

Imperative of Gender and Inclusion in Urban Water Services: Prospects and Challenges

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Abstract

The gender gap in access to water and sanitation services is one of the challenges Nigeria faces. Government have implemented policies towards bridging such gap but a lot needs to be done to bridge the gap which is absolutely necessary if sustainability is to be achieved. In making efforts towards bridging the existing gap, women, children and people with special needs should be considered. Women and Children are considered to be vulnerable in society people with special needs are discriminated against. They are not included in provision of goods and services. Policies are not made that recognizes their dispositions. So, when providing services their needs should also be taken into consideration. The research is a social survey in which data gathering was done using the questionnaires as instrument of data collection. The analysis was achieved through simple frequencies and percentages. The findings indicated challenges of women, girls and people with special needs such as numerous adverse health effects due to lack of adequate access to water and sanitation and hygiene. When water points are not available in households, women and girls will seek water by trekking for long distances and spending time sourcing for water that could have been utilized for other productive activities. Out of fear, women and girls may choose to ignore their needs which may increase the likelihood of urinary tract infections, chronic constipation or mental stress, due to lack of access to affordable water services. Recommendations included government policies, availability of affordable water services, facilities and orientation on water management and payment for services.

Keywords: Access, Gender, Inclusion, Urban.

Introduction

This paper focuses on the imperative of gender and inclusion in urban wash. The paper is guided by the hypothesis that urban wash interventions have not consistently considered gender dynamics and the vulnerability of various social gender groups in order to mainstream them into project design. The paper argues that women and men play a key role in proffering sustainable solutions to the global WASH challenge. Empowering women helps communities reach their full health, economic and educational benefits. Therefore, WASH projects with positive finan-

cial benefits for women will contribute to overall community development. Inclusion of women's full participation in water and sanitation projects is strongly correlated with increased effectiveness and sustainability of these projects. With relevant illustrations and cases this paper demonstrates the need for gender mainstreaming strategies and programmes to consider the economic, social benefits of mainstreaming gender and inclusion. The paper is divided into seven sections. The first and second section introduces the problematic. The third focuses on methodology and analysis of data. In section four the challenges are

reviewed. Section five brings out the key prospects while section six concludes the analyses by underscoring the need for research community and policy makers in Nigeria to support the incorporation of gender and inclusion as well as women's contribution to urban wash and orientations into the urban wash gender mainstreaming initiatives.

Gender simply refers to the specific roles and responsibilities adopted by women and men in any society. It is related to our socially ascribed roles because of the way society is organized not because of our biological differences. The parameters of gender inequality in Nigeria, including in Jos, Plateau State mapped out in numerous studies and reports demonstrate a clear link between inequality and poverty. The Nigeria 2017 Sustainable Development Goals (SDGs) report presents vivid socio-economic indicators detailing the comparative low status of women and girls in every part of the country. Gender disparities are so profoundly ingrained in social mores, norms, values and institutions that it's still considered by the majority of the populace to be normal or natural for women and men to have significantly differentiated access to and control over societal resources and entitlements including water resources. However, the gender differentiated distribution of wealth and privilege is increasingly being recognized as a hindrance to economic growth and productivity and to overall human well being.

However, in terms of access to water, sanitation and hygiene the benefits are the same for men and women that's we want healthy families and happy children if simple rules of hand washing and sanitation are consistently maintained. In this situation the benefits and outcomes are good for both men and women. Women and girls are disproportionately affected by lack of access to water, sanitation and hygiene. Addressing the wash need of men, women and children can provide direct benefits and indirect benefits to the entire community such as good health, education and economic productivity.

Inclusion exists in a society where all people feel valued, their differences are respected and their basic needs are met so they live in dignity. It is key to ending extreme poverty and fostering shared prosperity. It is both an outcome and a process. It is the process of improving the terms of individuals and groups to participate in society. While social exclusion denotes a violation of people's rights. It is strongly associated with poverty. It can lead to violence programs that mainstream gender must be aware of and seek to address social exclusion. The government that seeks peace, development and stability must be aware of social differences, promote and protect the rights and interests of different groups in the society.

Women and Children are considered to be vulnerable in society Disability: people with special needs tend to be discriminated against. They are not included in provision of goods and services. Policies are not made that recognizes their dispositions. So, when implementing wash projects their needs should also be taken into consideration especially in toilet design and access to water facilities and water points. People living with HIV/AIDS Age; Young people and the elderly people are also considered as vulnerable groups because they tend to be excluded in community consultation for projects. Employing the gender approach, this implies that attitudes, roles and responsibilities of men and

women are taken into account. That is, both sexes do not necessarily have the same access to, control over, resources and that work benefits and impacts may be different for both groups. This approach requires an open mindedness and aims at the fullest possible participation of both women and men [1].

Rational

The success of achieving the SDGs goal 6 is measured by the proportions of both rural and urban populations, men and women who have sustainable access to improved water and sanitation. The parameters of gender inequality in Nigeria, including in Jos, Plateau State mapped out in numerous studies and reports demonstrate a clear link between inequality and poverty. The Nigeria SDGs 2017 report presents vivid socio-economic indicators detailing the comparative low status of women and girls in every part of the country. Gender disparities are so profoundly ingrained in social mores, norms, values and institutions that it's still considered by the majority of the populace to be normal or natural for women and men to have significantly differentiated access to and control over societal resources and entitlements including water resources.

However, the gender differentiated distribution of wealth and privilege is increasingly being recognized as a hindrance to economic growth and productivity and to overall human well being. Findings from the RGA conducted by in Jos, Plateau State discovered that women are the ones who are most affected by lack of access to safe water and sanitation facilities which gave birth to the African WAC II project [4]. The impact is mostly felt by women, when others fall sick through contaminated drinking water sources; they spend productive man-hours caring for sick ones. Equally this study, showed that intestinal illness affects children who are prone to stomach pain, diarrhea, hydration and this has led to deaths due to the contaminated water they drink. About 50% of children in the community under age 5 die every year from effects of drinking water. While 30% of the people including women are without access to sanitation and 80% of illness detected in the community originated from their water sources (RGA, 2005). SDG targets 6.1 and 6.2 relate to drinking water, sanitation and hygiene and are far more ambitious than the previous MDG target 7c, which aimed to halve the proportion of the population without access to water and sanitation by 2015. First, the SDG targets call for universal and equitable access for all, which implies eliminating inequalities in service levels. Second, they include hygiene, which was not addressed in the MDGs. Third, they specify that drinking water should be safe and affordable, and that sanitation should be adequate. Lastly, they include explicit references to ending open defecation and to the needs of women and girls and those in vulnerable situations. The 844 million people who still lacked a basic drinking water service in 2015 either use improved sources with water collection times exceeding 30 minutes (limited services), use unprotected wells and springs (unimproved sources), or take water directly from surface water sources. Women and girls are responsible for water collection in 8 out of 10 households with water off premises, so reducing the population with limited drinking water services will have a strong gender impact. Of the 10 countries where at least 20 per cent of the national population uses limited services, eight are in sub-Saharan Africa and two are in Oceania [1].

There are numerous adverse health effects due to lack of adequate access to water, sanitation and hygiene services. When latrines are not available in households, women and girls will seek privacy after dark to defecate outside of their homes, exposing them to a greater risk of harassment sexual and assault out of fear, women and girls may choose to ignore their needs which may increase the likelihood of urinary tract infections, chronic constipation or mental stress. Indeed, more recently the Federal Government of Nigeria has declared a state of emergency in the water, sanitation and hygiene (WASH) sector in a bid to galvanize action and investment. The declaration comes amidst concerns that Nigeria is falling behind in terms of access to water and sanitation (Offie,2018).

It is against this background that the vital role of women in water, sanitation and hygiene (WASH) interventions is undeniable. But even though women's involvement in the planning, design, management and implementation of such projects and programmes has proved to be fruitful and cost-effective, the substantial benefits of this approach are not properly recognized. One result is that, all too often, women as a gender group who are the core end users in sourcing and working with water are not as centrally engaged in water and sanitation efforts and project design as they should be.

Methodology

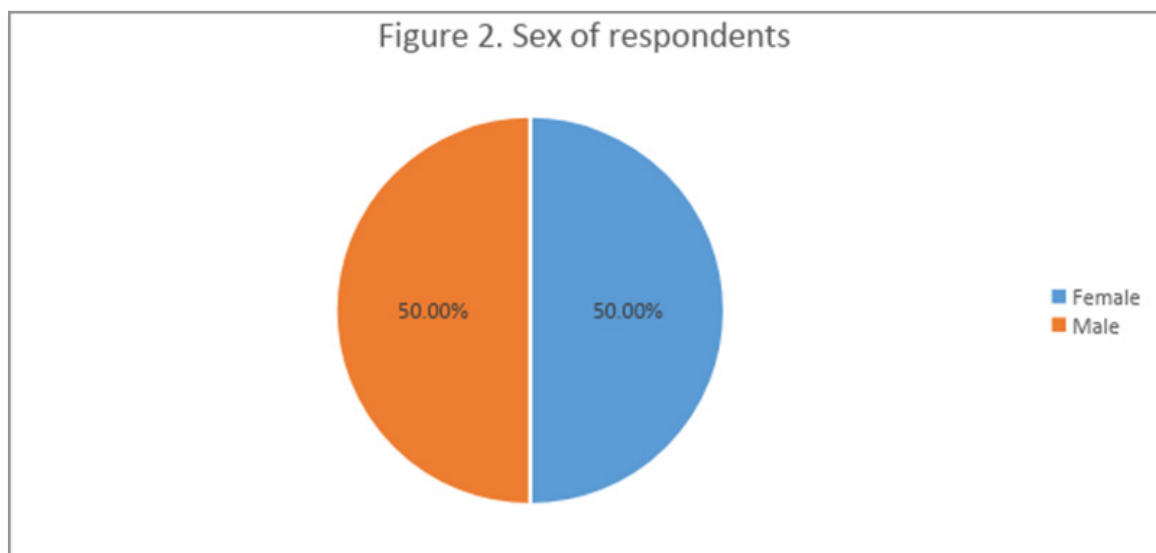
Triangulation of methods was used; indeed, this technique of sample triangulation has found expression in, who argued that sample triangulation and multiple approach to sampling gives a better understanding of the issues under study [3]. Therefore, the methodology has both qualitative and quantitative components. Tools include a series of Key Informant Interviews (KIIs), Fo-

cus Group Discussions (FGDs). Data is disaggregated according to gender, age, religion, ethnic groups, and location of the respondents. It contains a description of the data for the study and categories of the groups sampled. Random sampling technique was used to select (10) local government areas from the seventeen LGAs in Plateau State, the local governments were sampled from the three senatorial districts of Plateau State. The following are the sampled LGAs; Jos North, Jos South, Shendam, Bokkos, Bakin Ladi, Mangu, Pankshin, Langtang North, Qua'an Pan and Riyom LGAs.

The data for this assessment was obtained from primary data sources. The researchers employed the method of in-depth interviews, focal person interviews, desk review and Focus Group Discussions (FGDs) was used for qualitative data and quantitative responses from questionnaires using the kobo collect electronic smart phones devices. Respondents were drawn from the 10 L.G. As from the general population for quantitative data and key personal or staff of relevant MDAs, government secondary schools or L.G. As secretariats. Across all the goals, the data collectors employed different approaches – focus group discussions, interviews, desk research – where necessary to get the desired information.

Focus Group Discussions

CSOs facilitated a series of focus group discussions to assess the opinions and experiences from the target groups FGDs were facilitated in English language, however translation into Hausa language was necessary for the Hausa speaking communities in order to ensure greater involvement of all participants. Participants included women and men.



Gender Assessment Plateau State 2017

Figure 2: Shows a distribution of the respondents surveyed by a desegregated distribution of the respondents by sex. The females are 50% of the population under study and the men are also 50% of the population. This is an indication that gender balance was reflected in administering the questionnaires so that both genders and their opinions would be evenly sampled and represented in the survey.

GOAL 6 TARGET

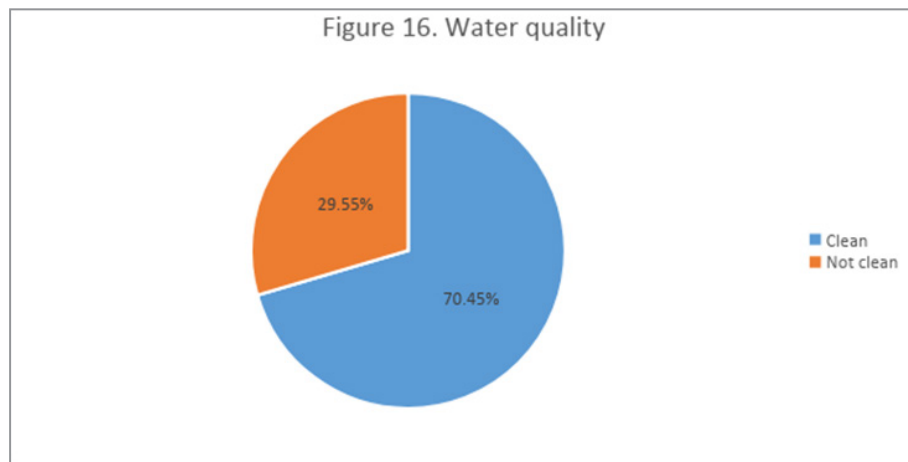
Table 2: Respondents' source(s) of drinking water

Drinking water source	Frequency	Percentage
Borehole	125	31.57%
Borehole /Tap water/ Sachet water	2	0.51%
Borehole /Water vendors	3	0.76%
Borehole /Well	8	2.02%
Borehole /Well /Tap water	1	0.25%
Borehole /Well/ Rain water/ Sachet water /Bottle water	2	0.51%
Borehole/ Rain water /Sachet water	2	0.51%
Borehole/ Sachet water	8	2.02%
Borehole/ Sachet water /Bottle water	6	1.52%
Borehole/ Tap water /Sachet water/Bottle water	3	0.76%
Borehole/ Well /Stream /Rain water / Sachet water /Bottle water	1	0.25%
Borehole/ Well/ Rain water/ Sachet water	3	0.76%
Borehole/ Well/ Stream/ Rain water	1	0.25%
Borehole/Tap water	11	2.78%
Rain water	2	0.51%
Sachet water	16	4.04%
Stream	23	5.81%
Tap water	16	4.04%
Tap water /Sachet water	9	2.27%
Water vendors	2	0.51%
Water vendors/ Sachet water	1	0.25%
Water vendors/ Tap water	1	0.25%
Well	140	35.35%
Well, /Rain water	1	0.25%
Well, / Sachet water	3	0.76%
Well, / Stream /Rain water	2	0.51%
Well, / Tap water	4	1.01%
Grand Total	396	100.00%

Gender Assessment Plateau State 2017

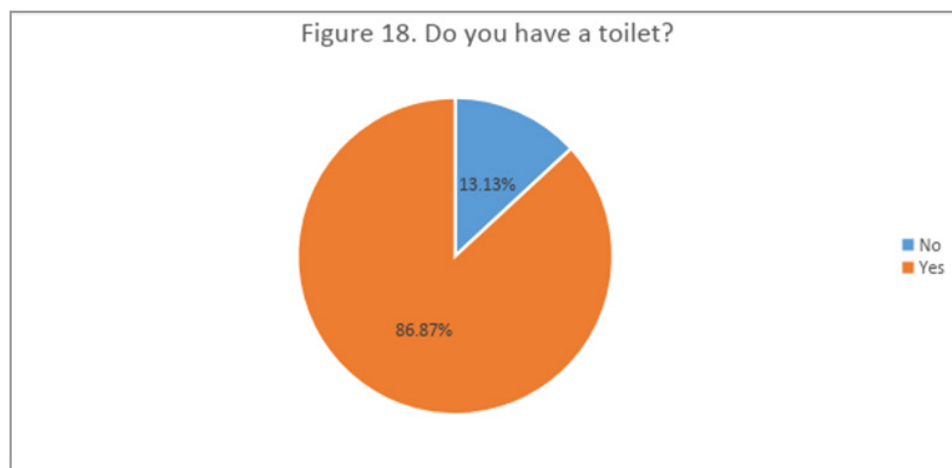
Table 2 Shows a distribution of respondents by their various sources of drinking water 31.57% of the respondents said they use the bore hole as their main source of water, 35.35% of the respondents use a well while only about 4.04% of the respondents use the tap water. This table shows several of the respondents do not have access to potable water which is a key SDGs goal. However, a respondent from the FGD noted that on Access to potable water and safe sanitation facilities: 'the LGA was part of the first set of 3 LGA's selected by the state to test run the "Con-

ditional Grant Scheme" which is a multi-stage contribution comprising the Federal, State and Local Government. The LGA contributed 40million, State = 60million, and Federal =100million. Totalling 200million, set aside to implement programmes under the MDGs (now SDGs) from the conditional grant scheme. This grant was strictly set aside for capital projects and was used to construct schools, health care centres and boreholes in the 3 districts of Riyom, Bachit and Ganawuri of the LGA'.



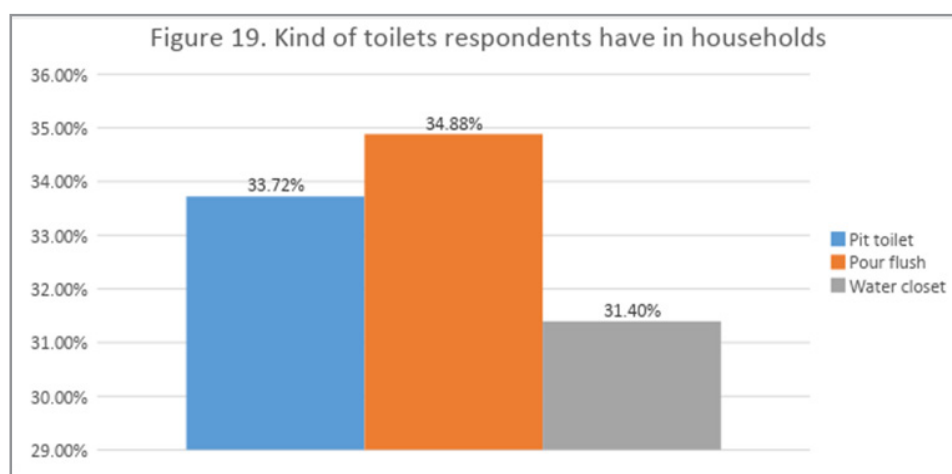
This figure 16: Shows that 29.55% of respondents do not have clean water, while 70.45% said they have clean water as indicated in the pie chart. A respondent from the FGD in Shen dam asserted that their school has good access to water. 'We have good running tap water and borehole and we also have good sanitation facilities in each hostel for the girls. We also teach the girls the importance of proper sanitation and good hygiene'. While in Quan pan a respondent noted that 'the LGA values the issue of the health of its citizens as it has discovered that the cause of most ailments is water related and this prompted the LGA to embark on projects that are majorly water related with the provision of motorized boreholes in every nook and cranny of the LGA'. While in Shen dam a respondent asserted that 'the girls' school has good access to water. We have God running tap water and borehole and we also have good sanitation facilities.

GOAL 6 TARGET



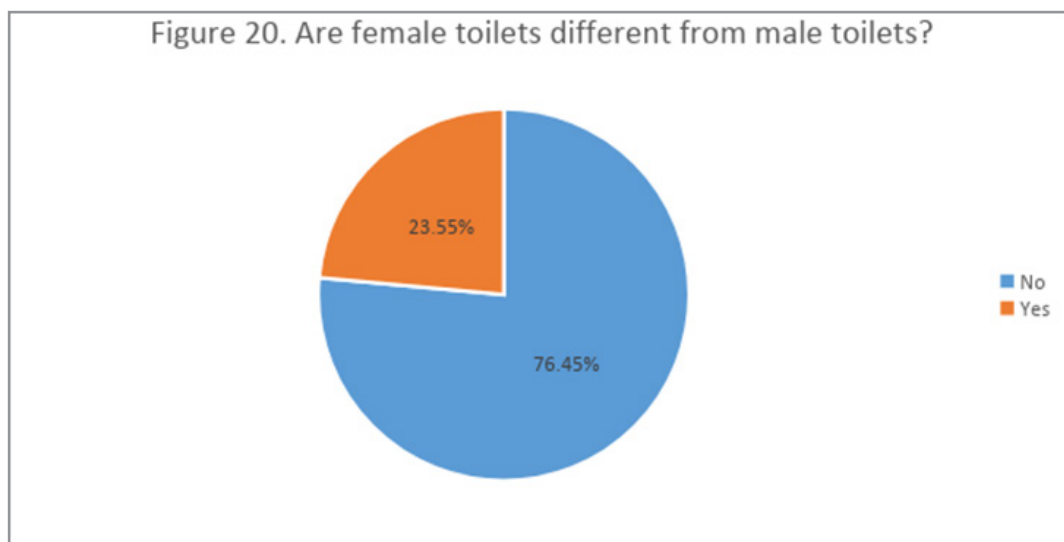
Gender Assessment Plateau State 2017

This shows a distribution of respondents by those who have access to toilets 13.13% have no access to toilets and 86.87% of the respondents said they have access to toilets.



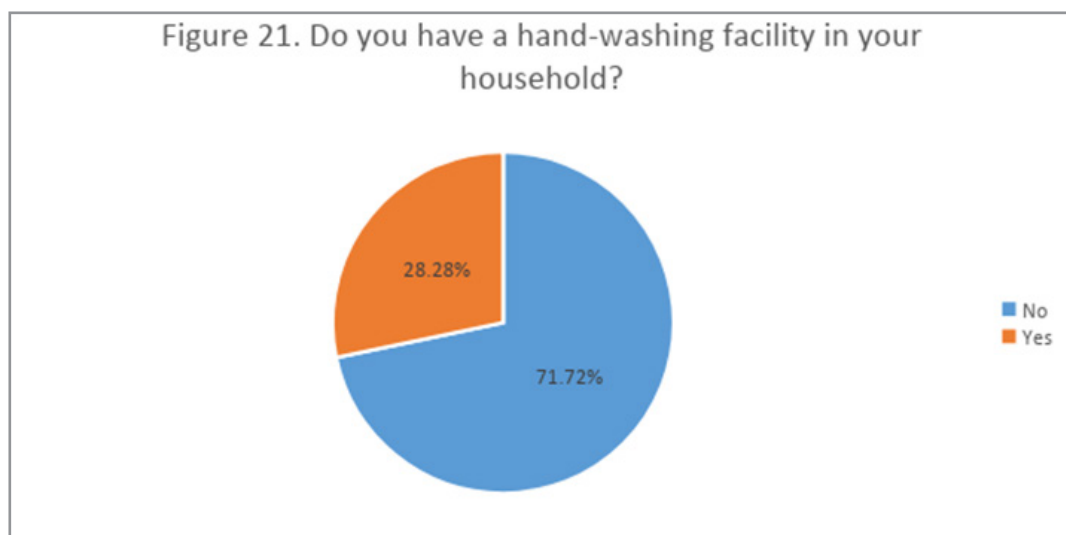
Gender Assessment Plateau State 2017

Figure 19: Shows the distribution of respondents by the kind of toilets they have in their households. 33.72% of the respondents use a pit toilet, 34.88% of the respondents use a pour flush toilet and 31.40% of the respondents use a water closet so majority of the respondents said they use a pour flush toilet.



Gender Assessment Plateau State 2017

Figure 20: Shows a distribution of respondents by whether the female toilets are different from the male toilets. 23.55% of respondents said no there were no separate toilets for the males and females. While 76.45% of the respondents said there were separate toilets for the males and females. This is encouraging because both men and especially women need to go to the toilet and enjoy their privacy with dignity especially with issues of menstrual hygiene management.



Gender Assessment Plateau State 2017

Figure 21: This is a distribution of respondents on whether they have hand washing facility in their household. 71.72% of the respondents have no hand washing facility in their households. While 28.28% of the respondents have a hand washing facility in their household. This is important as hand washing at critical times can have a significant effect on incidence of diseases in our communities.

Key Findings

Several of the respondents said they use the bore hole as their main source of water, only about 4.04% of the respondents use the tap water. This means several of the respondents do not have access to portable water there is a need to increase the access to water to the rural areas as this will improve productive in other areas rather than for women and girls to spend too much time sourcing for water. 70.20% do not treat their water before drinking if the water is not clean this can have a significant increase in their incidence of infectious diseases since about 80% of diseases in Plateau are water related. Majority of respondents do not have hand washing facility in their household. 71.72% of the respondents have no hand washing facility in their household.

This is important as hand washing at critical times can have a significant effect on incidence of diseases in our communities. There is a need to promote hand washing as well as encourage people to have hand washing facilities. There is a pressing need to encourage schools within the L.G. As to provide hand washing facility as this can improve the health outcomes of students as washing of hands at critical times remains a very important hygiene measure that can prevent diseases.

- 72% of the schools have toilets while 28% of the schools do not have access to toilets this means that there will be some open defecation being practice around some of the schools where they are no toilets. If toilets are not user friendly in terms of design,

access to water for flushing the students are most likely to resort to open defecation which can contaminate the environment, water sources and even lead to outbreak of water borne diseases as is sometimes the case.

- Majority of the school have no facilities with adapted materials for students with disabilities. This shows that majority of the schools are not inclusive and they do not take the issues of students with disability into account when designing facilities these can prevent students with disabilities from coming to school or enjoying a conducive environment while in school.

Prospects

The Minister for Water Resources and Energy Engr Suleiman Adamu has declared the state of emergency on WASH is expected to last 18 months, and is the start of a 13-year National WASH Action Plan. As part of the plan, the federal government is setting up a WASH fund to increase and pool resources for the sector, and prioritize action for access to water and sanitation. Adamu added that he wants to see much greater private sector participation to improve performance going forward. The Action Plan according to the Minister, will set out a 13-year revitalization strategy for WASH sector including 18 months emergency phase and 5 years recovery plan.

He also added that the Action plan will provide for concrete actions to be taken by both Federal and State Governments under five components comprising governance, sustainability, funding, financing and monitoring and evaluation. In addition, the Action Plan includes the establishment of a National WASH Fund as a tool for the promotion of renewed Federal-State partnership and increased financial investment for WASH so as to measure up to regional level of funding. He said the National WASH Action Plan will change the worrisome situation and reverse the ugly trend while the declaration of state of emergency on the sector will change the narrative (Offie,2018). Hopefully this will be a huge window of opportunity for key Wash sector actors to mainstream gender and inclusion. Women and men play a key role in sustainable solutions to the global WASH challenge. Empowering women helps communities reach their full health, economic and educational benefits. Therefore, WASH projects with positive financial benefits for women will contribute to overall community development. Inclusion of women's full participation in water and sanitation projects is strongly correlated with increased effectiveness and sustainability of these projects.

Therefore, a key strategy in addressing gender imbalances is empowerment. It must be realized, though, that groups and individuals empower themselves. It is a process of change one goes through from within. Instruments for change include education, laws and regulations. A World Bank evaluation of 122 water projects found that the effectiveness of a project was six to seven times higher where women were involved than where they were not [5]. The examples given here demonstrate this in many different locations and in various ways.

Awareness-Raising

A key component of any WASH project is to raise awareness about the importance of carrying out safe hygienic practices. Women play a vital role in awareness raising about these issues, as they take the main responsibility for domestic duties and for

developing safe and hygienic habits in children. Women also cope with the additional burden of caring for household members who become sick as a result of unsafe water and poor sanitation.

The Planning Stage

The results of involving women in the design and planning stages are multiple, from reducing corruption, increasing management transparency, better financial management and empowering both women and men for example.

Funding

According to the UN Interagency Task Force on Gender and Water, women have been found to be the most effective managers in several UN water projects in Africa, where water has been used for income generation and where women have control over income earned from their small-scale enterprises. Women's cooperatives connected to water points in Mauritania, for example, have become very dynamic and women take a more active and prominent role through capacity building and provision of credit.

Conclusion

Access to improved water and sanitation facilities is key to the socioeconomic wellbeing and sustainable development of any society. This assessment shows that some of the households used various kinds of pit latrines especially in the rural; communities used other types of sanitation facilities. Improving public access to sanitation services in a rapidly urbanizing world is an increasingly important, yet challenging issue for governments, international development agencies, urban planners, and sanitation practitioners. The negative impact of poor sanitation on human and environmental health has been widely acknowledged and includes exposure to acute excreta-related illness such as diarrhea, cholera, dysentery, typhoid, and hepatitis A, contamination of drinking water sources, environmental degradation, and contributes to preventable health problems.

Without safe water and access to sanitation facilities, women use polluted sources such as dams or buy expensive water (from unsafe sources) from vendors. Women in Ubbe, Nassarawa State, Nigeria are exposed to the daily hardship associated with sourcing for clean water. In addition, in Ubbe community, lack of sanitation facilities such as toilet creates its own problems. Open defecation is an open practice, which means human waste is left around which can spread diseases and pollute water, sources when rainfalls [6]. As a result, incidence of water borne disease such as typhoid, cholera, guinea worm and dysentery are high. The need for sanitary facilities can therefore not be over emphasized as an empowering tool for mitigating the impact of water borne related diseases in our rural and indeed urban centers.

Recommendations

- Key lessons of this assessment include the need for formulating and implementing sanitation policies with more focus on tackling the internal socioeconomic and regional variations in access to improved sanitation facilities, as a significant step towards sustainable sanitation delivery in Plateau state. This includes promoting hand washing at critical times as well as provision of hand washing facilities in schools and encouraging households to do the same.

- Most projects have failed to address the felt needs of the benefiting communities. It is therefore, recommended that Government and other development actors should seek for the felt needs of the communities and embark on projects that will address them. A project that addresses the felt needs of the people has the tendency to impact meaningfully on their quality of lives. It is also the recommendation of this assessment that the benefiting community should be involved in all aspects of the projects. This implies that the community should be involved in the project selection, planning, implementation and evaluation. This development will make them to see the project as “our project” and not “their project”. In addition, it will enhance the sustainability of the projects.

- Full involvement of communities in all stages of programme implementation and management is the correct pragmatic approach for the present. However, this approach does not divest Governments, NGOs and other development actors of their responsibility for continuing and evolving support of the programmes which they promote. As communities change, and the needs of their water and sanitation systems change, the appropriate type of support – education, training, financial subsidy, technical assistance, maintenance, even rehabilitation - should evolve. Without support, however, few community-based water and sanitation systems will achieve anything approaching permanence.

- Continuous support to community participation and specifically institutional, legal, and contractual links between communities, Governments, NGOs and development actors need to be developed. The aim should be not simply be ‘sustainability’, but permanence through evolution and improvement of water and sanitation services.

- There should be effective monitoring of the project to ensure consistency in water supply. Government and other agencies should provide effective training for staff to enhance their performance, government and other agencies should ensure good water quality standard and service efficiency. There should be impact assessment before commencement of such project to ensure sustainability. There should be proper coordination between state government and other agencies responsible for rural and urban water supply to avoid lopsidedness and duplication of efforts. That government and other agencies should embark

on sensitization programme for rural and urban people to see government project in their domain as their project which must be zealously protected. More funds should be committed to this sector to ensure effective coverage and prompt service delivery.

Concerted efforts are imperative to mainstream inherent relevant genders issues in specific wash programmes. This is to take account for their various needs and accommodate them in terms accessibility to water points and also taking people with special needs into consideration so that they can have access to wash facilities even when no one is around to assist them [7-9].

References

1. Gender and Water Alliance. (2006, March). Resource guide: Gender and water management. <http://www.genderandwater.org>
2. World Health Organization (WHO), & United Nations Children’s Fund (UNICEF). (2017). Progress on drinking water, sanitation and hygiene: 2017 update and SDG baselines (License: CC BY-NC-SA 3.0 IGO).
3. Ibanga, U. A. (1992). Social statistics for social sciences. Centre for Development Studies, University of Jos.
4. Ezeji, J. I. (2015). A rapid gender assessment conducted in Jos Metropolis, Plateau State, Nigeria (A Water for African Cities Phase II Programme of the UN-Habitat).
5. World Bank. (2004). For her it's the big issue: Putting women at the centre of water supply and sanitation [Evidence report]. <http://www.wssc.org>
6. Gender and Water Alliance. (2008, September 14–20). Regional Training of Trainers (ToT) workshop: Understanding gender in integrated water resources management, Asaba, Delta State.
7. Gender and Water Alliance. (2002). The gender approach to water management: Findings of an electronic conference series (Jan–Sept 2002).
8. Women Environmental Programme & Organized Centre for Empowerment and Advocacy in Nigeria (OCEAN). (2017, August). Report of gender assessment in Plateau State.
9. Wuya. (2009). Reports of citizens' action in water and sanitation in Pankshin Local Government: A project supported by the WaterAid Country Office, Nigeria.