

The Role of Small Scale Private Water Providers in Serving the Poor

Summary Paper and Recommendations¹

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I. BACKGROUND

1. Over the past decades, governments and development agencies have relied on large water utility companies to provide water in urban areas. Unfortunately, although access to water has improved, large percentages of the urban poor remain un-served. Water utilities have been unable to cover the whole population with the existing price strategies and management structures and less than 50 per cent of the urban population in Asia² had access to a connection to the water utility in 2001. Research in Africa, Latin America and Asia³ shows that the population without access to a connection concentrate in low-income areas and that a large number of them rely on alternative forms of services delivered by Small Scale Private Water Providers (SSPWPs).

2. An ADB survey in eight cities of Asia show that the presence of SSPWPs varies greatly in each city but that is always significant where there is low connection rates or where service is lower than 6 hours per day. Preliminary data indicates that SSPWPs provide water to 6% of the population in Delhi, 10% in Dhaka, 5% in Kathmandu, 36% in Cebu, 19% in Ho Chi Minh City, 44% in Jakarta and 13% in Ulaan Baatar. In a city like Jakarta with a population of 9 million people, this means that approximately 4 million people depend on SSPWPs to meet their daily water needs. However, SSPWPs were not been considered in the strategies to increase the participation of the private sector in Jakarta and investments by SSPWPs are rarely registered in the sector statistics on private investment.

II. FINDINGS

¹ This paper has been prepared by Herve Conan (BURGEAP) and Maria Paniagua (ADB) based on the preliminary findings of the study on Small Scale Private Water Providers under the Asian Development Bank Regional Technical Assistance 6031.

² Effective coverage with piped water based on connections: Delhi 46%, Dhaka 10%, Karachi 47%, Kathmandu 54%, Manila 32%, Jakarta 31%, Phnom Pehn 31%, Ho Chi Minh 32%, Vientiane 45%.

³ Findings of this research have been summarized in the following papers: *Competition in Water and Sanitation — The Role of Small-Scale Entrepreneurs*. Tova Maria Solo, Viewpoint, Note No. 165, December, 1998, the World Bank. *Independent Water and Sanitation Providers in African Cities: Full Report of a Ten-Country Study*. Bernard Collignon and Marc Vezina, 2000. In Asia, preliminary findings have been drawn from the study of eight cities financed by ADB under RETA 6031.

3. These water providers are small or medium entrepreneurs that have made water distribution their main source of income and who generally have invested their own capital to initiate their services. SSPWPs vary but can be classified as managers of water utilities stand posts, owners of small piped networks and vendors (water carrier, tanker) and resellers. The majority of these SSPWPs remain informal and work without recognition from the local authorities or the water utility. Most of them are close to the area they are serving, and develop their business in a competitive environment as none of them has exclusive right to provide services⁴ volumetric rates offered by SSPWPs are usually higher than that of the utilities but poor consumers still demand their services because their supply fits with their expectation: service is flexible and available immediately, there are no high connection fees, their management style adapts to their customer's profile (in particular periodicity of billing), they use local materials and technology to reduce costs, and they can overcome legal and physical barriers often characteristic of the areas they serve.

4. The quality of service and price offered by SSPWPs is strongly linked to the water service provided by the utilities and to the existing water resources and business conditions present in the area. The better the service coverage and the water availability from the public utility, the lower is the niche market for SSIPWPs. Cultural notions also play a role and where we find a strong tradition of public subsidies or free water to the poor, such in the case of Delhi, Kathmandu and Dhaka, the niche market for SSIPWPs is very limited despite the low levels of service provided by the utility.

5. Where the conditions are suitable, SSPWPs have managed to offer a service comparable to that of water utilities. Our research in Asia has identified a number of pioneers⁵ that can provide a house connection with 16 to 24 hour service. This is the case of SSPWPs in Cebu, Ho Chi Minh and Manila (see attached case studies). Investments by SSPWPs can be substantial and provide service to significant number of household. In Metro Manila there are SSPWPs that have invested US\$350,000 USD within five years to deliver water to approximately 25,000 households through a connection or through supply by hose, and in Ho Chi Minh City there are SSPWPs that have invested US\$80,000 USD to produce and treat water to be distributed to 400 households through a house connection.

6. The type of service and investments by these pioneers is significantly different to that of vendors and reseller. Pioneers offer a household connection with similar hours of service to that of the utility, which is the kind of service that most consumers aspire to. They also have developed their own management strategies and implemented technology choices that are best suited for their clients, which reduces investment and operational cost per connection. There are indications that the investments by pioneers although relatively recent, are growing rapidly due to the increasing demand and willingness to pay for their service but also due to the slow rate of expansion into these communities by the water utilities. The better the legal environment, the higher is the level of service and the level of investment per HH served (US\$47 per connection in Dehli, where SSPWPs are illegal, versus US\$80 in HCMC and US\$100 in Cebu, where SSPWP have received authorization from local authorities). Therefore, it is expected

⁴ The volumetric rate is the highest for the water served in small quantities (water carrier, vendors...). Because of the small volume of sales, the profit margin of these small-scale operators amounts to around US\$1 per day (within the poverty line).

⁵ See case studies of Cebu, Ho Chi Minh City and Manila in appendix I.

that pioneers will continue to expand and invest in the sector, as long as utilities continue to lag behind the growing demand for a water connection.

7. Unfortunately, these pioneers although sometimes are recognized by the local authorities they rarely have an authorization from the existing water utility, which increases the risk of their investment. In addition, their business is seen by commercial banks as risky (illegal), non-profitable (poor customers) and their assets are rarely recognized. Consequently, they have limited access to long term credit and borrow at high interest rates⁶. The cost of doing business under these conditions is past to the consumer and limits their capacity to expand their services.

III. CONCLUSION

8. Given that 100 per cent service coverage by water utilities will not happen within the next decade, we must recognize the role that SSPWPs have and will keep having as a major providers of water to poor urban areas. By recognizing the role of these pioneers as partner of the sector, it is possible to increase and channel their investment capacity to contribute to the global investment required to reach the Development Millenium Goals set for the water sector. Ultimately, integrating SSPWPs in the water sector investment strategy would accelerate their expansion capacity and allow them to lower their tariffs, which would ultimately help to improve the services and choices available to the urban poor.

IV. RECOMMENDATIONS

9. The following recommendations aim at improving the quality of service and coverage provided by SSPWPs to the urban poor and to contribute to increasing the total investment in the water sector:

- To provide a **conducive legal framework** that recognizes and encourages greater longer-term investments by SSPWPs, including in the context of private concessions and decentralization of services.
- To include SSPWPs in **water supply strategies** by governments and donors and in water supply development plans by local authorities and water utilities, building incentives for SSPWPs to improve their services while respecting their core competencies.
- To facilitate SSPWPs **access to financial resources** to increase their capacity to invest in the sector and reduce their cost of capital.

⁶ When required, SSPWPs currently obtain credit from informal sources that charge 5% to 10% interest rates per month.

HCMC : A Legal Framework To Involve Small-Scale Private Water Provider

The city of Ho Chi Minh has to face two main issues to improve water supply at city scale:

- Important shortage of water (around 30%) due to rapid city and economic activities growth during the last decade. The water shortage is reinforced by the increase of the technical losses (from 20 to 30% the last few years)
- The rapid extension of city with large peri-urban and rural areas not served.

Despite the investment done these last few years and new water production units, the Water utility (Ho Chi Minh Water Supply Company) is always “running after the demand”. Based on the low progress of the water coverage (still more than 55% of the total population doesn’t access to water utility service) and the existing involvement of many local water providers in non-served areas, the Municipality recognized that the water utility will not be able in the next 5 to 10 years to serve all the citizen. The Municipality decided in December 2001 to develop a legal framework to promote the involvement of small scale water providers to reach the target of the Master Plan 2001-2005 : 90% of the population will have access to clean water.

A regulation on “socialization” of investment in safe water supply has been developed by the Municipality and the Water Utility during 2002 -currently reviewed by lawyers- which is aimed at facilitating the investment of local private companies to i) increase the water production, ii) to improve the level of service in the areas non served by water utility, iii) to rehabilitate the pipe network in specific areas where water leakage is high. The areas to carry on the socialization program are selected by local authorities (Department of Public Works, Department of Planning and Investments, People Committee of Districts) and technical specifications are defined by Water Utility.

This regulation would define (i) the different types of investment, (ii) the procedure to select the investors who are short-listed on their experience (tendering process), (iii) the rights (development of his own business-plan) and responsibilities (clean water, technical standard, monitoring by local authorities) of investors and (iv) the hand over process at the end of the sub-delegation contract (2 x 5 years) or when the area is reached by the Water Utility network. This regulation doesn’t yet include specific and low-cost technology approach to facilitate service to poor; SSPWPs have to comply with the technical standards of the water utility.

Municipality: Through this innovative process, the Municipality wants to encourage the private investment and to promote partnership between Water Utility and the local operators. Water utility must support the small entrepreneurs both on technical and administrative aspects and on procurement of materials (PVC pipe, chemical products, etc.). The small entrepreneurs will benefit from the policy of privilege investment (tax exemption).

In 2002, a pilot project has been set-up with Hiep An Company, a private company based in District 8, who signed a contract with the Water Utility to sell it safe water by bulk (700m³/day). Water is pumped from 2 wells and treated in a water unit. In addition, this Company serves safe water to around 100 households in the neighborhood. Hiep An Co. has invested around \$100,000 in this area and is currently studying a new investment (for around \$100,000) in another District including a commercial center and around 200 households to be served.

Cebu: A Context Favorable to Small-Scale Private Water Providers

Intense human activities have put a great strain on Metro Cebu's water supply in recent years. Metro Cebu's water supply is mostly derived from groundwater aquifer, which is rapidly being depleted. Bringing surface water is an investment that is not within the short-term planning of the government-owned Metro Cebu Water District (MCWD). Consequently, extension of service is not a priority and coverage with piped water based on connections is only 32%. In Cebu the requirements to access a connection from MCWD are many and very difficult to meet by most of the 35% of the population living under the poverty line.

MCWD Requirements to Connect to the Network: US\$100 connection fee plus evidence of the land title or tax declaration, current residence tax certificate, affidavit of house ownership, plumbing permit, applicant's identification card and filled application form. Due to this situation, in those areas served by the water utility, many inhabitants have developed different strategies to provide a house connection to those in their neighborhood that cannot afford the connection fee and/or cannot meet the administrative and legal requirements.

(1) There are many small-scale systems that use water from a private well equipped with an electric pump and a small water tank (few m³). Originally, the system is developed by the owner for his own need. However, because of the demand, neighbors (within a radius of 50m) who wish to avail of the service, shoulder the expenses for plumbing services, a water meter and galvanized iron pipes, and for an average cost of \$60 they can have access to the service. No specific documents are required by the owner of the system. Each provider serves 100 to 250 m³/month to 10 or 20 households. Customers (neighbors) pay their bill on a periodicity defined with the provider (weekly to monthly basis).

(2) A different kind of system consists on a well that feeds into a reservoir with a capacity of around 15 to 20m³ with a main pipe system bringing water into the neighborhood. The technical standards set up by the provider are similar to those implemented by MCWD in low-income areas. The water provider extends the network in a radius of 500m to 1km within the neighborhood and offers a service comparable to that of MCWD, but does not required any legal or administrative documentation. . The customer purchases the needed materials for the connection (pipe, meter) from a hardware store or from the water provider. The connection cost amounts to approximately US\$60 paid by the customers. These providers served a total of 1,000 m³/month to 100 households. The customers pay their water bill on a monthly basis.

(3) Some water providers supply water to households 3 or 4 days a week using flexible poly-ethylene hoses. The source of water is the main distribution line which is connected to a well. Customers are served on a request basis by a caretaker who fills the household containers. The system does not have a metering device and the caretakers records the consumption of each customer in individual cards that compute the weekly water consumption and are the bases to calculate the fee charged by the owner. The connection cost is around US\$10. These providers served a total of 500 m³/month to 100 households.

All these operators are operating legally with all necessary permits, including local government (barangay) clearance, an authorization from MCWD, a permit from the National Water Resources Board and a business permit from the Municipality. The tariff charged by these SSIWPs is in line with the type of service, and the size of the initial investment.

	MCWD	System (1)	System (2)	System (3)
Initial Investment		US\$ 2,000	US\$ 6,000	US\$ 2,000
Connection Fee	US\$ 100	US\$ 60	US\$ 66	US\$ 20
Tariff US\$/m³	US\$ 0.24	US\$ 0.5	US\$ 0.8	US\$1 to 1.5

The case of Cebu highlights that i) high connection fees and legal requirement and not water tariff, is one of the most important barriers that customers face when it comes to connecting to the water utility network; and that ii) there is a strong demand for water delivered at home and the willingness to pay for this kind of service.

Metro Manila: Small Scale Private Water Providers can Reach Big Numbers

Inpart Engineering is family run business that provides water in 14 areas of Metro Manila. Their biggest area is located in Addition Hills, a long term squatter area where public utility connection was not available because of the lack of land tenure. Given the existing demand for a piped system in the area, in 1997 Inpart Engineering signed an BOT agreement with the local government to provide water to 17,000 households. Under this agreement, the local government requested a bulk connection to the public utility and handed it over to Inpart. Inpart agreed to invest in the development of the distribution system, pay the water utility bill, pay 10 percent of the gross revenue to the local government, employ people from the community and transfer the system to the local government after 20 years. The initial investment included US\$ 10,000 for the connection to the water utility, the construction of a water tower with capacity for 455 cubic meters, purchasing and installing 15 buster pumps of 1.5 horse power, 750 meters of PVC pipe, 287 mother meters and more than 50 kilometers of 2 inch distribution pipes. An approximate total investment of US\$ 134,000 was made in less than six months.

Inpart distribution and management system works as pyramid. Inpart distributes water from the water tower to 287 mother meter each connected to one distribution pipe that is managed by one Aguador from the community. Each aguador is responsible for one main distribution line and one master meter and he can branch out and install meters and pipes to households. He or she sells water to approximately 100 to 200 households through a household connection from his/her line or by filling a water 200 liter container with a hose. Customers with a connection pay US\$ 0.70 per cubic meter to the water manager, who reads the meter daily, while those served by hose pay US\$ 1.32 per cubic meter. A household connection is free, but the customer has to provide his/her own meter and pay a plumber for the installation (between 12 and 15 dollars).

The water manager reads the water meters, bills his/her clients daily and keeps 20% of the total sales as his salary. Inpart also reads and bills the water managers daily. Any meter reader discrepancies or water loses are evident immediately and it is in the interest of each water manager to avoid illegal connections or water loses. Because of the presence of the water manager in the community, most of the distribution hoses are not buried which helps to identify illegal connections and losses. Inpart costs include monthly maintenance, electricity bill, salary for three full time employees, 10% of gross sales to local government, payment to water utility and cost of capital. Cost of capital is very high because no commercial credit is available. Inpart borrows from different sources, and interest rates vary from 10 to 20 percent per month with a 30 to 90 days payment period.