

Environmental sanitation activities utilized in resolving environmental issues for sustainable community development in south east states, Nigeria.

Dr Michael Emeka Ayogu

Department of continuing education and development studies, faculty of education, Enugu State University of Science and Technology, Agbani, Enugu State, Nigeria.

Corresponding Email: mchlayogu@gmail.com

Abstract

The major aim of the study was to determine the extent to which environmental sanitation activities are utilized in resolving environmental issues for sustainable community development in South East States, Nigeria. This study was carried out in South East States, Nigeria using a descriptive survey research design. One research question and one null hypotheses guided the study. The population for the study was 7,536 male and female members of community project management committee in the 942 communities in South East States, Nigeria. The sample size of the study was 420 respondents which comprised 297 male and 123 female members of community project management committee from the communities under study. The instrument used for data collection was a 9-item structured questionnaire which was face validated by three experts; two from the Department of Continuing Education and Development Studies, and one from the Department of Measurement and Evaluation. The reliability of the instrument was determined using Cronbach Alpha and the reliability coefficient of the instrument yielded alpha value of 0.83. The data collected were analyzed using mean and standard deviation while null hypotheses was tested at 0.05 level of significant and appropriate degree of freedom with t-test statistics. The result revealed that the members of community believed that sanitation activities were utilized to a high extent in resolving environmental issues for sustainable community development in South East States, Nigeria. The null hypotheses tested showed no significant difference in the mean ratings of male and female members of community project management committee on the extent sanitation activities were identified to be utilized in resolving environmental issues for sustainable community development in South East States, Nigeria. Based on the findings, the community project management committee should ensure proper environmental sanitation activities in the target communities as a method of resolving environmental issues in their various communities. Also, the government should encourage and support community project management committee to embark on more sustainable community development activities for the good of community members and the development of their communities.

Keywords: Environmental Sanitation, Community Development, Environmental Issues

INTRODUCTION.

The convulsion to improve environmental condition confronts every nation in the world. The physical, social, economic, and organizational conditions often vary widely within a country, and certainly among countries. Globally speaking, environmental issues and difficulties have for ages, been sprouting on daily basis. Hence, we experience an environment that is either unusually drought, heating up through global warming, burning down from wildfires, being washed away by flooding which translate to gully erosions, or being blown away by high winds typhoons, tornadoes, hurricanes and windstorms. Such incidents bring about the freezing up, melting down, and inundated with wastes, noise pollution, plastics, toxic materials, household wastes, oil spills, gas flaring, green house and fluorinated gases, electronic wastes, hospital wastes, et cetera. However, fabulous efforts have been made by environmentalists, scientists and cooperate bodies to address and resolve these environmental hazards. As a result, lots of funds are employed into the environmental sanitation activities. Even though, some of these efforts have been rewarded with some significant positive results, some environmental officers are completely

oblivion of the effectiveness of these activities in ameliorating the sufferings of community members. Records in various Local Government Areas showed that there are many completed and commissioned environmental sanitation activities in various communities for sustainable community development. There are also cases of uncompleted and/or jumbled sanitation activities within the area that the communities are not interested in. Also, lots of investments put into these environmental sanitation activities are not commensurate with their outcome while some are outside the immediate needs of community members. This is evident in environmental disturbances which are caused by pollution, floods, litters, poor housing conditions, bush burning, indiscriminate cutting down of trees without replacement, et cetera. These problems gave rise to disturbing outcomes in the human society in the form of climate change, diseases, human casualties, environmental hazards and disasters, depletion of the ozone layer, loss of biodiversity and extinction of species, emergence of invasive species as well as pervasive orientations, exploitations, immorality, mass migrations, conflicts and wars, insecurity and mutual distrust between peoples and nations (Pouloupoulos, 2016).

This environmental problem has been recognized, and governments have begun placing restraints on activities that cause environmental degradation. During the Progressive Era in the early 20th century, reformers warned that unregulated economic development was destroying natural resources and raised alarms about the public health crisis of crowded cities, where raw sewage and industrial run-off filled the waterways and smokestack pollution clouded the air that people breathed (Hannah, 2018). Scientific experts, urban reformers, and women groups promoted policies to reduce disease and clean up the air, land, and water. Conservation groups also began mobilizing in the late 1800s to protect wilderness areas and wildlife and regulate logging, mining, dam construction, and other assaults on natural resources (Hannah, 2018). As the environmental philosophy spread, so did the concept of "ecology," an awareness of not only how the natural environment affects human life but also how the activities of humans negatively shape the environment. This worrisome environmental situation challenges human life and community development in different ways and thus, requires different strategies to ensure a sustainable community

development. One of the strategies required to address environmental challenge is through environmental sanitation activities.

Environmental sanitation activity is an issue that should not be separated from the issue of human activities and health. When the environment is properly protected in terms of adequate environmental governance, promotion of environmental social justice, preservation of a clean and healthy environment; then people's health and wellbeing will be protected and they will have a peaceful environment to flourish. A clean and healthy environment in which the water sources are free from poisons and toxins, every form of human and domestic waste is properly disposed, the atmosphere is free from poisonous gasses is a booster to human health. Thus, the main goal of the National Policy on the Environment (2016) is to achieve sustainable environment in Nigeria and in particular to:

- a. Secure quality of environment adequate for good health and well being.
- b. Conserve and use the environment and natural resources for the benefit of future generations.
- c. Restore, maintain and enhance the eco-systems and ecological

processes essential for functioning of the biosphere to preserve biological diversity and the principles of optimum sustainable yield in the use of living natural resources and ecosystems.

- d. Raise public awareness and promote understanding of the essential linkages between the environment, resources and development and encourage individuals and community to participate in environmental improvement efforts.
- e. Co-operate in good faith with other countries, international organization, agencies to achieve optimal use of transboundary natural resources and effective prevention or abatement of transboundary environmental degradation.

There cannot be a healthy nation without a healthy environment. Scientists have warned over the years that an unhealthy population and a degraded environment will hinder progress towards development goals (Torres, 2016). In Nigeria, there is a greater understanding of the principal threats to the environment and public health. These are associated with a variety of factors, including those related to poor Environmental Sanitation. There is need to

have serious environmental sanitation campaign to help people realize the link between environmental protection, human health, community development and sustainable development.

In Nigeria, environmental management has remained consistently unpleasant over the years and the problem has become a serious issue that has become difficult if not impossible to resolve irrespective of all efforts from all arms of the government. Cities are often over flooded and people made homeless, displaced, and even some die as a result of blocked drainages and waterways filled with waste. Properties and businesses worth millions of naira are often lost in flood arising from blocked drainages. More still, the population has risen rapidly to about 200 million according to the latest National Census of 2006 without commensurate provision of infrastructure and supporting services to cope with the rising population (Holly and Mberu, 2015). The implication here is a worrisome environmental situation noticeable in the form of increase in waste generation, over utilization of limited existing facilities, indiscriminate felling of trees, erosion, lack of awareness, inadequate supply of portable water, poor land use, conversion of residential accommodation to commercial

uses, increase in urban slums and shanty shelters of the city as a result of acute rural-urban migration and a general decline in the quality of human life (Okanlawon, Odunjo and Soyebó, 2024). Consequently, the environment continues to deteriorate whereas environmental related diseases aggravate poverty (Torres, 2016). As a result, valuable financial resources that could be invested into meaningful life projects are spent treating sickness and diseases arising from an unclean and unprotected/unhealthy environment.

This irritating environmental situation has called the attention of different administrations in States of South East Nigeria towards achieving a cleaner and protected environment. Sequel to the fact that these States are densely populated by commercial hub where great amount of industrial trash, solid waste, scrap metals, et cetera abound, the States government have created a long term functional strategy to evacuate, manage, recycle and maintain a feasible incorporated solid waste management system that will efficiently checkmate death-prone environmental hazards (Akinloye, 2018). As a result, the governments of South East States have procured modern solid waste handling

evacuation equipment including motorized bins, waste bags, plastic receptacles and many other refuse evacuation materials to ensure proper disposal of refuse in the communities of these States. In addition, the governments introduced environmental activities such as; environmental awareness creation activities, environmental sanitation activities, waste management activities, erosion/flood control activities, tree planting activities, dropping of waste bins in communities and business areas and have purchased new coaster vehicles to convey roads and streets sweepers from one place to the other (Okafór, 2019).

Irrespective of the untiring efforts of the State governments to ensure a cleaner and protected environment in South East States, the attitude of community members in those States towards environmental sanitation appears to be very poor. Indiscriminate dumping of refuse is still practiced. People dump wastes on gutters especially during rain fall. Such wastes will be carried from one place to another by the water only to block the next flood channel, spread on the road and create unnecessary environmental hazard. The failure of the community members to develop positive attitudes towards environmental sanitation activities

could be attributed to some gaps that need to be filled through implementation of environmental sanitation programmes. Environmental sanitation programmes are germane for the South East States today in taking wise decisions for their own well-being and for the good of the planet and its inhabitants. It therefore becomes imperative for Environmental sanitation activities to prepare all with critical thinking skills and intellectual framework to face the most critical environmental issues of the century. The task of keeping the earth's surface safe is clearly a joint responsibility of everybody, students must be prepared for those responsibilities as well (Sagdiç and Şahin, 2016).

The environment is a critical component of the knowledge base, we need to live in a safe and prosperous World. This calls for urgent implementation of environmental sanitation activities in order to protect the environment and ensure healthy living in the communities in South East States, Nigeria. Environmental sanitation activities include activities and services that are aimed at reducing risks to the environment from contaminants such as hazardous materials and wastes, fuels, and oils. These activities address pollution prevention measures and

regulatory compliance by providing procedures for safely working with these materials, inspecting the storage vessels and locations, and designating preventative maintenance procedures. Also included are environmental emergency plans, which provide the appropriate actions to be taken in the event of a spill or release. Environmental sanitation activity could also be defined as an environmental activity that helps in protecting the natural environment by individuals, groups and governments. Its objectives are to conserve natural resources and the existing natural environment and, where it is possible, to repair damage and reverse trends. Such activities include: Awareness creation, tree planting, environmental sanitation, waste management, erosion/flood control, hazardous waste, hazardous materials, solid waste, air emissions, energy management, green purchasing, pesticides, storm water Management and waste recycling (Okafor, 2019). However, the researcher wishes to study; sanitation activities for sustainable community development in South East States, Nigeria.

Environmental sanitation refers to practical control of measures used to improve the basic environmental conditions affecting

human health. This no doubt includes issues related to proper methods of refuse disposal, safe water supply, and safe food handling practices, all of which are concerned with the quality of human environment, adequate housing in neat and safe environments. The concept is associated with preservation of sanitary conditions of the environment to avoid harm to the health of persons (Budge., Argaw., Jamie., Brown., and Hutchings, 2022). Environmental sanitation also means promoting health through the preservation of human contact with the hazards associated with the lack of healthy food, clean water and healthful housing, the control of vectors and clean environment (Tukur, 2018). It is only when the community members learn the objectives of environmental sanitation that they will begin to live healthy lives. To be at home with the objectives of environmental sanitation will go a long way to helping them manage their wastes to achieve Sustainable Community Development.

Statement of the Problem

It is unquestionable that there have been recurrent unparalleled experiences and reports of troublesome environmental issues that adversely affect the integrity of the global environment. We experience an

environment that is either unusually drying up as a result of drought, heating up through global warming, burning down from wildfires, being washed away by flooding which translate to gully erosions, being blown away by high winds typhoons, tornadoes, hurricanes, windstorms, freezing up, melting down, inundated with wastes, highly polluted with noise, plastics, toxic materials, household wastes, oil spills, gas flaring, green house and fluorinated gases, electronic wastes, hospital wastes, et cetera. These problems give rise to distressing results in the human society in the form of climate change, diseases, human casualties, environmental hazards and disasters, depletion of the ozone layer, loss of biodiversity and extinction of species, mass migrations, among others.

However, remarkable efforts have been made by environmentalists, scientists and cooperate bodies to address and resolve these environmental issues. As a result, lots of funds are employed into the environmental sanitation activities. Even though, some of these efforts have been rewarded with some significant results, male and female environmental officers seem to have no detailed assessment of the effectiveness of these activities in

ameliorating the afflictions of community members. Male and female environmental officers have different perspectives about environmental sanitation activities and play distinct roles in protecting the environment. Hence, women express stronger environmental concern, focus on daily actions like recycling and conservation, and are more attuned to the vulnerability of their communities to environmental harm. Men are more likely to engage in public, socio-political actions, though this doesn't diminish their concern. This shows that gender has no influence in environmental sanitation activities. Records in various local government areas showed that there are many completed and commissioned environmental sanitation activities in various communities for sustainable community development. There are also cases of uncompleted and/or jumbled sanitation activities within the area that the communities are not interested in. From records available too, male and female environmental officers are sidelined in most of the sanitation activities, mostly because they are not well exposed on what to do in most cases and how to carry the community along for effectiveness. Also, it seems that lots of investments put into these environmental sanitation activities are not

commensurate with their outcome while some are outside the immediate needs of community members.

It is then necessary to determine the extent environmental sanitation activities are utilized in resolving environmental issues for Sustainable Community Development in South East States, of Nigeria so that environmental sanitation activities could be implemented better hopefully with all stakeholders concerned. Therefore, the problem of the study posed as a question is: To what extent has environmental sanitation activities been utilized in resolving environmental issues for sustainable community development in South East States, Nigeria?

Purpose of the Study

The purpose of this study was to determine the extent to which environmental sanitation activities are utilized in resolving environmental issues for sustainable community development in South East States, Nigeria. Specifically, the study determined the extent to which:

1. environmental sanitation activities are utilized in resolving environmental issues for sustainable community development in South East States, Nigeria.

Research question.

1. to what extent are sanitation activities utilized in resolving environmental issues for sustainable community development in South East States, Nigeria?

Hypothesis. There is no significant difference between the mean response of male and female members of community project management committee on the extent sanitation activities are utilized in resolving environmental issues for sustainable community development in South East States, Nigeria.

Methodology

Research design: Descriptive Survey Design was used for the study.

Sample and sampling Technique: The sample size for this study was 420

respondents which comprised 297 male and 123 female members of Community Project Management Committee (CPMC) from the communities under study.

Instrument for data collection: a structured questionnaire was used to elicit information from the respondents.

Method of Data Analysis: Data was analysed using mean and standard deviation while hypothesis was tested at 0.05 level of significance and appropriate degree of freedom with t-test statistics.

Result

Research Question One: What is the extent to which sanitation activities are utilized in resolving environmental issues for sustainable community development in South East States, Nigeria?

Table 1: Mean and Standard Deviation Ratings of the Respondents on the Utilization of Sanitation Activities in resolving Environmental Issues for Sustainable Community Development.

S/N	Through sanitation activities community members learn to;	Male N=297			Female N = 123			Overall N = 420		
		\bar{x}	SD	Decision	\bar{x}	SD	Decision	\bar{x}	SD	Decision
10	Avoid indiscriminate defecation in their streams to avoid disease like cholera	3.34	0.71	HE	3.36	0.73	HE	3.35	0.76	HE
11	Throw wastes only into a waste bin to maintain good environment	3.51	0.73	HE	2.97	0.71	HE	3.24	0.73	HE
12	Participate in cleansing surrounding on environmental sanitation day to avoid mosquito bites.	3.34	0.76	HE	3.36	0.73	HE	3.35	0.76	HE
13	Wash our hands regularly to get rid of bacteria.	3.38	0.74	HE	3.34	0.74	HE	3.36	0.76	HE
14	Keep food items in safe places to protect food from pests.	3.38	0.74	HE	3.34	0.74	HE	3.36	0.76	HE
15	Practice water treatment by boiling /filtering drinking water to avoid water-borne diseases.	3.41	0.74	HE	3.33	0.73	HE	3.37	0.75	HE
16	Practice handling of food with washed hands to avoid germs from them.	3.06	0.67	HE	2.44	0.70	LE	2.75	0.97	HE
17	Protect their sources of water supply to be free from disease like typhoid.	3.58	0.78	HE	3.02	0.68	HE	3.30	0.74	HE
18	Build good toilet system to avoid indiscriminate defecation.	3.52	0.76	HE	3.14	0.70	HE	3.33	0.75	HE
Grand mean		3.39	0.74	HE	3.17	0.73	HE	3.27	0.77	HE

Key: N=Number of the respondents, HE=High Extent, \bar{x} = Mean, SD= Standard deviation

Table 1 shows the results of the analysis conducted to determine the extent to which sanitation activities are utilized in resolving environmental issues for sustainable community development in South East States, Nigeria. Table 2 shows that the mean ratings on the utilization of sanitation activities in resolving environmental issues for sustainable development ranged from 2.75 to 3.37 with standard deviation values that ranged from 0.73 to 0.99. All the nine items had mean ratings above the 2.50 benchmark implying that the members of the community believed that sanitation activities were utilized to a high extent in resolving environmental issues for sustainable community development in South East States, Nigeria. This is more evident in the grand mean of 3.27 which was well above the 2.50 benchmark. The low standard deviation ratings on the items implies that the responses of the members of the community on environmental sanitation activities were homogenous. Signifying that the respondent's responses are closely clustered around the mean. Thus, the answer to research question 2 is that sanitation activities are utilized to a high extent in resolving environmental issues for sustainable community development in

South East States, Nigeria. These sanitation activities include: avoiding indiscriminate defecation in rivers and streams to avoid disease like cholera, throwing wastes only into a waste bin to maintain good environment, participating in cleansing gutters and houses on environmental sanitation day to avoid mosquito bites and offensive odour. Others are; washing our hands regularly to get rid of germs, bacteria and other diseases, keeping food items in safe places to protect food from flies, rats, cockroaches and pests, practicing water treatment by boiling and filtering drinking water to avoid water borne diseases, practicing handling of food with washed hands and washing our fruits and vegetables properly before use to avoid germs from them, protecting sources of water supply to be free from diseases like typhoid, diarrhea and dysentery, and building good toilet system to avoid indiscriminate defecations.

Hypothesis 1

H₀₁: There is no significant difference between the mean responses of male and female members of the community project management committee on the extent to which sanitation activities are utilized in resolving environmental issues for sustainable

Table 2: Summary of the t-test Analysis of the mean Ratings of Male and Female Members of Community Project Management Committee on the extent to which Sanitation Activities are utilized in Resolving Environmental Issues for Sustainable Community Development in South East States, Nigeria.

Gender	N	\bar{x}	SD	Df	t-cal	t-crit	Decision
Male	297	3.39	0.74	418	0.23	± 1.96	NS
Female	123	3.17	0.73				Accept Ho ₂

Significant at $p < .05$, $df = 418$, critical t-value = ± 1.96

The t-test analysis in Table 7 above shows that the calculated t-value is 0.23 while the critical t-value is ± 1.96 at 0.05 level of significance. This implies that the calculated t-value is less than the critical t-value. Thus, going by the bench mark, set for interpreting the respondents scores, there is no significant difference in the mean scores of male and female members of community project management committee on the extent to which sanitation activities are utilized in resolving environmental issues for sanitation community development in South East States of Nigeria.

Discussion of findings

The findings of the study on research question one revealed that sanitation activities are utilized in resolving

environmental issues for sustainable community development in South East States, Nigeria. The findings of the study showed that sanitation activities are utilized in resolving environmental issues for sustainable community development in South East States, Nigeria by avoiding indiscriminate defecation in rivers and streams to avoid disease like cholera, throwing wastes only into a waste bin to maintain good environment, participating in cleansing gutters and houses on environmental sanitation day to avoid mosquito bites and offensive odour, washing our hands regularly to get rid of germs, bacteria and other diseases, keeping food items in safe places to protect food from flies, rats, cockroaches and pests, practicing water treatment by boiling and filtering

drinking water to avoid water borne diseases, practicing handling of food with washed hands and washing our fruits and vegetables properly before use to avoid germs from them, protecting sources of water supply to be free from diseases like typhoid, diarrhea and dysentery, and building good toilet system to avoid indiscriminate defecations. The findings of the study were in agreement with the view of Ibanga (2015) who, while quoting the statement of National Sanitation Foundation of USA (2002) maintained that sanitation is a way of life that is expressed in the clean home, farm, business, neighbourhoods and community. This justifies the findings of the study which showed that sanitation activities are utilized in resolving environmental issues for sustainable community development in South East States, Nigeria.

The findings of the study according to the null hypotheses one revealed that there was significant difference on the mean ratings of male and female members of community project management committee on the extent sanitation activities are utilized in resolving environmental issues for sustainable community development in South East States, Nigeria. The implication is that both male and female members of community project management committee

agreed that sanitation activities are utilized in resolving environmental issues in South East States, Nigeria.

Conclusion

The study therefore, concludes that environmental sanitation activities are utilized in resolving environmental issues for sustainable community development in South East States, Nigeria. From the study, one could observe that community project management committee members aim at facilitating, formulating, implementing, managing, overseeing and coordinating community development projects, to ensure their successful planning, execution and sustainability. They raise awareness about environmental issues and promote eco-friendly behaviours. More still, they work with environmental organizations and government agencies to address environmental concerns. This will go a long way to reminding community members that most of the environmental problems plaguing our planet and its inhabitants are anthropogenically generated and could also be reversed by the same agents that generated them if only they could participate actively in protecting and promoting actions that could protect their environment.

Recommendations

1. Members of community project management committee should ensure that the communities as the beneficiaries of their activities should be conversant with their activities.
2. Government should encourage and support community project management committee into embarking on more sustainable community development activities for the good of the community.
3. The community project management committee should ensure appropriate environmental sanitation activities in the target communities as a method of resolving environmental issues in their various communities.
4. Community project management committee members should ensure adequate sustainable community development activities in the target communities to resolve environmental issues and bring about sustainable community development in their various communities.
5. Members of the community should utilize the opportunities provided by the community project management committee members through development activities in their various communities to improve their living standards.

REFERENCES

- Akinloye, A. O. (2018). Influence of waste management on environmental insecurity among residents in Lagos. *Journal of Research and Contemporary issues in Human Kinetics and Health Education*, 4(1), 22-31.
- Budge, S., Argaw, A., Jamie, B., Brown, J., & Hutchings, P. (2022). Environmental sanitation and the evolution of water, sanitation and hygiene. *Bull World Health Organ.* 100(4), 286–288. doi: [10.2471/BLT.21.287137](https://doi.org/10.2471/BLT.21.287137)
- Hannah, T. (2018). *Give earth a chance, environmental activism in Michigan.* <http://michiganintheworld.history.lsa.umich.edu/environmentalism>

- Holly, E.R., & Mberu, B.U.(2015). Capitalizing on Nigeria's demographic dividend: reaping the benefits and diminishing the burdens. *African population studies*, 27, 2, 319-33
- Ibanga, G. Y. (2015). *Roles of peripheral community tree planting as a sustainable approach for urban environmental protection in Jiddari Polo area of Maiduguri.*
- National Policy on the Environment (2016). Ecolex | The gateway to environmental law. <https://www.ecolex.org> › details › legislation › national-...
- Okafor, S. N. (2019). *Influence of community education on participation of citizens in environmental protection activities in Anambra State, Nigeria.*Doreen Kobani.
- Okanlawon, S.A., Odunjo, O.O.,& Soyebó, O.O. (2024). *Challenges of Sustainable Environmental Management in Nigeria. Journal of economics and sustainable development*, 6, (5), 2222-2855
- Poulopoulos, S. G. (2016). Environment and development. basic principles, human activities, and environmental implications. Elsevier. <https://doi.org/10.1016/C2012-0-07133-5>
- Sagdiç, A. & Şahin, E. (2016). An assessment of Turkish elementary teachers in the context of education for sustainable development. *International Electronic Journal of Environmental Education*, 6 (2), 141-155.
- Torres, P. (2016). *Biodiversity loss: An existential risk comparable to climate change. The bulletin.org.* Taylor & Francis.
- Tukur, S. (2018). *Nigerian govt finally ready to start ogoni clean up - minister. Premium Times Nigeria.* Premium Times Nigeria. <https://www.premiumtimesng.com> › news › headlines