

Why wash-related SDGS will fail: A review of public attitudes and perceptions toward water and sanitation practices in riverine and non-riverine communities

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ABSTRACT

The study attempts to understand public attitude towards water and sanitation in riverine and non-riverine parts of Akwa Ibom State. The coastal region of the state is besetted by a network of some sets of attitudes and socio-cultural influences which translate into the behavior of occupant on matters related to Water and Sanitation, while the non-riverine areas are also finding it difficult to comply with water, sanitation and hygiene practices, residents in major urban centres, public institutions, shop owners, street hawkers and road side vendors. In order to explore the reason WASH related SDGS is driving towards its graveyard, perceptions of people were analysed at riverine and non-riverine areas. Four research objectives were outlined in line with scientific approach using interview, questionnaires and personal observation. 400 copies of questionnaires were administered to the concerned communities using the youth, elderly people, chiefs and migrants as targeted population. Chi-square using SPSS statistical package was used to assessed the impact of public attitude on water and sanitation services. The results revealed a calculated value of 268.508a, degree of freedom (df) of 14 and a P-value (2-sided) of 0.000, indicating that there is significant impact of public attitude and perception on water and sanitation in Akwa Ibom State using SPSS. It was also noted that fewer people and organisations had sanitary facilities such as toilet, water point and bathroom in their residents which affect the progress of WASH policies. At the places visited, the level of utilization of WASH infrastructures was poor owing to the different attitude people holds on water and hygiene at community setting. It was realized that public perception plays a significant role when considering handling complex issues bordering societal norms and traditions. Some of the identified views were long standing belief on open defecation, constructing standard toilets and bathroom is a misplaced priority etc. Hence, it was recommended that government, NGO and local authority should strengthen WASH services' investment in the region. In addition, WASH ambassadors should extend their sensitization projects to workplaces including schools, market, fishing settlements and others for an optimal performance.

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1. INTRODUCTION

Water and sanitation problems have attracted the attention of global leaders and scholars in contemporary time due to the relevance of infectiousness of disease, stress on national budget for recovery and public health and associated cost at global scale (Ansa, 2013; Beckedorf, 2010; Budds & McGranahan, 2003; Daniel, 2014). Water, Sanitation and Hygiene (WASH) is one of the most salient targets of Sustainable Development Goal (Sadiq et al, 2018). Unfortunately, this target was not achieved during the earlier Millennium Development Goals, (MDGs). The seemingly slow improvement particularly in urban sub-Saharan Africa (SSA) were lower than that of developed economy (Achiro, 2009; Karol, 2018). Go and Quijada (2012), inferred that access to sanitation in urban SSA was among the worst performing MDGs. Given the failure of sanitation target in developing countries in the MDGs plan, SDGs has incorporated safe water sanitation access for all envisaged to be attainable by 2030 (Engel et al, 2005, Nellis, 2003). The achievement of water and sanitation targets have both direct and indirect effects on goal 3 (sustainable health and well-being) as well as goal 11 (sustainable human settlement). Although several authors have seen an improvement in WASH around Saharan Africa, partly due to their perceptions and available statistics. It can be argued that access to access to water supply and sanitation has to be defined in context, perhaps by the quality of water; either safe, manageable or poor, the quality of toilets and handwash facilities likewise other WASH facilities. Epileptic power supply in developing countries, particularly Nigeria equally hinders access to safe water supply, sustainable sanitation and hygiene and these indicators are responsible for high morbidity and mortality (Ekane et al 2014). It is estimated that 10,000 die every day from a range of water and sanitation related illness.

Water and Sanitation is a broad semantics with a whole lot of meanings and interpretations (Akpabio et al, 2015). It cut across health, food safety, safe water accessibility, availability and utility, sanitary facility, waste management and the general well-being of the members of a community. Sanitation is related to community hygiene, access to sanitary facility and associated management of human faecal waste at the household level, but on the other hand, environmental health broaden the scope of investigation, seeking to link water to safety (chemical, bacteriological and physical), management of all forms of waste, vector control, food hygiene and

occupational safety (Yapoet al, 2013). Moreover, Bassey (2003) took sufficient time to discuss the politics of safe water delivery in Nigeria by faulting the state and private actors for starving the citizen of safe water. Clean and hygienic water continually posed a significant challenge across all the Nigerian cities for decades. There have been series of attempt to reverse this trend, but an interplay of cultural, economic and socio-political factors limits successes (Akpabio & Udom 2018).

In Nigeria, so many author have related WASH-related researches to various discipline for clearer understanding. For instance, Akpabio (2011) successfully linked socio-cultural indicators with water and sanitation, where he saw norms and African belief to be the primary barriers to achievement of optimum WASH services. The author in his paper entitled, "Streams as Protected Entities of Indigenous People of South-eastern Nigeria: A Matter of Water Security or Cultural Solidarity". He stressed the efficacy of indigenous knowledge, traditional norms and culture as an element of managing water resources where traditional beliefs over-ride human's need in harnessing and subsequent abuse of local streams. The cultural dimension of water and sanitation seems to be more complex because people tend to undertake rational or irrational behavior on issues bordering Water, Sanitation and Hygiene. In Uyo Metropolis for instance, government have provided some sanitation facilities such as waste bin, drains and many others, yet the residents would rather prefer to drop the waste behind the waste bin. Others people would prefer to throw away their trashes on the street and gutters, and in places where there are surveillances, night waste throw is rampant across peri-urban and urban centres. There is a serious burden of offloading waste particularly wrap and throw faecal waste in urban drains and the concomitant spread of vectors when heavy rain hit cities. Even when waste evacuation is carried out, after two or three days, the case becomes worst. Urban dwellers tend to be so adamant to issues connected to WASH compliance. As for the peri-urban and rural areas, open defecation is a norm. The rural inhabitants perceived open defecation in bushes as the cheapest method of soil improvement, having seen a decomposed excreta as a cheap manure to the soil. Whereas, some folks who practice open defecation in sea and rivers believed that their faecal waste served as food supplement to aquatic lives. According to one of the respondents,

"The society is so wicked so much that we have failed to think about providing food supplement for our fishes, crabs, prawns and other seafood. If I shit (colloquial meaning of defecate) into my local stream, I'm supplying enriched food to fishes, so that I can have better harvest whenever I wants to fish"

A close look at these perceptions, informs us that culture is a powerful force when considering social change. Nevertheless, urban inhabitants who stick to 'wrap and throw' into public drains do not have sensible reasons for their actions, although the consequences of those unsocial practices is a burden to all inhabitants. The outbreak of malaria and other wash-related diseases from the afore-mentioned sources, do not isolate household who does the action, rather, hit everyone in the community. These are some key undocumented issues that challenge the achievement of water, sanitation and hygiene in Nigeria and Sub-Saharan Africa by extension. Esin et al (2008) conducted a study on faecal waste and environmental health status in Oron. They noted among others that residents in Oron are more involved in open defecation along running water and that the quality of water differs with the established international and national standard and moreso, faecal-related diseases were identified in the area studied. Another study conducted by Akpabio (2011) on "Water and People: Perception and Management Practices in Akwa Ibom State" brought to limelight the perception people have on water most especially in coastal areas where sanitary facility is inadequate. His study revealed that people have the inherent belief that vulnerability to water borne disease is subject to individual's belief where faecal waste is released upstream and people at the downstream make use of the same water source for all purposes drinking, and thus the contaminants spread into body tissue and turn into a public health problem. This attest to the Ibibio proverb that "Mmon Ayet Idiok Mkpo, Idiok Mkpo Iyet-te Mmon" (Meaning that it is only water that is capable of washing dirt but not the other way round). By implication, dirty or contaminated water does not kill the Black race because their forebears drank from even the same polluted well and streams and their life expectancy was longer. This pattern of thought form a solidified cultural barrier poses a significant issue in the eradication of open defecation and the discharge of toxic into water bodies in the coast. Their strange perception centres on the fact that any pollutant is capable of being washed by running water likewise human faeces and people should be worried about the associated environmental consequences. It can be argued that the ideology of people regarding contaminated water varies and such underlies the reason for the proliferation of water borne disease.

Human excreta-transmitted diseases predominantly affect children and the poor. Water pollution and disease spread is not limited to the coastal area, the hinterland equally is affected by this menace. For instance, a great number of low-income owners of rented apartment in Uyo metropolis do not have quality sanitary facility in their residence and this forces the occupants to dispose waste into gutters, thereby leading to contamination of land and deterioration of environmental quality. Worst still, the educated class who should have set standard for others to follow, are faulted for contributing to this social problem. Universities and colleges which are research centres and the eye that the entire society look up to, are not optimally supportive in solving water, sanitation and hygiene constraint. Study shown that a great number of universities in Africa do not have functional toilets and hand washing facilities, likewise steady water and power supply for a sustainable WASH services (UNICEF, 2022). Where some of the afore-mentioned are found, there are no rules, no monitoring mechanism for compliance, fewer staff and investment to pilot WASH related projects. If higher institutions and high colleges are left behind in WASH, then it might be impossible to achieve the noble SDGs targets related to water and sanitation. From the outcome of reconnaissance in universities across Akwa Ibom State, improvement in access to water and sanitation is a mirage. Problems ranging from poor waste management, frequent power outage (blackout), frequent struggle over water access in the available sanitary facilities. Sometimes, where the facilities are situated, the distance to access them be discouraging. In a nutshell, WASH facilities in coastal fringes are generally not adequate and functionally inconsistent.

From the interview (anonymous):

"We are used to struggling over access to water in our toilets. I prefer wrap and throw because the public toilets are not consistently supplied with water and no recognized personnel to keep the facility in good condition. I don't want to contact infectious disease"

The sad experience of students in public universities and colleges on matters related to WASH are not well documented to attract international support so as to break the chain of infections related to water, sanitation and hygiene. Differently, shop landlords and their tenants are among the most stubborn folks that hinders the success of WASH in urban and peri-urban areas. In many Nigerian cities, particularly Lagos, Port Harcourt, Onisha, Uyo, Benin, Calabar and Warri, the rate of 'wrap and throw' for both human faecal waste and waste from workspaces are too alarming. Only fewer shops have WASH facilities in their domain. Everyday human faeces, urine and other disposable waste empty themselves in gutters, cause siltation and

recurrent urban flood. The outcome of the interviews with shop owners and their tenants reveals that most of them are unconcerned and unwilling to invest in toilet provision for their occupants, having complain that WASH facilities is cost-demanding.

"Oga, yak mmi mbo emem (Son, Allow me to have peace), I don't have money to spend on toilet facility, it is the government that should provide toilets around major streets and public establishment. I cannot take the responsibility of another. In fact, let everyone find his/her way of disposing waste"

It can be seen that private business owners, entrepreneurs, road side vendors likewise street hawkers are not sufficiently contributing the success of WASH either because of their person or that sensitization is inadequate. Shops and other business centres are fond of dumping waste (faecal waste, disposable, industrial waste and others) indiscriminately. This explains why gutters are often seen as eye sore either smelling bad with much mosquito and rats or silted frequently. On monthly basis, sanitation exercise is conducted in cities like Uyo and Calabar, yet the condition of drain and urban flood has not improved significantly because private sector are not fully responsive and act responsibly in their decisions towards WASH. Shop keepers in urban centres have a special container for urinating and discharge of faeces and at dawn, they all channel their waste directly into nearby gutters. In a different manner, private sector attitudes to WASH needs to be revisited in Nigeria and Africa considering the limited timeframe for the expiration of SDGs by 2030. In the aspect of safe water availability at homes and workplaces, Inyene (2019) analysed the performance and challenges of private water Sector in water and sanitation in Uyo Capital City in a bid to assess the strength and weakness of the private sector in WASH his findings among others were that owners of private water facilities do not give adequate attention to water treatment, washing of water tanks and other safety procedure to the consumers, contributing to the societal burden of water borne infections and public health break down generally. In the coastal fringes of Nigeria, the attitude and perception of people on water and sanitation services, functionality of policies regarding WASH has been a mirage over the years (). However, since policies are hard to be translated into actions, the needs, traditions and norms as well as the preferences of people should be incorporated into policy implementation. This research seeks to address the gap in water and sanitation policies by projecting culture as essential ingredient for achieving sustainable water and sanitation target. Thus, the following questions were considered in the study;

- (i) What is the current state of sanitation and hygiene practices (WASH) in riverine and non-riverine areas of Akwa Ibom State
- (ii) What are the existing water and sanitation facilities and their functionality status in Akwa Ibom State?
- (iii) Are there connection between the perception and attitude of people and WASH services' improvement in Akwa Ibom State?
- (iv) What are the challenges limiting compliances, utilization, and inter-sectoral engagement in WASH projects/programmes in the study area?

2. STUDY AREA

The study is conducted in Akwa Ibom State, Nigeria. Akwa Ibom State is situated in Niger Delta in Nigeria and it is one of the richest region in terms of oil and gas and solid minerals. The population of the region has been projected to 4 million as at 2023 (NPC, 2006). It has thirty one (31) local government areas with her headquarters at Uyo. The study area captures both riverine (coastal) and non-riverine area. Uyo as well as Oron LGAs were selected for the study. Uyo is a non-coastal town found in Akwa Ibom State and it is located at longitude 50 021 N 70 561 and Latitude 70 471 N 80 031 E. It is bounded in the North by Itu, Ibiono and Ikono Local Government Area of Akwa Ibom State, in the South by Etinan, Nsit Ibom and Ibesikpo Asutan Local Government Area of Akwa Ibom State, in the West by Abak Local Government Area of Akwa Ibom State and in the East by Uruan Local Government Area of Akwa Ibom State. Uyo covers the total land area of 115km² (44 sq ml). Uyo is made up of three residential clans, namely Oku (15 Villages), Etoi (22 Villages) and Offot (22 Villages). Unlike Oron, which is located in Southern part of Akwa Ibom State dominated by coastal plain sand. The population as at 2006 stood at 148,281 with a population density of 652.163 persons/km² on a landmass of 227,368km² (NPC, 2006). However, the projected population later rose to 228946 showing the influx of people in that settlement.

3. MATERIALS AND METHOD

This study adopted survey design method and also employed quantitative techniques in data collection. The study made use of focus group discussion and direct interviews together with structured questionnaire to acquire information on public attitude towards water and sanitation in Akwa Ibom State. Regular visits of the study area (including shops, Universities and colleges, government establishment and fishing settlements) were carried out in order to fully understand how wash facilities are utilized and the

participation of different sectors in WASH-related services. Multi-stage sampling was employed to segment the region into riverine and non-riverine areas. Under the riverine area, Oron LGA was purposively sampled based on the growth of the town and presence of government establishment including marine police base, Naval Base, Maritime University, state oldest high school-Methodist boys high school and others. However, some fishing settlements near Oron axis was considered in the study due to their proximity and cultural mix. For the non-riverine areas, Uyo LGA was selected for jointly serving as the administrative headquarter of the state and the busiest commercial town. A total of 15 private and public facilities (establishment) were sampled for each category, making a total of 30 facilities in riverine and non-riverine areas. Four hundred respondents were sampled and questionnaires were administered on the spot. The sample size followed the method as proposed by Krejcie and Morgan (1970). Eight interview sessions were carried out on separate days. Chi-square was used to analyse the data obtained and in testing of hypothesis for the study.

4. RESULTS AND DISCUSSIONS

4.1 Sampled location at riverine and Non-riverine Area

Table 4.1: Sampled facilities as used in the study

S/N	Riverine area	Non-riverine area
1	Methodist Boys high school	University of Uyo
2	Parrot Island	Akpan Andem market
3	Isua Oron Island	Mbak Etoi market
4	Fishing port	Uyo main market
5	Maritime university	Uyo high school
6	Oron Beach Market	Adiaha Obong Secondary School (girls school)
7	Ebughu settlements -fishing	Ewet technical college
8	Esit Akpa Edok - fishing settlements	Udi Street (Hausa settlement)
9	Ine Ekoi - fishing settlements	Eka street (Hausa settlement)
10	Abana - fishing settlements	Oku street (major hub for female cosmetics and beauty saloon)
11	Ine Odiong - fishing settlements	Nepa line (electronic hub)
12	Esit Edik - fishing settlements	Osongama estate
13	Után Brama - fishing settlements	Abak road housing estate
14	Mbe Ndoro - fishing settlements	Shelter Afrique Housing estate
15	Akpa Ndo - fishing settlements	Ewet timber market

Source: Field survey, 2024

From all the 15 facilities sampled and visited in riverine category and 15 facilities for non-riverine facilities.

4.2 WASH Facilities

The variables for assessing WASH facilities were household with toilet, type of toilet used by household, nature of toilet, number of toilets/bathroom, availability of borehole and availability of toilet equipment. The aforementioned indicators influence WASH services delivery.

Table 4.2: Household with toilet

Option	Frequency	Percentage (%)
Yes	150	37.5
No	250	62.5
Total	400	100

Source: field survey, 2024

Table 4.2 looked at the availability of sanitary facilities in the study area, 250 respondents (37.5%) agreed that they have toilet in their compound while 150 respondents (62.5%) disagreed. The availability of sanitary facilities in an area influences the level of sanitation and health well-being which are key indicator for attainment of WASH success. In the study, a greater number of facilities sample did not have toilet and other WASH infrastructure and such become a barrier toward the attainment of WASH Vision.

Table 4.3: Type of Toilet Available

Option	Frequency	Percentage (%)
Pit toilet	140	35
Flushed with water	160	40
Flushed without water	120	25
Total	400	100

Source: field survey, 2024

The table shows the type of toilet used by household. 140 respondents made use of pit toilet, 160 respondents made use of flushed toilet with water while 120 respondents made use of flushed toilet without water.

Table 4.4: Nature of Toilet

Option	Frequency	Percentage (%)
Concrete	130	32.5
Shade	70	17.5
Wood-made	80	20
Nylon	65	16.25
Open-shade	55	13.75
Total	400	100

Source: field survey, 2024

In Table 4.4, the nature of toilet was presented and from the result gotten, 130 respondents used concrete, 70 respondents used shade, 80 respondents used wood-made, 65 respondents used nylon and 55 respondents used open-shade.

Table 4.5: Number of toilets/bathroom

Options	Frequency	Percentage
1	100	25
2-3	140	35
Above 3	160	40
Total	400	100

Source: field survey, 2024

Table 4.5 portrayed the number of toilets/bathroom owned by households and establishments and the analysis indicated that 100 respondents had one sanitary facility, 35% had 2-3 toilet/bathroom while 40% respondents had more than 3 toilets/bathroom in their residence.



Plate 1: Toilet in the study area (Uyo)
Plate 2: Toilet in the Nigerian City (Uyo)

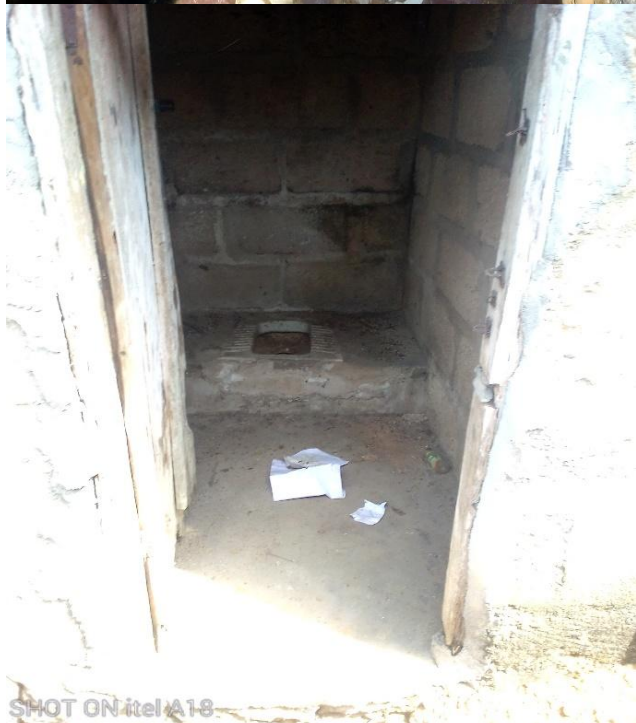


Plate 3: Bathroom
plate 4: Toilet in Eka Street (Hausa settlement)

The nature of toilets and bathroom in Nigerian cities is deplorable especially for rented apartments. Most Nigerians do not consider it wise to invest in standard toilets and bathroom. The sanitation facilities resemble an African SHRINE because, landlords perceive investment in sanitation facilities to be a misplace priorities, not minding the consequences of WASH related infections. These pictures were captured on the spot during reconnaissance study.

Table 6: Availability of Bore hole

Option	Frequency	Percentage (%)
Yes	160	40
No	240	60
Total	400	100

Source: field survey, 2024

Table 4.6 examined the availability of borehole among targeted population. In the study, 160 (40%) agreed that they have borehole while 240 (60%) disagreed. The implications are traceable to many factors, disregard to water investment as in the case of non-riverine areas and poor economic status of occupants in the riverine areas who could out afford the cost of drilling bore hole.

Table 4.7 Availability of toilet equipment

Option	Frequency	Percentage (%)
Bucket	100	25
Disinfectant	40	10
Tissue paper	210	52.5
Shower	60	15
Perfume	50	5
Total	400	100

Source: field survey, 2024

Table 4.7 looked at the availability of equipment used in the toilet at the study area. 100 respondents used bucket, 40 respondent had disinfectant, 210 respondent had tissue paper, 60 respondents had shower and 50 respondents had perfume.

4.2.1 Level of Utilization of WASH facility

Data on the level of utilization of WASH facility as used in this study are but not limited to frequency for washing toilet, frequency for washing bathroom and frequency for washing water tank.

Table 4.8: Frequency of toilet washing

Option	Frequency	Percentage (%)
True	290	72.5
False	110	27.5
Total	400	100

Source: field survey, 2024

In Table 4.8, 290 respondents agreed that they wash their toilet frequently while 110 respondents disagreed. The implication is that people have different views on their response to sanitation matters

Table 4.9: Frequency for washing bathroom

Option	Frequency	Percentage (%)
True	320	80
False	80	20
Total	400	100

Source: field survey, 2024

From information in Table 4.9, 320 (80%) respondents agreed that they wash their bathroom frequently while 80 respondents (20%) disagreed.

Table 4.10: Frequency for washing water tank

Option	Frequency	Percentage (%)
True	280	70
False	120	30
Total	400	100

Source: field survey, 2024

In Table 4.10, 280 respondent (70%) agreed that they often wash their water tank and 120 respondent (30%) disagreed on this. Individual preference for washing of water tank is triggered by the knowledge of the consequences of water borne infections from water tank and vice versa.

4.2.2 Perception of people on WASH services

Table 4.11: Reasons for low investment in of WASH facility

Options	Frequency	Percentage (%)
Open defecation is easier	150	37.5
No accrued economic benefit	60	15
Cost of maintenance	140	35
Cost of securing the facility	10	2.5
Others	40	10
Total	400	100

Source: field survey, 2024

Table 4.11 showed that 150 respondents (37.5%) agreed that they prefer open defecation due to ease, 60 respondents (15%) agreed that they could not invest in WASH facility due to no economic returns from such investment, 40 respondents (35%) agreed on maintenance, 10 respondents (2.5%) the cost of securing the facilities and 40 respondents (10%) had other alternative reasons that discourage them from using WASH facility's investment.

4.2.3 Challenges facing compliance, utilization and intersectoral engagement in WASHservices

Table 4.12: Constraints for utilisation of public water facility in riverine areas

Options	Frequency	Percentage (%)
insufficient electricity	120	30
frequent damage	90	22.5
Past experience	30	7.5
preference for open defecation	110	27.5
preference for well	30	7.5
distance of the facility	20	4
Total	400	100

Source: field survey, 2024

Table 4.12 showed that 120 respondents (30%) agreed that insufficient electricity is the reason for non-utilisation of water facility, 90 respondents (22.5%) agreed on frequent damage, 30 respondents (7.5%) agreed on past experience, 27.5% agreed on preference for open defecation, 30 respondents (7.5%) agreed on preference for well and 20 respondents (4%) agreed on distance of the facility.

Table 4.13: Environment/Health challenges associated with water and sanitation

Options	Frequency	Percentage (%)
Bacterial infection	10	2.5
Urinary Tract Disease	140	35
viral infection	60	15
Foul odour	110	27.5
flies/mosquito	40	10
water/air pollution	40	10
Total	400	100

Source: field survey, 2024

From this presentation, 10 respondents of the sampled populations agreed that the challenges facing water and sanitation is related to bacterial infection, 140 respondents on urinary tract infection, 60 respondents on viral infection, 110 respondents on foul odour, 40 respondents on flies/mosquito and 40 respondents on pollution.

Table 4.14: Willingness to pay for public sanitary facility

Option	Frequency	Percentage (%)
Yes	30	7.5
No	370	92.5
Total	400	100

Source: field survey, 2024

In Table 4.14, 370 (92.5%) of respondents agreed that they will not pay for the usage of sanitary facility while 30 respondents (7.5%) disagreed. This agrees with findings from Gunatilake & Tachiiri (2012) on citizen's willingness to pay and inclusive tariff designs for improved water supply services in Khulna, Bangladesh. They noticed that most citizen shows reluctance to financially contribute to safe water service delivery. Government tends to complain a lot and set boundaries and limitations on basic amenities' provision particularly in developing economies. This was also reflected in findings from Ifabiyi (2011) who assessed the idea of free safe water at household level in Ilorin, Kwara State, that Nigerians are inherently ready to consume free safe water while the state agencies are unwilling to give such services.

Testing of Hypothesis

Ho.Public attitude does not have significant impact on water and sanitation practices in Akwa Ibom State

Analysis of Hypothesis

Chi-square was used to test for the impact on of public attitude on water and sanitation practices in Akwa Ibom State using SPSS.

Below is the data analysis and the summary of the chi-square test.

Summary of Chi-Square Tests

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	268.508 ^a	14	.000
Likelihood Ratio	204.015	14	.000
Linear-by-Linear Association	83.192	1	.001
N of Valid Cases	19842		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 35.07.

The result for hypothesis tested for the significant impact on of public attitude on water and sanitation practices in Akwa Ibom State using SPSS. The result produces Pearson Chi-Square value of 268.508^a, degree of freedom

(df) of 14 and a P-value (2-sided) of 0.000. From the result, since the P-value is less than 0.05 (significance level), the null hypothesis is rejected and can therefore be concluded that there is significant impact on of public attitude and perception on water and sanitation practices in Akwa Ibom State using SPSS.

5. DISCUSSION OF FINDINGS

The perception of people on sanitation and hygiene plays a significant role in WASH project. In terms of the availability of toilet, 250 respondents (37.5%) agreed that they have toilet in their compound while 150 respondents (62.5%) disagreed. The availability of sanitary facilities in coastal areas influences the level of sanitation and health well-being which are key indicator for attainment of WASH success. In the study, some of the household did not have toilet facilities and such become a barrier toward accessing WASH services, findings also revealed that the type of toilet varies. At the study area, some toilets were not in good condition while a few were yet to be re-constructed. From findings, 140 respondents made use of pit toilet, 160 respondents made use of flushed toilet with water while 120 respondents made use of flushed toilet without water in terms of the nature of toilet as used by household, 130 respondents used concrete, 70 respondents used shade, 80 respondents used wood-made, 65 respondents used nylon and 55 respondents used open-shade. The study also assessed the number of toilets/bathroom occupied by household. In the study, 100 respondents had one sanitary facility, 35% had 2-3 toilet/bathroom while 40% respondents had more than 3 toilets/bathroom in their residence. Other facilities like borehole availability were assessed, in the study, 160 (40%) agreed that they have borehole while 240 (60%) disagreed. The implications are traceable to poor economic status of occupants who could not afford the cost of drilling bore hole for their private use. Further findings on the availability of equipment used in the toilet at the study area. 100 respondents used bucket, 40 respondent had disinfectant, 210 respondent had tissue paper, 60 respondents had shower and 50 respondents had perfume.

From field observation and interview done, the level of WASH facility was improved in maritime university and Methodist boys high school, Oron. The remaining thirteen facilities including fishing settlement and markets require WASH presence. In some places where sanitation and hygiene facilities were found, maintenance was a serious problem. For the non-riverine areas, housing estates had a better record on WASH services, there were adequate facilities for handwashing, standard toilets as well as waste bin regularly collected at household basis by private waste management company. Meanwhile, Udi and Eka streets (Hausa settlement) was an eye sore, no deliberate and adequate efforts were made for WASH services. Wrap and throw of human faeces was common around Eka street settlement, no proper arrangement was made for waste management and faecal waste was emptied directly into gully protected sites. The gully site became a dumping site and a toilet for the occupants of that settlement.

Regarding the contribution of public establishment in WASH services, University ofuyo had a very terrible record on WASH services, water supply was not consistent likewise power supply to ensure easy utilization of the facilities. Reckless defecation and open urination was observed. Students could not bear the brunt of poor managerial stance on toilet, water access, managing of solid waste and hand washing. Hence, they resort to disposal of solid waste and faeces at any of their convenient spaces. Female students were sighted urinating in open field and backyard of lecture halls. This scenario equally affected students residing in hostels who directly depend on water and electricity supply in accessing a consistent water, sanitation and hygiene services. Schools like Uyo high school and Ewet technical college struggles with inconsistency of WASH services. Meanwhile, there was adequate attention offered to girls' schools in toilet provision and maintenance, solid waste management and frequent monitoring of facilities likewise students' personal hygiene was prioritised. In all the school visited, only girls schools had potable water provision for students and staff. The role of potable water availability in modern-day school is enormous. Firstly, students from poor economic homes can access at least safe water to consume. This agrees with findings from (UNICEF, 2022) that schools should deliberately plan towards providing WASH facilities.

Statistics have revealed that about 63% of schools in sub-Saharan Africa had no WASH services as at 2021, with serious cases in Ethiopia and Malawi with 75% (UNICEF, 2022). Moreover, in every 4 primary schools have no drinking water while 1 in every 6 secondary school are totally water stressed globally. Still in the report, nearly 600 million children lacked drinking water at school, 1 in every 5 primary schools likewise 1 in every 8 secondary school lack basic toilet facility respectively (WHO/UNICEF JMP, 2018). Female students are the most vulnerable group on WASH deficiency issues. A study in University campuses across sub-Saharan Africa revealed that over 50% of campuses lacked adequate toilet, water supply and hand washing equipment. UNICEF's WASH programs in schools have reported

that many universities in low income countries are facing water borne infections problem including India, Nigeria and (UNICEF-WASH, 2022).

Another important work space that had issues with WASH services' effectiveness were private business spaces. At Oku street and Nepa line, shop landlords fail to provide toilets in their business premises and from eye witness, people wrap their body discharge in special containers or polythene bags and during dawn or when the street is less busy, the discharges are emptied into gutters. Too many polythene bags were found with content of human faecal waste. The hygiene condition of the two business hubs was absolutely poor.



Plate 1: A popular and busiest street in Uyo (Oku street) with no WASH facility

The study also assessed the status of water, sanitation and hygiene in major market within riverine and non-riverine areas . Uyo main market, Akpan Andem market and Mbak Etoi market experienced different level of successes in response to water, sanitation and hygiene. While Akpan Andem Market had a little improvement in hygiene condition and facilities like observation of sanitation days, sanitation levies, sanctions for sanitation-related matters, toilets and waste bin, the problem of consistent compliance among market women posed a key challenge. Other two markets (Uyo main market and Mbak Etoi market) suffer the challenge of handling waste and acquisition of sanitation facilities around market vicinity. Considering the reasons for non-utilization of public sanitary facility, 150 respondents (37.5%) agreed that they defecate into open sea, 60 respondents (15%) agreed that they could not use public sanitary facility due to the fear of disease, 40 respondents (35%) agreed on wrap and throw, 10 respondents (2.5%) fear the cost of using the facility and 40 respondents (10%) had other alternative reasons that discourage them from using public sanitary facility. The study also examined the reason for non-utilization of water facility, 120 respondents (30%) agreed that insufficient electricity is the reason for non-utilization of water facility, 90 respondents (22.5%) agreed on frequent damage, 30 respondents (7.5%) agreed on past experience, 27.5% agreed on preference for stream/sea water, 30 respondents (7.5%) agreed on preference for well and 20 respondents (4%) agreed on distance of the facility.

The consequences of actions taken on sanitary facilities posed serious environmental and public health concern. In the study, 10

respondents of the sampled populations agreed that the challenges facing water and sanitation is related to bacterial infection, 140 respondents on urinary tract infection, 60 respondents on viral infection, 110 respondents on foul odour, 40 respondents on flies/mosquito and 40 respondents on pollution. It was also noticed that some occupant did not see the need to secure better sanitation and hygiene services due to the cost involved. 370 (92.5%) of respondents agreed that they will not pay for the usage of sanitary facility while 30 respondents (7.5%) disagreed. From the interview and focus group discussion conducted at the study area, it was noted that there is never any policy at the local level which critically and specifically undertakes water and sanitation problems in Oron and Uyo. Interviewees stated emphatically that the Council of Elders do not give priority to hygiene and sanitation at their respective homes and thus may not see the need to implement policy that could scale up WASH services. A particular elderly woman (anonymous) embrace the idea of Local Committee on Hygiene and Sanitation (LOCOHAS) at various villages with their representatives to channel their resources and skills in proffering solution to the issue of deplorable hygiene status whereby a great number of persons consider the riverine areas specifically Oron as a major zone of poor hygiene and sanitation.



Plate 2: Household Waste closer to water environment Uya Oro

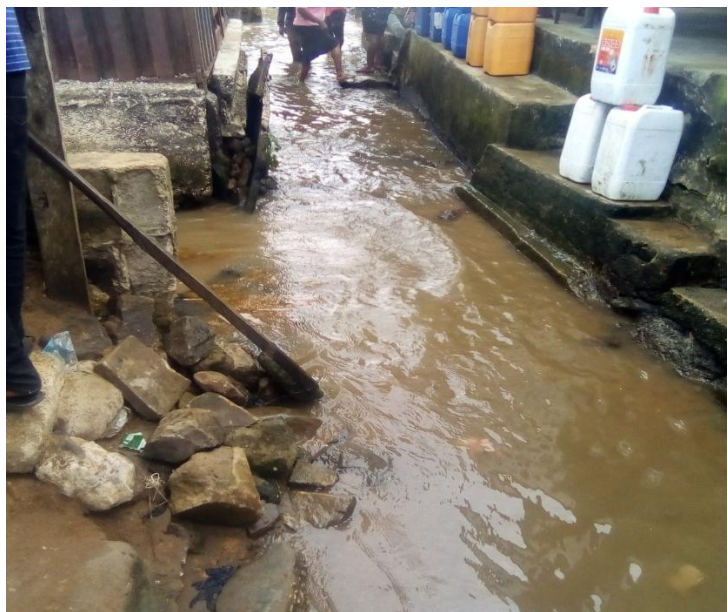


Plate 3:Public toilet that is connected to the sea (situated in Oron)



Plate 7: One of the researchers inspecting the public toilet facility in Uya Oro

Moreover, the State government equally put in place certain effort to remedy the issue of poor WASH services, yet more of government presence is needed in this direction. At the same time, the efforts of Non-governmental Organisations and support by the Local authority are channels for breakthrough in WASH

6. CONCLUSION

The water, sanitation and hygiene policies as an institutional frameworks in Nigeria and Akwa Ibom State are ambitious and is yet to be fully implemented. In particular, the ongoing efforts to improve coordination, clarify responsibilities and separate funding streams for water and sanitation are positive developments have been hindered due to cultural constraint especially the attitude of people towards utilization and investment in WASH facilities, the poor level of commitment among communities in coastal region and the hinterland. Oron LGA being a riverine area likewise Uyo LGA in the hinterland key examples are noted for the low level of compliance towards the vision of WASH. This is due to the inadequate provision of sanitary facilities, indiscriminate disposal of waste into water, open spaces and drains, low inter-sectoral commitment and investment culture, low level of compliance as well as rigidity toward behavioral change. Though the policies are in existence, the major gap, however, remains the translation of these policies into practice which is further hampered by a number of factors related to budget allocation, funding for sanitation and hygiene, enforcement of sanitation and hygiene laws monitoring and evaluation of sanitation facilities and private sector-government's commitment toward water and sanitation. It is expected that when these issues are effectively addressed, WASH-related SDGs' performance would be improved. Recommendations made were:

- There is need for more sensitization to arouse the nerves of private sector and governments commitment to invest in WASH-related services.
- Government as well as international organisations should develop strategies and invest in School-WASH Project especially in high

colleges and Nigerian tertiary institutions. Hence, Hygiene/sanitation should not only be included in the school curriculum, rather sanitation days should be observed in schools, markets and public spaces while private sector should ensure that their business premises particularly shops/stores are equipped with WASH facilities. Akwa Ibom State Government can enact policies on private sector WASH Blue print and this would upscale WASH performance.

- Adequate social media intervention and incentive can boost and facilitate the attainment of state-wide acceptance and compliance on water, sanitation and hygiene agenda.
- Sanctions should be made on open defecation in public spaces and non-provisioning of WASH facilities in business premises.
- Water, sanitation and hygiene should be prioritized in all quarters beginning from schools, market, business premises, estates, fishing settlements and churches. As a result, inter-sectoral collaboration in sensitization, funding, monitoring and sanctions are strategic ways for easy breakthrough.

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