



Private sector participation in water supply and sanitation

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Governments around the world are trying public-private partnerships where their own provision of water and sanitation services has proven inadequate. This article describes a number of different forms these partnerships can take.

The challenge of urban water supply and sanitation is to meet the needs of the poor, when up to half the population can be classified as at or below the poverty line, when up to half the population (not always the same half) are living in slums, illegal or unplanned housing areas and when cities are growing so fast that they are doubling in size every 10 to 20 years. Not surprisingly, it is difficult to meet this challenge with conventional piped water supply systems. The figures for 'service coverage' in urban areas show a 50 per cent increase in those unserved over the past decade.¹

Urban water supply is typically the responsibility of a public provider, that is a municipality- or government-owned utility. For a variety of reasons, these utilities are failing the poor, whether through a government ban on distributing water to illegal areas, or through some sort of blindness that appears to affect the engineer managers when faced with the non-technical challenge of getting water to the poor. These problems are compounded by the typically low performance of public utilities, who often deliver non-potable water for a few hours per day (or every other day) to only a fraction of the target population whilst losing half their production before it reaches customers ('non-revenue water'). In addition, public utilities may employ twice as many staff as they have real jobs for, and charge customers tariffs which are often below operating costs, without thought of recovering capital costs so as to ensure a sustainable supply.

The historical justification for public sector involvement in the 'private

good' supply of water and sanitation has been to ensure public health benefits, particularly for the poorest. This was based on the assumption that the private sector would be uninterested in serving those who are less able to pay. However, it often appears that the public sector has failed to achieve the goal of public health provision for the poor and has ended up subsidizing the convenience interests of the rich.

Reform through public-private partnerships

An apparently counter-intuitive answer to solving the problems of the urban poor is through 'privatization'. It is an idea which scares and angers many people who are rightly afraid of 'profit-eering' and of losing jobs when employment is so critical, particularly for the poor. But involving the private sector in what are called public-private partnerships (PPP) is making a difference for the poor in several cities in the world.

A recent study completed by the authors for Asian Development Bank (ADB), focusing on the needs of the poor, set out to investigate the range of PPPs, particularly those which also have civil society involvement through community-based organizations (CBOs) and NGOs. The study started by recognizing the range of possible private-sector involvement, from micro-enterprises (vendors), through not-for-profit service NGOs, to national service contractors and on to the more contentious international private operators.

We also found it necessary to recognize the importance of the concept of partnership in the PPP title which

should be more than a public relations attempt to make 'privatization' sound more acceptable. The partnership aspects of 'deciding together' and 'acting together' are critical, as one of the characteristics of poverty is powerlessness, not simply very low incomes. Unless that aspect of poverty is also addressed through participatory development (perhaps 'partnership development', following the above definition) it is unlikely that the poor will benefit from any new water-supply initiatives. Similarly, as government devolves power to a private operator, it necessarily introduces some element of regulation, both economic and environmental. Experience demonstrates that the more such relationships can be developed as partners in a 'win-win' situation, the better will be the ultimate outcome, particularly for the poor.

Recognizing the range of potential partners, the ADB Regional Technical Assistance tried to balance 20 case studies over the broad spectrum of water supply, sanitation and solid waste (the latter not being covered in this issue); high, medium and low population countries; and metropolitan areas, secondary cities and small towns. The results of some of these cases are included in this edition of *Waterlines*, the others may be found at <http://beyondboundaries.asiandevbank.org>.

Analysing the results of the case studies we recognized first a pattern of smaller PPPs that were 'filling the void', that is initiatives that meet the needs of the poor through non-networked and decentralized private services. The void is that gap or failure of service due to the inability of the public

utility, even with its advantages of economies of scale, to break through the performance ceiling of ineffective and inefficient supply already described.

'Filling the void'

In India, Sulabh International (a 'non-profit-distributing' NGO) constructs toilet blocks in low-income areas complete with soap, showers and storage. There is a small charge for using the facilities, though that is waived for the destitute and disabled. The partnership involves government paying for the construction of the toilet blocks and a small user charge covering the operating costs, which include a caretaker living onsite to ensure cleanliness. Sulabh now has 4000 toilet blocks in

In the poorest municipalities, child mortality has fallen by 24 per cent since privatization

India and, including its twin-pit latrine programme, is believed to be providing sanitation services to perhaps 10 million people. V. Srinivas Chary, A. Narender and K. Rajeswara Rao describe the Sulabh case in more detail in their article.

The service void is also filled by the informal private sector. In some cities, studies have shown that there is a dynamic competitive market for water supply and pit-latrline emptying which benefits many customers. In other cities, control of this private supply, particularly to the illegal housing areas, appears to have been taken over by criminal gangs who profiteer by charging very high prices. The result in many cities is that the poor pay far more per cubic metre of water than the middle- and high-income groups with piped connections, often between 10 and 20 times as much (see Figure 1). It also gives an indication of the 'preparedness to pay' of the poor for this vital basic need.

Breaking through the performance ceiling

The ADB case studies also showed a number of PPPs that are managing to break through the 'performance ceiling' and reform utility-based supplies. As one example, the BOT (Build-Operate-Transfer) contract for water in Kota

Kinabalu, Malaysia was found to be delivering much as promised in the original contract. The increase in water production meant that supply pressure increased and water was more likely to make it to the end of the distribution pipelines. Thus squatter areas were able to get adequate water piped directly to their houses – serving the poor by default. However, the government was perhaps in error in promising to pay more for this improved water supply than they were prepared to charge customers.

Within this category of reform through PPP we investigated a number of smaller concessions. In Port Vila, Vanuatu there is a 40-year concession with an international private operator that is delivering a 24-hour potable water supply whilst making a small profit. The operator, with government support, has included a small levy on all tariffs in order to serve the poor with low-cost connections

The ADB study also deliberately looked at where concession-style PPPs have apparently failed in Asia, for example the national sewerage concession in Malaysia. This serves as a reminder that unless the responsibility and authority over setting and collecting tariffs are clearly defined, in the perception of consumers as well as the understanding of government, there will always be problems.

Overall we found that public-private partnerships in the Asia region are

breaking through the performance ceiling and are, perhaps by default rather than design, delivering benefits to the poor. To broaden this issue of *Waterlines* beyond the ADB study we have included two other case studies, of new public-private partnerships in small towns in Uganda and in villages in Cambodia. They could both be classified as attempts to bring reform through private-sector involvement.

The tripartite partnerships

Finally we recognized a third group of PPPs, the tripartite partnerships, which could be called the public-private-community partnerships, or PPCPs. There are rather fewer tripartite partnerships in Asia to study, and therefore the study looked at the major concession in Buenos Aires, Argentina to contrast with the major Asian concessions in Manila, Philippines and Jakarta, Indonesia.

Buenos Aires, Argentina, used to be the relatively rich capital city of an upper middle-income country, but now it is reported that 48 per cent are living in 'poverty' or 'extreme poverty' [in Argentina].² The basic water tariff was affordable, but the connection costs of about \$1500 for water and sewerage were unaffordable by many. The first approach of the private operator was to amortize connection charges over five years, but that was still found to be too expensive. Discussions with

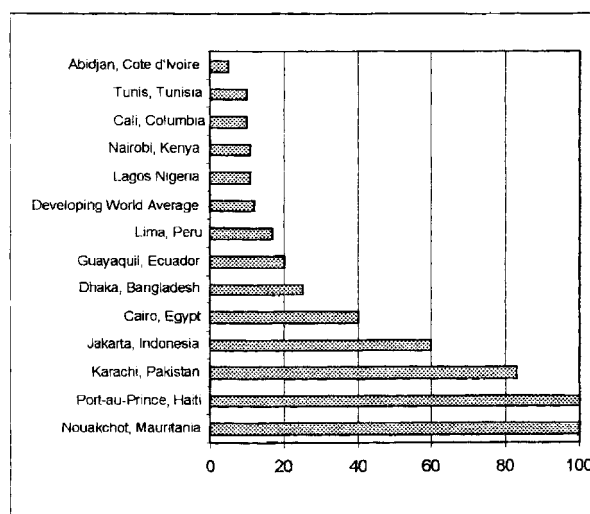


Figure 1 The poor pay more: the ratio of water price paid to vendors by the poor compared with water bought by higher income groups through household connections (World Commission on Water for the 21st Century, 1999)

Different levels of contract

Service contracts. Individual aspects of infrastructure provision (e.g. meter reading, pumping station operation, solid waste transport) are contracted out to a private contractor for periods from a few months to a few years.

Management contracts. For a fee (often performance-related or profit-sharing) a private management team runs the public operation, wholly or in part, for a short period, typically five years. Because such contracts are short, and do not directly link investment to service provision, they usually focus only on improving service to existing customers rather than reaching the urban poor.

Lease contracts. Usually up to 15 years long, lease contracts typically give the private operator full control over supplying services and recovering tariffs in exchange for payment for use of the fixed assets, which remain the responsibility of the public agency. Under an enhanced lease, small improvements are the responsibility of the operator, but major investments remain the responsibility of the government.

Build-operate-transfer (BOT) contracts. BOT is primarily used for specific large, one-off investments in water production, wastewater treatment and sanitary landfills. For up to 30 years, the length depending upon the size of investment that has to be amortized, the operator sells or treats guaranteed amounts of water or waste in exchange for guaranteed prices.

Concessions. Lasting on average for 25 years, these contracts transfer all responsibilities for capital investment and operation and maintenance (O&M) to a private operator. The fixed assets legally remain the property of government, and the operator might pay a fee to use them.

Divestiture. Under the most radical form of private sector involvement, existing operations and assets are sold to the private sector, perhaps with a time-limited licence. Only Chile among the developing countries has chosen this route.

Extract from the ADB web page: <http://lxd1.asiandevbank.org/serd/beyond/ch4/spectrum.htm>

government and the regulator led to new low connection charges (\$120 spread over five years) with the cost spread over the entire population by increasing the average tariff by about 15 per cent (\$2 per household per

month). The private operator complemented this approach by developing a variety of approaches of partnering NGOs to work with low-income communities, using pilot projects to try out alternative approaches, adapting technical standards and accepting contributions from municipal governments.

The private operator reports that services to the poor increased by 146 000 by 1998 (from the start of the concession in 1993) and to 260 000 by 2000. A new study has found that 'child mortality fell by 5–7 per cent in areas that privatized their water services overall; and that the effect was largest in the poorest areas. It is estimated that child mortality fell by 24 per cent in the poorest municipalities. These results suggest that the privatization of water services prevented approximately 375 deaths of young children per year'.³

The new challenge to the Buenos Aires partnership is how to manage water during the ongoing economic crisis, as a result of which the private operator has already had to write off investments of \$700 million. There is clearly a risk in undertaking such partnerships.

In Manila, Philippines, described in more detail by Arlene Inocencio, the concession had clear targets to increase service coverage to all income levels whilst improving water quality, pressure and hours of supply. Working with local government and NGOs the private operator has been attempting to serve the poor with individual- and group-metered connections, often delivering water direct to the home through flexible pipes, enabling a reduced and therefore affordable connection fee; a fee reduced in some of the pilots by incorporating a labour contribution from the community to reduce the cost of the pipe installation. Householders are then willing to pay the standard water tariff, which was reduced on privatization. One of the two concessionaires in the city reports that 400 000 low-income people have been served since privatization in 1997 with some residents reporting up to 90 per cent reduction in their water payments.

Conclusions

The results of the study suggest that it is when the private sector, whether international operator or small NGO, is allowed

and encouraged to be creative and innovative that the greatest benefits are accessed by the poor. The trend towards large-scale concessions with international operators for the networked utilities appears to have reached a plateau with only a small proportion of the urban population being served (11 per cent by one analysis). So there remains a tremendous responsibility on the public providers to achieve internal reform as well as to focus anew on the needs of the poor. We are grateful to David Hall and his group, PSIRU, for their valuable research in pointing out the shortcomings of some PPPs, and for contributing his article. It is possible to reform the public sector providers, in fact it must be possible if we are to meet the needs of the poor – but we would argue that it is the public-private partnerships that are most effectively demonstrating the way forward at present. We would also argue that the other common element in all these studies is the necessity for 'cost-reflective tariffs'.

Without ongoing reform to breach the 'performance ceiling', there is a danger that the positive stories from poor communities around the world will be drowned out by the problems of ever-increasing urban areas. The case studies show that we have the technology, the management and financial skills, and the sociological understanding to serve the poor in partnerships. We now have to support each of the partners to achieve universal service in water and sanitation within this generation.

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