

Residential Access to Borehole Water Supply in Ogbomosho North Local Government Area, Oyo State, Nigeria.

Toyobo A.E.

Department of Urban and Regional Planning, Ladoke Akintola University of Technology,
PMB 4000, Ogbomosho, Oyo State, Nigeria.

Email: toyoboadigun@yahoo.co.uk.

Abstract

The study aim to examine the residential access in borehole water supply in Ogbomosho North Local Government and this is with the view to making appropriate recommendations towards improving borehole(s) water system and sanitation in the area.

Data collection was through primary and secondary sources such as observation, Oral interview, questionnaire administration and review of related literature. About 238 of questionnaires were administered using random sampling method to solicit information from respondents. Data were further analyzed using the descriptive statistics such as frequency count, tables and percentages. The findings reveal poor management of borehole water systems and environmental sanitation etc.

The study therefore recommends the partnership approach in addition to community approach in the management of borehole(s) water systems in the study area.

Keywords: Borehole, Resident, Water, Management and Sustainability.

INTRODUCITON

Water represents one of the major essential elements of survival both to man, animal and plants without which no one can survive. We have heard of people who went on hunger strike, but hardly ever hear of people who went on water strike. Water makes up three quarter (75%) of human body weight (Alao 1991; Adeniji 1984; and Arimali et al 1993).

The urban water scarcity is taking an ominous dimension in vast tracts of Africa, Middle East and Central Asia, where the situation is most precarious. Rapid urbanization, growing populations and development are overwhelming. Water in Africa is not only unfairly redistributed by nature but it is also unfairly allocated by man. At the turn of the new millennium, over 300 million people in Africa still do not have access to safe water. But perhaps nowhere is the challenge more complex and demanding than in the rapidly growing cities in Africa.(Mabogunje 1998; UNICEF/IRC 2001; UNICEF 2000; UNEF 1994) More than half of the populations living in African cities today are denied access to municipal water supplies and that the poor are forced to pay as much as five to ten times more to street vendors for water than their affluent neighbor who have access to municipal supplies'' Water scarcity in African cities is fast becoming a potential sources of social and political conflict,' Paradoxically, while the urban poor struggle for water, more than half of the water produced at high cost to meet the needs of Africa's burgeoning cities is lost even before it reaches the consumers. (Tibaijuka 2003; Olayinka 1998; and WHO 1992).

The demand for water has been greatly high while the supply has been so low that people only get water from other sources like dug-wells, tap water, boreholes hand pump etc. The importance of water in our daily lives can not be over-emphasized, while the growing scarcity is a finite resources makes it require immediate attention in the area. It is important that programs should focus on portable and safe quality borehole water supply in such areas like Ogbomosho North local government, because the use of portable water in our daily lives is irresistible.

Safe drinking water according to (WHO 1992) is one of the requirements of good health. For years people had suffered from shortage of pipe born water supply especially in the dry seasons where other source of water like dug-wells water are dried up and this make people to seek alternative sources of water with its ill-effects on the various types of diseases like typhoid and cholera. This is as a result of poor environmental sanitation of the surroundings of the available sources. Borehole water is a major source of water in the area. The specific objectives of the study are to:

- (i) examine the socio-economic characteristics of respondents in the study area
- (ii) enumerate the number of boreholes and other sources of water supply in the study area.
- (iii) examine the nearness of borehole water to residents in the study area.
- (iv) examine the functionality of boreholes water in study area and
- (v) factors affecting resident access to borehole water supply.

The study therefore suggested some recommendations towards borehole water management in the area.

MATERIALS AND METHODS

Ogbomosho, the second largest town in Oyo state after Ibadan. It lies approximately 8° 07' East of the

Greenwich Meridian. The town lies within the derived savannah region and it is a gateway to the northern part of Nigeria. Ogbomoso North comprises of 10 political wards namely: Aaje Ogunbade, Abogunde, Aguodo/Masifa, Alasa, Isale Afon, Jagun, Okelerin, Osupa, Sabo/Taara, and Saja/Isale Ora. People rely on borehole water supply in the area for their domestic usage.

Primary and secondary data were collected from the field through questionnaire administration, personal observations, oral interviews and review of literature. Data collected were on the socio- economic characteristics of the people, sources of water supply, functionality of boreholes, resident access and factors affecting the access to boreholes water supply in the study area. About 238 questionnaire were administered to respondents using randomly sampling method to solicit information from respondents.

Data gathered were analyzed using descriptive statistics such as frequency counts, percentages, and use of tables to affirm the degree of accessibility of borehole water to the residents in the area.

RESULTS

a. Socio-economic Characteristics of Respondents.

Majority of the respondents generally were males 52.4% and females 47.6% respondents were between the age bracket of 15-25year (14.3%), 26-35years (34.1%), 36-45years (32.5%), 46.55years 11.9% and above 56years (7.1%). Their educational status were primary 18.8%, secondary 44.8%, tertiary 19.6% and illiteracy 16.8%. Also, majority of respondents were traders 53.2%, civil servant 14.3%, farmers 9.5%, artesian 0.4% and others 22.6%. Majority of those interviewed were married 65.3%, single 23.4%, widow 4%, widower 4.8% and divorced 2.4%. Their monthly income vary from less than ₦5,000 (2.4%), ₦5000-₦10000 (43.4%), ₦11000-₦15000 (31.7%), ₦16000-₦20000 (10.3%) and above ₦20000 (12.3%). Christianity ranks the highest 53.3%, Islam 44.2%, Traditional 1.7% and others 0.8%. They Yorubas dominates the area 84.9%, follow by Igbo 9.1%, and Hausas/others 6.0%. The implication is that women needs water for day-to-day domestic activities such as bathing, cleaning, washing, toiletry than male counterpart etc.

b. Sources of water supply to residents in the study area.

Table 1: Source of water supply in the study area

Wards	various sources of water		
	tap water	Dug-well	Borehole
Aaje	0 .0%	18 60.0%	12 40.0%
Abogunde	0 .0%	24 80.0%	6 20.0%
Alasa	0 .0%	20 76.9%	6 23.1%
Isale ora	0 .0%	13 48.1%	14 51.9%
Isale-Afon	0 .0%	15 78.9%	4 21.1%
Jagun	2 6.7%	16 53.3%	12 40.0%
Masifa	0 .0%	18 75.0%	6 25.0%
Okelerin	0 .0%	20 83.3%	4 16.7%
Osupa	0 .0%	12 50.0%	12 50.0%
Sabo/Taraa	0 .0%	16 88.9%	2 11.1%
Total	2 .8%	172 68.3%	78 31.0%

Source: Authors field work, 2010.

Table 1 reveals that dug-wells (68.3%) ranks the highest of water sources in the area, followed by boreholes (31.0%) and tap water 0.8%. This indicate that borehole and tap water are the majors sources of water supply to the people in the study area. Majority of the dug – wells are individual own in compound families, while some boreholes are provided by Ogbomosho North local government, non-governmental organizations, and private individuals in the study area for commercial purpose.

Table 2: Rate of nearness of borehole water supply to residents

Wards	Rate of nearness of borehole			
	very much accessible	accessible	fairly accessible	not accessible
Aaje	30 100.0%	0 .0%	0 .0%	0 .0%
Abogunde	8 26.7%	2 6.7%	6 20.0%	14 46.7%
Alasa	26 100.0%	0 .0%	0 .0%	0 .0%
Isale ora	17 63.0%	8 29.6%	0 .0%	2 7.4%
Isale-Afon	11 57.9%	6 31.6%	2 10.5%	0 .0%
Jagun	24 80.0%	4 13.3%	0 .0%	2 6.7%
Masifa	10 41.7%	2 8.3%	4 16.7%	8 33.3%
Okelerin	14 58.3%	4 16.7%	6 25.0%	0 .0%
Osupa	20 83.3%	0 .0%	4 16.7%	0 .0%
Sabo/Taraa	6 33.3%	2 11.1%	4 22.2%	6 33.3%
Total	166 65.9%	28 11.1%	26 10.3%	32 12.7%

Source: Authors field work, 2010

Table 2 reveals the nearness of borehole water sources to the residents. The nearness of borehole water in the area depends on the location of water facility to individual family. For example, as shown in table 2 Aaje Ogunbado and Alasa has the highest access to borehole water supply, while Sabo/tara has the least percentage in the access to borehole water supply. From the above table it can be concluded that borehole water source is accessible to the residents in the study area.

Table 3: The rate of functionality of borehole water in the study area

Wards	rate of functionality of borehole			
	functioning well	partially functioning	fairly functioning	not functioning
Aaje/ogunbado	30 100.0%	0 .0%	0 .0%	0 .0%
Abogunde	12 40.0%	0 .0%	4 13.3%	14 46.7%
Alasa	26 100.0%	0 .0%	0 .0%	0 .0%
Isale ora	23 85.2%	2 7.4%	0 .0%	2 7.4%
Isale-Afon	11 57.9%	8 42.1%	0 .0%	0 .0%
Jagun	26 86.7%	2 6.7%	0 .0%	2 6.7%
Masifa	10 41.7%	2 8.3%	6 25.0%	6 25.0%
Okelerin	16 66.7%	6 25.0%	2 8.3%	0 .0%
Osupa	20 83.3%	0 .0%	4 16.7%	0 .0%
Sabo/Taraa	6 33.3%	0 .0%	2 11.1%	10 55.6%
Total	180 71.4%	20 7.9%	18 7.1%	34 13.5%

Sources: Authors field work, 2010

From table 4.20 Above the rate of function

Table 3 reveals the functionality of borehole water supply in the study area; it can be observed that the rate of functionality of borehole water source is high. The boreholes available to the residents are functioning well. Except for Sabo Tarra which have the least percentage (33.3%) of all the political wards. However, the management of boreholes water supply in the area is very paramount for this study.

Table 4: Factors affecting residents access to borehole

Wards	factors affecting residents access to borehole				
	Fees	distance	Population	bad environment	Leadership
Aaje	8 26.7%	6 20.0%	16 53.3%	0 .0%	0 .0%
Abogunde	0 .0%	10 35.7%	18 64.3%	0 .0%	0 .0%
Alasa	2 7.7%	2 7.7%	22 84.6%	0 .0%	0 .0%
Isale ora	0 .0%	2 7.4%	25 92.6%	0 .0%	0 .0%
Isale-Afon	4 21.1%	2 10.5%	13 68.4%	0 .0%	0 .0%
Jagun	0 .0%	2 7.1%	24 85.7%	2 7.1%	0 .0%
Masifa	2 9.1%	2 9.1%	14 63.6%	2 9.1%	2 9.1%
Okelerin	8 33.3%	8 33.3%	8 33.3%	0 .0%	0 .0%
Osupa	0 .0%	12 50.0%	12 50.0%	0 .0%	0 .0%
Sabo/Taraa	2 11.1%	6 33.3%	6 33.3%	4 22.2%	0 .0%
Total	26 10.6%	52 21.1%	158 64.2%	8 3.3%	2 .8%

Source: Author field work, 2010

Table 4 reveals factors affecting the accessibility of borehole(s) water supply in the study area. The factors vary from population (64.2%), bad environment (3.3%), distance (21.1%), fees attached to water supply (10.6%) and Community leadership (0.8%). Some respondents indicated that they could not afford borehole water because of the fees attached of ₦10 to 25liters jerricans. The old aged group income class were among the people who could not afford to pay for borehole water in the area. However, majority of the boreholes water environment needs sanitation.

RECOMMENDATIONS

For the effective and efficient access to borehole water supply in the study area, the following recommendations are advance on the basis of major findings:

- Ogbomoso north local government should sink more boreholes in the area for easy accessibility of people.
- Urban women should be mobilized and encourage to participate in every stage of water supply schemes in their local communities and sanitations.
- The socio - economic status of participants in urban borehole water supply schemes should be carefully considered to enhance popular participation among local community members.
- Types of borehole water supply schemes, location, repairs and maintenance of such facilities should be made the responsibility of local community member in the study area.
- Arising from 3, local management committee and maintenance team at the local government council level should be set - up to monitor, manage and provide regular repairs and maintenance of borehole water supply schemes.
- Community should be made to manage their boreholes water system after completion for easy accessibility.

REFERENCES

- Adeniji (1984): "Urban Growth and Water Borne Diseases in Ibadan", aqua No 4 pp 209-211.
- Alao, AA (1991): "Evaluation of Urban Water Supply Scheme in Oyo State" Unpublished MURP Thesis, Centre for Urban and Regional Planning, University of Ibadan, Ibadan.
- A UNICEF/IRC report (2005): On Water, Sanitation and Hygiene for Schools Roundtable Meeting, which Took Place in Oxford, UK, 24-26 January.
- Mabogunge, A. L. (1998): "Water Resources and Economic Development in Nigeria", University of California press Pp 14-30.
- Anna Tibaijuka, (2003): Executive Director of UN-HABITAT, Keynote Address at a Working Luncheon Hosted by the United Nations Foundation In Washington on 11th February.
- Arimali, B. C, and Ekenga, B. E (1993): "Some factors explaining Residential Water Construction in a Third World City" The case of Calaba-Nigeria, Aqua vol. 42, no. 5 pg289-294.
- Olayinka, O. (1988): Water Supply and Sanitation between now and 2020" Ultimate Water Technology and Environment. Pp. 9, July, (1996).
- UNEP (1994); Water supply and Sanitation, Journal of Environmental Considerations in Regional Planning and Management vol.11 pg 54-58.
- UNICEF (2000); Global Water Supply and Sanitation Assessment Report in WHO Publication USA Pp 1-2.Publication,
- WHO (1992);Guideline for Drinking Water Recommendation. Geneva.