

HARNESSING TRADO-MEDIA IN REDUCING LAND POLLUTION AND SUSTAINABLE DEVELOPMENT GOALS IN NIGERIA THE CASE OF CROSS RIVER STATE

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Abstract

The thrust of this paper is on using folk media to promote the protection of the environment, given that open defecation, indiscriminate dumping of refuse in waterways and scooping of sand in waterways take place in rural communities and constitute hazards to development plans in Cross River State, Nigeria. The paper formulated two objectives, two research questions and two hypotheses. The investigation was situated under the Diffusion of innovations theory of development by Rogers and Shoemaker, 1971. The relevance of this theory to the work is the recognition given the media for development task. The study adopted the survey design, with questionnaire and focus group discussions, as primary instruments for data collection. The reliability estimate of the instrument tagged, "Harnessing Trado-media in Reducing Land Pollution and Sustainable Development Goals Questionnaire (HTRLPSDGQ), was ranged at 0.71 to 0.84. A total of 400 respondents, using the Taro-Yamane formula were used to derive the sample size from a study population of 4,021,245, across the three senatorial districts of Cross River State. The multi-stage (proportionate, simple random and systematic) sampling techniques were used to select 15 LGAs across the three senatorial districts, 40 villages across the LGAs, 40 streets across the villages and 5 houses at interval per street. Data from the questionnaire were analyzed using descriptive statistics and data from focus group discussions were analyzed using explanation method. One major finding from the study revealed that environmental pollution has consequences on sustainable development goals and that communication is pivotal in curbing land pollution, leading to the attainment of SDGs in Cross River State.

Introduction

Nigeria, like any other nation in the world is making conscious and deliberate efforts in keeping a clean, safe and healthy environment. It is certain that the role the environment plays in a society's development process cannot be over-emphasized. Apart from being the physical surrounding for natural habitat, the environment provides the basis for human exploits for agricultural, industrial, commercial, technological and tourism development of any given society (Evelyn & Tsav, 2012). Thus, environmental issues now occupy a centre stage in academic discourse and other public fora, globally. Evidences point to the fact that the environment represents a wide range of the external and internal circumstances, conditions and the things that affect the existence and development of an individual, organism, group and goals in any society (Isechei, 2012). Research has also shown that as the population of a country grows, there is consequent pressure on the environment especially, in the wake of improved technologies.

Every pollution in the environment has an origin. The effects of these pollutions have corresponding consequences to man and other living organisms (Evelyn, Tsav and Ocheri, 2012). This assertion is further corroborated by Anijah-Obi, Eneji and Ubom, (2013), who stated that environmental pollution are so pervasive on account of their obvious consequences for mankind and sustainable development goals. This sordid state of affair has led to the creation of so many documents, records and establishment of environmental agencies or bodies in Nigeria.

Evidently, in most rural communities mountainous heaps of rice and wood chaff are found everywhere, indiscriminate dumping of refuse and open defecation goes unabated. It is therefore surprising that most conventional media appear to have played great roles in the dissemination of environmental information on pollution across rural Nigeria, but still appear to have been deficient in some specific areas. Governments also have made efforts in combating pollutions across the country but these have ended unsuccessful.

It is against this backdrop that this paper tries to find out the communication channel that is relevant in addressing the problem of land pollution in rural Nigeria, as it affects sustainable development goals in Cross River State.

Statement of the Problem

Nigeria, as a country is grappling with the management of wastes. Everyone is involved in waste generation though not everyone is involved in proper waste disposal. Many rural people are lukewarm towards maintaining a clean environment, as they are often coerced in responding to environmental clean-up exercises. Many communities do not observe the monthly environmental exercises imposed by government, seeing these as unnecessary infractions on their daily activities.

Admittedly, there are media (radio, television and newspaper) reports on environmental hazards. Such reports give much prominence to the harm done to the environment (natural disasters and human induced). These hazards subject the rural populace to a material risk of injury, impairment or even, death. Unknown to the rural people these land pollution has consequences on sustainable development goals. Regrettably, there seem to be no corresponding response, by way of attitudinal change from the rural populace. One may ask, why is it that despite the conventional media, having played great roles in the dissemination of environmental information on pollution in the country, they still appear to have been deficient in some specific areas, like the use of communication channels that increases the rural people's environmental awareness.

The focus of this paper therefore is to attempt to answer the above question by finding out the media of communication that engendered the support of the rural people in curbing land pollution thereby leading to the attainment of sustainable development goals in Nigeria, by the set target of 2030. This means that the environmental literacy level of residents has become a yardstick to achieving sustainable development goals in Cross River State in particular and Nigeria as a whole.

It is against this background that the paper examines the channels of communication that enhances the environmental literacy level of residents in Cross River State thereby, reducing pollution to safe levels and thus leading to the attainment of sustainable development goals in Nigeria.

Objectives of the Study

Specifically, the following objectives were formulated to guide the study:

1. To determine the media of communication that have often contributed to the environmental literacy level of residents in Cross River State

2. To determine the extent to which the media of communication have created awareness on the consequences of land pollution on sustainable development goals in Cross River State.

Research Questions

The following research questions guided the study:

1. What media of communication contributed to the environmental literacy level of residents in Cross River State?.
2. To what extent have the media of communication created awareness on the consequences of land pollution on sustainable development goals in Cross River State?

Research Hypotheses

The following hypotheses were posed to guide the study:

1. Traditional communication channels do not significantly influence the environmental literacy level of residents in Cross River State.
2. Traditional communication channels do not significantly influence the creation of awareness on the consequences of land pollution on sustainable development goals in Cross River State.

Land pollution in Rural Cross River State

Land pollution, according to Hinrichsen and Robey (2000), constitute a serious environmental handicap because when land is degraded, it ceases to have the capacity to sustain life. Land pollution in the rural areas occurs in the following ways:

- (a). **Erecting mills along waterways:** It has become an accepted practice by owners of mills to disregard building codes, as cassava, oil-palm and wood mills are erected along waterways, thereby obstructing the free-flow of rain water and causing aiding flooding in most cases in the communities.
- (b). **indiscriminate dumping of refuse:** Wastes from households and agricultural activities are dumped indiscriminately in gutters and waterways, aiding erosion and blockage of gutters. Most erosion sites in the various communities stem from refuse dumped in gutters.
- (c). **Open defecation:** This is an ancient practice which is still very rampant in most rural communities. Osong (2023) asserts that most households in the various communities lack toilet facilities hence, resort to open defecation in bushes and fields. This constitutes serious health hazards to man and development objectives.

Sustainable development goals: At the 70th session of the United Nations General Assembly in late September, 2015, member States met and agreed to adopt a new global development agenda with a set of sustainable development plans, at its core. The report stated that sustainable development is economic development which meets the needs of the present generation without compromising the ability of future generations to meet their own needs (World Commission on Environment Development, WCED, 1997). The focus on sustainable development is on three main components: environment, society and economy, whose set target is by 2030.

Health effects of land pollution on sustainable development goals:

The abuses on land that go unabated in the rural communities constitute health problems on sustainable development goals. Health is the most important human resource (Batta, 2013). Everything, including the 17th SDG, depends on an optimal enjoyment of good health, in all its aspects. The health effects of land pollution are decline in agricultural productivity caused by erosion and flooding, affecting goal 1- “end poverty in all forms” and 2- “end hunger, achieve food security, improve nutrition and promote sustainable agriculture”, impairment of human and vehicular movement caused by erosion, and even death of humans caused by flooding. The indirect health effects of land pollution are the rural people’s exposure to malaria caused by the blockage of gutters, which affects goal no. 3- “ensure healthy living and promote well-being of all ages”. Also, the processed water from the mills and human faeces find expression in the available sources of community streams and rivers affecting goal 6- “ensure availability and sustainable management of water and sanitation for all”. UNICEF Nigeria Country Office 2000 Annual Report shows that about 300,000 women and children die every year as a result of malaria. This is so when residents dump refuse in gutters, causing mosquitoes to breed in gutters and drainages.

Trado-Media forms and environmental literacy of residents in Cross River State

In the rural communities, information from the traditional leaders is usually passed freely. This constituted the oldest form of journalism which includes:

(a). **Town-crier:** The main broadcasting instrument used by the town-crier is the talking drum, with a stick struck intermittently to create public awareness. He moves from street to street, shouting at a proximal distance, as he explains what the message is all about. During environmental sanitation exercises, the town-crier informs the entire community to ensure they all stay in their respective homes to observe the clean-up exercise.

(b). **Story-telling:** According to Anim (2012), stories are embedded in the people's culture. When news and information, in the view of Anim, are presented in a form that fits into the cultural model of a people, it evokes empathy and therefore greater interest and the likelihood of the story being better understood. This fact is corroborated by Kur (2012) and Usua (2012). In a study conducted by Osong (2023), stories on environmental pollution presented to the rural people of Cross River State were believable, acceptable and credible.

(c). **Folk media:** Bahai International Community (1991) attests to the fact that folk media can educate community people and allow them to redefine their positions. Folk media, according to the view of Bahai, are specifically useful with non-literate people, who take seriously what they hear. Folk media are in the form of traditional music, drama, dance and puppetry, with unique features in every society, race and religion, (Hasan, 2013). Anaeto and Anaeto (2010) posit that folk media are used in development communication to bring about attitudinal and behavioural change of the people.

Traditional channels of communication are extensions of a people's culture which facilitates the exchange of ideas or information in a typical African society (Orhewere & Onusu, 2012). People have continued to depend on these media especially because of their effective interpersonal nature. They are people and culture oriented. They give room for immediate feedback.

Review of Related Literature

“Communicating information on Nature-related topics: Preferred information channels and trust in sources”.

Holly M. Muller, Elizabeth Tilak and Rudy M. Schuster (2018), conducted a study titled, “Communicating information on nature-related topics: Preferred information channels and trust in sources” (<https://ncbi.nlm.nih.gov>). This study examined how information communicated

influences the public's environmental perceptions and behaviours. Information channels and sources both play an important role in the dissemination of environmental issues. Trust in a source is often used as a proxy for whether a particular piece of information is credible. To determine preferences for information channels and related topics, mail-out survey was sent to randomly selected United States addresses (n=1,030). The study established that diverse group of people may have different communication preferences.

Therefore the authors explored differences in channel preferences and trust by demographics, using regression models. Over all, the most preferred channels were personal experience, reading on-line content and watching visual media on-line. The most trusted sources were science organizations, universities, friends and family communicating to the public about environmental pollution. They concluded that environmental management planners assess their opportunities to foster both a broader public engagement and behavioural modifications in a way that complements and extends information interventions.

What this review throws up is that preferred channels and sources especially in the rural areas create credibility for environmental information dissemination.

Theoretical framework

The theoretical framework for this study is the Diffusion of innovations theory of development by Rogers and Shoemaker (1971). Among the major assumptions of the theory is the use of communication channels that functions best in the society where the innovation is being introduced. The relevance of the theory to this work is the recognition given the media for development task.

Research methodology

The research design for this work is the survey method. According to Babbie (2010), survey probably is the best method available to the social scientist interested in collecting original data for describing a population too large to observe directly. The area of study was the three senatorial districts of Cross River State, whose population was put at 4,021,245 (National Population Census, 2019). Using the Taro-Yamane formula, a sample size of 400 was drawn from the population of study. The multi-stage: proportionate sampling technique was used to select 15 LGAs across the senatorial districts, 40 villages across the LGAs and 40 streets across

the villages. The simple random sampling technique was used in the selection of 16 streets from the Southern senatorial district, 13 streets from the Central senatorial district and 11 from the Northern senatorial district. The systematic sampling technique was used to select five households per interval, at every street. The main instrument for data collection was the questionnaire titled, “Harnessing Trado-media in Reducing Land Pollution in Rural Nigeria Questionnaire” (HTRLPRNQ). The questionnaire had two items and measured residents’ environmental literacy level on pollution and its consequences on sustainable development goals in Cross River State.

Another instrument that was used for data collection was the focus group discussion, made up of eight discussants per senatorial district, comprising males and females, farmers and traders, who are non-literate in English and who lack modern means of communication (radio, television and newspapers). The validity of the instrument was established using the Analysis of Moment of Structures Software Version 21 (AMOS Software, Version 21). A pre-test was conducted in five communities in Yakurr LGA, to ensure the validity of the instrument before using it for the main study. The estimate of the reliability of the questionnaire was determined using the split-half reliability method, where 50 respondents were drawn from the population who were not among the sample of the final study. The reliability index, ranging from 0.71 to 0.84, was obtained and this was considered reliable. Also, the instrument was determined using Cronbach Alpha Reliability index. This was done after constructing a table of specification which guided the researcher in measuring the behavioural objectives of residents towards environmental pollution and literacy level. The hypotheses formulated in this paper were analyzed using simple regression analysis and the data from the focus group discussions were analyzed using the explanation method.

Discussion of findings

In the discussion of findings, 323 respondents answered the question on, “what media of communication contribute to the environmental literacy level of residents’ in Cross River State?”. Among the respondents, 80.75% strongly agree that traditional communication channels contributed to the environmental literacy level of residents in Cross River State. The result is in consonance with hypothesis 1, which revealed that traditional channels of communication significantly influenced environmental literacy level of residents in Cross River State. The independent variable in this hypothesis is traditional communication channels while the dependent variable is

environmental literacy level of residents in Cross River State. Simple regression analysis was used to test the hypothesis. The test produced an R^2 of 30. This indicated that traditional communication channels accounted for 3.0% of the determinant environmental literacy level of residents in the study. The F= value of the Analysis of Variance (ANOVA) obtained from the regression table was $F=10.227$ and the significance value of 0.000 (or $p<05$) at the degree of freedom (df) 1 and 399. The implication of the result was that traditional communication channels was a significant predictor of environmental literacy level of residents on environmental pollution. This means traditional communication channels can enhance the environmental literacy level of residents in Cross River State. In this case the decision rule was that the null hypothesis “traditional communication channels do not significantly increase residents’ environmental literacy level in Cross River State” was rejected while the alternative hypothesis was accepted because it received statistical support.

Osong (2023), Usua (2013) and Orhewere and Onusu (2012) all posited that story-telling and folk media created environmental literacy, thereby engendering rural support in curbing pollution to safe levels. However, 10.15% respondents strongly disagree that traditional channels of communication do not contribute to environmental literacy level of residents in Cross River State. They believe that modern media of communication can play this role, as environmental messages are likely to meet them in different locations.

The next question was, “to what extent had modern media of communication created awareness on the consequences of pollution on sustainable development goals in Cross River State?”. Respondents, with a total of 252, representing 63%, strongly disagree with the statement, “whether modern media of communication had created awareness on the consequences of pollution on sustainable development goals in Cross River State. The independent variable in this hypothesis is modern media of communication and the dependent variable is the creation of awareness on the consequences of pollution on SDGs. Simple Regression Analysis was used to test the hypothesis. The test produced an R^2 value of 819. The result also showed that Analysis of Variance produced an F=ratio of 309.372, which was significant at .05 level. The implication of this is that 81.9 % do not think that modern media of communication can create awareness on the consequences of pollution on sustainable development goals in Cross River State. The research revealed a P-value of 0.000. Therefore, the null hypothesis, “modern media of communication can create awareness on the

consequences of pollution on sustainable development goals in Cross River State”, was rejected while the alternative hypothesis was accepted because it received statistical support.

The results of both findings above agreed with the Diffusion of innovations theory of development, whose assumption is on the deployment of media for development task. The study also points at the health effect of land pollution on sustainable development goal 1,2 and 3, which Batta (2013) posits that health is the most important human resource and everything including the 17 goals depend on an optimal enjoyment of good health in all its aspects. The focus group discussions, “**theme 1, “communication and dissemination of environmental messages in rural Nigeria”**” responses from this theme corroborates Nwagbara (2001), Akpama (2009), Ntui (2005) and Chiltere (1998) in Nbom and Ndem (2016) whose reports have a common thread that the participation of rural people in development goals is low because policies cannot just be evolved for people concerned without offering them the opportunity to partake in decision-making as well as the execution. Responses from theme 2, “**rural actions that birth land pollution in Cross River State”**”, corroborates the views of Evelyn and Tsav, (2012), Isiechei (1999) in Odigwe et al (2015) who also identified the different types of pollutions that have consequences on sustainable development goals. Theme three, “**attaining a free-pollution environment through community dialogue in Cross River State”**”. Most of the discussants strongly suggested the use of opinion leaders of the community extraction in the dissemination of environmental messages. They spoke on the usefulness of opinion leaders in helping to create the necessary awareness among the rural populace. Resolutions arising from this theme are in tandem with Akpan (2012) when he stated that opinion leaders engender community dialogue which has arisen in response to calls for more active engagements of the rural communities in development task. Some of the participants opined that opinion leaders ought to explain to the average rural dweller the meaning and benefits of sustainable development goals and the implication of land pollution on such development objectives. They unanimously agreed that sustainable development goal, as a concept, is alien to them and requires opinion leaders to interpret its principles. As a consequence of this theme the discussants suggested the entrenchment of non-formal environmental education. In the opinion of the discussants, non-formal education can be carried out by extension agents and opinion leaders, both of the community extraction, who using the language of the immediate community would

explain some of the environmental concepts as it relates to pollution. They all agreed that due to its pertinence (environment), awareness creation on the environment should be incorporated into non-formal education in the rural areas.

Conclusion

Based on the findings of the study, it was concluded as follows:

In order to empower the rural people, information must be made available to them and this should be couched in the language of the immediate community. Environmental literacy level becomes a yardstick towards curbing land pollution and attaining sustainable development goals in Cross River State.

Recommendations

The following recommendations are put forward based on the findings and discussions of the study:

- (1). Traditional channels of communication such as folk songs and folk media should be deployed in the dissemination of environmental information to enhance the environmental literacy level of residents in Cross River State.
- (2). Employment of traditional channels of communication should be considered in environmental issues, as it was potent in creating awareness on the consequences of land pollution on sustainable development goals in Cross River State.

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