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Pure Water Production and Management in Ekiti State (an Exploratory Study)

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Abstract: The study examines the socio-economic impacts of the production and sales of pure water in Ekiti State. It highlights the various governmental policies on the method of production and distribution of pure water to the people and their attendance effects on both the producer and final consumers. Findings reveal that the production of wholesome pure water unregulated by the relevant governmental agencies has been one of the major causes of water borne disease such as cholera and typhoid fever in the state. It was however suggested that government should empower the National Agency for food and Drug Administration and Control (NAFDAC) with the necessary legal backing to see to the implementation of the regulated policies to ensure standards in the production and management of pure water in the state.

Key words: Pure water production, management, NAFDAC, Ekiti State

INTRODUCTION

The question on the survival of the human race in the absence of water may not generate a positive answer for a long time to come. Reason due to the importance of these natural resources in all of life activities. So important to human existence is water that life without it is rather imagined than assumed. Not less than 70% of the whole earth surface is occupied by water. Of this figure, only 9 negligible proportion of it is drinkable. 30% of all earth water is fresh water and they are mostly available in lacier forms and ice caps (Duddin and Hendrie, 1988). These scholars even contend that only about 1% of water resources found in Lakes, Rivers and soil level are shallow enough to be easily tapped by people. All of these are believed to be sustained by rainfall and snowfall that drops on seasonal basis.

The fear of the shortage of drinkable water has even been heightened by the Population Report (1989) that between 12.5-14 billion cubic metres of water are only available for human consumption on the average, it put human accessibility to drinkable water at 9000 per person per year. (Lean and Hirrichsen, 1994). Thus, by projections, no doubt is expected to drop to just a little above 5,100 m^3 by the year 2025

The above figures, though statistically reliable may be a little inadequate at providing a clearer picture of the world distribution of water per person as people do not have equal access to water supply. A few out of the large proportion of people on dare need of this natural gift do actually get it even at the appropriate time. This calls for the urgent need to tap water to meet the rising demand for water to save the ever increasing world population from starvation (Gleick, 1996).

The aforementioned gives a clue to the important role water play in human survival. The individual body need water to replace every (1%) body fluid lost to the scorching such or heat warranted by other environmental factors. The failure of realizing this is an exposure to the risk of battling with a lot of health hazards. This explains why many people draw water from various unclean sources such as lakes, river and even rain to satisfy their thirst for drinkable water the and result of this are health risks such as deformity and even a shorter life span occasioned by water borne disease such as cholera, typhoid fever and guinea-worm infections.

Africa as a continent is undoubtedly facing the problem of the stress of water scarcity while Nigeria falls into the category of countries suffering from this water menace (Population Report, 1989). This necessitates the search for alternative sources of drinkable water to meet to the yarning of its teeming population. Many entrepreneurs and water merchants have taken the advantage of this to earn a living. Water is therefore sold in trucks and water-tankers (vehicles) while the less opportuned settled with selling in drums and plastic kegs placed inside wheel barrow.

However, Nigerians have gone sophisticated in the business by devising other methods of packaging water for sale. This include bottled water known as 'SWAN' and 'RAOLIS'. Another means is the packaging of drinkable water, sealed inside nylons, commonly referred to as pure water. This has attracted a lot of people especially the producers for its simple production method which does not require a huge capital outlay and finally the consumers for its low cost price which makes it affordable to them unlike the bottled water. No wonder why it is now being acceptable for use at important engagements inspite of the federal government ban on its

sales over a year ago (Punch, 2000) unfortunately however, government in its birds to increase its Internally Generated Revenue (IGR) has jettisoned its own order by taxing this products. It may be argued, anyway, that this direct tax was aimed at getting this product off market but the fact remains that the low tax of 5000 naira per water factory in Ekiti State would only encourage other would be water merchants to invest in the trade in ruler disregard for the federal might.

The regulatory body; The National Agency for food and Drug Administration and Control, (NAFDAC) thus became a mere toothless bull-do that can not bit in the implementation of the policies guiding the production of this category of items. This reason may be largely adduced for the production of the various pure water nylons of different sizes usually on display at various public places on sale.

Many of these unlicensed producers operate with reckless abandon for sanity and rules of hygiene thus leaving many of these products with lots of impurity. This sends warning signals to everybody including the outside community that we are actually living under the scourge of the water tyranny; if the observation of Falkenmark (1993) is anything to contend with.

Inspite of this, pure water keeps on infiltrating into the market at an alarming rate. While the society is already encapsulated by the craze for pure water as better substitute for drinkable water at public engagements, little attention is paid to the health risk/hazards it poses for the populace especially when not produced under hygienic condition.

This probably was the contention of Evans and Stephenson (1995) when they relate sanitation and supply of water to primary health care. Thus, according to them, or failure of address the problem of water shortage and supply of purified water would go a long way to undercut other health measures. Unhygienic production of wholesome pure water causes water borne diseases such as Diarrhea, typhoid and cholera as human beings themselves and other animals play host to bacterial organisms spreading these diseases. This may haunt us for as long as a vast majority of our population lacks access to safe fresh water (USAID, 1990). It also reveals that the lack of sanitary water disposal and of clean drinkable water as well as water for cooking, account for the loss of as much as 12 million lives on an annual basis. This is similar to the submission of Bowman (1994) when he asserted that, a lack of proper sanitation facilities do cause water borne diseases. This line of thought is in agreement with Merla (1998) and Edwards (1998) conclusions that inadequate sewage treatment causes health problems in most homes. Findings have even revealed that between 3-4 million deaths especially among children occurs yearly due to diarrhea disease (USAID, 1990).

Lean and Hinrichsen (1994) is however of the view that some of the crises associated with the production and management of water can be avoided if the appropriate rules and strategies are formulated and strictly adhered to.

Thus, the NAFDAC decree no 15 of 1993 which was tactically amended by the decree no 20 of 1999 certifies as regulatory products such goods as processed foods, packaged water and chemicals among others: it then prohibits the production and sales of products not registered, attested to by the decree no 19, of 1999 which state:

"No processed foods, drugs package water etc shall be manufactured, imported, advertised, sold or distributes in Nigeria unless such has been registered in accordance with the provisions of the decree or law made under it"

This no doubt is to protect the public from all goods not meeting the requirement for a Good Manufacturing Practice (GMP). Such was the concern of the government for the welfare of the generality of its citizenry that it has continued the reinforcement of the Decree no 35 or 1974, first in 1993 and later in 1999. The question then arises, to what extent has the provision of these decrees been effective at curbing illegal goods into the market. it must be noted that of the over 500 sample of pure water gathered across the country for laboratory test and certified unfit for human consumption in 1999, only ten marketers of pure water have been presented for selling goods not Generally Regarded As Safe (GRAS) in Maiduguri in the last two years. None of such exercise has been done in Ekiti State in spite of the ban.

Hence the pathological consequences for the production and sale of contaminated water has warranted the question of the purity of pure water and the respect for the regulatory policies on the production and management of pre water in the state. This study therefore examines the various health risks accompanying the production and management of pure water as it affects public health in Ekiti State. It is believed that the study would benefit readers by providing an insight into the causes of water borne diseases as well as guide policy makers in the formulation of enabling policies regarding the dare consequences of non-compliance to established rules on the production and sales of pure water in Ekiti State in particular and the nation in general.

MATERIALS AND METHODS

The questionnaire administration was complemented with the interview and observational methods in the collection of data for the study. Data were collected from

some selected pure water factories in the state through the adoption of the stratified random sampling techniques. It was from this that a representative sample was reached using the simple random sampling. The interview method involves the proprietors or the management of a few of these water factories. The visual observational method was employed personally by the researcher during visits to the factories with relevant observations and events were recorded. Five hundred questionnaire were distributed throughout the state with the assistance of field researchers who were mainly students from the Faculty of Social and Management Sciences. Of this number, 480 questionnaires were returned.

The data were analysed using the frequency distribution and simple percentage.

RESULTS

Questions asked from the respondents were grouped into here categories. The first relates to the social and economic characteristics of respondents while in the second categories; questions asked from the management of pure water factories sought their views on the trade, government reactions to them as well as the societal perception of it. The third category relates to the view of the generality of the people especially the final consumers on how much they have benefited from the production of pure water and how they perceive the directives on ban of pure water.

Demoraphic characteristics of respondents: The background variables of the respondents were south with a view to determining the roles these variables play at influencing responses from the respondents. Such variables include Sex, Age, Marital Status, Income, Education and the education of respondents. It was revealed by the findings that quite a reasonable proportion of the population involved in the research were males (260). This is represented by 54.16% of the total population while well above two-third of the respondents (220) represents the female gender. This category of respondents is equally represented by 45.83%, a figure which was considered a fair representation of the sexes hence it paves room for a good appraisal of the issue under discussion

The age distribution reflects a somewhat even distribution of respondents across all age brackets. One-quarter (25%) of the total population falls within the age group 21-30 years while those within age-group 31-40 years as well as those within 41-50 years were all represented by one-fifth percent (20%) of the total respondents.

The same thin goes for those below the age of 21 years and those above 50 years with 80 respondents each and representing a little below 27% (16.66%) each.

A reasonable number of the respondents (220) representing 46% of total respondents were yet to marry as at the period of this research while about one third respondent (37.5%) revealed that they were already married. The remaining 16.7%, an approximated figure were either separated, divorced from matrimony or widowed. It is not unlikely that this group of people must have taken to these business to make ends meet since they are single parents.

Findings from the field survey also reveal the educational b background of the respondents. It was discovered that about 41.7% of the total respondents has less than a secondary school education. About twenty-one percent (20.8%) has only a post-secondary education while about the same figure only has a secondary education. It means therefore that an over-whelming majority of the respondents 80% has less than a post-secondary education. By implication it means that the population of study is predominantly illiterate going by the importance attached to western education in the state. This partly explain why very many of respondents are either fully in the business as manufacturers or retailers of pure water.

Findings on the respondents income also gave some staggering revelations. Not fewer that one-quarter (25%) respondents reported not making profits out of the business while quite a good number (128) or 26.6% of respondents declared that they do make a profit of about N51,000 per annum. As many as 152 (i.e. 32%) respondents declared a profit ranging between N100,000 to N200,000. It is surprising the number not making profit inspite of the increasing number of manufacturers going into the business on daily basis; the ban, not withstanding. The likely reasons for this is the fear of a higher tax on their products by the government.

Not less than 176 (36.6%) representing over one-third respondents are into the business either as producer or seller or both. Twenty-five percent of the respondents were students while above one fifth (23.3%) were in the civil service. Only 15% were farmers. With the exception of the student population, the rest belong to the economically active population.

DISCUSSION

Findings from the field survey reveal that a good proportion of the respondents did not have a broad knowledge of NAFDAC recommendations for quality pure water. As many as 81.66% respondents were ignorant

about this while only 18% respondents reported that they were aware of this. Over a half of the producer displayed a total ignorance of the roles of NAFDAC. This was concluded from an interview conversation with a male producer, married and a little below the age of fifty. When asked why he printed NAFDAC on the Nylon when NAFDAC number was missing, he has this to say;

"I just ask one of my boys to help me design the nylon and he has done a good job. Water cannot leak outside and people patronize my products. Na NAFDAC, You go Chop.

Another question was asked from the respondents on whether pure water are normally produced under hygienic conditions. To this question, very many respondents including some of the producers disagree on this. Of the total number of manufacturers of pure water 176 (30%) respondents reported knowing some others not totally observing hygiene rules because, according to them, they were not totally committed. Of the total respondents, 62.5% were strongly against this. A visit to an uncompleted building where pure water is being produced testifies to this. The whole environment was very untidy while only the room sabouring the equipment was plastered. Another production site visited was also inhabited by the producer and his family. Only a room was also cleared and being used as factory.

On whether pure water nylons have NAFDAC registration number or the approval seal, about two-third (65%) of the respondents disagreed strongly with this while another one-fifth (22.5%) disagreed. Only a negligible proportion (2%) agreed. This question could not be begged as all nylons show this for itself.

It was however confirmed that some pure water can cause water-related diseases such as Cholera and Diarrhea. While about three-quarter (75%) respondent attested to this, about 11% disagreed; re-integrating their belief in the Yoruba axiom that 'water has no enemy'. None of the manufactures ever reported hearing of any case of water related diseases resulting from the consumption of hi products.

However, the majority of the respondents shared similar view that water nylon constitutes a major environmental hazard as it is pollutant to the environment. Not less 240 representing 50% respondents strongly support this view while about 200 (41.7%) agreed. Only 24 (5%) respondents were undecided about this less than four percent (4%) held a contrary opinion.

Inspite of all the above comments, only 10% respondents only want a total ban on the production and sales of the products. The remaining 89% opposed vehemently to a governmental total ban on it.

A woman, widow and an aged mother of 7 children, four of who are still below the secondary school educational level would not understand why anybody should come up with such suggestion, thereby eradicating Nigerian cheap substitute to Ragolis water. She however concluded that law enforcement officer saying that, is indirectly asking for 'Kola' (Nigerian equivalent for bribe).

CONCLUSION

While it may be cumbersome to estimate more accurately the exact quantity of water an individual needs for an acceptable minimum living standards, it is important to devote attention to the provision of good quality drinking water fro whichever sources available. This is to save ourselves and the society at large from the incessant loss of lives and other health related disease usually caused by the consumption of un-hygienically produced drinkable water.

Unfortunately, however, this may not be easily achieved due to he health risk behaviour of the people especially in this part of the world. As already pointed out, the crises of water shortage creates an impediment to health for all within the shortest tie available. This is the reason why our focus should be on how to resolve this crisis through a problem solving approach. It is therefore on this basis that the following suggestions are made.

Efforts should be made to device means of an effective fresh water resources management and improve on community and individual sanitation to reduce attack from diseases.

It is equally suggested that a more coordinated approach of freshwater conservation and management be adopted to ensure the provision of drinkable water at diseases.

There is the urgent need for an enabling degree to enforce the registration of all pure water produced on commercial basis so as to ensure that they comply with NAFDAC policies/regulations for meeting 'GMP' requirements.

Furthermore, 'NAFDAC' should take more seriously its other roles of monitoring for evaluation and the documentation of goods regulated for human consumption so as to always ensure standards in their quality. During such surveillance, any producer found derailing fro the regulated policies of NAFDAC should have its certificate suspended; and have his property forfeited to the government.

On a final note, it should also be recommended and enforced, the sales of pure water only at government approved premises and under such other storage condition deemed fit by the appropriate quarters.

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