

The Imperative Status of Science Reporting on Environmental Sustainability in Rivers State

Abstract

Environmental sustainability and overall growth of Rivers State, a state that, over the years, has been plagued with oil spillage and redundant environmental growth. This study, amongst others, sought to ascertain the place of environmental reporting on environmental sustainability in Rivers State. The study was anchored on the contagion theories. The study adopted a quantitative research method, which was the survey research method using the data instrument of a questionnaire. The population of the study was Rivers State, Nigeria. The researcher purposefully and randomly selected three communities from the three senatorial zones/districts in the state, which are the River East, River South East, and the River West, which were Okrika local government and Ogu Community; Eleme local government and Alesa Community; Abua local government and Otari Community. From a population of approximately over 1,204,980, the researcher, using purposive and simple random sampling techniques, selected participants for the study, and the Wimmer and Dominick Sample Calculator arrived at a sample size of 384. It was revealed that the level of effectiveness of environmental reporting in creating awareness towards the practice of environmental sustainability in Rivers State is not really that paramount, as locals in the communities were of the view that these reportage strategies have yielded little or no results and were indecisive with regards to their potency towards driving the much-needed changes and proactive actions in the quest for environmental sustainability in the area. It recommended that promotion of environmental sustainability in Rivers State should not be an on-and-off practice but a regular and intensive lifestyle amongst the locals, government, and organisations operational in the areas.

Keywords: Science reporting, environmental sustainability, communication, River State

Introduction

The synergy between man and his environment is imbedded in the fulcrum of communication as communication essentially caps its pure essence on peace, societal equilibrium and understanding. Nature can be said to be anchored on radiance; aesthetics and all round decorum demonstrated in communication hallmark (Babalola et al., 2010). Human

interactions often happens during social situations, in diverse physical environments for specific or varieties of purposes. No doubt, communication is complex because it contains so many variables (Daramola & Ibe, 2010). The alluring nature of communication in an organic setup is understood in the way and manner, human utilizes tools and avenues of communication in an organisation and structural buildup of natural environment, hence it can be said that man's nuclear and extended environment becomes a desolate mass without the ingredient of communication (Dogaru, 2013).

The place of communication in development cannot be overemphasised as change in development communication is key to behavioural changes. There is no doubt that environmental sustainability is enacted in the global Millennium Development Goals (MDG7) and Sustainable Development Goals (SDGs). Environmental information is key and active crucial step to the effective citizens' sustainable lifestyle participation (Organization for Economic Co-operation and Development [OECD] 1999). An environmental information access promotes alertness to environmental challenges and issues, enabling the public towards making informed personal choices and contributing towards environment protection (Pillmann, 2000).

Quality communication is often regarded as the baseline for productive sustainable development programmes and the media stands to be identified as a frontline for effective important communication tool, based on its unique capacity for reaching a heterogeneous population with relevant information (Opel et al., 2010). Journalists, in consideration of dialogue with vast audiences, are, when properly trained and equipped, have the capacity of inspiring the much needed public support with regards to certain environmental sustainable

initiatives and developmental programmes (Morelli, 2011). The media significance in informing the public on various key aspects which is showcased in the place of the decisions of the media based on what the public learns the interpretations of events and news in globally and locally, which is obtainable based on coverage quality and news slant given to topics of discourse (Homfeldt & Reutlinger 2008). Environmental sustainability and overall growth of Rivers state, a state which over the years, have been plagued with oil spillage and redundant environmental growth; the supposed goldmine which should have released the state from the shackles of poverty and dependency on national cake sharing policy in Nigeria, have become their worst nightmare. Government is silent both federal, state and local governments respectively, multinational companies turn a blind eyes to the horrors happening in the lands, parent companies who have oil pipelines and other business shut the mouths of the powers that be with money and other incentives, feeding the rich and depriving the poor. The citizens are left on their whims to scavenge for their livelihood as these spills and destructions tamper with the ecosystem of the state destroying both lands and water ways, killing crops and vegetation and basically making the area inhabitable, a river line area whose main source of food survival is importation from other state. Who can then help them from this dilemma and catasphore which have been ongoing for years? How can the media come to the rescue? Is there hope for sustainability? Is the dream for an eco-friendly operations of oil wells in the state obtainable?

Therefore, this study is simply geared towards understanding a genre of communication which is scientific reporting in the quest for positive environmental sustainability in Rivers state, a state which over the years, have been plagued by oil spillage,

air pollution and redundant environmental growth; the supposed goldmine which should have released the state from the shackles of poverty and dependency on national cake sharing policy in Nigeria, have become their worst nightmare. Based on the background, this study sought to assess the role of science reporting on environmental sustainability in Rivers State.

Research Questions

RQ1. To what extent are Rivers State residents exposed to science reporting towards the practice of environmental sustainability?

RQ2. To what extent science reporting is used to promote environmental sustainability in Rivers State?

RQ3. How effective is science reporting in creating awareness towards the practice of environmental sustainability in Rivers State?

Literature Review

Environmental Issues in Nigeria

In order to guide people, organisations, and corporate entities towards the achievement and maintenance of a healthy environment in the nation at all levels, a developing nation such as Nigeria established the Federal Environmental Protection Agency [FEPA] and other relevant environmental sanitation or conservation organisations (Adeyinka, & Bankole, 2005). These groups establish policies, keep an eye on, and evaluate deeds and inactions pertaining to environmental conservation and preservation. In addition to empowering them to carry out these duties, the government has passed a number of regulations to encourage the nation's corporate sector and citizens to adopt environmentally friendly practices (Ajibade,

2003). Because the majority of the operations of corporations in this industry have some sort of environmental impact, there is currently increased focus on Nigeria's oil and petrochemical sector (Ajibade, 2003). The environmental issue continues to be a value that people in every nation relate to, that the public uses to express judgements and opinions, and that demands actions and attitudes from governments, businesses, labour unions, and all other social classes (Mogu, 2008)

Media in Environment; Environmental Journalism

In 1988, the disposal of hazardous garbage in KOKO, DELTA State, became a historic environmental journalism case in Nigeria. The way that the mass media covered the case validated the role that the media plays in maintaining and fostering a rational atmosphere. "To produce a citizenry that is knowledgeable concerning the biophysical environment and its associated problems" is the stated purpose of environmental education, according to Sandman (1976). To the benefit of both the current and future generations, citizens must be empowered and have the skills necessary to actively participate in finding solutions to societal environmental problems. Awareness and knowledge of the biophysical environment alone, however, are insufficient. The four things that prevent mass media from becoming an effective environmental educator are news sources, news quality, publisher influence, and resource allocation.

Adeyinka and Bankole's (2005) research demonstrates the general public's declining interest in societal issues. The mass media must reevaluate their duties as they are acknowledged as agents in the moulding and remaking of society. This, in turn, necessitates a reorientation and new way of thinking about societal problems and challenges, not just advancements. The

mass media is the most effective tool for distributing information at the local level necessary for a country to successfully flourish. When forceful mobilisation is required for an issue or campaign, the media can be used (Uju & Etumnu, 2021).

According to Iheanacho et al. (2022) and Anatsui (2006), radio can help with both rural and national development through various means, including radio study groups, radio rural forums, radio schools, radio, and animation. It also mentions the use of appropriate language, accessible channels, and public participation, meaning that messages for rural or national development should be packaged with the people, not for the people.

Media and Environmental Consciousness

The role of science reporting in advocating for environmental changes is a subject of increasing significance within the realms of both communication studies and environmental science. Extant literatures have shown the power inherent in communication towards shaping public perceptions, attitudes, and behaviours towards environmental issues in Nigeria (Nwankwo, 2023).

Several studies underscore the persuasive power of mass media in influencing public awareness and behaviour. Weaver and Bimber (2008) as cited in Nwankwo (2023) emphasize that media platforms are critical conduits for environmental information dissemination, shaping how individuals perceive and interpret ecological challenges. As individuals are exposed to convincing narratives, vivid visuals, and impactful messaging via television, radio, print, and digital media, they are more likely to develop heightened environmental consciousness.

Empirical Review

Ugboma (2002) in a study reported that poverty and illiteracy amongst the people shift their focus from environmental management strategies to issues related to everyday survival which usually leads to lack of concerned attitude and behavioural patterns towards the environment that breeds more environmental issues and an unending cycle of poverty amongst the populace. Also, Daramola and Ibem(2010) in their study posited that primary populace has the right of access to related environmental information which are currently regarded as government properties, public authority and information availability related to environment should be ready from public knowledge and consumption, which is key for an achievement of sustainable development in the area. Dogaru (2013) in a study was of the view that in spite of the substantial progresses which have been made in respect to the provision of environmental information, challenges and constraints still exist that affects efficient management and positive development of the environment, in forms of uncoordinated policies and legalities, data base deficiency, inadequate enforcement, institutional conflicts, funding, and public awareness menace. Babalola et al. (2010) reported in their study that media efforts towards public enlightenment should intensify by a presentation of vital environmental information in ingenious languages that eliminates the issue of language barrier. Flor (2004) in a study revealed that great concentration should be accorded to effects of domestic environmental activities on global ecological hemisphere. Pillmann (2000) in a study reported that government should prioritize adequate funding of both public and school libraries with relevant materials as these institutions stands as a veritable source of environmental information and vehicles of public enlightenment.

Theoretical Framework

The study was anchored on the Contagion theories by Gustave Le Bon in 1885 which is of the assumption that necessary contacts are provided by interested communication networks which serves as a mechanism which stands as exposure for people, groups, and organizations to information, attitudinal messages and the behaviours. Based on this exposure, an increase in the likelihood of network members development of needed beliefs, assumptions, and attitudes similar to those of their networks (Carley, 1991; Carley&Kaufer, 1993). Contagion theories seek the relation between organizational members and primary/ secondary networks. The organizational members' knowledge, attitudes, and behaviour are related to their formation, attitudes, and behavior of others in the network to which are interlinked, factors like frequency, multiplexity, strength, and asymmetry stands to shape extent of influences on individuals in said networks. This is relevant to the study because media is not independent in the quest from environmental sustainability in the state and as needs all hands to be on deck both the key players and the host communities which are individual parts that makes up a network. The interrelationship and interdependency of the key players in this study which are the government, media, oil factories and multinational companies and the host communities are vital to the actualization of the dream of a RiversState which is environmentally sustainable and eco-friendly to the communities.

Methodology

The study adopted a quantitative research method which was the survey research methodology. This method is appropriate for this study because it allows the sampling of opinion of respondents and allows for generalization (Etumnu et al.,2023).The quantitative

data instrument which was a questionnaire was employed to subjects in order to obtain data that will cover the entire Rivers' people population. The population of the study was Rivers State, Nigeria. The researchers purposively and randomly selected three communities from the three senatorial zone/ districts in the state which are the Rivers East, Rivers South East; and the Rivers West; from these districts, three communities each were purposively selected for the purpose of the study because of the heavy presence of environmental challenges ranging from oil spillage, fumes discharge, water destructions, disposal of organic and chemical wastes and so on. For Rivers East, the researcher selected Okrika local government and Ogu Community, River South East; Elemelocal government and Alesa Community, Rivers West; Abua local government and Otari Community, these communities were selected based on the recent and reoccurring damages of environmental dedegrations and oil damages in these communities over the years and government redundancy attitude towards positive and proactive actions towards promoting healthy environment for the communities. From a population of approximately over 1,204,980 people are living in the selected communities in Rivers State, the researcher using the purposive and simple random sampling techniques, and Wimmer and Dominick Sample calculator arrived at a sample size of 384, the researcher randomly selected participants from the communities for a more direct and concise study.

Data Analysis

Table1: Demographic data/bio data of participants who were involved in the study

Items		Frequency	Percentage
Sex	Female	186	48.4
	Male	198	51.6
		384	100
Age	18 – 24	68	17.7

	25- 31 32 -38 39 and above	97 164 55 384	25.3 42.7 14.3 100
Educational Qualification	WACE/ NECO HND/ OND BSC Masters PhD	213 101 41 20 9 384	55.4 26.3 10.6 5.2 2.3 100
Marital Status	Single Married Divorced Widow/ widower	128 193 18 45 384	33.3 50.3 4.6 11.8 100
Occupation	Fishermen Farmer White collar Job Student	138 104 61 81 384	35.9 27.1 15.8 21.1 100

Source; field survey,2023

The table above summarizes the demographic data/ bio data of participants who were involved in the study, with a greater percentage of participants been male, most were Wace/ Neco degree holder because of the rural nature of selected communities, majority of participants were married with kids and had occupation basically as fishermen due to the rivers and waters surrounding the communities and its neighboring communities

Research Question 1; To what extent are Rivers State residents exposed to environmental reporting towards the practice of environmental sustainability?

Item	High	Low	Moderate	Cant say	TOTAL
Level of exposure of Rivers State residents to environmental reporting towards the practice of environmental sustainability	181 47.2	113 29.4	62 16.2	28 7.3	384

Source; field survey,2023

The media role as an advocate of the people in the quest for environmental sustainability in Rivers State cannot be overemphasized as many of the respondents' exposure level to environmental reporting through radio programmes, documentaries, television shows, live broadcast, editorials and newspapers publications and so on towards the practice of

environmental sustainability was quite high as relevant actions and practices were exposed to the residents through these avenues and more.

Research Question 2; To what extent to which science reporting is used to promote environmental sustainability in Rivers State?

Item	High	Low	Moderate	Cant say	TOTAL
Extent to which environmental reporting usage towards promoting environmental sustainability in Rivers State	79 20.6	92 23.8	126 32.8	87 22.6	384

Source; field survey,2023

From analysis of the table above, the respondents were of the view that environmental reporting usage towards promoting environmental sustainability in Rivers State was not at its peak yet, but at moderate level as many of findings and coverage of media with regards to promoting environmental sustainability in the area are still struggling to meet up to the expected standards in both the public and government part.

Research Question 3; How effective is environmental reporting in creating awareness towards the practice of environmental sustainability in Rivers State?

Item	VE	E	NE	Cant say	TOTAL
Extent to effectiveness of environmental reporting usage towards promoting environmental sustainability in Rivers State	69 17.9	109 28.4	47 12.3	159 41.4	384

Source; field survey,2023

Key: VE; Very Effective, E; Effective, NE; Not Effective

The media and host communities have a vital role to play in the environmental sustainability journey in Rivers State and the level of effectiveness of environmental reporting in creating awareness towards the practice of environmental sustainability in Rivers State is not really that paramount as locals in the communities were of the view that these reportage strategies have yielded little or no results and indecisive with regards to its potent towards driving the

much needed changes and proactive actions in the quest for environmental sustainability in the area.

Discussion of Findings

A large percentage of the respondents in the study who were mainly locals or rural dwellers in the area was of the view that exposure level to environmental reporting through radio programmes, documentaries, television shows, live broadcast, editorials and newspapers publications and so on towards the practice of environmental sustainability was quite high as relevant actions and practices were exposed to the residents through these avenues and more, although many raised concerns over the lack of actions by the government and parent companies operational in the area irrespective of information provided by the media and the lassie faire attitude of individuals in the communities towards protection and preservation of the environment. This is inline with a study by Dogaru (2013) who revealed that in spite of the substantial progresses which have been made in respect to the provision of environmental information, challenges and constraints still exist that affects efficient management and positive development of the environment. Also, Babalola et al.(2010) who was of the view that media efforts towards public enlightenment should intensify by a presentation of vital environmental information in ingenious languages that eliminates the issue of language barrier.

Environmental reporting usage towards promoting environmental sustainability in Rivers State was not at its peak yet, but at moderate level as many of findings and coverage of media with regards to promoting environmental sustainability in the area are still struggling to meet up to the expected standards in both the public and government part as

revealed by the researcher in the course of interactions with the locals as much is needed to be done by all to ensure that the environment is not lost to hands of oil spillage and other degrading practices that weakens the environment leaving it open for erosion and other forms of natural and human made disasters that destroys the ecosystems. Supporting these views was a study by Pillmann (2000) which the author sums up by saying that government should prioritize adequate funding of both public and school libraries with relevant materials as these institutions stand as veritable sources of environmental information and vehicles of public enlightenment.

Different media outlet within their reach and beyond plays key roles in the journey of an economical stable community in their primary communities and Rivers state at large; starting from the online media outlets which are the social media to the local media or trade media. The level of effectiveness of environmental reporting in creating awareness towards the practice of environmental sustainability in Rivers State is not really that paramount as locals in the communities were of the view that these reportage strategies have yielded little or no results and indecisive with regards to its potency towards driving the much needed changes and proactive actions in the quest for environmental sustainability in the area. Ugboma (2002) was of the view that lack of concern attitude and behavioural patterns towards the environment that breeds more environmental issues and an unending cycle of poverty amongst the populace. Also, supporting these views Flor (2004) in a study revealed that great concentration should be accorded to effects of domestic environmental activities on global ecological hemisphere.

Conclusion

Government past and present programs and initiatives towards promoting environmental sustainability in River State should not be a one-time venture, one administration and one programme but the spirit of continuity should be adopted for maximum positive impact. Media role as an advocate of the people in the quest for environmental sustainability in Rivers State should be regulated to just reporting these programmes but in-depth explanation for the people layman and educated alike and investigation to ensure that what is said is been done by government and all involved.

The media over the years have served as the voices of the people in different era and area cutting across development, education, government policies and voicing out displeasures and pains of the people respectively. The environmental sustainability journey in Rivers State so far have met its challenges, weakest and strong point and these are made visible to the general public with the tools of media both modern day media tools and trado media; any of which is accessible to the communities. Government cannot work independent of the media in the environmental sustainability journey in Rivers State as well as the media cannot report without right facts and figures and such a work relationship should be harnessed and integrity and core values of the media should not be traded in the halls of power.

Recommendation

1. Media outlets both private and government owned should produce more proactive programs and coverage with regards to a sustainable environmentally preservation practices in the area.

2. Promotion environmental sustainability in Rivers State should not be an on and off practice but a regular and intensive lifestyle amongst the locals, government and organizations operational in the areas.
3. Creating awareness towards the practice of environmental sustainability in Rivers State should not be regarded as just the chore of government but a holistic venture that needs the attention of all.

Disclaimer (Artificial intelligence)

Option 1:

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

References

- Adeyinka, M.A. & Bankole, P.O. (2005). *Environmental Statistics*. Situation of Federal Republic of Nigeria. Dakar Senegal.
- Ajibade. O. (2003). *Communication, environmental protection campaign and sustainable development in Nigeria*. *Unilag Communication Review*, 4, 1; 32 – 38
- Anatsui, C.C. (2006). *The Public relations Approach*. Colloquium Series of Babcock University.
- Babalola, Y, T.; Babalola, A. D.; & Okhale, F.O.(2010). Awareness and accessibility of environmental information in Nigeria: Evidence from Delta State. *Library Philosophy and Practice (e-journal)*. 460. <https://digitalcommons.unl.edu/libphilprac/460>
- Dalelo, A. (2007) *Environmental education*. Ethiopia: Addis Ababa (Unpublished source).
- Daramola, A. & Ibem, E.O. (2010). Urban environmental problems in Nigeria: Implications for sustainable development. *Journal of Sustainable Development in Africa*, 12(1), 124–145.

- Dogaru, L. (2013). The importance of environmental protection and sustainable development. *Procedia – Social and Behavioural Sciences*, 93, 1344 – 1348.
- Ekpeyong, E. (n.d.) Environmental Awareness As a panacea for sustainable environmental management in Africa. http://www.iaia.org/iaia09ghana/documents/cs/CS5_Ekpeyong_Environmental_Awareness_as_a_Panacea.pdf
- Etumnu, E.W., Emetumah, I. F., Uju, C.F.D., Anyanwu, K., Nkwocha, C.M. & Emeana, O. (2023). Stop the dehumanization: A perceptual study of Ozisa FM Akuko Siri programme on the fight against police brutality. *International Journal of Social Sciences and Management Research*, 9(6), 55-68. <https://doi.org/10.56201/ijssmr.v9.no6.2023.pg55.68>
- Flor, A. (2004) *Environmental communication*. Dilimon, Qwzon City: University of Philistines – Open University.
- Goodland, R. (1995) The concept of environmental sustainability. *Annual Review of Ecology and Systematics*, 26, 1-24.
- Homfeldt, G.H. & Reutlinger, C. (2008) Social development. *Social Work and Society International Online Journal*, 6(2), 12– 18
- Iheanacho, O. C, Okoli A.M., Jumbo, N. C., Akwari C.O., Etumnu, E.W. & Ikpo, G. A. (2022). Effectiveness of radio programme in bridging the illiteracy gap in the rural areas of Bayelsa State: A study of News in the languages of Radio Bayelsa. *American Journal of Humanities and Social Sciences Research*, 6 (1), 250-256.
- Lungu, K. (2007) *Report on survey and analysis of environmental issues in Zambia*. Lusaka: Mission Press.
- Mcquail, D. (1994) *Mass communication theory: An introduction*. London: Sage Publication.
- Midgley, J. (1995) *Social development: The developmental perspective in social welfare*. Thousand Oaks, CA: Sage Publication.
- Mogu, V.C. [2008]. *Paper presented at ACCE conference [unpublished work] at Abraka- Delta State*
- Morelli, J. (2011) Environmental sustainability: A definition for environmental professionals. *Journal of Environmental Sustainability*, 1(2), 1-9.
- Nwankwo N.K. (2023). From awareness to action: how mass communication can drive environmental changes in southeastern Nigeria. *Наука О Земле*, 276-182

- ObaborI, A.O., Ekpu, A.O.O. & Ojealaro, B.P. (2009) An appraisal of the concept of sustainable development under Nigerian law. *Journal of Human Ecology*, 28 (2), 135- 142.
- Opel, A., Johnston, J. & Wilk, R. (2010). Food, culture and the environment: Communicating about what we eat. *Environmental Communication: A Journal of Nature and Culture*, 4(3), 251-254.
- Organization for Economic Co-operation and Development (OECD) (1999) Environmental communication: Applying communication tools toward sustainable development. Working paper of the working party on development co-operation and environment. Available from: http://www.pumagua.unam.mx/assets/pdfs/publicaciones/recomendadas/applying_communication_tools_sust_dvt_oecd.pdf.
- Pillmann, W. (2000). *Environmental communication: systems analysis of environmentally related information flows as a basis for the popularization of the framework for sustainable development*. 14th Symposium Computer Science for Environmental Protection. Bonn, Germany: Metropolis.
- Ugboma, M. U. (2002). Environmental Information Provision in Nigeria: The Case Study of Oil Producing Communities. *African Journal of Library, Archives & Information Science* 12(2), 189-199.
- Uju, C.F.D & Etumnu, E.W. (2021). Mass media and promotion of consumers' rights in Imo State: A survey of residents in Owerri metropolis. *IMSU Journal of Communication Studies*, 5 (1), 40-45.