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# “Pure Water” Sale and Its Socio-Economic Implications in Nigeria

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**ABSTRACT:** The study aim to show the gradual acceptance of buying water in the open market across Nigeria. The commoditization of water is most manifest in the boom of packaged water, especially the ones in sachets popularly called ‘pure water’. The initial position of the government was to ignore the industry as part of the informal economy. After considerable concerns were raised on public health grounds that water merchants were selling ‘pure gutter’ instead of ‘pure water’, the government, through the National Agency for Food and Drugs Control (NAFDAC) intervened to regulate standards. Proprietors of packaged water are expected to apply for licenses which can only be issued after inspection of their facility by NAFDAC officials. Consumers are advised to patronize only packaged water with NAFDAC number, which is supposed to come with a certification of quality. The paper also examined the socio-economic implications of “pure water” sale, taken cognisance of the policies and reforms on water supply in Nigeria historically. Content analysis through the review of Secondary sources was used. The sale of packaged water will help to ease the hardship in accessing portable water, but the need for tight measures for ensuring its purity by regulatory bodies is paramount.

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## I. INTRODUCTION

Since the 1980s, most developing countries have embarked upon reform of the water supply and sanitation sectors. Although reforms of some sorts were necessary in many of the countries given the fiscal crises that confronted them from the late 1970s and shortfalls in meeting their targets for water and sanitation, the proactive role of multilateral organizations, principally the World Bank and the International Monetary Fund (IMF), in imposing reforms as conditionality for loans and debt service have been controversial (see Goldman 2005). The Bretton Woods institutions have been criticized for stage-

managing the take-over of the developing world by making privatization of water supply a prerequisite for financial support (Finger and Allouche 2002, Amenga-Etego and Grusky 2005). Given the primacy attached to privatization, it is not surprising that commentaries on the reforms have revolved around debates on the pros and cons of privatization. A corollary of this concern is that the debates have largely revolved around countries in which foreign private companies have taken over the business of supplying portable water and sanitation services. For instance, South Africa, Cote d’Ivoire and Ghana have attracted most of the studies of water and sanitation

reform in sub-Saharan Africa largely because of the incursion of Big Water companies from the global North. Such a focus, while important, leads to an underestimation of the extent of reforms that may be taking place elsewhere in the continent.

The neglect of countries that have not embarked upon wholesale divestiture and privatization also obscures the roles of promoters of reform and their *modus operandi*, the reasons why privatization was either not attempted or failed in most countries and the impact of reforms on state and society relations in such countries. Moreover, the narrow focus on privatization case studies obscures the more fundamental transformations taking place in these countries, as a result of the hegemonic sway of the Integrated Water Resources Management (IWRM) framework. At the core of IWRM are three interrelated principles, namely: recognition and valuation of the whole gamut of the social, economic and ecological uses of water; adoption of integrated planning and management of agricultural, municipal, industrial and ecological demands for water; and institutionalization of partnerships between state institutions at various levels, the private sector and civil society in water management (Conca 2006:124). These brought about the profound changes in the water supply sector in one such country, Nigeria.

Like other developing countries, multilateral financial institutions have been promoting reform of the water supply sector in Nigeria over the past three decades. The overriding objective of the reform has been outright replacement of the supply driven approach in which the state was held responsible for provision of potable water and sanitation services with a demand driven approach whereby the major decisions are taken by the private sector and the consumers of portable water. Thus, Bretton Woods in particular and the international development community in general have increasingly and rather overzealously promoted privatization and community participation as the panacea to the water cri-

sis that threatens the attainment of the millennium development goals in Nigeria's growing cities and pauperized rural areas. It is necessary to investigate the making, mainstreaming, and effects of this new orthodoxy on water provisioning in Nigeria. More pointedly, it will explore what Conca (2006) has rightly called the tension between metanorms of water marketization and water citizenship.

Many years of neglect by government and inadequate investment in public infrastructure has left the public drinking water supply in Nigeria in an unreliable state. The society has therefore taken to several adaptive measures of alleviating this stress. One of these is dependence on sachet water (water in small plastic bags), popularly referred to as 'pure water'. Although easy to serve and the price is affordable, complaints abound on its purity and other health concerns. A gradual nationwide ban was proposed by the national regulator for this packaged water but the market still witnesses tremendous growth, especially among the poor. The production, marketing and consumption of sachet water have increased tremendously. There are now several brands of these type of packaged water marketed in Nigeria and other developing nations (Ogan, 1992; Kassenga, 2007).

Looking at advantages and disadvantages of sachet pure water using relevant water and environmental social policies in Nigeria; the paper is divided into four broad sections. Following the introduction, section two reviews the literature on the reform agenda under the aegis of multilateral institutions such as the World Bank (WB), International Finance Corporation (IFC) and the United Nation (UN) agencies, Organization for Economic Co-operation and Development (OECD) agencies such as the European Union (EU), the United States Agency for International Development (USAID), the UK Department of International Development (DFID) and the Japan International Development Corporation (JICA); and non-governmental organizations such as Water Aid. The third section focuses

on the emergent 'shared vision' on provision of potable water in Nigeria's policy sector. Finally, section four discussed the socio - economic advantages and disadvantages of satchet pure water in Nigeria as a social phenomenon, conclusion and recommendations on regulatory measures.

## II. REFORMING WATER POLICY IN NIGERIA

The World Bank has been providing assistance to Nigeria in the water supply sector since 1979. The first generation of assistance was directed at investments and strengthening institutions at the state level, especially since urban water supply is constitutionally a responsibility under Nigeria's constitution. States that benefitted are Kaduna (1979), Anambra (1980), Bornu (1985) and Lagos (1989). The second generation of assistance was in the form of a loan of US\$256 million for the National Water Rehabilitation Project (1991-2001), which targeted the entire country. Concurrently also, the World Bank supported the First Multi-State Water Supply Project (1992-2000) with a loan of US\$101 million, which was targeted at Kaduna and Katsina States. The third generation of assistance (2000-2004) was the provision of US\$5 Million under the Small Towns Water and Sanitation Pilot Project aimed at satisfying the needs of 16 towns. The Independent Evaluation Group (IEG) of the World Bank considers its intervention between 1979-2005 to have failed because the seven selected cases studies were 'rated as unsatisfactory, with unlikely sustainability and with negligible or modest institutional development impact' (World Bank 2006:vii).

The objectives of different generations of projects dovetailed with the prevailing conventional wisdom on water at the point they were proposed. For instance, the first generation projects were aimed at supporting the state to establish infrastructure to attain the UN Decade for Drinking Water and Sanitation. It was also launched at a point when the state

role in the sector had not yet been comprehensively challenged. The second generation projects were conceived to facilitate rehabilitation in the 1990s when the understanding was that the state needed to withdraw. The objective of lending was thus to rehabilitate existing projects in order to render them sustainable through user charges. The third generation captures the era where private sector involvement was anticipated to support large scale projects in the urban areas and the objective of lending was to provide assistance to small towns. The scaling down of funding during this period reflects this also. In terms of involvement in promoting reforms in the sector, World Bank involvement coincides with the second generation of lending. International developments that facilitated this include the emergence of the IWRM as conventional wisdom.

During this period, the Bank no longer limited itself to providing loans but also promoting policy reform (see Goldman 2005). Reforms were promoted in three ways. First, loans were made conditional to reforms or reforms were worked into the loans. For instance, to kick start user-contribution, benefiting communities were expected to contribute towards the project. Thus, in the Pilot Small Town loans project, beneficiaries were supposed to contribute 5 per cent (US\$ 0.5 million) while the federal government would contribute 25 per cent (US\$ 2.5 million) towards the project. Second, reforms were pushed through the idea of pilot projects funded under a learning and innovation loan (LIL). As stated in the loan document of the Small Town Project:

The objectives of the pilot project are to test, develop and improve the draft policy framework and implementation guideline prior to embarking on a nationwide program. It will particularly test the ability and willingness of the local private sector to support communities in their water supply investment and operation (World Bank 1999:2).

Third, the World Bank promoted reforms through knowledge transfer in the form of direct policy advice, research, publications or organizing workshops and conferences or providing sponsorship to relevant public officers to attend such conferences. For instance, the Bank organized workshops in 1996 and 1997 with government officials in which notably the first suggestions of Private Sector participation were made. The World Bank Institute (WBI) organized a participatory workshop in June 1998 for ‘a wide spectrum of stakeholders including the Nigerian Water Supply Association (NSWA)’ (World Bank 2004:12). The NSWA collaborated with the World Bank to organize a workshop for the water sector managers in September 1999, and in February 2000 the Bank and WBI organized a workshop for state governors and decision makers. The Bank also sponsored research such as the Nigeria Water Private Sector Option study (1998), Kaduna State Water Board Vendor Study (1998), Katsina State study on vendors and subsidies (1999) among others. The studies were explicitly intended to facilitate the Bank’s dialogue with Nigerian government officials. They were also aimed at shaping wider public opinion through Bank’s publications. For instance, in a much-cited World Bank strategy paper for the Niger Delta, results of studies that show that consumers are willing to pay for improved water and sanitation services are conspicuously displayed in a box. The implication of the finding was that the poor ‘believe that the benefits of safe water supply outweigh the higher cost of privately supplied water’

(World Bank 1995:111). Significantly, the World Bank bemoaned the improper pricing of water that led to inappropriate use and argued that:

‘In the delta region, this under-pricing of water may become a problem in areas of future aquaculture and rice expansion: both involve water intensive technologies. In areas where water is provided freely these forms of production, are in effect, subsidized; where such production occurs in coastal mangrove ecosystems, there is an implicit subsidy to clear these ecosystems for other uses (World Bank 1995: 93)

This was a subtle way of pushing the idea of IWRM into the public domain. Although the World Bank considers its loans to have failed, it is more optimistic when it comes to its reform promotion agenda. Through its participation in the preparation of Nigeria’s water policy (see below), Bank documents now frequently refer to the ‘shared vision’ for water and sanitation reform it has with the Nigerian federal government. It is hardly surprising therefore that the goals of the Bank for the water supply sector in the 2005-2009 country partnership paper are to:

- Concentrate on rehabilitation of infrastructure.
- Establish financial sustainability of service delivery.
- Perfect public/private sector partnerships (World Bank and DFID 2005:29).

The fact that the above paper was prepared for Nigeria by the Bank and DFID indicates the shared vision of multilateral and bilateral agencies in Nigeria on the water supply sector. The aim of DFID’s water supply projects in Nigeria is ‘to improve provision of potable water and adequate sanitation in an affordable and sustainable way through

participatory investment'. The policy of the European Union is similar, to wit:

Improved governance in water and sanitation and integrated management of water resources at regional, trans-boundary, national and local levels, and increased access to safe, affordable and sustainable water services for the rural and urban poor through the provision of funding for infrastructure and services (Edumarise, c. 2006).

The USAID also shares the same goals and has demonstrated this by its partnership with Coca-Cola and an NGO, the Global Environment and Technology Foundation (GETF). The program targeted at African countries, demonstrates in USAID's view, 'how government, business and the NGO community can engage to solve global water problems in innovative ways'. The JICA, which has also tried its hand in promoting reform in Nigeria actually involves private sector in delivery of water services. Its support in the sector has largely been delivered through Japanese business enterprises. The major international NGOs working in the water supply sector in Nigeria are also involved in furthering reform. This is not un-connected with the fact that the funding comes from the EU and DFID that have provided support for rural water supply through these NGOs. For instance, Water Aid with support from DFID has implemented projects aimed at fostering sustainable access to water in rural communities through partnerships between local governments, local businesses and water user associations. With the unprecedented agreement among the multilateral and bilateral partners on reform, it would not be surprising that the Nigerian government has moved in the desired direction as is shown in the next section.

### III. THE EVOLUTION OF REFORM POLICY IN NIGERIA'S WATER SUPPLY SECTOR

To be sure, there were some voices in favour of the reform of water supply in Nigeria prior to the explicit demands of the multilateral and bilateral institutions. These voices, largely from hydrologists both in the field and in the academia (see Oyebande 1978) stemmed from concerns about declining government financial investments amidst rising populations particularly in urban areas. They were generally in favour of allowing the public utilities corporations charge higher water rates for supplies and the reduction of wastage through metering. However, the voices did not impact public policy. For instance, in the Third National Development Plan (1975-1980), the Federal Government stated its objective as follows:

To make potable water available to an increasing proportion of the population at a reasonable rate. Existing works which have become inadequate will be extended to all sizable communities...In particular, it is the objective of government to meet the minimum target of 110 litres per person per day in all major urban centres and to ensure that all communities with 20,000 people or more are supplied with pipe-borne water during this period (FRN 1975:).

In that plan, the Federal Government also offered to provide 50 per cent of the total capital expenditure budgets of the state governments which also had ambitious water supply projects. For instance, the East Central State, which emerged from the civil war battered, noted in its plan for the same period that:

Because of the magnitude of the urban water problem and its interrelationship with other requirements, it is proposed to treat urban water supply as part of a special package... The revolution of rising expectations in rural areas, defining their greater demand for improved living conditions, and the increased rural populations have in fact been the driving force behind increased demand for improved rural water supplies. It is therefore the intention of Government in this plan period to provide every community with a population of 20,000 or more with good water supplies (East Central State 1975:118).

The above was the rationale for the major decision of government to take over water supply in the 1970s. Under the first and the second development plans, government provided major facilities in both urban and rural areas. However, in rural areas communities contributed towards distribution. 'Communities were also free to pay for the whole cost of the project in the absence of government approval or sponsorship' (East Central State 1975:118). Thus buoyed by rising oil revenues and more sources of foreign loans and facing the revolution of rising expectations from Nigerians who expected redistribution of oil wealth, the Nigerian state took it as a moral responsibility of sorts to provide water to its citizens.

Policy shifts became discernible in the early 1990s after almost a decade of interaction with World Bank assessment missions. The gradual approach to reforms is evidenced in successive incremental adoption of neoliberal prescriptions, such as in the 1988 rolling plans which replaced the national development plans with the adoption of structural adjustment. For instance, in the second rolling plan (1991-1993) which was described as an extension of the first (1990-1992), federal government committed to increasing service level 32 Litres per Capita per Day

(LPCD) in urban areas to 120 LPCD, from 20 LPCD to 90 LPCD in semi-urban areas, and from 6 LPCD to 60 LPCD in rural areas. The staggered targets reflected the global trend. More importantly, government committed to promoting decentralization of management of water supply schemes and introduction of user charges (FRN 1991:178). In the third rolling plan (1993-95), the federal government, which claimed its determination to achieve the goal of providing water for all by the year 2000 is shown by its willingness to contract loans to develop the water supply sector, retained the targets and objectives of the previous plans. It however added another (ninth) objective, namely, to 'encourage community participation in rural water schemes' (FRN 1993:259). No new targets and objectives were added in the fourth rolling plan (1995-1997). In the fifth rolling plan (1997-1999), the federal government moved closer towards the emergent consensus on water. First, it recognized water as 'a basic human need' (FRN 1997:240). Second, among the nine problems listed as affecting the water supply sector were:

- I. The present institutional framework is not responsive to prevailing and economic realities. It has no room for private sector involvement in the delivery of water supply;
- II. There is no articulated policy position of government on the provision of potable water to the public, which is still generally conceived of as a free, and public sanitation as distinct from environmental protection (FRN 1997:241)

The fact that this observation came barely a year after the first World Bank sponsored water reform policy conference in Nigeria that raised Private Sector Participation (PSP) is an important indication of this self-criticism. Government however did not include private sector involvement as part of its objectives. It did however add a tenth objective, namely, 'involve non-governmental organizations in the water supply

sector' (FRN 1997:243). Although the government did not invite private participation in the sector, its concern over the absence of the private sector reflected an increasing desperation in government circles for private sector participation. For instance, according to the Vision 2010 report which was adopted the same year in which the fifth rolling plan was issued:

In order to attain the Vision targets, the private sector should become more active, within a market-oriented, highly competitive, broad-based, private sector-driven development process. Consequently, privatization, liberalization and rapid technological advancement should be among the critical elements of Nigeria's economic development strategy during the vision period (Vision 2010 Committee 1997: iii).

Given the international isolation of the Abacha regime (1993-1998) economic reforms envisaged in the Vision Plan did not effectively take-off. With the political crises in the country, it was inconceivable that a regime which was fighting for legitimacy could summon the political will to implement unpopular market reforms. In fact, the institutional developments in this period indicated that the state retained a central role and public interest was considered paramount in water governance. The public reaction to the adoption of structural adjustment in the mid-1980s forced successive military governments into investing in so-called Structural Adjustment Programme (SAP) relief programs. Notable among these was the Directorate for Food Roads and Rural Infrastructure (DFFRI) which had a huge budget for water projects in rural areas. The military government also established the Utilities Charges Commission to monitor and regulate utility tariffs. This followed the drive towards cost recovery by state water agencies. The statist approach is also evident in the Water Resources Decree 101 of 1993

that vested ownership of both surface and ground water resources on the state and provided that people could freely take from such water sources for domestic and non-domestic use. People retained the rights to construct boreholes over their lands and the Ministry of Water Resources only had regulatory powers to stop such construction if it conflicted with the public interest (see, Karuk n.d: 8-9). The ministry was also empowered to regulate abstraction and sale of water in commercial quantities. In 1995, a National Water Resources Master Plan, which had been in the making since 1985, was completed with support from the Japan International Development Corporation (JICA). The Master Plan stressed the need for a leading role for the state in order to meet targets of providing water to meet basic human needs. It however called:

For a drastic change from the large-scale oriented projects to the direction of implementing a series of the proposed small and medium-scale multipurpose water resources projects to meet the water demand anticipated in various sectors with a particular emphasis upon the effective programs of decentralization, privatization and users participation to facilitate the greater participation and deeper involvement of local people concerned (FRN 1995).

This recommendation was incorporated into the National Water Supply and Sanitation Policy adopted in January 2000 by the civilian administration of Olusegun Obasanjo, which was elected into office in May 1999. It became the first major policy document that recognized water both as a human right and an economic good, in line with Dublin Principles and also explicitly stipulated a role for the private sector:



The centre piece of Nigeria’s water supply and sanitation policy shall be the provision of sufficient potable water and adequate sanitation to all Nigerians in an affordable and sustainable way through participatory investment by the three tiers of government, the private sector and the beneficiary (cited in Ariyo and Jerome 2004:16).

In order to achieve the Millennium Development Goals (MDGs), the government increased the targets to 60 percent in 2003, 80 percent in 2007 and 100 percent in 2011. The policy went further in dividing functions among tiers of government by stipulating a cost sharing formula as shown in Table 1.

The principle of the formula was that consumers should contribute towards costs of operation and maintenance while the state responsibility would be that of contributing towards costs of installation of facilities. The contribution at each level was graded

Table 1: Cost-Sharing Formula In Water Sector

Agency	Rural Water SupplyS		mall towns water supply		Urban water supply	
	Capital (%)	Operation and maintenance (%)	Capital (%)	Operation and maintenance (%)	Capital (%)	Operation and maintenance (%)
Federal Government	50	Nil	50	Nil	30	Nil
State government	25	10	30	Nil	60	100 (Tariffs)
Local government	20	20	15	Nil	10	Nil
Community	5	70	5	100	Nil	Nil

Source: WaterAid 2006:5

depending on what was regarded as consumer ability to pay. Although the policy had gone the furthest in the introduction of demand management, the World Bank felt the changes were not far-reaching and had some contradictory and inconsistent provisions. While commending the fact that the Policy recognized 'water as an economic good', agreed with 'the need to run water supplies as businesses', promoted the need for reform and private sector privatization and also made special needs of the poor and women, the World Bank (2000:5) identified as the major weaknesses the fact that the policy 'promotes unachievable targets for coverage, and recommends free water for the poor'. The Bank disagreed with the cost-sharing formula. For instance, it described the 5 percent allotted to community as 'tokenistic' and 'insufficient to establish community ownership and foster sustainability' (World Bank 2005:26). It also disagreed with the implied intent of the federal government to continue to subsidize provision of peri-urban areas and suggested more flexibility in the cost-sharing formula against the backdrop of the roles envisaged for private sector participation and independent providers.

However, while the Federal Government continued to engage with the World Bank and adopted the idea of commercialization, it was swayed by political imperatives and international events such as the United Nations programme on water launched in 2003 to continue to recognize water as a public good. Politicians remained under pressure to deliver water as patronage to their constituencies. This was especially the case with respect to the federal government as federal legislators insisted on supervising allocation of projects to their constituencies. In such circumstances, communities without political patrons were marginalized in water distribution (WaterAid 2006:6). This fueled perceptions that water projects were influenced by political ethnicity. For instance, in 2003, the election year in which President Obasanjo faced severe challenges for his reelection, the govern-

ment launched the Presidential Water Initiative which aimed at expanding access to water. Tagged 'Water for people, water for life' in line with the UN declaration, the aim of the programme was to provide universal access in state capitals, 75 per cent access in urban and peri-urban areas and 60 per cent in rural areas by 2007. Achieving this target became increasingly hinged on the full participation of the private sector. This is evident in the National Economic Empowerment and Development Strategy (NEEDS) adopted in 2003. The NEEDS, Nigeria's 'homegrown' poverty reduction strategy paper, recognized that 'every Nigerian has a right to adequate water and sanitation, nutrition, clothing, shelter, basic education and health care, as well as physical security and the means of making a living' (FRN 2003:xv). However, by listing water among other goods and services which the government has no responsibility in providing and that are often provided through open market mechanisms, NEEDS clearly shows that the right to water is non-justiciable. It is hardly surprising therefore that among NEEDS objectives in the water supply sector is: 'involving all stakeholders particularly the private sector in the sustainable development of water resources through coordinated management and holistic utilization' (FRN 2003: 63). The strategy for attaining objectives also included creating an 'institutional framework and participatory approach encompassing all stakeholders in a public private partnership in the sustainable development of the nation's water resources' (FRN 2003: 63).

Part of this change towards harmonization with the World Bank position derived from the emergence of a group of pro-reform technocrats who became the 'drivers of change' in government after Obasanjo secured reelection in 2003. This team, which constituted Obasanjo's kitchen cabinet and economic team, were insulated from politics and as members of the international network of experts had the mandate of moving the country further towards reforms. It is in this policy environment that

the Nigeria National Water Policy was formulated and adopted in July 2004. The Policy reflects the extent to which the Nigerian government had accepted criticisms of its own policies and its readiness to conform to the global consensus on integrated water resources management. In fact, the government situates the policy against the backdrop of international understandings and consensus on water. For instance, the Policy states:

Particular emphasis has been given to the sustainable management of water as a limited natural resource. This means that not everyone can have unlimited access to water. It has to be shared. There is also a growing recognition that greater emphasis must be placed on the management of demand for water as an economic resource to make sure that water use is as efficient as possible, both in terms of quantities of water used and the impacts on water quality without compromising environmental requirements (FRN 2004:8).

This emergent consensus is juxtaposed with the country's previous and current water policy in a self-critical manner uncharacteristic of the Nigerian state, to wit:

Previous and current government programs in the water sector have been centered on water resources development, while proper management and conservation of the resource was not given adequate attention. The previous approach to water resources development and management involved treating water as a public social good. It is centralized and entails top-down and control mechanisms (FRN 2004:8)

A major fundamental shift promised by the

policy which is in consonance with the new global consensus is the abandonment of supply management measures and adoption of demand management measures. The new approach is premised on the promise of promoting conservation, and efficient and equitable use of water resources to benefit the poor. In adopting the policy, the government proclaimed it was embarking on:

A new way on management and control of water resources in the vision of optimizing the use of Nigeria's water resources at all times, for present generations to live in harmony with environmental requirements, without compromising the existence of the future generations (FRN 2004:8).

Consequently, the policy jettisons the idea of a human right to water but recognizes water as a 'basic human need' and a very 'valuable commodity'. It proposes a new institutional framework called 'cooperative governance' in which the three tiers of government cooperate on functions of regulation and research and development. The role of the government is to change from the historical one of being 'implementer' to becoming 'regulator', 'facilitator' and 'coordinator'. A principle component of this institutional change is legal reform. In this respect, the policy makes the case for a review of the Water Decree, with the objective of defining:

Access to water resources through permits, the establishment of water protection zones and the fees related to raw water abstraction and fines for water misuse and pollution. This is to respect the 'user-pays' principle. Access and the application of royalties for water abstraction will not be applied in a general manner but limited to the commercial use of water resources only (FRN 2004:15).

The reform should also be aimed at creating an enabling environment for private sector participation based on the recognition that the private sector involvement in ‘delivery of water services will improve efficiency and effectiveness and enhance development and sustainability of service delivery’. While providing for laws to prevent the emergence of monopoly and the incidence of ‘raisin-picking’ that will exploit the public, the legal reform should shield the private sector from corruption. The government undertook to take the following action to promote private sector participation:

- To create regulations assuring conducive conditions, including incentives and legal recognition, of operation for local and foreign private companies in water services
- Establish a regulatory framework for the activities of water services providers to guarantee adequate protection of consumers
- To encourage various forms of participation through instruments such as Build-Own-Operate-Transfer (BOOT) Lease Contract – a private entity receives concession from private or public sector to finance, design, construct, own and operate a facility; Financial Management Contracts – creating, executing and analyzing contracts to maximize operational and financial performance and reducing financial risks; etc.
- Assist all levels of government to cope with the requirement of managing contracts with the private sector
- Promote the importance of private sector participation in the provision of rural water supply and sanitation services on community level
- Set up an independent body for mediation and regulation purposes of contracts entered into between government and the private sector (FRN 2004: 18).
- 

The policy also emphasized the need for education and public awareness programs to reorient Nigerians towards sustainable use of water and acceptance of user charges. Against the backdrop of the controversy that surrounded the attempt to privatize water supply in Lagos State, this public relations was necessary and in line with the strategic approach of the transnational networks on water. A critical component of the public relations was to emphasize the fact that targets for universal access for water were unattainable without private sector participation. This is evident in the dramatic assertion of Abayomi Collin, the chair of the House of Representatives Committee on Water Resources, that privatization was necessary because universal access was unattainable without it even if the entire government budget for a year was sunk into the provision of water. The context for this statement was the introduction of two bills which had implications for PSP. These are:

- I. A Bill for an Act to Establish National Water Supply (Regulation) Commission, of the water supply industry, to encourage private sector participation in water supply, to provide for licensing and regulation of activities involved in the provision of water; and for related matters; listed as HB 143
- II. A Bill for an Act to provide for the establishment of Build Operate Transfer (BOT) (Regulation) Commission for the Regulation of investments and services in Infrastructure on BOT model, and related purposes; listed as HB 147.

Introduced in 2005, there has been no major progress on the bills. For instance, HB 143 is still awaiting the second reading. The slow speed reflects the misgivings of the federal legislators towards PSP. While progress is slow at the federal level, some milestones have been recorded in Lagos and Cross River, the two pilot states that have secured World Bank loans to introduce PSP. For instance, the Lagos

State House of Assembly passed the Lagos water sector law in July 2004. The ease of passage of bills at state levels largely reflects the overbearing influence of state governors on their legislators.

Subsequently, the emergence of sachet pure water as a means of easing the needs of millions of people in Nigeria for portable water and also a source of income for teaming unemployed youths and their families. This led to massive production without strict adherence to safety measures due to the high demand in the society resulting to implications of consuming the so called pure water.

#### **IV. ADVANTAGES AND DISADVANTAGES OF SACHET PURE WATER.**

##### **Advantages:**

Although legal reforms are slow, there is discernible evidence of adjustment to (which has been interpreted as acceptance of) buying water in the open market across Nigeria. The informal sale of water is no longer restricted to vendors who formerly took water from public taps and resold to the public at exorbitant prices. It is now common, in several urban and peri-urban communities for house owners to construct boreholes intended to serve their households as well as supplement family incomes through sale to people in the neighborhood. The commoditization of water is most manifest in the boom of packaged water, especially the ones in sachets popularly called 'pure water'. The initial position of the government was to ignore the industry as part of the informal economy. However, after considerable concerns were raised on public health grounds that water merchants were selling 'pure gutter' instead of 'pure water', the government, through the National Agency for Food and Drugs Control (NAFDAC) intervened to regulate standards. Proprietors of packaged water are expected to apply for licenses which can only be issued af-

ter inspection of their facility by NAFDAC officials. Consumers are advised to patronize only packaged water with NAFDAC number, which is supposed to a certification of quality.

This approach is based on government's calculations of the potential economic benefits of the water packaging industry which is dominated by small and medium scale entrepreneurs. As evident in the following comments of the famous head of NAFDAC, the government has allowed the industry to flourish because it fits into its poverty alleviation program:

Packaged water especially the sachets (pure water) production is a good poverty alleviation program and should be encouraged. It is an industry that has immense potentials for job and income generation. With the number of pure water and bottled water outfits in the country (and judging by about 10,634 participants at NAFDAC water workshop) their retinue of staff should stand in the region of fifty thousand strong workforces. This number excludes the chain of wholesalers and retailers that generate income from selling packaged water products (Akwuyili 2003:57).

When the number of children hawking 'pure water' in the streets of major cities in Nigeria is added to the equation, the character of the poverty alleviation in question comes into bold relief. It would appear though that the concern of government and development agencies may soon change from minimizing the number of hours children spend fetching water to curtailing the number of hours they spend hawking 'pure water'. However, beyond poverty alleviation, mass participation in sale of water serves an important function. It helps in the dissemination of the reality of water as an economic good. It helps in watering the grounds for full scale commercialization which would boost the national income. Again as Akwuyili (2003: 87) puts it:

The packaged water has enormous export potentials. Nigeria's problem is not poor availability of water resources rather that of poor management of these resources. Well processed and properly packaged water can be exported to earn the much needed foreign exchange. It is an embarrassment for Nigeria to import packaged water in any form. Manufacturers therefore must improve their standards as well as output to recapture the present market share taken by smuggled water / water based products.

The process of commodification is virtually perfected as water is presented as an export commodity that might transform Nigeria's mono-cultural oil dependent economy. The imagery of a real market -both export market and import market- for water makes commodification not just feasible but inevitable. The fact though is that like removal of subsidies on petroleum products, PSP remains a politically sensitive issue. Some Nigerian experts on water resources have thus argued that:

The government should demonstrate as a matter of urgency the political will to de-classify water supply as a "free service" in the political manifestos but as a "user pay service". The public should realize that qualitative water service is capital intensive and cannot be rendered as free service (Emoabino and Alayande 2007:158).

This is a call for the dismantling and reconfiguration of the architecture of state-society relations.

### **Disadvantages:**

Water in sachets is readily available and the price is affordable, but there are concerns about its purity. The integrity of the hygienic environment and the conditions where the majority of the water in sachets are produced has also been questioned (C.A.M.O.N, 2007). Although nationally documented evidence is rare, there are claims of past outbreaks of water-borne illnesses that resulted from consumption of polluted water in sachets (C.A.M.O.N, 2007).

The National Agency for Food and Drug Administration Control (NAFDAC) is mandated to enforce compliance with internationally defined drinking water guidelines, but regulation of the packaged water industry aimed at good quality assurance has remained a challenge to the agency (C.A.M.O.N, 2007). To control the menace of polluted water in sachets, NAFDAC declared a possible 'gradual' nationwide ban on sachet waters to allow the manufacturers of sachet water to start winding-down or change to bottle packaging (C.A.M.O.N, 2004). Successful implementation of this ban has remained far from reality as the sachet water market is witnessing tremendous growth, especially among the poor and middle social class.

Packaged water in plastic containers or plastic bottles constitute health hazards especially if exposed under high sun temperature which can react with the plastic container thus, contaminating the water which documented evidence shows consumption of such water can cause cancer.

Plastics bags waste causes great havoc to the environment because it does not decompose in the soil and can cause erosion of the soil overtime. Likewise, having health hazards when consumed by animals which lead to emaciation and ultimately dead if measures are not taken quickly.

Few studies have been conducted in recent years on the quality of packaged water in Nigeria (Olayemi, 1999). These focused primarily on the end-product, leaving out the processes that determine the final fate of the packaged water, as well as the people (various stakeholders involved) in whose hands lie the will and power to effect the desired change. Consequently, practicable recommendations aimed at changing the status quo have not yet emerged.

## V. CONCLUSION AND RECOMENDATIONS

Given the intermittent supply and low coverage of utility networks in many locations, there is a great prospect for alternative sources of water provision such as sachet water if the stated MDG targets are to be met in the developing world. On the international scene, the many 'exclusion criteria' and 'official indicators' for MDG assessment seem to relegate packaged water along with other vended sources as unimproved. Agreed that the target of the MDG is achieved as people switch to piped water connections, or to free public stand pipes, boreholes or rain-water cisterns within a kilometer of their home, a big challenge is the time framework for which this will become a reality in the developing world.

Apparently, it might not be a realistic goal in the foreseeable future given the insufficiency of capital, cost (operation and maintenance) and commitment evident in the rural and other urban settlements of low and medium income countries where water supply functions are suboptimal. It should be noted that these labeled 'unacceptable options' in the form of local provisions could make a bigger difference to the well-being of the most deprived populations than striving for ideal solutions such as universal piped water connections. Also, by oppressing packaged water in a bid to protecting public health, authorities could be making it more difficult for deprived residents to obtain water which could lead to more grievous conditions as people may revert to

poorer sources. Given the prevailing poor coverage levels, any proposed ban on such water in sachets, as was envisaged by the regulatory agencies, may not necessarily be a socially desirable option.

Agreeably, it may not simply be about disregarding packaged water as unimproved. Instead, questions need to be raised by the international community and national governments about how possible strategies aimed at improving the status quo could be identified. More attention should be given to interventions that could increase the effectiveness of the treatment, distribution and disposal system; and how this can make a positive contribution to the widely publicized MDGs.

There is a need for a switch from the traditional end-product focused regulatory approach currently employed by the national regulator to one that involves the people who play active roles as manufacturers, consumers and handlers in the packaged water industry. Regulatory activities that promote core hygiene values such as hand washing, general cleanliness of storage environment and vendor containers and proper handling culture will produce the desired improvements rather than a tenacious focus on end-product monitoring (Kirby and Gardiner, 1997).

While the identification of an ideal indicator organism remains challenging, a recommended regulatory strategy is to define indicators for each of the specific roles such as in source assessment, validation of the drinking water treatment process, operational and routine monitoring, in addition to end-product verification. Breakdowns in any of these barriers to disease transmission affect the quality of the raw water or treated water and ultimately endanger the integrity of the system (Oloke, 1997).

Other types of containers that are both health and environment friendly which are not plastic should be used in the packaging and storage of drinking water in order to enhance its quality and conserve the environment.

There is need for the ministry of water resources and environment to regulate the drilling of boreholes, so that other players will not be deprived of water supply knowing fully well that water is a scarce commodity and needs to be judiciously managed for the benefit of all stakeholders. Further research should look at other aspects not covered by this paper, as the end of one research is the beginning of another.

## VI. REFERENCES

- [1] Akwuyili, D. (2003) ‘The role of “pure water” and bottled water manufacturers in Nigeria’, paper presented at the 29th WECD International Conference, Abuja, accessed at [www.wecd.iboro.ac.uk/publications/pdfs./29/Akunyili.pdf](http://www.wecd.iboro.ac.uk/publications/pdfs./29/Akunyili.pdf). in September 2007.
- [2] Amengo-Etego, R. and S. Grusky (2005) ‘The new face of conditionalities: the World Bank and water privatization in Ghana’ in D. McDonald and G. Ruiters (eds.) *The Age of Commodity: Water privatization in Southern Africa*, London & Sterling, VA: Earthscan, pp. 275-290.
- [3] Ariyo, A. and A. Jerome (2004) ‘Utility privatization and the poor: Nigeria in focus’, *Global Issue Papers*, No. 12, Berlin: Heinrich Boll Foundation.
- [4] Babalobi, B. (2005), ‘Water is life’, an address delivered at a press conference to mark World Water Day, 2005.
- [5] Consumer Affairs Movement of Nigeria (CAMON) 2004 NAFDAC to ban sachet pure water - 97% Samples Contaminated. *Consumer Link* 1:1
- [6] Consumer Affairs Movement of Nigeria (CAMON) 2007 Personal interview with principal staff.
- [7] Emoabino, I. U. and A. W. Alayande (2007) ‘Water demand management: problems and prospects of implementation in Nigeria’ paper presented at the
- [8] International Congress on River Basin Management, Turkey accessed at: [www.dsi.gov.tr/english/congress2007/chapter\\_3/84.pdf](http://www.dsi.gov.tr/english/congress2007/chapter_3/84.pdf) in October 2007.
- [9] Federal Republic of Nigeria (1991) National Rolling Plan, 1991-93, Volume 1, Lagos: Planning Office, National Planning Commission
- [10] Federal Republic of Nigeria (1993) National Rolling Plan, 1993-95, Volume 1, Lagos: Planning Office, National Planning Commission
- [11] Federal Republic of Nigeria (1995) National Rolling Plan, 1995-97, Volume 1, Lagos: Planning Office, National Planning Commission
- [12] Federal Republic of Nigeria (1997) National Rolling Plan, 1997-99, Volume 1, Lagos: Planning Office, National Planning Commission
- [13] Federal Republic of Nigeria (1995) Master Plan of the Federal Ministry of Water Resources and Rural Development, <http://www.uneca.org/awich/Nigerian%20Country%20Report.pdf>
- [14] Finger, M. and J. Alloouche (2002), ‘The transformation of the global water sector: the role of the World Bank and “Public Service TNCs”’, Working paper, No. 6, <http://www.idheap.ch>
- [15] Goldman, M. (2005) *Imperial nature: the World Bank and struggles for social justice in the age of globalization*, New Haven and London: Yale University Press.



- [17] Kassenga GR (2007). The health-related microbiological quality of bottled drinking water sold in Dar es Salaam, Tanzania. *J. Water Health.* 5(1): 179-185.
- [18] Kindhauser MK (2003). Global defence against the infectious disease threat. *Communicable Diseases - 2002.* World Health Organization, Geneva.
- [19] Kirby MP, Gardiner K (1997). The effectiveness of hygiene training for food handlers. *Intl. J. Environ. Health Res.* 7 (3): 251-258.
- [20] Karuk, P. (nd.) 'Customary Water Laws and Practices: Nigeria', [www.iucn.org/themes/law/pdffdocuments/LN190805\\_Nigeria.pdf](http://www.iucn.org/themes/law/pdffdocuments/LN190805_Nigeria.pdf) accessed on November 2007.
- [21] McDonald, D. and G. Ruiters (2005) 'Theorizing water privatization in Southern Africa' in D. McDonald and G. Ruiters (eds.) *The Age of Commodity: Water privatization in Southern Africa*, London & Sterling, VA: Earthscan, pp. 13-42.
- [22] Ogan MT (1992). Microbiological quality of bottled water sold in retail outlets in Nigeria. *J. Appl. Bacteriol.* 73:175-181.
- [23] Olayemi AB (1999). Microbial potability of bottled and packaged drinking waters hawked in Ilorin metropolis. *Int J. Environ. Health Res.* 9(3): 245-248
- [24] Oloke JK (1997). Microbiological Analysis of Hawked Water. *Afr. J. Sci.* 1 (1): 22-28
- [25] Oyebande, L. (1978) 'Urban Water Supply Planning and Management in Nigeria', *GeoJournal*, Vol. 2, No. 5, pp. 403-412.
- [26] Peluso, N. and M. Watts (2001) *Violent Environments*, Ithaca, NY: Cornell University Press.
- [27] Tebekaemi, T. ed. (1982), *The Twelve-Day Revolution*, Benin City: Idodo Umeh Publishers.
- [28] United Nations Development Programme (2001) *Nigeria: Common Country Assessment*, Lagos: UNDP.
- [29] Vision 2010 Committee (1997) *Report of the 2010 Committee: Main Report*, Abuja: Vision 2010 Secretariat.
- [30] WaterAid (2006); 'Nigeria: National water sector assessment', accessed at <http://www.wateraid.org>, October 2007.
- [31] World Bank (2000), *Federal Republic of Nigeria: Water Supply and Sanitation Interim Strategy Note*, Washington DC: World Bank.
- [32] World Bank (2006) *Project Assessment Report: Nigeria*, No. 36443, Washington DC: World Bank.
- [33] World Bank and Department of International Development (2005) *Country Partnership Strategy for Federal Republic of Nigeria, 2005-2009*, Washington DC: World Bank and DFID.

## **LIST OF ACRONYMS**

**Build-Own-Operate-Transfer (BOOT)**  
**Department of International Development (DFID)**  
**Directorate for Food Roads and Rural Infrastructure (DFFRI)**  
**European Union (EU)**  
**Independent Evaluation Group (IEG)**  
**Integrated Water Resources Management (IWRM)**  
**International Finance Corporation (IFC)**  
**International Monetary Fund (IMF)**  
**Japan International Development Corporation (JICA)**  
**Learning and Innovation Loan (LIL)**  
**Litres per Capita per Day (LPCD)**  
**Millennium Development Goals (MDGs)**  
**National Agency for Food and Drugs Control (NAFDAC)**  
**National Economic Empowerment and Development Strategy (NEEDS)**  
**Nigerian Water Supply Association (NSWA)**  
**Organization for Economic Co-operation and Development (OECD)**  
**Private Sector Participation (PSP)**  
**Structural Adjustment Programme (SAP)**  
**United Nation (UN)**  
**United States Agency for International Development (USAID),**  
**World Bank (WB)**  
**World Bank Institute (WBI)**