

SUSTAINABLE MANAGEMENT OF HYGIENE AND SANITATION IN EMERGING URBAN AREAS OF NIGERIA: CASE STUDY OF SELECTED COMMUNITIES IN CHIKUN LGA OF KADUNA STATE

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ABSTRACT.

Recent hygiene and sanitation efforts in Nigeria have been quite useful in helping to alleviate the challenges of open defecation and deepening acceptable hygiene and sanitation behaviour in many rural communities. However, their successes at the urban areas are still doubtful. In reality, while Nigeria has been projected to contribute 37% of the world population growth between 2014 and 2050 alongside China and India, much of this population growth is largely concentrated around the urban peripheries and slums associated with high intensities of water and sanitation related challenges. This paper suggests a futuristic approach that shapes the right hygiene and sanitation Knowledge, Attitude and Practices (KAP) of communities at the transition stage from rural communities to urban areas to ensure the sustainability of such KAP at the long term. The aim is to determine whether new hygiene behaviours adopted by a community during CLTS implementation can influence future settlers in the community as it is transformed into an urban setting. Drawing lessons from the experiences of selected communities in Chikun LGA of Kaduna State, the paper finds that the status of a community declared as an ODF community has a positive impact on the future sanitation culture and behaviour of communities as they transform into urban settings.

KEYWORDS: *CLTS, sustainability, urban, peri-urban, ODF, Chikun, hygiene behaviour.*

INTRODUCTION

The world is becoming increasingly urban. Between 1900 and 1950, the global urban population increased from 13% to 29% and is expected to reach 60% by 2030. Much of this growth is also projected to take place in the low income countries of Africa and Asia. In fact, the population of Africa is expected to triple by 2030 while that of Asia will double. Among these regions, Nigeria, India and China will supply 37% of the world population expansion

between 2014 and 2030 (Aliyu and Ahmadu, 2017). In the same vein, there was a considerable appreciation in the percentage improvement in water supply in Nigeria between 1990 and 2015. However, the sanitation component recorded a decline. A detailed analysis of sanitation intake in Nigeria within the period found that despite 16 million Nigerians gaining access to improved sanitation, this was quite below the rate of population growth.

Despite the better result recorded for the urban areas, disaggregated data that takes into consideration the peculiarities of urban slums and peri-urban areas and other newly emerging urban areas are not available. Moreover, while most researches have declared CLTS unworkable in urban areas, none has considered the possibility of using the approach to set future sanitation agenda for emerging towns and urban sprawls in the country.

Urbanisation has a special link with the three pillars of sustainable development namely: economic development, social development and environmental protection (Neiva S. S et al: 2020). However, the rate of urbanization is creating serious health challenges due to the inadequacy in planning and provisioning of urban infrastructure including sanitation infrastructure. Most of the current effort at improving sanitation and hygiene in the country have largely not taken adequate consideration of this state of things and hence, the future is bleak if a sustainable approach which takes into consideration future projections of urbanization in Nigeria is not implemented. This paper therefore draws lessons from communities that have benefited from the SHAWN 11 Projects and other interventions in the sanitation sector in Chikun LGAs of Kaduna state to offer a model that is future oriented and targeted at behavioural changes in the population for the purpose of entrenching sustainable hygiene and sanitation culture in emergent towns.

2.0 Community Led Total (CLTS) in Nigeria

Since its inception in the late 1990's, Community Led Total Sanitation (CLTS) has been adopted as a programme of choice for the elimination of Open Defecation (OD) in rural communities of many Sub-Saharan African countries. While CLTS has largely succeeded in

rural communities, experience is scanty on how best to promote and facilitate it in urban communities (Institute for Development Studies, 2008). Several factors have been adduced as the driving force for this difficulty faced in urban Areas. Key among them as noted by Bongarz (2014) include heterogeneity of communities, transient nature of urban dwellers, issues related to space limitation, tenancy arrangement, land rights and land use; and challenges associated with pit emptying. However, research is lacking on how CLTS implementation usually affect sanitation behaviours of future settlers in a given community.

It is also noteworthy that due to its uniqueness, a modified version of CLTS referred to as “Urban Community Led Total Sanitation (U-CLTS)” was developed with consideration for the peculiarities of different forms of urban centres in mind. Despite these efforts, it is still a fact that one of the major banes of urbanization and population increase in Nigeria is sanitation concerns and its attendant consequences on the population and economy (IDS; 2015).

Several efforts have been made in various places to entrench the benefits and practice of CLTs. In the same vein, the consensus in the global WASH sector is that the best approach for improved sanitation in poor communities is the one that involves the community in deciding the choice of toilet type and materials for its construction (Chambers and Bongartz, 2009; UNDP, 2006).

Communities in Chikun Local Government Area of Kaduna State were among the first to be triggered in Nigeria. Similarly, many have received some of the highest level of support from both governmental and External Support Organisations in their WASH programmes,

including UNICEF's Sanitation, Hygiene and Water SHAWN programme. In the same vein, many of the communities have been declared ODF. Some of these communities bordering Kaduna metropolis have mostly been integrated into the city as part of the urban sprawl over the years. There has been little research to understand how the ODF status of these communities has influenced the sanitation behaviour of the current inhabitants.

This paper investigated this gap based on the experiences of some selected triggered communities in Chikun Local Government Area of Kaduna State.

3.0 Population Indices and Urbanisation in Nigeria

Nigeria is estimated to be about 195,875,237 persons as at 5th of September, 2018 (UNDESA, 2018). About 50.2% of this population is estimated to be dwelling in the cities. This implies that compared to the population estimates of 1990, the urban population increase in Nigeria has risen from mere 29.8% of the total to the current figure. In the same vein, Nigeria has risen from being the 10th most populous country in the world in 1990, to the present position of 7th most populous country. Going by the current trend, the UN Department of Economic and Social Affairs, Population Division has projected that Nigeria will grow to 264, 067,527 persons by 2030 (SDGs target year). The urban population percentage share in the country will be 60.3% yielding an average annual rate of change of the urban population of 4.14% (UNDESA, 2018).

The implication of these figures is that most of the population increase in Nigeria as in other sub-Saharan African countries has been largely concentrated in urban areas. Taking a deep look at the nature of population growth reveals that most of the increase in population is taking place

mainly in the urban slums and Peri-urban areas which are largely associated with sanitation related concerns.

UNESCO (2014) defines Peri- Urban areas as zones of transition from rural to urban land uses located between the outer limits of urban and regional centres and the rural environment. The boundaries of peri urban areas are usually porous and transitory as urban development extends into rural and industrial land. To this effect, “peri-urbanisation” entails the conversion of rural lands to residential use, closer subdivision, fragmentation and a changing mix of urban and rural activities and functions.

Urban areas in Nigeria has increases both in number, landmass and population over the period of time. It is estimated that Nigerian towns and cities grows as much as between 5%-10% annually. Moreover, cities have expanded up to 10 times their size since the 1965s (Aliyu and Amadu, 2017). In terms of numbers, it is expected that the towns with at least 100,000 person would have increased from 78 in 1995 to about 680 by the end of 2020 at 5% annual growth rate (Sietchchipin et al. 2014; Onibokun and Faniran, 2015). This trend implies that many areas which were hitherto regarded as rural are gradually turning into urban areas. Secondly, this urban expansion takes place in unplanned and uncontrolled form thereby creating “urban villages” without targeted consideration in many water and sanitation planning and development. It is also noteworthy that these 'urban villages' share many things in common with the villages including high rate of poverty, Open defecation as well as indiscriminate disposal of waste (Alma Ata, 2007).

Aliyu and Amadu (2017) agrees that the main drivers of urbanization in Nigeria includes rural-urban migration, expansion of urban areas

through annexation and transformation of rural villages to small urban settlements. The great implication of this is that there is hardly any difference in the lifestyle of rural dwellers and those of these urban villages or slums with serious health implications. For instance, a study in four cities in Nigeria: Lagos, Ibadan, Kano and Onitsha reported a very low level of connection of households connected to a central sewer, from none at all in Ibadan and Onitsha to 2%-3% in Lagos and Kano while only about 1% of waste water in these cities are treated. (Enweze, 2000).

In the same regard, (Wisner, 2015) reported that the growth of small and medium towns; some of which were hitherto designated rural is a major

contributor to higher levels of urbanization. In Nigeria, little medium and long term developmental plans have been made for such emerging cities. Due to poor town planning, these emergent townships and suburbs will constitute a major challenge to the actualization of the UN agenda 2030 and African Vision 2063. Mahmud, et al. (2016) noted that the nature of spartial expansion and growth of smaller settlements will significantly influence Africa's urban landscape and its ability to achieve targets associated with the 203 agenda set by the United Nations and Africa's own vision 2063. Of course among the key of those agenda are the ones dealing with Water and Sanitation (WASH) (Goal 6) and Inclusive, Safe and Resilient Cities (Goal 11).

Table -1 Use of Sanitation Facilities in Nigeria: 1990-2015(% of population)

Facility	1990	2000	2008	2010	2011	2012	2013	2015
National								
IMPROVED	38	32	32	31	31	28	34	29
SHARED	24	27	26	25	24	26	20	24
OTHER UNIMPROVED	14	18	20	22	22	23	29	25
OPEN DEFECATION	24	23	22	22	23	23	29	25
Urban								
IMPROVED	38	34	36	35	33	31	43	33
SHARED	43	43	38	38	36	40	34	38
OTHER UNIMPROVED	12	13	14	15	18	14	8	14
OPEN DEFECATION	7	10	12	12	15	15	15	15
Rural								
IMPROVED	38	32	14	27	28	25	28	25
SHARED	16	16	27	13	13	12	11	11
OTHER UNIMPROVED	15	19	31	29	28	32	23	30
OPEN DEFECATION	31	33	32	31	31	31	38	34

Source: FMWR (2016): Making Nigeria Open defecation Free by 2025- A National Roadmap

With a population of 1,582,102 persons, Kaduna City is estimated to be the 4th largest city in Nigeria (United Nations, Department of Economic and Social Affairs Population Division, 2018). As in other cities in Nigeria,

Kaduna has recorded an astronomical growth in population within the same period. Most of this growth is mainly concentrated in unplanned city suburbs and urban sprawls with little or no prior provision for adequate regulation of sanitation.

Due to this rise associated with uncoordinated environmental regulations, water-related epidemics and deaths are very common.

Several factors can be identified to be propelling this astronomical rise in urban population. First, there have been waves of conflicts of various dimensions within key areas of Kaduna town. This has elicited serious population displacements from the city centres towards the suburbs since the early 1990s. Secondly, due to continued occurrence of conflicts and fear of conflicts in various local communities, massive migrations is taking place from these areas and are mainly always headed towards the cities and peri-urban areas. Thirdly of interest is the quest for shelter. In recent times, as people's income continue to increase, there has also been the desire to own personal homes. While the city centres are mostly built-up and involves higher cost in land acquisition, the communities around offer cheaper access to land and in turn personal homes. The opportunities available in the cities and the desire to escape from the limitations of the villages have also continued to aid this mass exodus - especially of the youths to Kaduna city. In all, the suburbs have provided an easy opportunity for the poor and middle class people to settle around cities and peri-urban areas as a result of the above stated reasons and more. In most cases, little or no form of urban planning is provided; hence without any intervention, the risk of sanitation related challenges is quite high.

4.0 Research Methodology

Process evaluation approach was adopted in this research. Process evaluation considers the ways in which CLTS has been implemented and the relationships between inputs, processes and outputs/outcomes (WaterAid, 2019). This

methodology was introduced by WATERAID in evaluating CLTS implementation in Nigeria and has been widely applied ever since then. Moreover, the research was basically qualitative in nature. The ultimate goal of the evaluation was to set a benchmark for introducing CLTS in newly urbanising areas so as to enhance the intake and scaling up of sanitation and hygiene behaviour among rapidly increasing population areas.

The research team interacted with the WASH team at Chikun LGA to ascertain their experiences at implementing CLTS in those expanding peri-urban areas. Key information about the implementation of CLTS in those communities were obtained from the LGA/UNICEF WASH office and reviewed in a desk study. For two days, household level interviews were implemented in four communities of Chikun Local Government of Kaduna State. (Two in Kakau Ward and two in Kujama ward). Two Researchers from the National Water Resources Institute Kaduna and a Staff of Chikun LGA WASH Unit (who served as a guide) were directly involved in the field research.

A purposive sampling approach was used to identify the four communities visited. This was due to the fact that these communities possessed special characteristics which the research aimed to focus on. The choice of the wards/communities was due to the focus of the research namely- to determine if CLTS has any impact on the hygiene behaviour of newly urbanising areas (suburbs)

The selected communities included:

1. Angwan Bagudu -Kujama Ward
2. Angwan Maadaki -Kujama Ward
3. Sabon Gari Kakau -Kakau Ward
4. Angwan Jatau -Kakau Ward

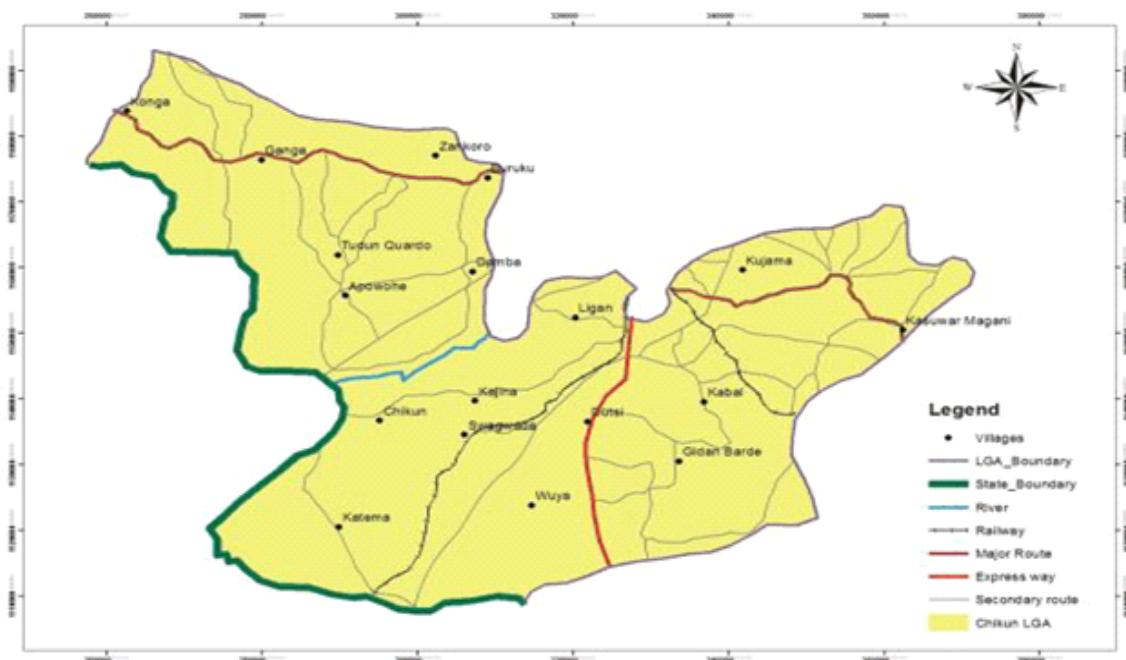


Fig. 1 Map of Chikun Local government Area, Kaduna State (including the study Area) adapted from Samari K F, Gadiga, B and Kayode A (2015)

The implication of this analyses is that these communities were among the first to be certified ODF in Kaduna State. Secondly, as at the time of certification, these communities were mainly small Gbagyi villages located close to urbanised areas of Kaduna town. However due to the high rate of urban spread in Kaduna, they have been largely linked to the city centre and are receiving new migrants daily. They therefore presented very good case studies for a research to understand if the status of ODF attained earlier can be sustained despite the expansion in both population and infrastructure within the communities.

At the communities visited, purposive sampling was also used to select participants for interview. This involved respondents representing diverse segments of the populations within the communities. In all, 20 persons were interviewed per community, making a total of 80 participants.

Secondly, Focused Group Discussion (FGD) sessions were held in each of the four

communities with stakeholders comprising of community leaders, women and youth leaders, natural leaders, students, and representatives of new settlers. FGD is a predetermined semi-structured interview led by a skilled moderator where the moderator asks broad questions to elicit responses and generate discussion among the participants (Palaniswamy and Duraiswamy, 2018). In this case, the methodology was applied to get the views of the various stakeholders in those issues that interviews could not do. It was also a way of entrenching a community self-evaluation on how CLTS has worked and/or is not working.

5.0 Discussion of Result

1. The ODF Status of a community has an impact on the sanitation behaviour of the settling population. During visits to communities, participants interviewed confirmed that they “fell in love” with the neatness of the communities and hence, decided to embrace effective hygiene and sanitation. Most participants reported that they were never

coerced into constructing and using toilets but that they willingly resorted to doing so as it made them proud to show off their environments

2. Emergence of community grown regulatory system: One of the key factors for success in CLTS is the identification of a fairly homogeneous community. In the communities visited, it was observed the people were well disposed to obeying and ready to obey endogenous rules and laws governing hygiene and sanitation that those imposed by “experts” or government bodies. This is the spirit behind CLTS. Secondly, the researchers noted the seamlessness in enforcing sanction mechanisms agreed by the community without recourse to the formal judicial system. Judgment was neither retributory nor strictly punitive. However, sanctions were mainly corrective in nature. In this regard, most sanctions against open defecation were mainly by community consensus. As new entrants continued to enter into the communities, they had to assimilate into the value systems holding sway in the communities as it concerned sanitation. Participants reported that they easily adopted the existing rules on sanitation because they saw them as existing for the common good of the communities.

3. Religious leaders/institutions and students/pupils are strategic latent forces to be deployed for future sanitation and hygiene expansion: One of the most crucial elements for achieving success in CLTS implementation in sub-urban areas is the engagement of religious leaders. Through references to the bible and Quran, religious leaders can greatly reinforce community decisions to end Open defecation. Both Christian and Muslim Teachings emphasizes on the importance of hygiene. Hygiene and sanitation messages by religious leaders not only help to reinforce community

decisions to adopt sanitation, but also help to make sanitation and hygiene as both a social norm and a religious imperative. Coupled with the gospel of CLTS, the ministerial influence backed up by behavioural revolution spreads the implementation of ODF like wide fire (UNICEF 2017).

Sub-urban areas in Nigeria are usually characterised by the rising of many religious centres and churches to cater for the spiritual and academic needs of persons who are mostly children and youthful population filled with religious vigour and enterprising mindsets. This is particularly true in urban settings where congregations often attract worshippers from a number of different communities, which cut across the different ethnic and cultural diversity of town dwellers. But as institutions with buildings, churches and Mosques –where large number of persons gather- can also pose a challenge to the implementation of CLTS if they do not provide toilets for their congregation.

In the communities visited, CLTS implementers magnified such catchy statements like “Cleanliness is Godliness” and the description of triggering moments as “Altar Calls” to create a spiritual attachment by the community to hygiene and sanitation matters. Recognising the challenges that this may pose, there was a community sanctioned law in Angwan Jatau mandating all public institutions to construct toilets before putting up any other structure on the land. In one other community visited, a pastor of one of the churches controlling large population has to suspend service in the church for some period till adequate hygiene and sanitation facilities (constructed by church members), were put in place.

4. CLTS helps to foster some level of homogeneity even among new settlers. This

was made possible by the acceptance of the common goal of clean environment and good health that CLTS can bring by both indigenous populations and the new settlers. In the communities visited, it was observed that through the whole-community approach of CLTS, other new initiatives geared towards the common good were also introduced. For instance, all the communities reported having an initiative to build toilets in the various public schools in their domain through community effort

5. Towns are organic in nature. They grow in line with the dominant values: This was another important issue worth noting. From the interviews and focus group discussions, one of the clearest impact on new entrants into the community was the ease with which they adapted to the hygiene and sanitation values of their host communities. This is the greatest assurance of sustainability of the right hygiene and sanitation Knowledge, Attitude and Practices (KAP) among the people.

6.0 Conclusion

This paper focused on ascertaining the extent to which CLTS can be used to create an enduring sanitation culture in newly urbanizing areas around Kaduna Metropolis. The paper took as case study, communities around Kakau and Kujama Wards of Chikun LGA of Kaduna State.

While CLTS and several other hygiene and sanitation tools have been noted to be largely ineffective in urban areas due to their peculiarities, the paper found that a prior status of a community as ODF can greatly influence the sanitation behaviour of new settlers in the community leading generally to future hygiene conscious residents. It is recommended that as part of strategies to guarantee effective and sustainable sanitation implementation in the urban areas, effort should be intensified to

implement and monitor the adoption of CLTS and other hygiene and sanitation improvement tools in most communities around cities across the country especially those projected to grow into different categories of urban settings in the recent future. This will support the assertion by Roosa (2010) that “the decision we make today, will profoundly shape the course of future events”. This statement is quite apt especially when it comes to urbanization and sanitation issues in Nigeria.

7.0 Recommendation

In view of the foregoing findings, the following recommendations is proffered:

First, there is need to provide for flexibility in the recognition of community systems of rule enforcement within the legal system. This will empower communities to be able to enforce agreed WASH related rules within the community for effectiveness.

According to a study conducted by UNICEF in eight states of the country on Knowledge, attitude and Practices, (KAP), four major popular communication channels were identified namely Radio (53.2%), Town Announcer (46.9%), Traditional Rulers (35.6%) and Churches/Mosques (23.9%). Apart from the radio and other forms of electronic media, the other communication channels are all localised and can be most effective when they reflect community consensus and are seen to be representing community interests.

Secondly, It will be easier to apply the IEC activities suggested under the ODF Road Map in emerging peri-urban areas due to the fact that such systems are already part of the urban lifestyle- radio, social media connections, possibility of talented youthful population applying their talents to music/video skits or drama and of course the emergence of many churches, mosques and schools.

Part of sustainability circle for WASH is the all-important role of the communities in terms of community engagement/ participation. This approach is also a contribution to the Knowledge Management and Sector Learning (KMSL) strategy which is key to achieving universal access to WASH in line with the SDGS (FMWR: 2016). KMSL implies the cumulative experience of sector stakeholders acquired over the period in the implementation of WASH Projects in the communities.



Figure 2: Wash Sustainability Circle. Adapted from PEWASH Programme Strategy (2016-2030)

It is also important for government to invest in the cities of the future by implementing sustainable approaches to building inclusive, resilient and safe cities like CLTS. In view of this, there is need to explore some latent energy available through religious leaders and other significant groups to become ambassadors of hygiene and sanitation in the country.

The pace of 'rural-urban' migration is alarming. It increases as livelihoods in rural areas get more and more unsecured. This is quite evident in the pattern of population migration to Kaduna urban areas. A pre-emptive sanitation planning method targeting certain communities projected to grow into different categories of towns and cities should be developed and vigorously pursued. Finally, the need of the extreme poor and the physically challenged should be given due consideration as a special case

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