



Water and Sanitation Program

An international partnership to help the poor gain sustained access to improved water supply and sanitation services

Serving Poor Consumers in South Asian Cities



This paper is part of a research and dissemination initiative which the Water and Sanitation Program-South Asia (WSP-SA) is carrying out into private sector participation and the poor in the urban water sector. Proposals to involve the private sector in water supply and sanitation sometimes raise fears that the poor will be priced out through higher tariffs and costly connection fees or overlooked because they live in hard-to-reach locations. The reality is that the private sector has the capacity and the interest to serve the poor, is willing to experiment with low-cost options and different levels of service, and with greater efficiency, can benefit all consumers. There are examples of this in other parts of the world but not as yet in any of the countries of South Asia. This series will document best practices and show how service to the poor can be addressed by the skillful design of private sector contracts; by strengthening the regulatory system and making sure it protects the interests of the poor; and by creating partnerships between civil society, local authorities and private operators.

The series also analyzes lessons learnt and explores how international experiences can be adapted to this region.



THE PRIVATE SECTOR SERVING THE POOR

Introduction

In most South Asian cities today, public sector agencies are struggling to provide water supply and sanitation services. Inefficiency, low investment levels, a lack of financial viability and an absence of consumer orientation mean that consumers face an inadequate and unreliable supply of low quality water. Ironically the poor are particularly badly served, despite a strong tradition of viewing water as a basic need and a human right. High levels of subsidy, or policies of providing "free" water to the poor, have not necessarily brought the anticipated benefits. Badly designed subsidies are often regressive, benefitting the rich or middle classes more than the poor. Moreover, many poor people are quite simply not connected to the network and unable to benefit from formal subsidies or lifeline supplies. In addition, unreliable water supply is more problematic for the poor, who cannot afford coping strategies such as storage, pumps and individual water delivery that the wealthy use. The poor who, it is assumed, cannot afford to pay for water, are rarely considered as "consumers" and by virtue of this have few rights and cannot demand better service.

In the face of growing dissatisfaction and frustration with public sector management, bringing in the private sector is often suggested as a solution. However, when private sector provision of water supply and sanitation services is proposed, one of the common concerns is that the poor will be adversely affected. There are fears that the poor will

be priced out due to increasing tariffs; that social goals, such as the provision of hygiene education or low-cost sanitation, will not be met; and in general that private sector providers will favor easy-to-reach, high-return consumers. In South Asia, where the poor represent a high percentage of the urban population¹, there are several cases in which private sector projects have been proposed but not come to fruition due to opposition based on these concerns².

The reality is that the private sector has shown interest in serving the poor, is willing to learn and innovate, and promises greater efficiency which can benefit all consumers. Concerns regarding service to the poor can be addressed through the skillful design of private sector contracts/concessions, by creating partnerships between NGOs, CBOs, private operators and local government, by making service to the poor a part of the regulatory framework, and by encouraging technological innovation and non-conventional

ways to deliver services to low-income areas, including the use of low-cost options and different levels of service to serve the poor. There are examples of this in other parts of the world, but not as yet in any of the countries of South Asia.

Scope and Structure of this Paper

The way in which the private sector might enter the market for water and sanitation service provision is a function both of policy decisions taken at the highest level and of the nature of the market at the local level. Thus major private sector operators will weigh up the risks and likely gains from investing in the sector in any given situation and may or may not decide to bid for work. Many external factors, such as the state of the domestic and international finance markets, the degree of perceived political risk,



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¹ Thirty-two percent of the urban population in India, for example, is categorized as poor (Planning Commission, 1993/4 figures). These percentages are rising along with the relative size of the urban population as a whole - it is estimated that by the year 2011 up to 46% of India's population will be urban. ² There are, of course, other concerns, such as high cost, lack of transparency and the difficulties of transaction preparation.

and the availability or otherwise of information on the current operations of public sector water utilities may all impact on these decisions. Similarly the decisions of small-scale local private sector operators (such as tanker suppliers or entrepreneurs who run latrine pit emptying services) will be determined as much by the nature of the local market as by policy statements and official strategies.

It is not the purpose of this paper to analyze the state of the market for water sector operations in South Asia, either for the large or the small-scale operators. Rather, this paper looks at practical interventions which can be made in the *design* of major private sector participation transactions, *assuming* that the market is attractive and operators are prepared to bid for work in the sector. The intention is to provide governments with information which will enable them to ensure that such transactions benefit poor consumers at least as much as they benefit the rich.

It is assumed that most water and many sanitation systems in urban

areas of South Asia are currently "networked" (piped water and sewerage). Networked services have specific characteristics that distinguish them from non-networked services (such as handpumps and on-site sanitation). Importantly, they are services which cannot be provided by a household independently; so service provision is therefore a function of both overall network planning and design decisions (such as whether to serve a particular area or group of customers), and relevant household level decisions (such as whether to connect to the service or not). In general, discussion of major private sector participation focuses on such networked services alone, but this paper will also touch on the possibility of an operator providing non-networked services (such as latrines or water tankers) either directly or through sub-contracts, as part of the solution to the challenge of serving low-income consumers within the "network" service area. In this way the important role of the small-scale independent provider of services will also be examined.

The objective of this paper is to state some hypotheses regarding the issue of private sector participation and the poor, based on what is admittedly limited experience, and to propose some approaches which could be used in the preparation of new transactions in South Asia.

Serving the Poor – Luxury or Necessity?

The impetus that drives improvement in urban water supply and sanitation services usually has little to do with concern for the needs of the poor. Wealthy residents wanting a high level of service have far greater political influence than the poor who want basic levels of service, and therefore many reform measures are skewed disproportionately towards providing improved services for the rich. There is, in addition, often an assumption that general improvements in city infrastructure will have a knock-on effect on the economy as a whole and thus benefit the poor indirectly. However, without specific measures to secure their interests, the poor may not benefit at all, or indeed may be adversely affected by many reforms (making tanker operators illegal may, for example, remove the source of water from many poor urban communities). Some very grave inequities arise out of this particularly because development funds, in the form of development bank loans which have to be repaid out of government budgets, and bilateral grant funds which could have been used elsewhere, are often mobilized



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to support reform. The poor should therefore benefit *more*, rather than less, from the impact of the use of these funds.

The poor of a city are also important residents who supply many of the goods and services that keep it running. They are rickshaw pullers without whom no one can get to work, domestic servants who keep the middle and upper class dressed and fed, and low-paid workers who keep the factories running. Their welfare should be just as important as the wealthy and there is sufficient evidence to show that incremental improvements in water supply and sanitation can have major impacts on health, efficiency and productivity.

In addition to this is the fact that poor health among the poor is an issue for the rich – inadequate sanitation impacts the city as a whole and causes serious negative health externalities.

Private Sector Participation and the Poor – What's the Big Idea?

In South Asia, private sector participation in the public provision of water and sanitation services has so far been limited to sub-contracting of certain core services (such as operation and maintenance of pumping stations, design and construction of new facilities and, to a more limited extent, financial and commercial functions such as billing and collection - Mehta, 1999). The



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region seems reluctant to move on to implementation of large-scale private sector management and operations. While five countries (Argentina, Malaysia, Mexico, Brazil and China) account for 50% of the investment in private water and sewerage service provision in the developing world, South Asia currently accounts for none (Silva: 1998, Tynan: 2000).

Nonetheless *interest* has grown. The Government of India, for example, has held several major international seminars on the subject over the last five years. Interest is growing in India's metro-cities and in Kathmandu while there is lively debate on the topic in Pakistan, and to some extent in Bangladesh.

By and large the rationale for seeking greater private sector participation is the efficiency gains that specialized water companies can bring. They have management skills, technological innovation, and experience. One of the reasons that these efficiency gains are so important is

that South Asian utilities are typically suffering from high unaccounted-for water, overstaffing and substantial political interference.

The problem is that bringing in a private operator with a clear mandate to improve efficiency through better management and system rehabilitation is unlikely to benefit the poor, most of whom, in South Asia, are not properly connected to the water supply network at all. The poor have traditionally been supplied with free water at public standposts, find their own alternate sources such as shallow tubewells, or buy expensive water from water vendors. The level of service from these sources may leave much to be desired, but rehabilitation of the existing system will do nothing to improve them.

However, experience in other countries shows that it is possible, with innovation and effective partnerships, to benefit the poor, and in fact the poor can benefit disproportionately. Private sector participation

must be carefully designed to ensure that this happens.

The traditional concern of South Asian politicians for the poor (at least in rhetoric) provides both a stumbling block and an opportunity for change: projects which fail to address the needs of the poor are unlikely to be successful in the current environment of skepticism of private sector participation, and this in itself provides a clear incentive to consider carefully the approach to the poor, for politicians, decision-makers, managers, civil society and the private sector itself.

Private Sector Participation in South Asia – Where Does Resistance Come From?

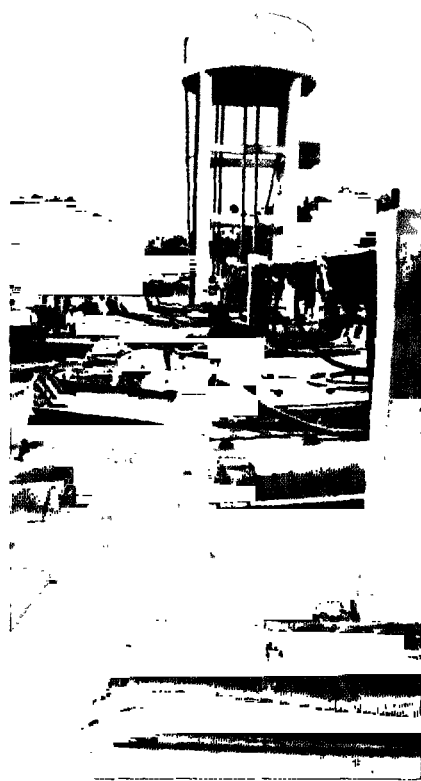
There is a commonly held view that the provision of basic water and sanitation services is the job of the government, and that the population has a right to access such services, irrespective of their ability to pay for them. While evidence mounts up to indicate that in fact the poor often pay much more, on a per liter basis, than the rich, that subsidies for water mainly benefit those who are not poor, and that the investment requirements for water are far too great for governments to afford, this sense of the social obligation to serve the poor has persisted, and with it an idea that the government should be the direct provider (WSP: 1999).

However, the public institutions which currently deliver water are in urgent need of reform. They are characterized by non-transparent legal and policy frameworks and weak or non-existent regulation. The paramount feature of service delivery organizations is that they are deeply risk averse. Long established conventions, long-term job security at lower ranks and short-term planning horizons at higher ranks lead to inefficiency and low quality. These organizations are dominated by an 'engineering' culture with little capacity or inclination to be consumer-responsive. The most commonly used instrument for working in partnership with anyone else is the traditional civil engineering contract which is fundamentally adversarial and creates many opportunities for well-established opportunistic behaviors (Wade: 1987).

Resistance to change comes from many quarters including politicians, the existing service providers and civil society (including advocates for the poor, labor and the environment). In fact, the resistance may not be to private sector participation in particular but change in general. Politicians have a stake in the current situation where the provision of "free" services represents a form of political patronage, and where access to services is often seen as a short-term favor rather than a long-term right. The existing service providers also have a stake in the status quo; it is not clear what their future would be in a reformed, efficient and innovating utility oriented towards serving the poor. Civil society organizations often raise concerns that more clearly relate to safeguarding the welfare of

poor consumers. There is no doubt about the genuine, passionate, and committed concern expressed, for example, in Karachi recently by a consortium of local NGOs and community groups who, through the courts, successfully prevented ongoing debate about private sector involvement in the management of the Karachi Water and Sewerage Board. A desire to protect the interests of the poor may paradoxically have been the motivation for putting a stop to a debate which fundamentally aimed to serve those very interests, and to bringing development of the project as a whole to an end.

Understanding where this resistance comes from is important for those who wish to see a change in the status quo. Those with a stake in the current system, particularly poli-



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ticians, incumbent staff of public utilities and civil society, must be part of the process of change, otherwise their combined resistance will be too much for reformers to overcome. Bringing in the private sector may be a reaction to a crisis situation, such as impending bankruptcy of the utility, or political opportunity, such as the election of a strong majority government. In either case, it may be an indication of a willingness to change. The issue for the poor then becomes how to make this particular type of change (transition from public to private management) benefit them too.

The Private Sector Serving the Poor: What Have We Already Learned?

Designing “pro-poor” arrangements can mean a number of things. One writer observed that “pro-poor arrangements should at a minimum avoid harming the poor” (Komives: 1999) and this seems like a good place to start. But one of the major problems in trying to design pro-poor private sector participation in water and sewerage services is the lack of good models to use; in all there are barely one hundred major private sector operations in water and sewerage in developing countries (Silva: 1998, Tynan: 2000) and very few of these have a long track record. Even if examples could be used, there

seem to be few explicit “pro-poor” features of existing contracts, at least at the design stage. Many pro-poor arrangements seem to develop in an ad hoc manner after agreements have been signed and are therefore hard to document and transfer. Much of the innovation in serving the poor has grown out of the need of operators to respond to general service expansion requirements.

For this reason it is necessary to consider the particular nature of poor consumers and perhaps to look at some cases where things have gone wrong, or where unexpected outcomes have arisen for poor consumers.

Nature of poor consumers

Poor customers are often willing to pay considerably more than is conventionally thought for access to reliable water and sanitation services. Service providers, however, often resist serving the poor and sometimes simply ignore them. One

of the key challenges of private sector participation arrangements is to ensure that the service provider cannot do this or, better still, has a positive incentive to serve these particular consumers. To understand how to do this it is important to consider why the poor are often neglected.

Firstly, low-income consumers are often perceived to be high risk, low return customers – the costs of serving them are perceived to be high, and indeed may be high for both technical and social reasons, and the return in terms of visible *politically useful* improvement in services is low. Poor communities often present a challenge because they live in areas which are dense, with unplanned layouts and narrow roads, and often on land which is insecure – prone to flooding or on steep hillsides. Service providers find it difficult to get reliable information about households; what levels of service they want and are willing to pay for and their credit-worthiness. A formal



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contractual relationship directly with a client household is considered impossible, and service providers usually resort to providing free communal services to be shared by the whole community, a solution which rarely provides a reliable and lasting service.

Secondly, many governments establish policies which explicitly prevent "informal" settlements from accessing all but the most basic municipal services until the land on which they reside is "regularized" in some way. This is partly due to the politics of land ownership but is also driven by valid concerns about the viability of settling land in the long term. The process of regularization is highly political, cumbersome and far from transparent; low-income families often wait years to be given some kind of tenure status although they may eventually retain the right to reside where they live.

Clearly the objectives of any reform, including the introduction of

the private sector, must aim to reduce the "distance" between the utility and its poor consumers, and must actively seek new innovations which can overcome the financial, legal and social constraints faced by the poor.

Tools to use to protect the interests of the poor

Because the poor represent a customer base which is "distant" from the utility operator and "unattractive" to serve, explicit instruments need to be put in place to ensure that the operator does indeed have an incentive to serve them, and can do so in an effective and appropriate way. This is where governments can act to structure private sector participation to secure service improvements for poor consumers. This can be done in four broad ways:

- pay attention to process and be informed;
- get the policy environment right;
- establish robust regulatory struc-

tures which are pro-poor; and use the contract.

Pay attention to process and be informed

It is important to start thinking about the poor early in the design of private sector arrangements. Water service providers often find they know little about the poor, particularly what services they are actually using and what they are paying. For instance, in Kathmandu, where the Government is in the process of designing a lease contract for water supply services, the National Water Supply Corporation did not realize that poor consumers were not using corporation water, but relied to a great extent on other sources, some of them new, some traditional. If people are not connected then it is important to know why: is it for reasons of cost, lack of access connected to land tenure or overly lengthy and bureaucratic procedures involved in obtaining a connection? It is then important to determine how many of these obstacles could be addressed under a private sector participation arrangement.

Finding out about poor consumers is not easy. They can be hard to identify and reach. NGOs that work with the urban poor and have experience with data collection, particularly with participatory techniques, can be useful partners.

However, it is not enough just to study the poor – like all consumers, they must also be full participants in a process of consultation. This consultation should cover service levels, tariff structures and expansion priorities. Consultation with consumers is seldom carried out well, and is

particularly likely to exclude the poor. NGOs which have a membership base among the poor (for instance, organizations which establish community groups such as savings groups, users groups, youth clubs, etc) may provide valuable links and may be good advocates for the poor, but NGO consultation must not be taken as a fully adequate proxy for direct consultation with the poor. Many NGOs are operating in South Asia, and there is a well informed and vocal civil society tradition which can be tapped into to ensure full and constructive consultation.

In addition to knowing about poor consumers, it is important to understand and deal with resistance to change upfront. Broad-based consultation and information sharing is an important way to neutralize opposition to reform as well as creating an opportunity for creative discussion of approaches (see *Box 1: The Cancellation of the Pune Water Supply and Sewerage Project*). For example, the Chief Executive Officer of Durban Metro Water in South Africa invests up to six weeks after each municipal election in working with newly elected

councilors to build their understanding of the business of water supply and the operation of the utility, and in understanding their objectives and priorities (N. McLeod, personal communication). This is one of the factors which has enabled Durban to innovate in a climate of political support rather than opposition.

Get the policy environment right

Policy reform needs to be dealt with up-front in the reform of the water sector. Private sector participation is not a substitute for good policy-making. Two examples will serve to illustrate this point; the design and enforcement of tariffs/subsidies, and land tenure.

A large part of the policy environment will have to do with subsidies, the way they are delivered, and the way tariffs are, as a consequence, structured. Tariff structure is usually determined by the government, and is an important tool for sending messages to the public regarding the value of water and its efficient use. Social objectives can also be built into the design of tariff structures through, for example, the use of "social" or "lifeline" tariff elements. Lifeline tariffs provide a minimum amount of water at low-cost, often below the cost of supply (it may even be free in some countries), which is sometimes cross-subsidized by higher priced water in higher consumption blocks (this is then referred to as an Increasing Block Tariff or IBT). In a concession, the operator may bid on the tariff itself, or may negotiate tariff increases, but the underlying structure, including the requirement

BOX 1: THE CANCELLATION OF THE PUNE WATER SUPPLY AND SEWERAGE PROJECT

In 1998 the Pune Municipal Corporation attempted to implement an urban environmental infrastructure project valued at approximately US\$ 185 million through construction and management contracts with a private sector firm. The project was an integral part of a 25-year strategic plan that aimed to gradually extend, to the total population, a 24-hour water supply and sewerage service, and was designed to ensure that Pune remained an attractive economic destination for investors. In March 1997, the Government of Maharashtra approved proposals to invite competitive tenders from the private sector. On October 7, 1998, two weeks before tenders were due to be opened and the contract awarded, the Pune Water Supply and Sewerage Project was unexpectedly canceled.

A combination of reasons underlie the last-minute failure to reach the operational stage, but essentially the project lost political support and the cancellation was effected through political processes. This was despite the project being consistent with the state government's policy on public/private partnerships for improvement of urban infrastructure, and having attracted broad cross-party support through the preparatory stages. However, local and national elections changed the political landscape, criticism, especially in the press, began to mount and the absence of a well managed public relations office resulted in poor media management and a lack of accurate well informed debate in the public arena. The failure of the project reflects the need to have a structured, continuous and focused consultation process, which keeps all stakeholders abreast of developments.

to offer water to some customers at less than cost, is usually a government decision. In other contractual relationships (commonly in management contracts or lease arrangements) the operator may not be concerned with tariff at all, and here the role of the government in establishing tariff remains equally important.

Tariff design is challenging because of the conflicting objectives which government aims to meet (objectives of economic efficiency and demand management may often conflict with social objectives). Furthermore, outcomes can be unexpected. Social tariffs and IBTs have built-in inequities and inefficiencies (Boland: 2000). More seriously, they are only beneficial to the poor in those cities where all poor consumers have a household connection. In cases where people use shared connections, the increasing block tariff is detrimental to the poor – a number of families using one connection will rapidly use the discounted water and most of their consumption will be in the upper blocks, meaning that they effectively subsidize their wealthy neighbor in a single family home who uses less than the first block each month (see *Box 2: Increasing Block Tariffs in Kathmandu*).

While there is insufficient knowledge of the impact of tariff structure in private sector arrangements, we can clearly see that, in a concession arrangement, lifeline tariffs provide a powerful disincentive to the operator to connect the poor. He may find himself faced with installing costly connections (especially if the poor are in areas distant from existing tertiary networks) with the

BOX 2: INCREASING BLOCK TARIFFS IN KATHMANDU

In Kathmandu, there is an IBT in which the first block of 10 m³ is charged at Rs 40 (about \$0.60), and additional consumption is charged at Rs 9.7 per 1,000 liters. The effect of this for two households, one middle class one with an individual connection and one poor one using a shared connection, is shown below:

Household A has a metered private connection and consumes 10,000 liters per month

Total charge	40
Price per 1,000 liters	4.0

Household B has a metered shared tap used by 20 households, each consuming 6,000 liters per month

Total consumption 120,000 liters

First 10,000 liters:	40
110,000 liters @ 9.7	1,067
Total charge	1,107
Price per 1,000 liters	9.2
Charge per household	55

The poorer of the two households, using a lower level of service and consuming less water, in fact pays 38% more on a monthly basis, and 130% more on a per liter basis than the wealthier household.

prospect of not only not recouping his costs, but being required to provide discounted water.

Fundamentally the design of a workable tariff is a challenging issue for government; debate and decisions need to be both well informed and well regulated. Importantly,

debate on tariff design needs to start well ahead of the implementation of reforms, build on practical lessons from elsewhere, and include a wide range of stakeholders.

Another important policy issue is land tenure. As is common elsewhere, many South Asian cities do not allow people without official land tenure to obtain water connections (even though they may have been resident on the land for many years, and even though other services, such as electricity, may be made available to them). In a place like Dhaka, this results in a vicious water black market, where the same slum landlords who control illegal land settlement, provide employment opportunities, and run organized crime rings, also control illegal connections in squatter areas and sell water at high prices. Refusal to connect squatters, or at least to find some way to provide them with a legal, adequate and affordable service, may have serious negative impact on the lives of the poor, the health of the city, and lead to corrupt practices both within and outside the utility.

Tenure is an issue that belongs in the realm of policy. It is incumbent on governments to sort out this policy well ahead of a private operator becoming involved as this is not something that the operator will be in a position to deal with. If the policy climate is wrong the objectives of serving poor consumers may be constrained.

Establish robust regulatory structures which are pro-poor

While a full discussion of regulation is not within the scope of this paper, it is important to point out that

regulation should be carefully designed to be responsive to the needs of the poor. Of course, independence and autonomy will equip a regulator to make decisions that benefit all consumers, but it may be necessary to ensure that the regulatory body is well informed of the specific impact of its decisions on the poor, and to empower it to be innovative and deviate from convention if it sees that this will be beneficial. It is also important to make sure that the regulator has a well established way to listen to the concerns of consumers, and that this mechanism is inclusive of the poor. Fundamentally a regulator requires a clear policy environment in which to function – it is not the role of the regulator to set policy but to ensure that it is implemented.

In particular, regulation must be pro-poor in terms of:

- ◊ abstraction - for instance, prevent large-scale abstraction of groundwater by industry, yet still allow the small handpump tubewells of the poor to operate if they provide reliable and affordable service;
- ◊ choice - allow alternative service providers to operate, and regulate the market as a whole so that it optimizes options for and benefits to the poor;
- ◊ quality - allow the main provider to diversify the quality of service and

provide different quality levels to different customer groups, allow alternative providers to provide services too, and leave the consumer to decide whether to accept the lower quality option from the main provider (Baker: 2000);

- ◊ contract compliance - ensure the compliance of the operator with respect to his contractual obligations for service to the poor; periodically ordering, or requiring the operator to commission, special audits of the operator's performance in this regard;

- ◊ consultation - establish a city-wide forum, made up of advocates for the poor, to debate regulatory decisions and advise or rule on their impact on poor consumers;

- ◊ monitoring - develop and monitor performance indicators based on consumer satisfaction, including that of the poor.

Use the contract

Finally, the contract between the government (the "employer") and the private sector firm is in itself a powerful tool to address the special needs of the poor. The potential to use the contract will vary according to the type of contracting mechanism, and so will the types of obligations put on the operator, and the incentives and penalties that are

possible (see Box 3: Contract Types). Two aspects of the contract which are of paramount importance are how the operator obtains his revenue: whether it is through a fee (as in a management contract) or through the tariffs directly (as in a concession); and how new connections are funded: whether by the operator himself or from public funds.

In a concession or lease arrangement, provision of service to the poor may actually cost the operator more than he collects in revenue, either through tariffs or his lease fee (especially if there is a social tariff which is below the cost of supply). In these cases, positive contract incentives, rather than penalties, are much more likely to result in satisfactory outcomes, and also reflect the fact that the operator should be remunerated for putting in connections for which he is unable to recover the full incremental cost.

Contracts that are structured to include general coverage targets, based on the assumption that coverage of the poor will be addressed through universal coverage, are not realistic. Reasons can always be found not to include hard-to-reach areas in the targets, and the level of service designed for 80% of the population may not be at all appropriate for the other 20%. Instead, contracts need to

BOX 3: CONTRACT TYPES

Option	Asset Ownership	Operation and Maintenance	Capital Investment	Commercial Risk	Duration
Service Contract	Public	Public & Private	Public	Public	1-2 Years
Management Contract	Public	Private	Public	Public	3-5 Years
Lease	Public	Private	Public	Shared	8-15 Years
Concession	Public	Private	Private	Private	25-30 Years

BOX 4: EXPANSION TARGETS IN BUENOS AIRES

In May 1993 a 30-year concession contract was awarded to a private company to operate the water and sewerage services in Buenos Aires. By specifying precise geographical expansion targets the contract attempted to enforce service provision to areas of very low coverage, which were largely poor neighborhoods. The population without water and sewerage connections (30% and 42%, respectively) were mainly located in the rapidly growing suburbs where low-income households were scattered throughout. However, at the start of the concession socio-economic data was unreliable, and to address the challenge of hard-to-reach households, the operator engaged an NGO whose research into housing characteristics and service demand in low-income areas helped to shape the operator's Service Expansion Plan. This five-year plan is the main vehicle for service provision to the poor and is based on priority areas defined by each municipality and approved by the regulator. For example, to enforce service provision to poor areas the first five-year expansion targets for the poorly-served south zone aimed to increase the number of households connected to services from 49% to 79% for water and from 21% to 40% for sewerage. Although it will still take 15 years for water to reach 92% of the population, the targets underline the attempts being made to prioritize service provision to poor households.

allow for flexibility in designing service to the poor, while ensuring that all the poor are reached.

Targets based on geographical zones, however, can be successful in places where many poor people live in well defined areas (peri-urban slums, for instance) which can be prioritized for service expansion (see *Box 4: Expansion Targets in Buenos Aires*).

Fundamentally, contracts should allow for flexibility within a clear mandate to serve the poor. Employers can maximize flexibility by:

carefully considering input stan-

dards – in poor areas where there is no vehicular traffic it may make more sense to lay small diameter pipe in shallow trenches, or even to run plastic pipe above ground (this also makes illegal connections and vandalism easier to control) – contract stipulations should not prevent this, and employers should think carefully what minimum standards are desirable and feasible (see *Box 5: Low-Cost Water Supply in Manila*);

avoiding or limiting exclusivity – if the operator is awarded the exclusive right to provide water supply and sanitation services in an area, this

BOX 5: LOW-COST WATER SUPPLY IN MANILA

The private operator in the West Manila concession decided to provide individual connections to the poor through the Bayan Tubig ("Water for the Community") project in various areas. The project aims to fulfill the service expansion contractual obligations by devising appropriate technological options, adapting solutions to the social context, developing strong cooperation with the communities, and using local partners such as community-based organizations and NGOs. It is designed to benefit 600,000 low-income households by the end of the concession period.

The private operator finances, constructs and maintains the infrastructure. The barangays, which are the lowest level of local government, have to give their approval before implementation. The community-based organizations and the NGOs play a key role as they help to map the network, provide socio-economic data, and help motivate people to take part.

In order to provide rapid expansion of services, a low-cost technical solution has been adopted to reach each individual house. The densely populated poor communities are provided with a buried mainline as far as possible, but where it is not possible to bury the pipe, the rest of the network is above ground, partially covered or attached to a wall. This line goes up to a battery of meters, usually at the perimeter of the community. From the meters, each homeowner makes his own connection, above ground, usually using low-cost plastic pipe. The main advantages of the Bayan Tubig schemes are easy implementation, speed and low-cost. The average cost of a connection is estimated to be US\$ 97.

BOX 6: CONDOMINIAL SYSTEMS IN EL ALTO

In El Alto, the concession contract specified that the operator had to provide house connections for both water supply and sewerage. However, the price of a conventional water and sewerage connection was fixed by the regulator at an amount well below the real cost. Having to provide in-house connections at below cost price was a disincentive to service expansion in poor areas for the concessionaire, and in addition even the regulator's fixed price was not affordable for poor families. The concessionaire considered a number of technical alternatives to address this problem, and requested approval from the regulator to use "condominial" systems in low-income areas. These systems are based on smaller diameter pipes which connect groups of users to the main system. This has resulted in such major savings, particularly in sewerage, that now condominium systems are used throughout the concession area.

makes all other providers illegal, and may drive out affordable alternatives – it also precludes the operator from making use himself of efficient retail service providers (such as water kiosk operators or water delivery services) by on-selling bulk water (however, denying an operator exclusivity may add to his perception of risk as he may fear that he will have to compete with other large-scale providers);

- avoiding specifying high levels of

service – household connections and fully plumbed systems may be desirable but unaffordable for the poor, and if an operator is compelled to offer only this level of service he may be unable to reach the poor. Instead, innovation must be allowed to find other ways to provide acceptable levels of service, like shared connections, shallow sewerage, roof tanks, on-site sanitation, etc (see Box 6: *Condominial Systems in El Alto*).

Implications for operators

The four tools mentioned above should enable the employer to create an environment in which the operator has the right incentives to address the needs of poor consumers on a equal priority with those of others. But the question remains: what tools does the operator himself use to meet the requirements of the regulatory framework and contract design? One key mechanism is in working in "partnership" with small-scale independent providers, intermediaries to improve customer links, and intermediaries for customer education.

Small-scale independent providers

Because of the failure of conventional utilities to serve low-income households, they often buy their water and sanitation services from small-scale independent providers or other informal sources who retail water or sanitation services, bought in bulk from the utility or sourced independently (Collignon: 2000). SSIPs take a number of forms, ranging from a subsidiary of a largish operation, through small-scale entrepreneurs to cooperatives, individuals and community-based orga-

nizations such as water user groups. SSIPs are common in illegal settlements, where they can provide non-networked, decentralized services to households who are not entitled to formal services. Low-income households report that they use the services of these informal providers because they provide the right service at the right price. Even if the cost of water from a vendor is higher than the nominal tariff charged by the utility, poor consumers may prefer the former because the supply is reliable and flexible (particularly in terms of hours of supply) and there is no excessively high "connection fee".

Intermediaries for improved customer links

Specialized intermediaries have proved their capacity to develop and support the "customer relationships" which are so difficult and costly for large-scale providers to establish with densely settled informal customers. A local intermediary (NGO, CBO, user group or small-scale entrepreneur) can provide information on the customer base, help establish viable pricing strategies, develop an understanding of the nature of demand and aggregate this demand. Intermediaries can also provide appropriate small-scale financial services (savings and credit, and establishing realistic financial guarantees) to help poor consumers get over the constraints of high connection fees. Specialized intermediation can also facilitate the formation of effective user groups, which is particularly important when individual connections are not affordable, and shared connections

are provided instead. An example of this type of intermediation can be found in the power sector (which often provides interesting parallels to the water sector) where, in the Indian state of Orissa, a private electricity company has partnered with an NGO and community groups (see Box 7: *Electricity Committees in Orissa*).

Intermediaries for customer education

Another important set of intermediary services relates to customer awareness and education. Poor people need to know what arrangements are being made on their behalf, what types of services they will have access to, and what kinds



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of assistance they can request. Poor clients, new to network services, sometimes need to be educated to be "good customers" and need instruction in paying their bills, reporting leaks, practising water conservation and not blocking sewers. In addition, hygiene education is needed to ensure that people get the full health benefits that improved water supply and sanitation offer. There are examples of NGOs and small private sector firms playing a role in these tasks in several parts of the world as part of private sector participation arrangements (for instance, in Manila and El Alto) and in South Asia it is common to find NGOs providing education and awareness building in the rural water supply sector.

BOX 7: ELECTRICITY COMMITTEES IN ORISSA

In July 1997, the Grid Corporation of the Indian state of Orissa offered majority participation in its entire distribution business to private investors. Two private firms took over the four distribution zones. At that time, about 40% of power was not being paid for; about half of this was due to technical losses, and the other half was being stolen, or not being paid for even if it was correctly metered and billed.

Badapandusar village had 287 connections, of which 132 were illegal connections which overloaded the transformer, and burnt it out. The supply became so irregular that even consumers with legal connections were reluctant to pay. The linesman did not read the meters regularly, the bills were often wrongly prepared or, due to poor postal services, were delivered long after they were due. Poorer consumers could not afford to pay the large amounts in infrequently and irregularly presented bills. For the private sector operator, Gridco, now a cost-conscious entity, revenue from the village was insufficient to justify repairing the transformer again and again, let alone upgrading it. Things were at a crisis stage, and the solution lay in using a local NGO as an intermediary to mobilize the community.

The company assured the villagers that supply would quickly improve if everyone got legally connected, and if they paid their bills regularly. The NGO was asked to set up an electricity committee, and the company offered to pay it the fee it paid private bill collectors. The committee employed three young men to do meter reading, bill distribution and minor electricity repairs. The committee started organizing monthly bill payment meetings, where billing and technical problems were also discussed and sorted out with company staff. 132 illegal connections were converted into official ones, and 73 more households connected. Revenue more than doubled. Not only were current bills being paid regularly, the committee worked out repayment schedules for arrears. The company could now afford to add a new transformer and repair the old one, and supply improved dramatically (Ghate: 2000).



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The challenge of building partnerships

Working in partnerships such as these creates new potential for the operator, but the identification and selection of suitable intermediaries is likely to be challenging for large-scale service providers who have little experience with "soft" developmental work. Similarly, formalizing relationships with civil society partners such as NGOs is notoriously difficult for service providers. Each side may have unrealistic expectations; NGOs often resent being "contracted" as their relationship with a community is often perceived in a longer term framework with wider objectives than those required by the service provider, while traditional service providers (often engineering-based organizations) have little experience in developing innovative contractual relationships. Many civil society organizations have limited

capacity and see any relationship as an opportunity to develop new skills. Operators who could take advantage of this willingness to learn are often unable or unwilling to contract in a way that is sufficiently flexible to accommodate this (WaterAid: 1999). In addition, they are often naïve about the costs of these support services and also the capacity of NGOs to absorb both financial inflows and new responsibilities. Finally, many of the services which these civil society organizations could perform for the operator do not necessarily lend themselves to the sort of performance monitoring with which service providers are familiar – while it is possible to assess whether a community user group has been formed it is harder to measure its capacity and reliability as a "consumer" for the operator. A tendency to include quantitative measures of performance in

contracts with NGOs often takes focus away from the more challenging job of securing sustainable relationships. (This phenomenon is well understood in the rural water supply sector and valuable lessons could be learned from these experiences.)

However, the operator chooses to address the challenge of serving poor consumers, it is clear that he would need to develop suitable skills (including social intermediation, financial services for the poor, hygiene promotion, social marketing, customer outreach), either to carry out activities directly or to effectively partner with others. Whether these special skills need to be housed in a "special unit" or can be dispersed through the organization would depend on the nature of the consumer base – including the numerical significance and geographical distribution of the poor. Wherever they are housed, however, it is important that serving the poor is mainstreamed within the operator's business. In organizations dominated by engineers, special units to serve the poor which use non-conventional methods and technology are often perceived as unimportant or low status, and the units need high-level management support and representation to ensure their effective operation.

Conclusions

Solutions for South Asia

The above sections have illustrated that involving the private sector in water and sanitation ser-

vice provision does not have to adversely impact on either the quality or the cost of services to poor consumers. However, it should be clear that there is a need for innovation in every case – examples of complete and successful reform are rare, and there is a limited database of previous experience which can be used to design appropriate interventions for every situation. Where there is a commitment to innovate and a willingness to move beyond rhetoric to the search for practical and realistic solutions, it will be possible for South Asian utilities to effectively serve the poor. What is more of a concern is that there has to be a commitment to the overall reform process to enable improvements to service delivery for poor consumers to occur at all. This may be the greatest constraint to improving conditions for the poor. It requires an acknowledgement up-front that business as usual is no longer acceptable. The reluctance of politicians to initiate reform, linked to a lack of strong organized consumer demand, has led to stagnation in the sector with little willingness to innovate and seek new solutions.

Factors in favor of innovation

Ironically, however, South Asia is endowed with strong existing institutions; most of the countries in the region boast impressive training capacity, have a culture of planning and some have already launched programs of reform in other sectors. Civil society is also strong and many potential private sector participation arrangements

would have the advantage of well-equipped potential partners both for service delivery and to support the process of public consultation. The tradition of democracy in much of the region also supports the potential for an inclusive consultative process and existing community-based initiatives provide models for replication. Finally, the impending crisis of failed service provision, environmental damage and public health disaster is a powerful argument for taking radical action now – and it should be clear that radical action does not have to exclude the poor but could materially benefit them.

The future

For the future, governments in the region who are prepared to consider introducing the private sector to a major role in water and sanitation service provision should take careful note of the lessons from elsewhere. It is not enough to simply make provisions for lifeline tariffs and require private sector operators to extend services to poor areas. There needs to be a clear commitment up-front that serving the poor is one of the major objectives of any new private sector participation arrangement. Once this commitment is secure, time and resources must be put aside for exploring the nature of poor consumers, their demands and willingness to pay, and to designing appropriate technical and institutional arrangements to serve them. New lessons are continually emerging from other countries and other

sectors and these must be taken into account.

Furthermore governments must be committed to releasing control over the direct provision of services. Three distinct responsibilities must be clearly demarcated: policy remaining with government, regulation becoming an independent and trusted institution and service provision being carried out by professionals. This implies a commitment to building capacity for effective regulation and dispassionate monitoring and evaluation of performance. **The benefits that the private sector can bring will not be realized unless water and sanitation service provision and regulation are separated from the business of governing.**

Meanwhile civil society needs also to be informed and constructive within this debate; it is not enough to voice the concerns of serving the poor – all players need to be engaged in a constructive search for real solutions to the challenge of serving the millions of poor consumers in South Asia's cities. Where local and national governments will create room for debate, civil society must contribute from its rich store of experience and ideas.

Finally, private sector service providers probably need to open their thinking to new forms of partnership. They, too, need to be prepared to learn from other sectors, be open to partnerships and to build their own capacity to deliver more effective services more effectively to poor people who would thereby finally become legitimate customers.



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