

## Lessons Learned from PPIAF Activities: Pricing and Affordability in Essential Services

*This note is the sixth in a series of notes assessing lessons learned on pricing and affordability in essential infrastructure services from PPIAF-funded activities. This series was written by Robin Simpson, an independent consultant and member of PPIAF's Technical Advisory Panel. The notes reflect the author's opinions and not those of PPIAF or the World Bank Group.*

### **Lessons learned: small-scale service providers have a contribution to make.**

The line between small-scale private service providers (SPSPs) and formally recognized services is gradually blurring. It is difficult to get the regulatory balance right. Outright illegal status for all but 'official' services creates perversities and allows governments to divert attention from public service failures by branding alternatives as criminal. Relaxing technical norms creates double standards, but standards that are rigid make it difficult to set up services in physically constricted informal settlements. Regulating tariffs centrally can be risky due to the potential for running operators out of business if tariffs are set below costs, thus re-establishing the vacuum of provision which will inevitably be filled by another generation of SPSPs.

SPSPs can provide a dynamic and responsive service to communities who lack access to networked utility services. A two-pronged approach may be worth consideration: recognizing both the networked utility service providers and the potentially valuable role played by the SPSPs. This would require a nuanced balance of performance and technical standards, along with attention to licensing and access to depots and sources.

### **Small-Scale Private Service Providers**

**SPSPs have higher operational costs than networks**, so it is inevitable that as their customers, the poor pay more. However, various PPIAF surveys have shown that it is not axiomatic that they are exploitative, in the sense of charging far higher prices than cost. Indeed they may become suppliers by accident of geography, sometimes evolving informally into service providers as a result perhaps of being the last family on a local distribution line supplying their unconnected neighbors. PPIAF surveys have shown many SPSPs are poor, as are their customers, (40-70% of whom are poor<sup>1</sup>). Many supply as good a service as municipal counterparts when like-to-like comparisons are made<sup>2</sup> and, **for a given service**, their prices may even be comparable despite the absence of public subsidy.<sup>3</sup> Furthermore, they often do not charge a connection fee for access to networks, or at least not one that covers costs.<sup>4</sup>

Many providers are relegated to the realms of illegality by the existence of monopolies, both public and private, whose failures to serve the whole population lead to demand for alternative provision. As if in justification of their suppression, there have been allegations of a 'water mafia' that have sometimes

<sup>1</sup> J Baker (ed) *Opportunities and Challenges for SPSPs in Electricity & Water. Evidence from Bangladesh, Cambodia, Kenya & Philippines*. World Bank/PPIAF 2009 p.1

<sup>2</sup> Economist Associates reports for *Global Mapping Initiative for SPSPs in Electricity & Water Supply*. for PPIAF sponsored surveys 2006, also Baker op cit. p. 20

<sup>3</sup> M. Kariuki, & J Schwartz : *Small Scale Private Service Providers of Water Supply and Electricity: A Review of Incidence, Structure, Pricing and Operating Characteristics*. World Bank Policy Research Working Paper 3727 World Bank/PPIAF 2005.p.25

<sup>4</sup> Baker op cit.p.40 NB: Small water providers in Kenya did charge a connection fee,

turned out to be unfounded.<sup>5</sup> In fact, legitimate SPSPs have found it hard to compete with illegal vendors who steal supplies and undercut their prices.<sup>6</sup>

## A Varied Matrix

A study for PPIAF in 2005 estimated that while SPSPs served nearly half of the urban population in Africa and up to a quarter in Latin America, their contribution to coverage rates are frequently ignored because of their informal status.<sup>7</sup> The study classified them into the following groups:

- Grids or networks (e.g. mini-hydro schemes)
- Point sources (e.g. battery charging stations, water points)
- Mobile distributors (e.g. water tankers, carters)

These in turn can be grouped into those which are dependent on existing networks (purchasing in bulk and on-selling) and those which are independent (e.g. own borehole or small hydro plant).<sup>8</sup> The surveys sponsored by PPIAF found that for water:<sup>9</sup>

- Piped network operators compared fairly well with public utilities, in terms of price especially bearing in mind that the latter do not practice full cost recovery
- Hours of service for fixed SPSP networks compared quite well with the public utilities<sup>10</sup>
- Slightly higher prices were generally charged by point sources compared with the utility equivalents. Higher prices charged by truckers were sometimes caused by fuel price increases

PPIAF surveys also note the social segmentation of the different types of SPSP, notably the tendency for small fixed networks to serve better off groups compared to point-source or mobile systems. The exception to this is the 'value added' water services that have become in effect analogous to the drinking water delivery services to businesses in rich countries. Surveys in Indonesia and Bangladesh found that the market has evolved in that water-refillers, who use reverse osmosis equipment to sell filtered drinking water to consumers who bring their own bottles, are gaining market share at the expense of other small-scale providers, such as truckers and carters.<sup>11</sup> There is a general tendency for the more mobile services (e.g. carters) to be the most expensive with tankers, point source vendors, and piped networks each less expensive in turn.<sup>12</sup>

The scale of SPSPs is huge and their operations relatively unstudied. The proportions of populations covered by SPSPs in drinking water around 2005 in African cities were estimated in PPIAF-sponsored surveys as:<sup>13</sup>

- 30% Kampala
- 35% Abidjan
- 56% Dar es Salaam
- 60% Nairobi

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<sup>5</sup> PPIAF/Water and Sanitation Program Indonesia *Capacity & Knowledge Development for Small Scale Water Providers*. (TAP 2010) Final report p 42. See also Baker *op cit.* p. 126 where 'slumlord' activity is acknowledged, though not surveyed, because different services not identified in the general levy.

<sup>6</sup> B. Dardenne *The role of the private sector in peri-urban or rural water services in emerging countries*. Global Forum for Sustainable Development OECD Paris Nov 2006. section 2.2

<sup>7</sup> Kariuki & Schwartz *op cit.* p.6

<sup>8</sup> M. Kariuki, & J Schwartz : *op cit.* 2005. Table 1

<sup>9</sup> Kariuki & Schwartz *op cit.* also M. Kariuki: SPSP Global Mapping Initiative: Presentation to PPIAF Program Council, The Hague May 2007

<sup>10</sup> Baker *op cit.* p 37 & 213.

<sup>11</sup> PPIAF/Water and Sanitation Program Indonesia *op cit.*, ch 4, Baker *op cit.* p.135

<sup>12</sup> M van Ginneken (with E Ijjasz, E Lazarte & M Kariuki), *Small private sector providers in water supply and sanitation-an overview and some experiences from the WB and WSP*. OECD Global Forum on sustainable development. 2006

<sup>13</sup> M. Kariuki, J. Shwartz & M. Schur, *Reaching Unserved Communities in Africa with Basic Services*. Gridlines no. 9 June 2006 PPIAF p.3

- 66% Conakry
- 80% Khartoum

For electricity, SPSPs were estimated to account for 21% of electricity consumers in Kenya and 15% in Mali in 2005,<sup>14</sup> These proportions indicate the size of the handicap faced by poor consumers.

### Default or design?

Kariuki *et al* outline three roles for SPSPs:<sup>15</sup>

- Gap filler
- Pioneer
- Sub-concessionaires

Another way of describing them is as being present by 'default or design'. There is some shift towards the latter as SPSPs are increasingly being seen as operating small public systems that need to expand or improve. A well-known example is that of the 350-600 *aguateros* in Asuncion/Ciudad del Este, Paraguay, who drill their own wells and were found to charge less than the municipal network for a 24/7 service. Very small networks may be run by user associations. Cooperatives have been developed from such origins in Bolivia, Mexico, and Vietnam. Community participation can be very successful in short run and the role played by SPSPs in Manila has been particularly widely noted.<sup>16</sup>

### Is regulation possible?

The issue of recognition is crucial, as illegality reduces standards. The perverse consequences of exclusion from recognition were shown by a 2000 study of latrine workers in Dar es Salaam, where the city had a monopoly on cesspit emptying. As the service was unable to keep up with demand, richer clients operated a system of 'express' payments for the pits to be emptied with vacuum equipment while the poor would employ 'frogmen' to empty the pits manually and they would then dump the ordure illegally, which led to protests from those nearby. At times the frogmen were attacked, and their already unpleasant and dangerous work often had to be done under cover of darkness<sup>17</sup>. One of the authors advocated that municipalities relinquish their monopolies thus legalizing alternative provision through a legal framework, such as incorporating community-based organizations. In due course, her advice was partly followed (licensing, access to depots) and the situation improved to the extent that charges fell and the numbers served increased.<sup>18</sup> In this context of bringing SPSPs into the formal sector, some expert commentators are concerned that regulators will need to be careful not to "over-regulate" alternative providers.<sup>19</sup> Over-emphasis on technical standards and formal procedures can prove counter-productive if it forces competent independent providers out of business. Likewise, tariff regulation risks being widely flouted on the one hand or, if tariffs are set below costs, could run operators out of business, thus re-establishing the vacuum of provision which will inevitably be filled by another generation of SPSPs.

The detriment for consumers using SPSPs does not so much arise from exploitation of customers (although it would be naïve to say that it never happens, there are reports of 'selling on' of water from standpipes at very high mark ups). Rather, it arises from the fact that those who are not served by the utilities are forced to use high cost suppliers. Progress will come both from developing network services,

<sup>14</sup> Kariuki *et al op cit*, 2006 Table 2

<sup>15</sup> M. Kariuki *et al op cit*, , 2006 PPIAF p.2

<sup>16</sup> Dardenne *op cit*. section 2.2 PPIAF *New Designs for Water & Sanitation Transactions*. Water and Sanitation Program/PPIAF 2002 p.43

<sup>17</sup> M. Kariuki and B. Wandera: Regulation of Cess-Pit Emptying Services: A Case Study of Public Private Initiatives in Dar Es Salaam in Infrastructure for Development DFID London, 2000.

<sup>18</sup> M. Kariuki. *Making Space for the Urban Poor in Public-Private Partnerships*. Paper delivered to African regional conference of Consumers International, Nairobi, 2002.

<sup>19</sup> S. Tremolet & C. Hunt, 2006, *Taking Account of the Poor in Water Sector Regulation*, pp. 3-4, Water Supply & Sanitation Working Notes, no. 11 p.20

sometimes decentralized, and also from integrating SPSPs into network operations, using the skills that SPSPs have developed. PPIAF is active in supporting schemes in a variety of national contexts for licensing, procurement, regulation, sub-contracting, and access to finance for small operators.<sup>20</sup> Inactivity is not an option, for users of lifeline services will always seek out supply, and crude suppression will not resolve the access problems.

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<sup>20</sup> PPIAF March 2012. (<http://www.ppiaf.org/ppiaf/page/sectors/water-and-sanitation/small-scale-water-providers>)