



## Issues and implications of water pricing in urban Nigeria

Johnson A. Otun, Nigeria

### Introduction

The price of water is the charge or rate levied for the water produced and supplied to the consumers in order to generate enough revenues for either partial or total recovery of the fixed and variable costs of production. These costs usually include the costs arising from the everyday operation of water utilities (transport, distribution, collection, treatment), as well as the costs that result from the need to raise loans for investment in infrastructure. An ideal pricing system utilizes a firm pricing mechanism and policy to ensure the financial sustainability of a water supply scheme.

#### Water Pricing Issues in Nigeria

In Nigeria, potable water supply is a public service, controlled by the government through its 37 corporatised utilities, variously called water boards, corporations or authorities and generally known as State Water Agency (SWA). As the services rendered by these SWAs is historically considered a social welfare service, their charges are usually fixed at uneconomically low rates, which as illustratively shown in Table 1 with some representative SWAs, constitutes only a fraction of the operational costs. This situation, which similarly occurs year in year out in most SWAs, has shown that the water produced in these utilities are neither priced in accordance to the full-cost recovery theory nor in accordance with the requirements of the law or edict establishing most of them, which stipulate and grant autonomy in fixing the price at such a scale or level that is capable of meeting all operating expenses, repayment due on loan borrowed and cost of executing new and extension works (KWSB 2001).

As observed in a recent survey of 20 of the 37 SWAs, most of them are only autonomous on paper but not in practice. The managers of these SWAs are not given a free hand in fixing appropriate water rates. In most cases, the tariffs are not regularly reviewed as their respective state governments reluctantly permit them to do so. When reviewed, they are politically influenced as they are done in reference to the rates in other states. The tariff structure in over 85% of

these SWAs was not revised for over 5 years on the average. Yet, during this time interval, the cost of production has continued to vary resulting in poor recovery of costs. Consequently, the total cost of water supply had to be subsidized in one form or the other by their state governments.

Despite this and the growing realization that the public sector funds are not limitless, and that there are other competing needs, most governments still promise their urban dwellers cheap water supply as means of securing their vote and currying political favour. Consequently, over the years, governments have fixed low tariffs for the services rendered by the SWAs. The resultant effect of such sizeable and continuous loss by these SWAs is inadequate fund for operation and maintenance (O & M), which consequently leads to poor water quality, continuous interrupted water supply and dilapidated infrastructures.

The flat rate and volumetric (metering) tariffs are the formal tariffs used by all the SWAs. On the average, less than 30% of the entire domestic consumers are metered. The SWA prefer the flat rate because it covers up their inefficiency and frequent intermittent supply. However, both rates vary considerably from state to state and in most cases have little relation to the cost of production. They are initially set close to the cost of production but over time, due to their non-revision or marginal revision, the gap between the cost of production and the tariff widens and eventually makes the tariff to be out of line with the total cost. In all the SWAs the industrial and commercial rates are usually higher than the domestic rate. Projecting from what Raji (2001) and KWSB (2001) presented, the average tariff for full cost recovery in all SWAs will be in the range of N 75 – N 120 per m<sup>3</sup>. However, after due conversion of relevant data obtained from the SWAs, the tariff for domestic consumers in all the SWA was found to be less than N 30 per m<sup>3</sup> while that for industries ranges between N 60 – N 85 per m<sup>3</sup>. This glaring situation directly points to the fact that the pricing approach in most SWAs remains static and

**Table 1: Range of total water charges as a percent of total expenditure in some SWA**

State	Anambra	Akwa Ibom	Imo	Kaduna	Kano	Katsina	Niger	Ogun	Oyo
Range of Total Water Charges as a Percent of Total Expenditure*	64-79	56-73	54-70	73-87	70-84	66-80	42-57	83-92	40-55

Source: Obtained from respective SWAs (8 Years Data)  
Note: \* Total expenditure includes personnel, chemicals, electricity, fuel, maintenance and overheads

and unrealistic with respect to full cost recovery.

Owing to the dynamic nature of Nigeria economy, which is subject to frequent macroeconomic shocks, there have been some price variations for almost all water production inputs in the recent years. As the costs of electricity, treatment chemicals, personnel emoluments and other production inputs are always reviewed, the managements of most of the SWAs have always sought for the enactment of corresponding new water tariffs from time to time to accommodate such changes. The continued difficulties in approving their request by Government have made them to seek other ways of reducing production costs. In their appeal to the National Executive Council through the National Technical Committee on Water Resources in 1999, they have asked for a review of electricity tariffs and waiver of import duties on treatment chemicals and equipment for water supply and distribution. This has further showed the inability and constraint on these SWAs to operate strictly on commercial business principles that seek a price to counter and cover all imposed costs.

### **Consequences and Implications of Under Pricing**

The widespread poor pricing mechanisms and policy for water services in Nigeria have several direct consequences and implications to the SWAs. Firstly, it has resulted in under-recovery of costs (URC) that has often made the pooling of sufficient funds for adequate maintenance and expansion of their infrastructures very difficult. Subsequently, It has posed enormous socio-economic and financial difficulties to these SWAs. As a way out, they have often resulted to already over-burdened public budget and in most cases to external loans as a way to tackle these difficulties. A clear example is the recently concluded National Water Rehabilitation Project (NWRP) that was funded by the World Bank in over 60% of the SWAs to rehabilitate their ailing water schemes between 1992 and 2000. The continuous weak commitment of these SWAs to cost covering tariffs, a firm commercial business principle required for their financial sustenance, might further lead to the collapse of these NWRP-rehabilitated water schemes and possibly weaken future plan to privatise them.

The misconception of the cause of the frequent operational problems experienced by these SWAs has been reported by NCWR (1999). The consequences of failing to cover costs are never directly linked to the resultant inefficiencies and poor performance often experienced. As observed, most of the water schemes in urban centres of Nigeria can only cater for less than 50% of their present population as there are no enough funds to implement supplementary or new schemes to meet the increasing water needs of the growing population of these cities. Owing to the low flat rate tariffs, the served customers usually do not place value on the water. In most urban centers, it results in a lot of wastage as leakages are not quickly repaired leading a lot of revenue for these SWAs.

In response to this problem of poor cost recovery, the Federal Ministry of Water Resources (FMWR) during the NWRP, created a lot of avenues for all stakeholders to meet and discuss the several options to solve the problems and bring about an efficient water supply delivery in Nigeria. Between 1995 and 1999, several workshops and conferences organised include the National Workshop on Management and Financial Reform of SWAs where it was recommended among many other things that the SWAs should improve their performance by implementing detailed management and financial reforms to attain a fully commercialised status by involving private sector participation. As a follow up to the second workshop on Options for Private Sector Participation (PSP) in Water Supply, the FMWR engaged Messrs Halcrow Management Sciences Limited in February, 1997 to study the options for introducing PSP in six selected SWAs (FCT, Kaduna, Kano, Yobe, Anambra and Ogun) based on their receptiveness to PSP. The outcome of their in-depth analysis as reported by (NCWR 1999), shows that the so-far denied autonomy and consequent steps involving appropriate pricing that could not be freely implemented within the present SWA settings can be accomplished through Lease Contract and Performance Management Contract. One wonders why the advice to introduce any of these PSP principles has not being implemented in any of these SWAs.

A close look at some of the SWA, especially those of Lagos, Ogun and Kaduna Sate, indicates that they have in the recent years followed most of the sustainability strategies introduced by the World Bank during the NWRP to reduce operational costs and improve revenue. They have reduced over bloated staffs, reduced large system losses (unaccounted –for-water (UFW)) through leakage detection and repair program and improve on their revenue collection practices by involving the services of some private companies for billing and revenue collection as a way to help make their utilities financially sustainable. While the particular step taken on billing and revenue collection is important and worthwhile, it must be mentioned that, the fact still remains that improved revenue collection cannot increase revenue from already low tariff. This possibly can explain the reason why up to date no single public utility in Nigeria has achieved the feat of financial sustainability. They are still being supported by one form of subsidy.

Declining services currently being experienced in over 70% of the SWAs, has also forced some urban dwellers to seek self-provision of water through privately owned boreholes, hand dug wells etc., In recent times, the rush for this alternative has led to higher cost of providing them as it is presently being observed in major urban areas of Abuja, Ibadan, Kaduna, Kano, Lagos and Port-Harcourt where the rate and cost of sinking private boreholes has been on the increase.

The subsidized costs by respective government of these SWAs have continuously made them non-profit organizations. The intentions of government to continuously provide subsidy as a way of helping its poor is often

defeated as they often still lack formal access to water connections. In spite of this, governments have clung to this approach, because they believe that they are doing a socially appropriate thing. However, the consequent unproductive and poor profitability level experienced in these SWAs, as a result of inappropriate pricing, has resulted into an un-conducive and unattractive environment for private sector participation (PSP) or corporate investment. There exist, therefore, a great commercial and business risk in most of these SWAs under the present setting that involves strong government interference.

### Informal Sector Pricing

In response to the poor SWA performance, some private sector activity operated side-by-side, through either self-provision mentioned above or an alternate informal sector. The rest 50% of urban dwellers that are not directly served and about 25% of those that are inadequately served by the SWAs public water schemes heavily patronise the services of these private water vendors (PWV) although at a higher price. These PWVs provide alternate water supply through borehole, dug-wells and uses trucks, water tankers or smaller receptacle such as carts, buckets and jerry cans to hawk water for distribution to their customers. In some cases, these PWVs only improve the supply from these SWAs by use of booster pumps and erection of storage tanks that serves as private water kiosks. Some also collect water directly from the SWA's kiosks and later resells them at a higher price. PWVs also sell drinking water in bottles and water sachets in all urban centres.

The major attraction to these PWVs is the fact that their services are more reliable though more expensive than that of the SWAs. The major characteristics of the alternate pricing method devised by these PWVs, is that the charges are demand driven and is based strictly on commercial business principles. The higher the demand for their services, the higher their price. Similarly, as soon as their meagre operation costs increases, their price is immediately increased.

As shown in Table 2, the average population served by PWVs is as high as 58% in some urban cities surveyed recently. The trend also shown on this table has relatively proved that the current unwillingness of the urban dwellers

to pay the low tariff rates of these SWAs should not be substituted to mean that they couldn't afford the services of the SWAs. The continuous and interwoven chain of poor pricing mechanisms by these SWAs, poor O & M, poor services and consequent poor revenue due to the unwilling attitude of the customers may never stop.

### Survey on the Impacts of both Pricing System

The situation discussed above has created a lot of concern. A recent survey to further review the status and impacts of the existing and the alternative pricing approach was carried out within some urban areas of Nigeria. This is an attempt to seek an end to the deadly scenarios of poor-cost recovery among the SWAs and consequently help to advise on best ways to to achieve the desired financial sustainability.

In 2002, a field survey was conducted in 15 major urban centres in Nigeria to monitor the socio-economic impact of existing water supply in urban cities of Nigeria. A total of 500 questionnaires were randomly administered in each of the following cities; Lagos, Ibadan, Abeokuta, Oshogbo, Akure, Benin, Offa, Lokoja, Abuja, Minna, Zaria, Kaduna, Kano, Gusau and Jalingo. 85% of these urban dwellers interviewed, confirmed that the water produced by these SWAs is relatively very poor in terms of quality, quantity and reliability. It also showed that the poor services rendered by these utilities negatively affect the consumers' willingness to pay for them. Hence, these urban dwellers have resulted to patronising the services of some PWVs, even though at a far higher price shown in Table 2.0. It further revealed that at least 70% of the interviewed population is willing to pay up to N 80 – N 100 per m<sup>3</sup> if only the SWAs could provide reliable services. They are therefore seeking a reversal of the situation and are consequently seeking to know when and how this feat can be achieved?

At least 65% of the stakeholders interviewed scored the following aspects of the SWA involvement as either poor or below satisfactory levels: Pricing policy, quality of water produced and political interference of government in the SWA activities. When these stakeholders were asked to give recommendations for improvement of the services provided by SWAs, the following issues were highlighted.

**Table 2: Private Water Vendors in Urban Nigeria**

Place	Average Population Served by Private Vendors (%)	Average Price per Litres of Vended Water			
		Sachet Quantity (N /Liter)	Bottled Quantity (N /Liter )	Small Quantity (N /Liter )	Bulk Quantity (N /Liter )
Akure	48	5	55	0.25	3.2
Benin	46	5	55	0.37	2.9
FCT	40	5	55	0.5	5
Ibadan	53	5	55	0.2	3.1
Kano	52	5	55	0.4	3.6
Lagos	58	5	55	0.625	4

## Way Forward: Future Pricing Reforms

To meet the challenges ahead, old pricing policies and approaches where state governments politically interferes with the autonomy of the SWAs as a corporatised utilities will have to be jettisoned. New approaches that require the political will and supports of governments to bring about the much-needed price reforms include the following.

### Appropriate pricing mechanisms

The notion of water as a social service good that must be accessible to everybody at a cheap price must be changed. The SWAs should develop a new pricing mechanism, that is unbiased and support full cost recovery as a step towards making the SWA viable for PSP and financial autonomy. This should be separated for urban, semi-urban and rural water schemes.

### Public awareness and participation

Acceptance of new water pricing reform by the general public in urban centres of Nigeria has to be planned and implemented. It should focus on explaining to users why they have to pay more for their water use and make people use their water more efficiently. The water users must be made to fully understand the reasons behind the inevitable price increases.

### Transparency

Lack of information on subsidies, quality of water produced and financial statement on these SWAs has shown their lack of transparency, which has proved to be an obstacle in the way of introducing new and more efficient pricing schemes. As these SWAs become more transparent in all their operational dealings with the public, new and more efficient pricing schemes will become more readily acceptable to them.

### Conclusion

Obviously the pricing policy and mechanisms in Nigeria has been very unfortunate. It has brought many socio-

economic problems that have directly and indirectly affected the entire public water sector. This increasingly situation has brought a growing awareness and desire among the urban dwellers to seek appropriate water pricing reforms that can bring about the desired sustainability within the sector. Without doubt, water supply in urban areas of Nigeria can be most efficient and effectively delivered if the SWAs, as shown from the experience with most PWVs, operate strictly on commercial business basis, with appropriate pricing reforms in place and without political interference from government.

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OTUN JOHNSON A. Department of Water Resources & Environmental Engineering, Ahmadu Bello University, Zaria, Nigeria. ([johnsonotun@hotmail.com](mailto:johnsonotun@hotmail.com)).

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