

## Challenges to Water Sanitation Information in Oyo State

ADEWOLE, W. A., M. Tech.

Department of Agricultural Extension and Rural Development  
Ladoke Akintola University of Technology  
Ogbomoso, Oyo-State, Nigeria

AKINTARO, O. S., PhD

Teaching and Research Farms  
Ladoke Akintola University of Technology  
Ogbomoso, Oyo-State, Nigeria

ADEYEMI, F. G., M. Tech.

Department of Agricultural Extension and Rural Development  
Ladoke Akintola University of Technology  
Ogbomoso, Oyo-State, Nigeria

### **Abstract:**

*This study, focused on challenges to water sanitation information in Oyo State. A multistage sampling technique was employed for the study. The first stage involved the purposive selection of all the four agricultural zones in Oyo State and those zones are; Ibadan/Ibarapa, Ogbomoso, Oyo, and Saki. The second stage involved purposive selection of two blocks from each of the agricultural zone which are known for water borne disease incidences and their access to information from water and sanitation (WATSAN) unit of the local government councils. So, Akinyele, Ibarapa east, Ogo-Oluwa, Oriire, Iseyin, Oyo east, Saki east and Olorunsogo respectively were selected. The third stage involved random selection of two villages from each of the selected blocks: and a total of 230 household heads were sampled. Data collected were analyzed using descriptive statistics. The mean household size is 6. Based on Sources of water sanitation information: 57.8 percent got through neighbours and friends, 61.7 percent got*

*through school, 48.3 percent got information through postal and leaflet, while 76.1 percent got water sanitation information through the radio. financial constraint ranked first as the most serious constraint with the weighted mean score of 2.18, Others like inappropriateness of the information 2<sup>nd</sup>(1.95), practicality of the information 3<sup>rd</sup>(1.78) and low level of education 3<sup>rd</sup>(1.78) ranked second and joint third respectively. It was recommended that, there is a need for sustained efforts in educating rural households on the dangers of not utilising water sanitation information and legislation in the local government councils by-laws is needed to enforce compliance.*

**Key words:** Education, extension agents, leaflet and sanitation

## 1. INTRODUCTION

The quest for getting water has resulted in the collapse of water based ecological systems leading to decline in river flows and depletion of ground water (UNDP, 2006). This has led to an increased potential for conflict within and between countries with the rural populations being the most affected (UNDP, 2006;Anand, 2007). Globally, just a little below 900 million people have reliable access to safe water that is free from diseases and industrial waste. And 40% lacks access to sufficient sanitation facilities, and this has resulted into one of the world's greatest public health crisis,with over 4,500 children dying every day from water borne diseases.This figure is far in excess of what is obtainable from HIV- AIDS and Tuberculosis combined (WHO, 2010).

Water-diseases are one of the world's most crucial health problems and one that is very preventable. Cholera and other water- diseases are responsible for about 2.1 million deaths each and every year. The poor people of the developing nations and the rural households especially are the largest casualty. Water-diseases trap millions of people in cycles of

poverty and poor health, often rendering them unable to farm, engage in income generating activities or even go to school. These diseases are of many types, but they are directly related to a need for clean water and hygiene. Many arise simply because of the lack of clean water for bathing, drinking or observing basic hygiene. Others are caused by inadequate sanitation facilities and poor personal hygiene practices that are directly related to lack of clean water (Buckingham 2000).

Problems of the environment and of domestic hygiene are always related to poverty of population and the sanitation of settlements. Most towns in developing countries, like Nigeria are characterized by over-crowding, congestion, inadequate water supply and inadequate facilities of disposal of human excreta, waste water and solid wastes. Inadequacy of houses with good toilet and drainage system for most rural poor invariably leads to poor home hygiene. Personal and domestic hygiene practices cannot be improved without improving basic amenities, such as water supply, waste water disposal, solid waste management and the problems of human settlements. (World Bank, 2004).

The objectives are to:

- Examine the socio-economic characteristics of the rural households heads in the study area.
- Evaluate the sources of water sanitation information to the respondents in the study area.
- Assess the constraints to the utilization of information on water sanitation by the respondents in the study area.

## **2. METHODOLOGY**

The study was carried out in Oyo-State, Nigeria. Oyo State falls appropriately between 2°38' and 4°35' East of Greenwich Meridian. The state is bounded on west by Osun State and the

republic of Benin and in the North and South by Kwara and Ogun State respectively. The state lies in south western of the crystalline basement complex of Nigeria. Also known as the western upland, the crystalline basement complex areas had a relatively tidy relief with elevations varying from 220m to 650m above sea level, with occasionally steep hills of exposed bedrock (inselberg) rising higher than the undulating plain. The undifferentiated basement complex rocks made up of migmatites and gneisses are the most predominant rock type in the area, especially around Saki, Kishi and Sepeteri in the Northern part, as well as Ayete, Ado-Awaye, Lanlate and Eruwa in the Southern part.

The population of the study were all the rural households in Oyo State of Nigeria. A multistage sampling technique was employed for the study. The first stage involved the purposive selection of all the four agricultural zones in Oyo State and those zones are; Ibadan/Ibarapa, Ogbomoso, Oyo, and Saki. The second stage involved purposive selection of two blocks from each of the agricultural zone which are known for water borne disease incidences and their access to information from water and sanitation (WATSAN) unit of the local government councils. So, Akinyele, Ibarapa east, Ogo-Oluwa, Oriire, Iseyin, Oyo east, Saki east and Olorunsogo respectively were selected. The third stage involved random selection of two villages from each of the selected blocks: and a total of 230 household heads were sampled.

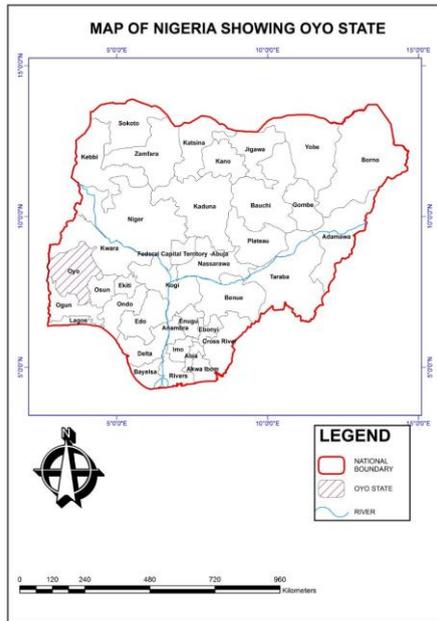


Figure 1: Map of Nigeria Showing the Selected State for the Study

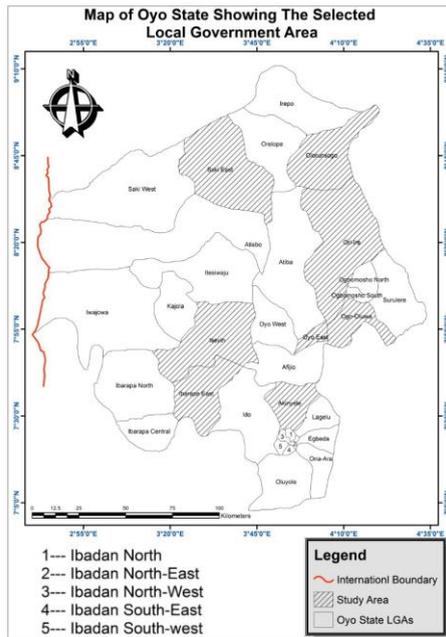


Figure 2: Map of Oyo State Showing the Selected Local Government Areas.

**Table 1: Sampling procedure of the rural household heads from selected local government areas across Oyo state**

Agric Zones	Block	Selected villages based on WATSAN Activities	Respondentsselected
Ibadan/Ibarapa	Akinyele	Onidudun	19
		Olanla	16
	Ibarapa east	Adeekola	18
		Maya	22
<b>Sub total</b>	<b>2</b>	<b>4</b>	<b>65</b>
Ogbomoso	Oriire	Ajinapa	15
		Aje	10
	Ogo - Oluwa	Pontela	15
		Lagbedu	15
<b>Sub total</b>	<b>2</b>	<b>4</b>	<b>55</b>
Saki	Saki east	Agbonle	20
		OjeOwode	12
	Olorunsogo	BudoAlhaji	13
		TesiGaruba	15
<b>Sub total</b>	<b>2</b>	<b>4</b>	<b>60</b>
Oyo	Iseyin	Ado Ogun	15
		Isherin	15
	Oyo East	Agboin	20
		Akinpeju	15
<b>Sub total</b>			<b>55</b>
<b>Grand total</b>	<b>8</b>	<b>16</b>	<b>230</b>

The tools and procedure that were employed elucidated the objectives of the study: this includes the following.

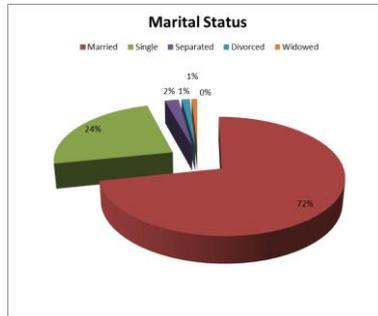
### **Descriptive statistics:**

They are the mean, percentages and frequency distribution. These were used as tools to describe the socioeconomic characteristics of respondents, their income generating activities and specific projects benefited by respondents.

### **3. RESULTS AND DISCUSSION**

Majority (71.7%) of the respondents were married, 23.9 percent were single and 2.2 percent were separated. Another 1.3 percent was divorced while 0.9 percent were widowed. The variation in marital status could be attributed to differences in age of the various categories of the respondents considered for the study. The fact that majority of the respondents were married should have positive effects on level of utilization since

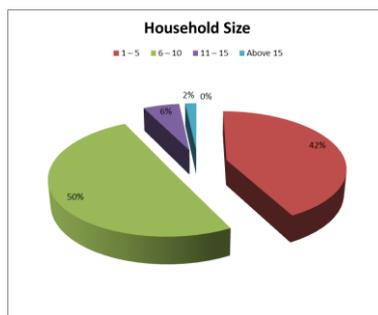
marital status is expected to reflect maturity and high level of responsibility.



**Figure 3: Piechart showing the distribution of respondents by Marital Status**

### **Household Size of the respondents**

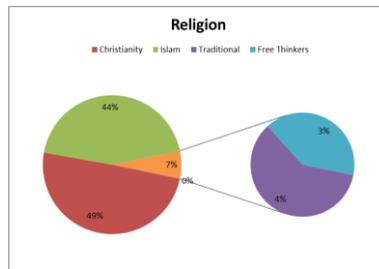
42 percent of the respondents had between 1 – 5 household members, 50 per cent of the respondents had between 6 – 10 household members and 6.1 per cent of the respondents had between 11 – 15 household size while only four respondents representing 1.7 percent of the respondents had household size above 15 members. The mean household size is 6. This implies more pressure on WATSAN facilities in households which increases lack of compliance where such facilities are insufficient. This finding is in agreement with that of Ayoade and Adeola (2009) who stated that 70 % of some rural states in Nigeria had 5-7 persons per household, which they considered as large size.



**Figure 4: Piechart showing the distribution of respondents by Households size**

### **Religion of the Respondents**

43 per cent of the respondents were Muslims, 50 percent Christians, 3.9 per cent Traditionalists while only 2.6 per cent of the respondents were free thinkers. This finding shows that Christianity and Islam were the dominant religion in the study area.



**Figure 5: Piechart showing the distribution of respondents by Religion**

### **Sources of Water Sanitation Information**

The Table below shows the distribution of the respondents based on Sources of water sanitation information. 10.8 per cent of the respondent got information through the United Nation Children Education Fund (UNICEF), 13.9 percent got through World Health Organization (WHO) and 64.3 percent got information through Non-governmental organizations (NGOs). Another 45.7 percent got information through the ministry of water resources, 69.6 percent got through agricultural extension agents while 78.3 percent obtained the information through water and sanitation unit of local council. The findings revealed that large number of respondents got water sanitation information through the water and sanitation unit of the local councils. 57.8 percent got through neighbours and friends, 61.7 percent got through school, 48.3 percent got information through postal and leaflet, while 76.1 percent got water sanitation information through the radio. All these are in agreement with Caswell *et al* (2001) who reported that “acquisition of information about a new technology demystifies it and makes it more available to potential

adopters. Information reduces the uncertainty about a technology's performance hence may change individual's assessment from purely subjective to objective over time".

**Table 2: Distribution of Respondents based on Sources of Water Sanitation Information**

Sources of Water Sanitation Information	Frequency	Percentage
United Nation Children Education Fund (UNICEF)	25	10.8
World Health Organization (WHO)	32	13.9
Non – Governmental Organization (NGO)	149	64.3
Ministry of Water Resources	105	45.7
Extension Agents	160	69.6
Water and sanitation unit of Local Councils	180	78.3
Neighbour/ Friends	133	57.8
School (For children)	142	61.7
Posters/Leaflet	111	48.3
Radio	177	76.1

**Source: Field survey, 2015**

### **Constraints to water sanitation Information Utilization**

The constraints to water sanitation information utilization were measured on a 3 point scale of very serious, serious and not serious. Of all the constraints to water sanitation information utilization, financial constraint ranked first as the most serious constraint with the weighted mean score of 2.18, Others like inappropriateness of the information 2<sup>nd</sup>(1.95), practicality of the information 3<sup>rd</sup>(1.78) and low level of education 3<sup>rd</sup>(1.78) ranked second and joint third respectively.

The decision to adopt is often an investment decision, and as Caswell *et al*, (2001) noted, this decision presents a shift in farmers' investments options. Lawrence *et al*. (2002) reported that people are "water Poor" not because there is no safe water in their area, but because they are "income poor". Therefore, adoption can be expected to be dependent on cost of technology and whether people possess the required resources. Technologies that are capital-intensive are only affordable by richer farmers (El Oster and Morehart (1999) and hence the adoption of such technologies is limited to

richer households who have the resources at their disposal (Khanna, 2001). The result of this study corroborates with that of Ayoade and Adewale (2005) who reported that factors affecting utilization of information and communication are lack of financial assistance and technical support from government in terms of loan and input.

Inappropriateness of the information was also discovered to be a serious issue. practicality of the information and low level of education ranked joint third with the weighted mean score of 1.78, The illiterate households may not be able to understand and utilise the information appropriately, this is in tandem with the findings of Nelson and Phelps (2006) who reported that the better educated farmer is quicker to adopt profitable new processes and products since, for him, the result or outcome of innovation is likely to be greater and the risk likely to be smaller.

Complexity of the information ranked fourth with the weighted mean score of 1.67, this could also be as a result of low educational status of the respondents. Compatibility with culture and religion ranked last with the weighted mean score of 1.47.

**Table 3: Distribution of respondents by the constraints to water sanitation Information Utilization**

Constraints	Very Serious	Serious	Not Serious	Wms	Rank
Inappropriateness of the Information	78(33.9)	63 (27.4)	89 (38.7)	1.95	2nd
Triability of the information	30(13.0)	119 (51.7)	81 (35.2)	1.78	3rd
Compatibility with culture and Religion	(17.0)	30 (13.0)	161(70.0)	1.47	5th
Complexity of the Information	14(6.1)	127 (55.2)	89 (37.7)	1.67	4th
Low level of Education	44(19.1)	92 (40.9)	94(40.9)	1.78	3rd
Financial constraints.	133(57.8)	65 (28.3)	32 (13.9)	2.18	1st

**Source: Field survey, 2015**

#### **4. CONCLUSIONS AND RECOMMENDATIONS**

The high household size put more pressure on WATSAN facilities in households which increases lack of compliance where such facilities are insufficient. Therefore, Government and Non-Governmental Organization (NGOs) should promote family planning among farmers.

The sources of water sanitation Information are the local council, radio extension agents, Non-governmental Organizations, school, neighbor and friends among others. Therefore, rural households' should be encouraged in effective and efficient utilization of various water sanitation Information so as to curb the menace of water-borne diseases.

Finances/cost of utilizing information, inappropriateness of the information are among the constraints that ranked highest. Therefore, there is a need for sustained efforts in educating rural households on the dangers of not utilising water sanitation information and legislation in the local government councils by-laws is needed to enforce compliance.

#### **REFERENCES**

1. Anand, P.B. (2007): Right to water and access to water: An assessment, *J. Int. Dev* (19) 511-526
2. Ayoade A.R and Adewale J.G (2005): Factors affecting effective communication between extension agents and farmers in Oyo state of Nigeria: The farmers perspective. *Afro – Asian journal of Rural Development*. Vol. 38(2), pp 97-101
3. Buckingham, S. (2000): *Gender and Environment* Routledge London and New York. Pp 120 125.
4. Caswell, M., Fuglie, K., Ingram, C., Jans, S., and Kascak, C. (2001): *Adoption of Agricultural Production Practices: Lessons Learned from the United*

- StatesDepartment of Agriculture Area Studies Project. Washington DC. US Department of Agriculture Resource Economics Division, Agriculture Economic ReportNo. 792
5. El Oster, H.S andMorehart, M.J. (1999): Technology Adoption Decisions in Dairy Production and the Role of Herd Expansion. *Agricultural and Resource Economics Review* 28:84-95
  6. Khanna, M. (2001): Sequential Adoption of Site-Specific Technologies and its Implications for Nitrogen Productivity: A Double Selectivity Model.” *American Journal of Agricultural Economics*. 83(1): 35-51.
  7. Lawrence, P, Meigh, J, and Sullivan, C (2002): “The Water Poverty Index: An International Comparison”, Keele Economics Research Papers (<http://www.keele.ac.uk/depts/ec/wpapers>;
  8. Nelson and Phelps (2006): Investment in Humans, technological diffusion, and economic growth; *America Economic Review* 56(112), 69-75
  9. United Nation Development Programme, UNDP, (2006): Beyond scarcity: power, poverty and the global water crisis [www.undp.org](http://www.undp.org)