

Effectiveness of The Mass Media Campaigns Against Environmental Degradation in Nigeria (A Study of Enugu State)

Ikechukwu Nnadiukwu* and Sam Omeje

Department of Mass Communication, Institute of Management and Technology (IMT), Enugu state, Nigeria

Abstract

The study was aimed at ascertaining the effects of Mass Media campaigns against environmental degradation in Nigeria; Enugu State was used as a test case for the study. Survey research method was adopted for the study which covered the 17 Local Government Areas of the State. In all, 385 people were randomly sampled from a 2017 projected population 4,534,611 for the State. These were however, purposively, drawn from among those aged 18 and above. This was done to ensure that the questionnaire was given only to people mature enough to appreciate the essence of environment sustainable living. Existing literature related to the topic were reviewed. We framed the study on a combination of Mass Media theories; the Planed Behaviour, Value Change and Manifestation of Media Effect theories. It was discovered that the mass media campaigns are effective but not total in effect. Going by the discovery from our interactive sessions that the media stations in Enugu did not go beyond their news programmes in providing information on environment to the public, we recommend among others that they should mount standing programmes dedicated to the environment for adequate enlightenment and education of the public because of its importance to human welfare.

Keywords: Mass Media; Campaigns; Effectiveness; Environmental; Degradation

Introduction

Environmental degradation, a resultant effect of natural and human factors has been a source of worry to the world and Nigeria in particular. Its effect has been recurring hazardous incidents. No part of the world, no matter how developed or underdeveloped, is spared from these unfortunate happening. As part of efforts to maintain the environment, Nigeria is practically shut down for about three hours every last Saturday of every month just to clean her surroundings. Critics of the exercise have pointed out huge economic losses the nation encounter due to the exercise. In addition, the practice appears not to provide a lasting solution as our streets are still often dotted with refuses. Again the enforcement teams for the exercise have often falling short of the expectations of Nigerians as they sometimes go overboard arresting innocent members of the society for purposes of extorting money from them, thus constituting a problem for government rather than proffering solution.

Statutorily, the Federal Government has taken a number of steps to provide for solution to our environmental problems by establishing a ministry to take charge of all issues relating to environmental health in Nigeria. Also, an agency, the National Environmental Standards and Regulations Enforcement Agency (NESREA) has been put in place and charged with the responsibility to enforce environmental regulatory laws and policies in the country. Another body, the Nigeria Erosion and Watershed Management Project (NEWMAP) which is responsible for remediation and restoration of erosion and desertification ravaged sites in Nigeria was created in 2013 by Goodluck Jonathan's administration. Both NESREA and NEWMAP by the nature of their responsibilities have public enlightenment and education as key to success. At the Enugu State level, there is the Enugu State Waste Management Authority (ESWAMA) established in 2004 and charged with the responsibility of "effective and efficient collection, removal, treatment and safe disposal of all classes of solid waste" and also for "public awareness creation to enlighten the public on what to do to make our environment clean" among others.

This is where the mass media come into the issue in discourse. This study aims at assessing the effectiveness of the mass media as tool in the campaign against environmental degradation in Nigeria. Enugu State, in South East Nigeria, is used for the study. Enugu state is chosen for this study because she, like other states in Nigeria, has similar environmental issues.

Sources of Environmental Degradation

Environmental degradation is caused by both natural and human induced factors. An example of natural causes of environmental degradation is earthquake or land slide. The human induced factors include carbon dioxide (CO₂) emissions, nitrogen oxide (NO₂) emissions, deforestation, organic pollution of water and improper solid waste disposal, erection of buildings and other structures on water courses and noise pollution.

More elaborately, major causes of environmental degradation are urbanization, industrialization over-population, deforestation etc. A number of human activities are the main causes of environmental degradation. The activities have led to environmental changes that have become harmful to all living beings.

Air pollution arises from automobile, industrial machines, power generators and gas flaying from oil files. Also contributing to air pollution is noise from loud speakers and sundry sources. Air pollution introduces contaminants into the environment that can maim or even kill plant and animal species. Industry and automobiles are the primary

***Corresponding author:** Ikechukwu Nnadiukwu, Department of Mass Communication, Institute of Management and Technology (IMT), Enugu state, Nigeria, Tel: +234 803 486 9095; E-mail: iykennadiukwu@gmail.com

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and secondary contributors to air pollution worldwide. Air pollution is a major environmental risk to health and is estimated to cause approximately two million premature deaths annually [1].

Water pollution is another risk to environmental health. Contact with unsafe drinking water or bathing water can pose serious risk to human health. As a result, tap water is subject to treatment, and is required to meet detailed testing and purity standards to avoid water borne diseases outbreak. According to reports 40% of Nigeria water bodies are unfit for fishing or swimming.

Land degradation is a major environmental problem the world over. Land degradation occurs, majorly, when there is natural disaster like volcanic eruption of gases, earthquake littering liquids and solids from the depth of the earth. Onoh [2] add that land degrades as a result of crude oil leakage and dumping of toxic materials and chemicals on the land. Another source of land degradation is indiscriminate use of pesticides. Certain pesticides that are illegal in the United States of America are used in other countries on food which is then imported back to the country. Hattam agrees that about two million children in the US are at risk of neurological damage due to elevated lead levels. Deforestation is another agent of land degradation. Tropical forest constitutes seven percent of world land surface area, yet they contain over 50% of all plant and animal species in the world. It was however feared that by the year 2014 half of all tropical forest might be destroyed and lost due to deforestation. Other factors to land degradation include improper disposal of solid waste, arising main from domestic wastes. This has led to refuse dumps and garbage hips adorning the streets, especially in urban areas. This problem, primarily, denies resident use of some road walk ways, litters the rivers with garbage, block water canals and drainage channels thus adding to water scarcity and other related problems. Gully erosion, an advanced form of land degradation, especially in the South-East geopolitical zone is taking a huge toll on the environment. There are estimated 3,000 gullies with multiple fingers spreading throughout the rural and urban landscape. In Enugu State, Nigeria, gullies and areas exposed to erosion doubled in every thirty years, the total area affected by rill, sheet or gully erosion increased from about 1.33% in 1996 to 5.71% in 2014, etc. (NEWMAP, 2017). This study, however, focuses on control of the human induced factors which directly or indirectly affect or degrade our environment.

Problem Statement

Environmental degradation is a serious issue the world over these days. From the problems associated with ozone layer depletion to erosion and desertification menace, the Nigeria nation has a lot on hands in search for solutions. It has been argued that governance, good or bad, has direct corresponding bearing on environmental quality of any polity. For example, Hardin [3] states that there is an impending hazard of unchecked natural resource exploitation and environmental mismanagement by self-interested individuals and groups. He further notes that there is also a great danger for both the government and the environment that while economy and environment are now global in character, government functions only at national, state and local levels. This poses a global environmental problem as matters may not be attended to in a timely manner. Again, population growth especially in Africa generally threatens environmental quality, while environmental groups have a hard time getting foot in the door.

Midlarsky adds that in democratic dispensation, government often experience public policy inaction where environmental degradation is concerned. In essence, the environmental groups can fight each other to a standstill leaving a decision making vacuum instead of a direct

impact of government on the environment. Government on the other hand may be reluctant to alleviate environmental degradation because some groups are expected to benefit or lose from its policies more than others.

The adverse effects of environmental degradation are quite enormous. Soil erosion (both sheet and gully) arising from natural and human factors, has been reported to affect over 6,000 km² of land and about 3,400 km² are highly exposed. In some areas of southern Nigeria, farmland degradation has caused yield reductions of between 30% and 90%, and as much as 5% drag on agricultural GDP. Erosion has a devastating effect on many people's lives and destroys infrastructure essential for economic development and poverty alleviation. According to records, gully erosion contributes to ecological problems and damage estimated at over \$100 million annually. The soils in Southern Nigeria are highly susceptible to water erosion. Once a gully starts, it expands rapidly and is difficult to tame. The causes for gully formation differ by sites but largely human and includes improper road designs and construction; particularly inadequate provision of drainage, poor solid waste management also destructive and unsustainable land use practices. Our predicament is that Sub-Sahara Africa faces a crisis of unprecedented proportion.

Be that as it may, this research was focused on finding out the effectiveness of the mass media as means by which the environmental management, regulatory enforcement and remediation agencies interface with the public, is in achieving the desired objectives.

Significance of Study

This study will serve very useful information to the public, particularly those that would have reason to use the mass media to reach out to the people. This is because it will help such people in making decision based on rational grounds. Again findings in this research will add to existing knowledge on mass media and society. The study will serve as reference material to other researcher who may find its findings stepping stones on which to build further research works.

Objectives of the study

To ascertain whether the public in Enugu State make use of the mass media

To determine whether the mass media disseminate information on environmental degradation in Enugu State.

To find out the types of environmental problems existing in Enugu State.

To determine the effectiveness of mass media messages in the fight against environmental degradation in Enugu State.

Research questions

The nature of data generated to address the objectives of this study does not give room for such variances that would warrant hypotheses and tests to determine relativity levels among variables we therefore used the following relevant questions to guide the study.

Do the members of the public in Enugu State have access to the mass media?

Do the mass media in Enugu State inform the public on environmental degradation in the state?

What types of environmental problems exist in Enugu State?

Have the mass media contributed effectively in checking environmental degradation in Enugu State?

Literature Review

Inferences have been made about the effects of mass media messages on audience. This has been the case from the normative hypodermic needle theory or stimulus response theory, which tended to posit that mass media messages produce effects in direct correspondence to the intendment of the sender [4], to the more scientific 'Two Step Flow' and 'Minimal Effects' theories [5]. Then lately, the uses and gratifications model of effects which emerged in response to arguments to the effect that the audiences do selectively use mass media messages as they suit their individual needs and desires [6].

The essence of mobilizing the population in each country to appreciate the seriousness of environmental problems and to create in them awareness and appreciation of their specific role in environmental management cannot be over-emphasized. This certainly goes beyond the efforts beings made at the global level to find lasting solution to environmental problems. Indeed the world leaders have on three occasions met to discuss this global calamity, twice in Brazil in 1992 and 2012, and the last held in France in 2016, in addition to African Union meeting in Kenya in 2017.

Anayiwola [7] writes that within the African region, attention has been called to a number of major issues of environmental concern, and the need for action to save the environment from further destruction. No doubt, many pieces of writing have been done by environmental agencies, media, and group of individuals on the challenge of environmental degradation. There have been a lot of scholarly efforts towards environmental maintenance and sustainability.

As stated earlier in the background to this study, the environmental problems experienced in Nigeria are very diverse. They include soil degradation, rapid deforestation, urban air and water pollution, water, air and soil pollution from oil spills. Each of these has notable costs for both individuals and entire economic sectors due to their implications for industries and agricultural productivity. As a number of environmental problems stem from industrial endeavours, both their causes and effects are relevant to Nigeria's economy.

Nonetheless, the United Nations held a conference on environment and development in 1992 at which an action was initiated to combat environmental issues in Nigeria. This effort yielded positive result in the establishment of the Ministry of Environment in 1999 to ensure effective co-ordination of all environmental matters. In 2010, a former Minister on Environment reported that available records indicated that desertification and other environmental problems were on the increase in the country, maintaining that Nigeria loses about \$55.1 billion annually to environmental degradation.

Due to the environmental problems existing in Nigeria, Laws and Acts relating to environmental protection were made. They include oil and navigable water decree of 1968, the mineral act of 1969, 1973, 1984, Chad basin development act of 1973, and associated gas injection act of 1969.

Considering the threats and the extent of degradation to which the Nigerian environment is subjected, substantial resources are acquired for control, monitoring and remediation in the sector. With determination from the country's leaders and political support, the World Bank has come in with assistance through the US\$ 500 million IDA – financed Nigeria Erosion and Watershed Management Project

(NEWMAP) and subsequently mobilized a strong coalition at national and international levels to tackle and reduce soil erosion on a war footing. The project became effective in 2013 and has received \$ 3.96 million from the Global Environmental Facility and \$ 4.63 million from the Special Climate Change Fund.

NEWMAP is warehoused under the Federal Ministry of Environment, and coordinated at the Federal by the Federal Project Management Unit. The States equally have their States Management Units under the State's Ministries of environment. NEWMAP has four components: Erosion and Watershed Management Investments, Erosion and Watershed Management Institutions and Information Services, Climate Change Agenda Support and Project Management.

The late former President of Nigeria, Alhaji Yar' adua, on World's Environmental day in 2009 remarked that Environmental degradation had been worsened by the vagaries of Climate Change. He pointed out that some African leaders believed that gully erosion has over the years contributed to loss of lives, properties and displacement of population.

Adinna [8] opined that the effects of pollutants on the environment differ from place to place, adding that environmental pollution has led to poor health, economic deprivation, physical unwholesomeness and disrupting of social harmony.

Speth [9] remarked that humanity is faced with environmental problems which had grown to become what the Inter Action Council (IAC) has described as: an ecological crisis of many dimensions, characterized by a depletion of the ozone layer; a substantial accumulation of greenhouse gases, inducing Climate Change, accelerating degradation of air, land, water quality etc. and house hold wastes depletion of the earth's natural resources base and loss of biodiversity.

Theoretical Framework

In examining the effectiveness of the mass media campaigns against environmental degradation in Nigeria, we adopted a combination of the theories of Planned Behaviour, Value Change and Manifestation of Media Effects as our framework of study. Our analysis will thus be based on communication and the effects. This framework is borrowed from earlier studies by Ajzen and Fishbein, Folarin, and Potter respectively. The theories were developed to focus on the communication process as the central aspect of our behavioural change and attitude to media messages.

The theory of planned behaviour specifies the relationship between beliefs and attitudes. Propounded by Ajzen and Fishbein [10], the theory is built on the assumption that the individual behavioural intentions or tendencies are directly related to their attitudes. Weaver argues that term communication refers to a body of basic concepts underlying several contemporary approaches to human behaviour including the interaction of nations States.

Added to this view, Folarin [6] in his Value Change theory employs the technique of comparative feedback to induce attitudinal and behavioural change. The theory holds that rather than simply inform people about the harmful or beneficial effects of certain kinds of behaviour, methods based on value change challenge the people to test their own value against others'. This, the audience believed or presumed to be socially more acceptable. The postulation of this theory is that since values underlie attitudes which in turn underlie behaviour is assumed that a change in value will lead to corresponding changes in attitude and behaviour. More importantly, the target person or

group of people has clear information on the ranking of his or their present value. This is where the functions of the mass media in terms of information and education are imperative.

In a broad sense, Boafu [11] states that the term communication involves not only oral speech, but all human behaviour communicate. It may equally be used with reference to the ways in which the physical environment excites signals in the central nerves system together with the ways in which the human being operates upon the physical environment.

This in a way corresponds with Potter's [12] view that many researchers have pointed that some media effects are not readily observable. It is assumed that media exposure is always affecting us whether we realize it or not. It is on this basis that the profounder of the theory referred to it as a baseline effect which appeared subtle but relatively constant. The scholar further assumed that media exposure also causes some short term fluctuations such as when the issue affecting the public is realizable or not (Figure 1). Represented in straight lines, one expert in media literacy uses the term to demonstrate this media effects thus: the diagram shows that the receptor of environmental information in the form of media messages, the data in those messages are processed so that the decision-centre of observable effects draw on its memories and its value can as well take a decision which is communicated to effectors. This in turn translates the communicated decisions into actions. The theories used in this framework are interrelated as they are used to analyze our behavioural attitudes and value change system to corresponding media effects. They should be regarded for what they are: active participants in communication process who come into it with their needs, expectations or purpose, selectively exposing themselves to, selectively perceiving the communication message and selectively remembering them when they want to use them in making decisions or taking actions.

As the Individual Differences theory, on the other hand would suggest, media users with their different characteristics are affected in different ways by the mass media. It presumes that some types of users are more susceptible to some types of media messages than others are. Another theory that comes close to this view is Diffusion of Innovation which specifies that different types of people will adopt new ideas at different times. It suggests that there are five types of people who have different levels of willingness to accept new ideas from the media. These groups people consist of innovators, early adopters, early majority, late majority and laggards. It emphasizes that the early majority includes people who make careful, deliberate choices after frequents interaction with their peers and with their opinion leaders. The people seldom act

as opinion leaders; however they tend to adopt an innovation when it has reached a critical mass of the general population.

And going by the evidence of researchers in the 1970s of Agenda-Setting theory, the investigators found the main effect of media as telling people not what to think, but what to think about. Consequently, the theory revealed that the amount of attention given to an issue in the media affects the level of importance the public assign to that issue.

The effort we make here is to determine the effectiveness of the ass media in the fight against environmental degradation in Nigeria and how it has affected our everyday lives. Obviously, we need to look at our environment and see what the mass media do or have been doing in order to support the government at all levels, such as the collaboration with the World Bank to provide assistance to forestall the ugly environmental situation Nigeria, and Enugu State in particular.

Olayiwola suggests that for a successful proactive policy to take place, people must be aware about what we are exposing their communities to. However such freedom of access to environmental information, communication and data would help to identify early signs of environmental or human harm and to provide the masses with a full picture of the implications for environmental pollution. Note has, in any case, been made that media influence on attitude is greater for key decision makers than it is for the general public.

Indeed, communication is a very important factor in every human endeavour as it is the activity that helps us express our ideas, feelings and information to others.

Method

Owing to the nature of this study, requiring enquiry into the views of large number of individuals on their reaction to mass media messages, survey research method was adopted for the study. The study was designed such that sample was drawn from the 17 Local Government areas of the State using the random sampling technique. Two towns were selected from each the LGA from which we drew the sample to represent the LGA. The towns used were the ones hosting the LGA headquarters, purposively selected, and one other picked by ballot. The population of the state was projected from the 2006 census figure of 3,267,837 to 2017 based on 2.8% growth rate which gave 4,534,611 people.

A sample Size of 385 was decided using the Australia Calculator for sample size determination. The 385 respondents were drawn from the 17 LGAs in the state with respect to numerical strength the population of the LGAs according to the 2006 census exercise.

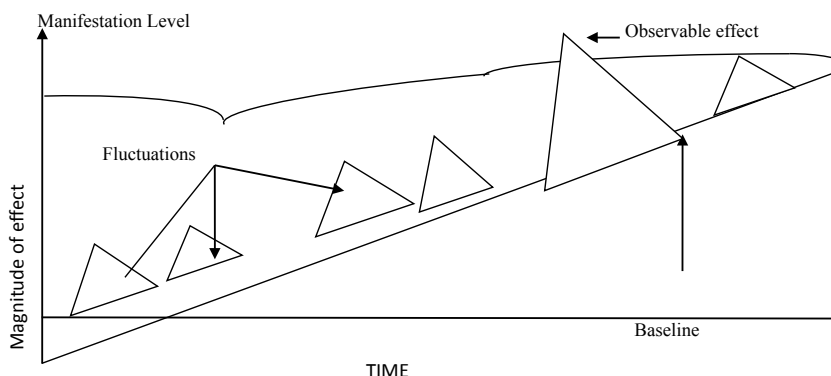


Figure 1: The receptor of environmental information in the form of media messages.

Thus the sample was distributed to the LGAs as follows Table 1.

Towns and areas of the Enugu urban LGAs where copies the questionnaire were distributed in the various LGAs are the following Table 2.

LGA	POPULATION BY 2006 CENSUS	NUMBER OF QUETSTIONNAIRE ISSUED
Nsukka	309,448	30
Enugu East	277,119	30
Igbo-Eze North	258,829	30
Enugu North	242,140	30
Udi	238,306	30
Igbo-Etiti	208,333	30
Aninri	136,221	19
Agwu	197,292	19
Enugu South	198,032	19
Ezeagu	170,603	19
Igbo-Eze South	147,361	19
Isi-Uzo	148,597	19
Nkanu East	153,591	19
Nkanu West	147,385	19
Oji River	128,741	18
Udenu	178,687	19
Uzo Uwani	127,150	16
Total	3,267,837 (4,534,611)	385

Table 1: Strength the population of the LGAs according to the 2006 census exercise.

LGA	TOWNS SAMPLED
Aninri	Ndiabor Mpu
Awgu	Awgu Mgbowo
Enugu East	Nike
Enugu North	ASATA AREA
Enugu South	Awkunanaw
Ezeagu	Umumba Iwollo
Igbo-Etiti	Ukehe Aku
Igbo-Eze North	Ogwurute Ugbaike
Igbo-Eze South	Ibagwa-Aka Alor-Agu
Isi-Uzo	Ikem Neke
Nkanu East	Amagunze Nkerefi
Nkanu West	Agbani Amuri
Nsukka	Nsukka Edem-Ani
Oji River	Inyi Awlaw
Uzo-Uwani	Umulokpa Nimbo
Udenu	Obollo-Afor Orba
Udi	Udi Abor

Table 2: LGAs and Towns sampled from each.

The sample was purposively drawn from among those aged between 18 and above. This was done to ensure that only those that would have exposure to the mass media and understand the essence of the efforts towards environmental health are issued the questionnaire instrument for the study.

The questionnaire was structured to elicit answers to the questions posed in the research questions section of this study. In distributing the questionnaire copies to the respondents, we first shared the 385 sample size of the study to the 17 local governments making up Enugu State according their respective population density as shown above. This was done to ensure inclusiveness of all parts of the state in the study. Secondly, we purposively picked the Headquarters of the LGAs and another town, selected through ballot, to represent the LGAs. This was done to also ensure that every town in the LGAs had a chance of being selected for study.

In the actual distribution of the questionnaire among the respondents, we made use of selected assistants who were earlier given orientation and briefing on how to distribute it. They were specifically instructed not to issue the questionnaire to people below the age of 18 and non literate people. To ensure adequate representativeness of the towns in the sample, the questionnaire was distributed in the towns taking cognizance of the different cluster areas. Also, among the cluster areas the distribution was done at the interval of 3 to 5 houses apart depending on population and number of copies for the area.

Data analysis

A total of 385 copies of questionnaire were distributed among the 17 LGAs in as earlier indicated. Three hundred and seventy eight (378) copies were duly completed and returned while seven copies were lost. This represented over 80% questionnaire return rate.

Of the 378 respondents, 195 (52%) were male while 183 (48%) were female. Eighty five (22%) of the respondents were aged 18-30, 147 (39%) were 31-50, 107 (28.3%) were 51-70, 39 (10.4%) were between 71-and above.

For the educational qualifications of the respondents, 50 (13.2%) were holders of the SSCE, 163 (43.4%) were educated up to HND/BSc/BA, 143 (37.8%) were MA/MSc holders while 22 (6%) read up to PhD.

They were of different occupational backgrounds. Two hundred and twelve (56.1%) were public/civil servants, 107 (28.3%) were self employed while 59 (15.6%) were unemployed.

The respondents were also of varied religious backgrounds. Two hundred and forty (63.4%) were Christians, 22 (5.8%) were Muslims, 81 (21.4%) were Tradionalists while 35 (9.3%) were Free thinkers.

They were equally of different level of economic wellbeing. One hundred and thirty one (34.7%) earn between 15, 000 to 30,000 Naira per alum, 123 (32.5%) 31,000–100,000, 96 (25.3%) 101,000–1,000,000 while 28 (7.4%) earn 1 million Naira and above per annum.

On their access to the media, all the respondents affirmed they have access to the mass media. With regard to which media they use often, 236 (62.4%) listed Radio first, 40 (10.6%) Newspaper, 12 (3.2%) Magazine, 42 (11.1%) Television and 40 (10.6%) listed Social Media first, while 8 (2.1%) did not answer correctly as they just wrote all or ticked at the end of the list (Figure 2).

For the question which sought to find out whether they were aware of environmental problems in the world and Enugu State in particular, all respondent answered in the affirmative. On the follow

up question which probed further to find out the sources from which they got to know about it, 123 (32.5%) indicated they got to know about environmental problem from the electronic media (Radio and TV), 50 (13.2%) indicated it was from print media (Newspaper and Magazine etc.), 90 (23.8%) from the Social Media, 17 (4.5%) from the Internet and 98 (26%) showed it was from Inter-personal Communication (Figure 3).

For the question: How often have you listened, read or viewed messages on environmental degradation? 250 (66.1%) ticked Daily, 113 (29.9%) ticked once a week, while 15 (4%) ticked Monthly (Figure 4).

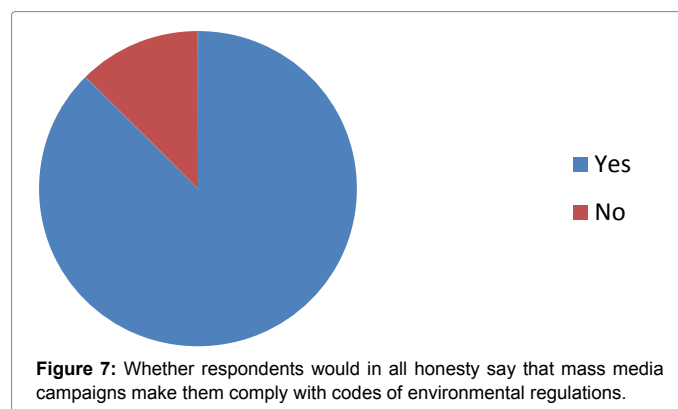
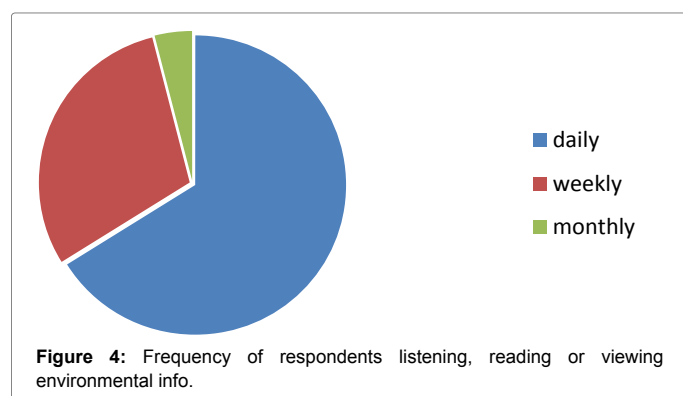
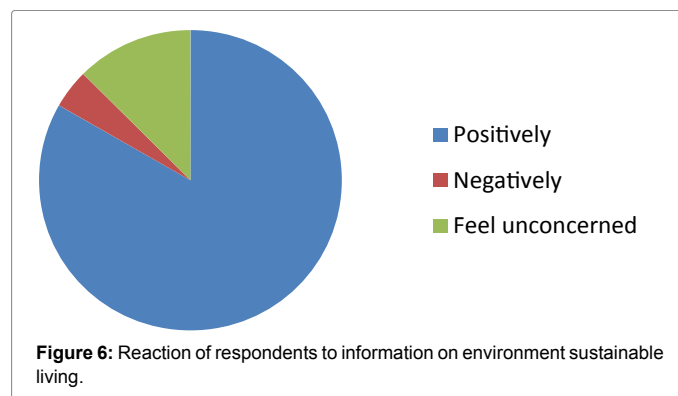
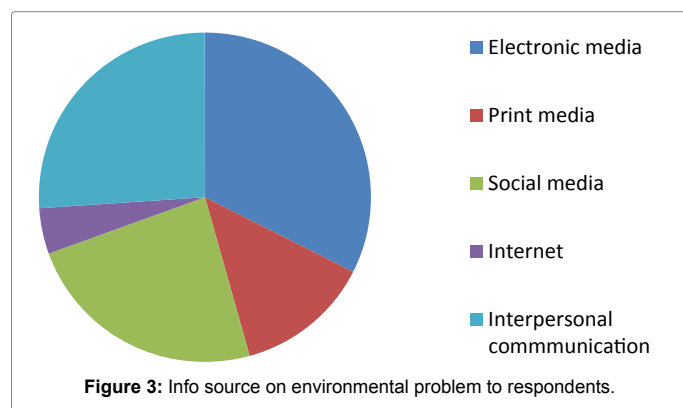
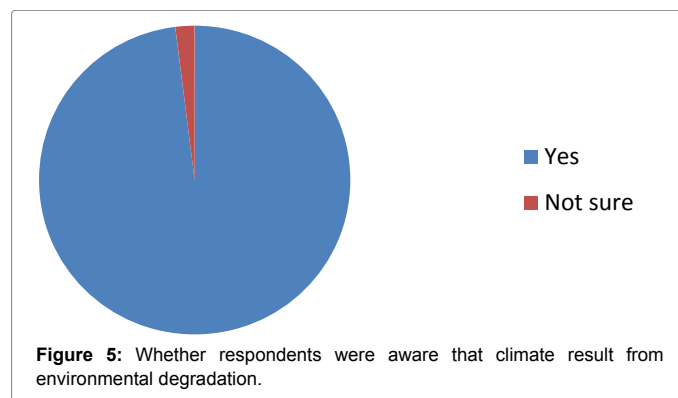
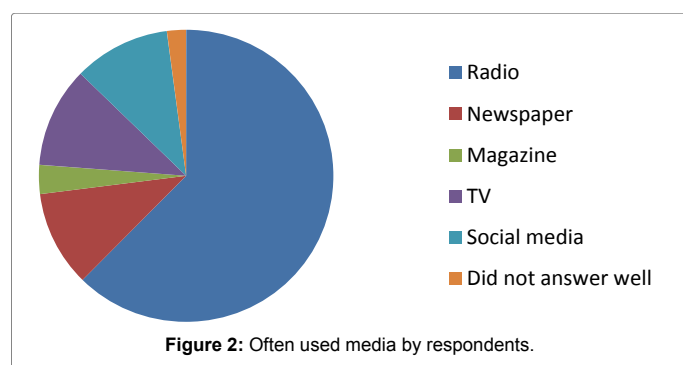
On whether they were aware that Climate Change and its related consequences are resultant effects of environmental degradation, 369 (98%) affirmed they know, 9 (2%) indicated they were not sure (Figure 5).

On a question which demanded to know how they react to information on environmental sustainable living, 315 (83.3%) indicated

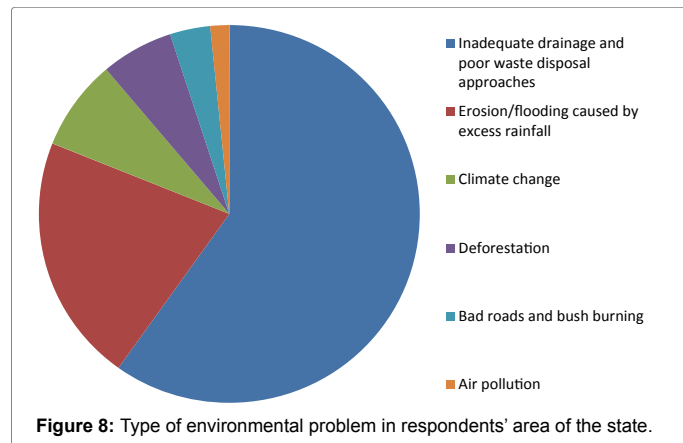
they react positively, 16 (4.2%) negatively while 47 (12.5%) indicated they do feel unconcerned (Figure 6).

For the question which further probed: In all honesty, would you say that the Mass Media campaigns make you comply with the codes of environmental regulations? Three hundred and thirty one (87.5%) answered Yes, while 47 (12.5%) answered No (Figure 7).

In analyzing the open-ended question which sought to find out the types of environmental problems in the different LGAs in the State by requesting the respondents to state what they considered a major environmental problem in their area, we grouped the responses into six subheads according to their relativity. This was done to ease of analysis going by the diverse response. Thus 225 (59.5%) named inadequate drainage system and poor waste disposal approaches as major vectors to environmental problem in their area. 80 (21.1%) named Erosion/Flooding caused by excess rainfall as major problem in their area, 29



(7.7%) named Climate Change, 25 (6.6%) named Deforestation, 13 (3.4%) Bad roads and Bush burning, and 6 (1.6%) named Air pollution (Figure 8).



Relating data collected to the research questions

With regard to question number 1, all the respondents indicated they have access to the mass media. They further indicated that they used the different mass media forms for information on the environmental problems in the state.

For question number 2, all the respondents answered a question which sought to find out whether they were aware of environmental problems in the state in the affirmative. On a follow up question which sought to find out their source(s) of information on environmental problems in Enugu state in particular and in the world, the majority indicated the different forms of mass media as their source. This indicated that the mass media informed the Enugu State public on environmental degradation in the state. It is, however, important to point out that 26% of the respondents indicated they got the information through interpersonal communication. Different types of environmental problems were discovered to exist in the state ranging from inadequate drainage systems and poor waste disposal approaches to Air pollution. This answered question number 3.

Question number 4 demands to know whether the mass media have contributed effectively in checking the environmental problems in Enugu State. Eighty three point three per cent (83.3%) of the respondents affirmed that they responded positively to campaign messages on environmental sustainable living. Eighty seven per cent (87%) of the respondents also answered yes to a question which sought to confirm whether they would in all honesty say that the media campaigns made them comply with the codes of environmental regulation. Only 12.5% of them answered no. This indicated that the media campaigns impacted highly on the people.

Result and Discussion

Mass media campaigns against environmental degradation, in Enugu State, were found to be effective, though not total. This was supported by the fact that 83.3% of those sampled in this study indicated that they react positively to such campaign messages, while only 16.7% indicated they react negatively or feel unconcerned. This was further buttressed by 87.6%, including some of those who indicated that they react negatively, affirming that mass media messages make them comply with codes of environmental regulation. Twelve-point-seven per cent (12.5%) indicated the messages do not make them comply.

A close look at the data collected showed that more of the female than the male indicated they react positively. Those that indicated they feel unconcerned are more among the male.

It was also observed that almost all the female answered yes to the question which sought to find out whether the campaign messages make them comply with codes of environmental regulation. A number of the male answered no.

The 16.7% that indicated they react negatively or feel unconcerned to information on environmental sustainable living were mostly among those aged 18-30. This suggests that the more people become mature in the society, the more they become concerned about environmental protection. In the other way round that may have revealed that the younger ones are more careless about environmental protection.

No significant effect of income level on effectiveness of mass media campaigns against environmental degradation in the State was found.

Varied forms of environmental problems were discovered to exist in the State. It was observed that the electronic media (Radio and TV) were sources of information on environment for 32.5% of the respondents, 26% interpersonal communication, 23.8% social media while only 13.2% named print media (Newspaper and Magazine etc.) as source of their information. This situation is attributable to the fact that the majority of the respondents were drawn from rural areas where newspaper, magazine and other print communication forms are not usually available.

It is important to note here that from our interactive sessions with the major mass media outfits in Enugu State – the NTA, Federal Radio Corporation of Nigeria (FRCN), the Enugu State Broadcasting Service (ESBS) and Dream FM (There was no functional newspaper or magazine in Enugu as at time of the study) as well as environmental agencies, we gathered that none of the broadcast outfits had a standing programme on the issue of environment. According to our informants at the stations, they depended on hand outs and press releases from environmental agencies such as the NESREA, NEWMAP and ESWAMA for environment related reportage, mainly in their news programmes.

Conclusion

Based on the revelations from data generated in the course of this study we conclude that the public in Enugu State are aware of environmental problems in the state and that the mass media served as their sources of information on the issues. Different types of environmental problems exist in the state. The mass media campaigns against environmental degradation in the state have been effective in the fight against environmental degradation in the state. This was revealed by 83.3% of the respondents affirming that they react to the messages of the campaign positively while 87.5% of them further affirmed that the media campaigns make them comply with codes of environmental regulation.

Recommendations

Our environment provides us with life support mechanism and if we fail to protect it, we shall, both in the present and future, be subjected to unhealthy and unsustainable living. We therefore recommend that:

The broadcast station should come up with special programmes dedicated to provision of information to their audiences on environment sustainable living. This is necessary particularly at the face of the challenges posed by climate change and efforts to stem it.

Government at all level should intensify efforts to support the agencies on environmental regulations to ensure they perform the functions without hindrance.

Oral media and interpersonal communications should be appropriated and harnessed as channels for dissemination of information on healthy practices aimed at environmental protection.

For long term plan for maintenance of healthy environment, there should be encouraged the creation of programmes and curriculum for teaching environmental sustaining living in our tertiary institutions.

Finally, we recommend that further studies be carried out on this same subject, particularly in other States of the federation and elsewhere to either support or disprove our findings and also make the study nationwide/worldwide.

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