POLICY IMPLEMENTATION ON COMMUNITY LED TOTAL SANITATION (CLTS): A STUDY OF KOLOKUMA/OPOKUMA LOCAL GOVERNMENT AREA OF BAYELSA STATE, NIGERIA

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Abstract
This study focuses on community led total sanitation (CLTS) in Kolokuma/OpokumaLGA of Bayelsa State. The study was informed to determine the level of policy implementation on community led total sanitation (CLTS) which is a UNICEF program and to enable the people on the need for hygienic environment. In line with the statement of the problem, three research objectives, three research questions, and one hypothesis guided the study. The study was quantitative in nature hence, survey research design was adopted, questionnaire served as our instrument of data collect, the people of Kolokuma/OpokumaLGA of Bayelsa State made up the population from where a total of 500 students and residents were selected. The data collected were analyzed using descriptive statistics and Spearman's Ranking Correlation. The results revealed that there is low level of awareness and low level of policy implementation on community led total sanitation (CLTS), hence, less number of public conveniences, ineffective disciplinary measures on open defecation and defecating in river and land. Based on the forgoing, it was recommended that community members, the government (at all levels) policy makers/implementers, civil society organizations and non-governmental organizations should
To promote the objectives of community led total sanitation (CLTS) in Kolokuma/Opokuma LGA of Bayelsa State in particular and Nigeria in general.

Key words: Community, Total Sanitation, Policy Making/implementation, Environment, Open Defecation Free (ODF)

INTRODUCTION
The world Community Led Total Sanitation (CLTS) is a contextual word used as an approach to assessing sanitary situation. The CLTS approach originates from Kamal Kar’s evaluation of water Aid in Bangladesh and their local partner organization – VERC’s (Village Education Resource Centres- a local NGO) traditional water and sanitation programmed, and his subsequent work in Bangladesh in the late 1999 to 2000.

According to Kamal Kar (2000), the discovery of the CLTS approach with the use of Participatory Rural Appraisal methods (PRA) enables local communities to analyze their sanitation conditions and collectively internalize the terrible impact of Open Defecation (OD) on Public Health and on the entire neighborhood environment “when triggered systematically, and combined with no government or any donor agency subsidy, policy and a hand-off approach by the facilitator CLTS could provoke urgent collective local action to become total open Defecation Free (ODF)”.

Kamal Kar opines that this is a new facilitation method, and the aim of this concept is achievable if implemented. According to him, it is a classic form, with the use of crude word like “shit” for feces. This, asserted by him is to encourage local communities to visit the dirtiest and filthiest areas in the areas in the neighborhood. Appraising and analyzing their practices, shocks, disgusts and shames of the people of an area Kamal Kar notes that this style being irritating, provocative and fun is hands – off in leaving decisions and action to the community to make. For this reason, wide – community, ward and local government decisions can be made. This could be done by enacting legislations.

Kamal Kar further notes that Community – Led Total Sanitation (CLTS) focuses on igniting a change in sanitation behavior, rather than constructing toilets. It does this through a process of social awakening of conscience that is stimulating by facilitators from within and outside the community towards total elimination of Open Defecation and clearing of the environment. The whole chunk of the idea is to concentrate on the whole community rather than on individual behavior. A collective benefit from stopping Open Defecation (OD) can encourage a more cooperative approach.
Chambers (2008), states that people decide together how they will create a clean and hygiene environment that befits everyone. This can mostly only be achieved when the sum total of the people agree on a common policy of constructing toilet in their localities.

For the purpose for cry for fund, Kamal Kar (2008) suggests that CLTS does not involve individual house – hold hardware subsidy and does not prescribe a latrine models.

Chambers (2008) opines that the social solidarity, help and cooperation among the house – holds in the community are common and vital element in CLTS. It involves every level of peoples in the community.

Out of the various levels, National Leaders (NL) can emerge, as the community progress towards ODF status; local innovations of low cost toilet models using locally available materials, community innovated systems of reward, penalty spread and scaling – up CLTS according to Kamal Kar encourages the community to take responsibility and take it own action. In its fullest and achievable sense, total sanitation includes a range of behavior change such as; stopping all open defecation, ensuring that everyone uses a hygienic toilet, washing hands with soap before preparing food and eating, after using the toilet, and after contact with baby’s feces, or birds, and animals, before handling food and water in a hygienic manner. Safe disposal of both human and animal waste create a clean and safe environment. He further notes that CLTS concentrates on ending Open Defecation (OD) as a first significant step and entry point to changing behavior. It starts by enabling people to do their own sanitation profile through appraisal observation and analysis of their practices of OD, and the effect these will have. This kindles feelings of shame and disgust and often a desire to stop OD and clean up their neighborhood.

The study area
This study area Kaiama is the headquarters of Kolokuma/Opokuma Local Government Area of Bayelsa State, South-South, Nigeria. It is geographically located within latitude 04° 15’ North, 05° 23’ South and longitude 05° 22’ West, 06° 45’ East bounded by the Atlantic Ocean.

Figure 1. Location of the Area study
Objectives of the Study

- To determine the extent the enactment of bye-laws (policy formulation) on CLTS have improved or marred sanitary situations in the LGA.
- To find out if there is any significant relationship between the level of policy implementation and positive achievement of CLTS goals.
- To find out the problem hindering effective policy formulation and implementation on CLTS.

Research Questions

In line with the above research objectives, the following research questions were framed:

- To what extent has the enactment of bye-laws (policy formulation) on CLTS improved or marred sanitary situation on the LGA?
- Is there any significant relationship between the level of policy implementation and the achievement of CLTS goals?
- What are the problems hindering effective policy implementation and formulation on CLTS in the study area?

Research Hypothesis

In line with the objective and research question, the following hypothesis was formulated:

There is significant relationship between the level of policy implementation and the achievement of CLTS goals.

CONCEPT AND NATURE OF POLICY

Policies are carried out in both private and government organization. And every organization is managed by group(s) of administrators or managers.

Sharma, Sadana and Kaur (2012), defines policy as a decision as to what shall be done and how, when and where.

Dimock in Sharma, Sadana and Kaur (2012) says, policies are the consciously acknowledge rules of conducts that guides administrative decisions. Dimock, Sharma, Sadana and Kaur sees policies working tools deciding what to do and seeing those things to do as guiding principles. Dimock however did not see the dimensional aspect of policy-how, when and where.

Fredrick also in Sharma, Sadana and Kaur (2012) gives a brief definition of what policy is. He says, “public policy is anything government chooses to do or not to do”.

Things to do/not to do have to be decided or approved by certain persons who are running the administration of the organization.

Jenkins also quoted in Sharma, Sadana and Kaur (2012) defines “public policy as a set of interrelated decisions taken by political actors or group of actors concerning the selection of goals and the means of achieving them, a specified situation where those decisions should in principles be within the power of those actors to achieve”. Jenkins sees public policy as a process and a set of interrelated decisions. It is a goal-oriented behavior on the part of governments.

Anderson (2012) defines public policy as “a purposive course of action followed by an actor or a set of actor in dealing with a problem or matter of concern”. Anderson’s definition has two additional points (i) policy made by sets of actors rather than a sole set or actors within a government.

Policies are often the result of not only multiple decision-makers who may be scattered throughout complex government organization.

Secondly, Anderson’s definition highlights the link between government action and the perception of the existence of a problem requiring action.

The objective of any organization is embedded in the policy goals which set the administrative wheels in motion. It is worthy of note that decision making is different from policy. Decisions are made by administrator in the day-to-day work within the existing framework of policy.

In the light of the above, local government being an organization having administration mechanism possess the legal rational authority to make policies that will affect the people under its organization and domain.

Public policy in Nwizu’s view (1997), says it can be categorized into four parts. The first category according to him is the nature of public policies. And that the public policy can be narrowed or comprehensive, general or specific, simple or complex and qualitative and quantitative. Again, he opines that socialism, nationalism, communism, economic development, social development liberty and equality may be adopted as natural policy which ever to follow, depend on the policy. From the foregoing, policy can be said to be applied to be large group of people or a limited group of people.

For the purpose of this write-up, local government areas housing wards and communities can be a large government enterprise, where policy can be made towards economic and social development of the people under its domain.
This is because the local government in the Nigerian system is the third-tier of government saddled with the responsibility of making bye-laws as empowered by the 1999 constitution as amended.

It is expected therefore that Kolokuma/Opokuma LGA can enact bye-laws to legislate sanitary activities under its domain so as to improve the sanitary habits of the people within its jurisdiction.

METHODOLOGY

In this study, survey design was adopted. The population under survey is the entire Kolokuma/Opokuma Local Government Area of Bayelsa State. It has an area of 361km² and a population of 77,292 at the 2006 census (Wikipedia, 2014). It is made up of eleven wards and forty-five communities, with several quarters and families. It’s headquarter is Kaiama, which is situate along the East-West Road, Bayelsa State, South-South, Nigeria. The people of Kolokuma/Opokuma are predominately Ijaws who occupies the bank of the River Nun, a tribute of the River Niger.

The researchers selected ten communities using the cluster sampling technique. This is in-line with the study as the researcher divided the area into communities for convenience purposes. The communities in the area are Kaiama, Odi, Igbedi, Sampou, Sagbagreia, Gbarama, Igbainwari, Ofonibiri, Olobiri and Ayibabiri.

It should be noted also that some secondary schools within the selected communities were also used. Based on this, the researcher adopted simple random sampling technique to select 50 respondents each from the ten communities (including students), making 500 respondents as our sample size.

Materials used are both the primary and secondary sources of data collection. The primary source includes the questionnaire and the one-on-one interaction (interview) of the people at the town hall meeting. Questionnaires were used on 300 respondents (educated people) and interview was conducted on the remaining 200 people.

The data collected were analyzed both qualitatively and quantitatively. The data collected through interview were analyzed and discoursed in line with the respondents responses. While data collected through questionnaires were analyzed using simple percentage, pie chart, and spearman’s ranking. The simple percentage was used to analyze to determined individual responses of the respondent, while the spearman’s ranking correlation was used to test the hypothesis.
ANALYSIS AND FINDINGS

In our data presentation and analysis, the researcher wishes to start with the interview aspect. This aspect has 200 respondents. Under this, five questions were issued to the respondents which are made up of elders who cannot read or write and the senior secondary school students, mostly (SS I to III) from the ten communities. Below are the five questions drawn from the research questions put across to the respondents. This aspect deals with open ended question pattern.

QUESTION/Table1: Have you heard about the word “Community Led Total Sanitation”?  

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>RESPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>65</td>
</tr>
<tr>
<td>No</td>
<td>135</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
</tr>
</tbody>
</table>

![Figure 1. Responses on Question 1](image)

From Table1/ Figure1, a total of 135(68%) respondents say they have not heard about the word CLTS, while 65 (32%) of them say they have heard about CLTS. Meaning, majority of the people in the area haven’t heard about CLTS.

Question/Table 2: Is there any form of law prohibiting people from polluting (defecating openly either in the river or land)?

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>RESPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>142</td>
</tr>
<tr>
<td>No</td>
<td>58</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
</tr>
</tbody>
</table>
From Table 2 and Figure 2, it is shown that those who say there is a law preventing people from open defecation are 142 (71%), and those who say there is no law were 58 (29%). Discernibly, majority of the people says there is an existing law preventing people from doing open defecation in either the river or the land.

**QUESTION/Table 3: Are there disciplinary measures for defaulters?**

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>RESPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>13</td>
</tr>
<tr>
<td>No</td>
<td>187</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
</tr>
</tbody>
</table>

From Table 3 and figure 3, 13 people say there are disciplinary (penalty) measures for defaulters (i.e. those who defecated in the river or land). While 187 says there is no penalty imposed on defaulters. Meaning no penalty is imposed on defaulters of open defecation.
QUESTION/Table 4: Is there Public/Private Conveniences in your Community to Promote Sanitary Situations?

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>RESPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>42</td>
</tr>
<tr>
<td>No</td>
<td>168</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
</tr>
</tbody>
</table>

Figure 4. Responses on Question 4

From table 4 and figure 4, 42 respondents say there are public/private conveniences in their communities. While 168 persons say there are no public/private conveniences in their communities.

Question/Table 5: where mainly do you defecate in the bush, land, river or constructed toilet?

<table>
<thead>
<tr>
<th>Options</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land/Bush or River</td>
<td>178</td>
</tr>
<tr>
<td>Personal Constructed Toilet</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
</tr>
</tbody>
</table>

Figure 5. Responses on Question 5
From table 5 and figure 5, 178 people say that defecate in either River or land (bush), while a total of 22 persons say they toilet in their constructed toilets or house toilets. The above result on this table indicates that majority of the people of the area defecate openly in either the river/land (bush), while few people defecate in their constructed home toilets.

**Data presentation/analysis on the questionnaires served**

Out of the 300 questionnaires served 278 representing 92.7% were retired in clear and readable form, while 22 representing 7.3% couldn’t be used as a result of their eligibility.

**Question one:**

**Has the enactment of bye-laws on CLTS improved sanitary situation in the local government area?**

Table 6: Response on question one: if the enactment of bye-law on CLTS has improved sanitary situation in the local government area

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>NO. OF RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agreed</td>
<td>80</td>
<td>28.78</td>
</tr>
<tr>
<td>Agreed</td>
<td>79</td>
<td>28.42</td>
</tr>
<tr>
<td>Undecided</td>
<td>67</td>
<td>24.10</td>
</tr>
<tr>
<td>Disagreed</td>
<td>34</td>
<td>12.23</td>
</tr>
<tr>
<td>Strongly Disagreed</td>
<td>18</td>
<td>6.47</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>278</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Figure 6. Responses on Research Question 1

- Strongly Agreed
- Agreed
- Undecided
- Disagreed
- Strongly Disagreed
From table 6 and figure 6, 80 respondents representing 28.8% strongly agreed, 70 having 28.4% agreed, 67 were undecided giving a percentage of 24.1, disagreed cases were 34 representing 12.2% while a total of 18 respondents strongly disagreed representing 6.5 percentage. From the above, it could be seen that those who strongly agreed were 80 with 28.8%, meaning that there is enactment of bye-law to improve sanitary situation in the LGA.

**Question two**: Respondents’ responses on if the implementation of policy on CLTS has created good awareness on needs for improved sanitation in the local government area.

From Figure 7, 99 showing 35.61% persons strongly agreed that implementation of CLTS policy has created great awareness and the need has improved sanitary situations in the LGA. While 101 persons showing 35.33% agreed, 11 respondents sharing 3.96% could not decide. 30 persons having 10.79% disagreed, and 37 persons having 13.3% strongly disagreed on the question. Meaning, that the implementation of CLTS policy has created great awareness and the need has improved sanitary situation in the LGA. This is because those who spoke in favor of the hypothesis (both agreed and strongly agreed, accounted for 200 persons, representing 71.94% as against those who disagreed.

**Question three**: which of these is the major problem hindering the achievement of CLTS goals?
Table 7: Major problems hindering the achievements of CLTS goals

<table>
<thead>
<tr>
<th>Options</th>
<th>No. of respondents</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignorance on the effect of open defecation.</td>
<td>80</td>
<td>28.8</td>
</tr>
<tr>
<td>Environment influence</td>
<td>50</td>
<td>18.0</td>
</tr>
<tr>
<td>No. stiff penalty on sanitation law breakers</td>
<td>30</td>
<td>10.8</td>
</tr>
<tr>
<td>No provision of public/private conveniences</td>
<td>107</td>
<td>38.4</td>
</tr>
<tr>
<td>No enforcement of laws</td>
<td>11</td>
<td>3.96</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>278</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Figure 8. Responses on Research Question 2

The table 7 and figure 8 above is a reflection of result from a bar chart. It could be understood that (no provision of public/private conveniences toilets) is a major hindrance to the achievement of CLTS goals. This has a total of 107 respondents showing 38.4% meaning the absent of public/private toilets is a hindrance to CLTS. Next is followed by ignorance on the effect of open defecation, people do not have the understanding of the effect of open defecation. This is showing 80 respondents with 28.8%. The chart also reveals that a total of 50 respondents showing 18.0% meaning that they have been influence by the environment hence, they defecate in the open. Again, the table also shows that there is no stiff penalty on sanitation law breakers, showing 30 respondents indicating 10.8%. And people who say there is no enforcement of laws was 11 having 4.0%. It means that the major problem hindering the implementation of CLTS is the absence of public/private conveniences (toilets).
**Tests of Hypothesis**

*There is significant relationship between the level of policy implementation and the achievement of CLTS goals.*

To test the above hypothesis, question 2 and 3 of the questionnaire in table 2 and 3 were employed. Thus, items on table 2 and 3 are as follows; for table 2 = 99, 101, 11, 30, 37, and table 3 = 80, 50, 30, 107, 11.

Mathematically, let items in table 2 be represented by x and items in table 3 be represented by Y to enable the researcher employed the spearman’s ranking statistical method. This will help judge or determine whether there is significant relationship between level of implementation and the achievement of CLTS goals.

Solution thus: spearman’s ranking

Formula \( r^2 = \)

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
<th>X</th>
<th>Y</th>
<th>d</th>
<th>( d^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>99</td>
<td>80</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>101</td>
<td>50</td>
<td>1</td>
<td>3</td>
<td>-2</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>30</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>30</td>
<td>107</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>37</td>
<td>11</td>
<td>3</td>
<td>5</td>
<td>-2</td>
<td>4</td>
</tr>
</tbody>
</table>

\[ \sum d^2 = 18 \]

\[ \sum D = \text{Sum } d^2 \text{ different between rankings on each of the same series.} \]

\[ N = \text{Number of observations.} \]

\[ \sum d^2 = 18 \]

\[ r^2 = 1 - \frac{6 \sum d^2}{N(N^2-1)} \]

\[ r^2 = 1 - \frac{6(18)}{5(25-1)} \]

\[ r^2 = 1 - \frac{6(18)}{5(25-1)} \]

\[ r^2 = 1 - \frac{108}{120} \]

\[ r = 1 - \frac{54}{60} \]

\[ r^2 = 1 - \frac{9}{10} = 0.1 \]

\[ r^2 = 0.1 \]
Interpretations: \( r^2 = 0.1 \), meaning hypothesis is very weak and has no significant, since \( r^2 \) is 0.1 and less than 0.5. It is therefore said that, the hypothesis is insignificant and there is a very weak relationship between level of implementation of policy and the achievement of CLTS goals.

CONCLUSIONS AND RECOMMENDATIONS

The issues with disease and its control have not really gotten solution. Environmental problems and its consequences in Nigeria have been as old as the country itself. Polices have been formulated and the rate of implementations on environmental and health issues had also been adhered to some extent. But as the society is progressing, there is every need for policies bordering on environmental and health matters taken seriously at all the levels of government.

For this reason, the following recommendations are proffered for sustainable sanitary habit:

- Federal, state and local government should take a day in the year to observe hand – washing as in the malaria case.
- Government at all levels should make legislation compelling every household to construct a type of model of latrine that is suitable and easy for them to construct.
- Federal government should study the Indian local government systems where powers are delegated by law to the local government, and policies and laws are taken from the Grams abha to the Notified Town Areas and Grams abha system, and introduce same.
- Should make stiff penalties on open defecation.
- Households should provide hand sanitizers.
- Government should do more advocacy and training program on the need for people to wash hand after visiting the latrines and before handling food or eating.
- There should be total re-orientation by national and state orientation agencies, media houses on the need for effective sanitary environment.

SCOPE FOR FURTHER RESEARCH

This work focused on sanitary habits of communities without portable water and how and how they still defisicate on the natural waters and open lands, thereby leaving flies and other domestic animals and rodents to infest on these waters and the consequent cause diseases to mankind. It is therefore suggested that other aspects of environmental and health issues other than self- hygiene such as the indiscriminate disposal of refuse, cleaning of the environment e.g. the abattoirs, market places, cleaning the drains and avoiding stagnant waters and how
they contribute to community health could also be possible areas for other researchers to research on.

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