in the World Bank's own

⁴⁴ Public Private Partnerships and the Poor. M. Sohail and A.P. Cotton WEDC, Loughborough University, 2001 <http://www.lboro.ac.uk/departments/cv/wedc/projects/ppp-poor/ppp-english-x.pdf>.

⁴⁵ Asian Water Supplies: Reaching the Urban Poor Written by Arthur C. McIntosh. ADB 2003. Appendix. http://www.adb.org/Documents/Books/Asian_Water_Supplies/.

⁴⁶ Has private participation in water and sewerage improved coverage?: empirical evidence from Latin America. G. Clarke, K. Kosec, S.J. Wallsten Working paper 04-02 AEI-Brookings Joint Centre for Regulatory Studies January 2004 <http://www.aei-brookings.com/admin/authorpdfs/page.php?id=325>.

⁴⁷ Willner (2001), ‘Ownership, Efficiency, and Political Interference’, *European Journal of Political Economy* 17(4), 723–748.

⁴⁸ Estache, Antonio and M. Rossi, Comparing the Performance of Public and Private Water Companies in Asia and Pacific Region – What a Stochastic Costs Frontier Shows, 1999. http://www.worldbank.org/wbi/regulation/pdfs/2152water_asiapacific.pdf. The quote is from the final paragraph.

economics journal (Estache and Rossi, 2002)⁴⁹, using different econometric filters, offered the equally clear but different conclusion: “The results show that efficiency is *not* significantly different in private companies than in public ones” [our emphasis].

4.3. Contracts

The assumption of perfectible contracts, that improving contract design can solve any problem, is undermined by the simple fact of constant re-negotiation evident in so many of the above cases. As pointed out by Komives (1999) in relation to expansion obligations in Bolivia: “Including expansion mandates in a concession contract is not, however, a guarantee that concessionaires will actually meet the requirements. Experience with water and sewerage concessions in other countries has shown that contract provisions (such as tariff levels) are often adjusted or re-negotiated in the first years of the agreement (Lobina and Hall, 2003). There is no inherent reason to expect that expansion mandates would be any less subject to adjustment than other contract elements⁵⁰”. (as indeed happened in La Paz and elsewhere). There is no guarantee that the requirements for maximising the number of extensions will prevail over the contractors’ interests to target the optimal number of profitable connections. Rather, there is strong empirical evidence that companies are extremely successful at successfully distorting pre-contract assumptions, as Flyvbjerg et al. (2002) found in a global study of works contracts, concluding that the cost estimates used to decide on such projects are “systematically misleading. Underestimation cannot be explained by error and is best explained by strategic misrepresentation, that is, lying”.⁵¹

4.4. Investment finance

The finance arguments are not addressed in detail in this paper, though the cases refer to some investment issues. There are a number of general issues concerning this argument, including the relatively advantageous credit status of governments compared with companies; the use of project finance by private companies, rather than equity from the parent group; the reliance on development bank finance, and local bank finance, rather than international sources;

and the companies readiness to withhold investment as part of the re-negotiation process.⁵² These issues have been addressed by us elsewhere (Hall, 2001; Lobina and Hall, 2003; Hall, 2004). It is worth noting that the scale of foreign direct investment (FDI) obtained through water privatisation is exaggerated by simply looking at the gross value of the investment: much of this is often financed by local banks in local currency: a recent example is Veolia’s purchase of a 45% stake in the water operations of Shenzhen, China, of which 40% was financed in Chinese Yuan, and only 5% in US Dollars.⁵³

4.5. Techniques and innovation

The techniques observable in these cases include those most often identified as innovative approaches – the involvement of community organisations, the role of communities themselves in providing voluntary labour, the use of cross-subsidies and subsidies to make connections financially viable. But these techniques were not developed by the MNCs themselves – as Suez has publicly acknowledged – but adopted from existing practices developed within the public sector and community-based systems. All the techniques – including the involvement of community organisations, the use of voluntary labour, the use of alternative ‘condominial’ sewerage systems – were already known before any of these concessions through the public sector practices, as listed by Briscoe and Garn amongst others. The private sector simply used these techniques to try and achieve commercial ends, but neither invented them nor applied them in ways that were more likely to result in extensions than the way they were already being used by the public sector. Moreover, it depends on non-market forces to deliver the benefits – state mechanisms to validate cross-subsidies, community organisations to organise collective support and labour, voluntary action by local people, municipal commitment to public interests.

5. Conclusions

5.1. Innovation: in the public domain

In business terms, contrary to the predictions of supporters of PSP, the private sector is not a major innovator of these techniques. As shown by the cases observed, the most far reaching innovative approaches to extending connections are more likely to come from communities, public authorities and political activity – the public domain, in the broadest sense.

Moreover, some of these techniques can only be applied by the public sector. Subsidies in the form of means-tested

⁴⁹ Antonio Estache and Martin A. Rossi: *How Different Is the Efficiency of Public and Private Water Companies in Asia?* World Bank Econ Rev 2002;16:139–148. The quote is from the abstract at <http://wber.oupjournals.org/cgi/content/abstract/16/1/139>. The reason for the difference is due to the use of better econometric filters (A. Estache, personal communication).

⁵⁰ *Designing Pro-Poor Water and Sewer Concessions: Early Lessons from Bolivia* Kristin Komives November 1999. World Bank. [http://wbln0018.worldbank.org/Research/workpapers.nsf/0/35aa5d2662315b9b-8525682d006c611e/\\$FILE/wps2243.prn.pdf](http://wbln0018.worldbank.org/Research/workpapers.nsf/0/35aa5d2662315b9b-8525682d006c611e/$FILE/wps2243.prn.pdf).

⁵¹ Underestimating Costs in Public Works Projects *Error or Lie?* Bent Flyvbjerg, Mette Skamris Holm, and Søren Buhl APA Journal? Summer 2002? Vol. 68, No. 3.

⁵² See for example the dispute between the government of Argentina and Aguas Argentinas. Over the company’s failure to invest as required by the contract: Global Water Report Issue 188/6 February 2004.

⁵³ AFX European Focus *December* 23, 2003 Tuesday. Beijing Capital, France’s Veolia JV pay 2.9 bln yuan for *Shenzhen* Water stake.

benefits financed by taxation, or cross-subsidies financed by a solidarity charge, have to be validated through the state; rising block tariffs are also political creations, as market logic implies the opposite type of tariff structure, with discounts for larger consumption.

The same is true of voluntary labour: private companies can hope to encourage communities to donate their labour, but cannot systematically require free community labour, as a condition of connection. This seems clearly ruled out by the ILO convention on forced labour⁵⁴, which specifies (Article 5) that

No concession granted to private individuals, companies or associations shall involve any form of forced or compulsory labour for the production or the collection of products which such private individuals, companies or associations utilise or in which they trade.

By contrast, the convention explicitly recognises that the public sector can require such work as a civic – not commercial – duty, by exempting: (article 2):

...any work or service which forms part of the normal civic obligations of the citizens of a fully self-governing country...[or] minor communal services of a kind which, being performed by the members of the community in the direct interest of the said community, can therefore be considered as normal civic obligations incumbent upon the members of the community....

Most generally of all, the element of democratic political activity, and the initiative to build community organisations, is also characteristic of the public domain. Private companies can and do participate in this process, and it is a notable that in France the water companies have been very active in funding and supporting political parties.

5.2. Sustainability and commercial exits

The private sector is permanently liable to exit from non-profitable contracts. This alone makes a private company systematically less likely to create long-term sustainable connections for private populations. When an external risk factor occurs, such as a currency devaluation, economic collapse, or environmental disaster such as floods, the private sector can re-assess the risk-adjusted profitability of a venture and decide to exit, writing off its losses if necessary. The public sector, like the population, has no such option: it has to find ways of dealing with these events.

5.3. Market failure and market limits

The problem of connecting the poor to a clean water supply can be represented as three forms of market failure.

⁵⁴ ILO Convention concerning Forced or Compulsory Labour (Date of coming into force: 01:05:1932) Convention: C029 Article 5 <http://www.ilo.org/ilolex/cgi-lex/convde.pl?C029>.

Firstly, the limitations of the market itself – the spending power of marginal populations is insufficient to cover the cost of making and maintaining connections; secondly, the inefficiencies of the market – even where the spending power is great enough, commercially prudent avoidance of risk will limit the populations connected; and thirdly, the relative inefficiency of profit-maximising capital, which for any given level of demand and risk will require a higher return than public sector capital. All of these limitations can be observed in the practice of the water companies, even in the model contracts. The requirement for a maximum risk-adjusted ROCE limits the ability of the private sector to extend the boundaries of water supply to the same extent as a well-organised, politically led public sector body.

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