

## **RADIO MEDIA UTILIZATION FOR ENVIRONMENTAL AWARENESS PROTECTION BY EXTENSION AGENTS IN NORTHERN NIGERIA**

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### **Abstract**

*The study investigated Radio media utilization for environmental awareness protection by extension agents in Northern Nigeria. The research adopted survey design. The designed structured questionnaire was used as an instrument and SPSS statistics software was used for data processing. Percentage and mean were used to describe and summarized the data. The findings of the study showed that: The Flare Gas and oil approach, strategy for preventing pollution and climate change, Deforestation, flood, drought tackling techniques, desertification, soil degradation, erosion etc. as the impact of Radio Media in Disseminating Awareness toward Environmental Protection, Improvement and Climate change. The effects of Environmental Protection, Improvement and global cooling are: Straightforwardly cause disasters deeply affecting human lives and destroys property, Leading hunger and food insecurity protest, violence, crime, social disorder etc. and the listeners reaction of radio media programmes are: Regular listening and pay attention during listening, Understanding, adopting and practicing the lesson gains, Disseminating information to others etc. the study recommends the followings: The government should collaborate with non-governmental organizations, philanthropist and stakeholders to mount a strategic campaign, community mobilization and awareness through various media platforms and physical orientations to educate the general public, government should provide enough and available sanitation materials and mobilize the environmental sanitation enforcement officers, the radio managers should look for more methods and strategies that attract, encourage and motivate the listener's attention.*

**Keywords:** *Radio Media, Environmental Protection & Improvement, Climate Change and Extension Agent.*

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### **Introduction**

Environment plays a vital role in the sustainable livelihood of individuals and the society in general in any nation, it can be interpreting as a surrounding or conditions in which a person, animal or plant lives or operates. It also used to describe, in the aggregate, all the external forces, influences and conditions, which affect the life, nature behaviour and the growth, development and maturity of living organisms (Douglas and Holland). The sum total of all conditions which surround man at a given point in space and time, the entire range of external

influence acting on an organism, both the physical and biological and other organisms, i.e. forces of nature surrounding an individual (Encyclopedia Britannica). In general, the surroundings or settings in which a human-beings, animal or plants lives or operates it as set of conditions of a living being the entire natural forces which provide setting for development and growth as well as danger and damage. Environment is defined as a holistic view of the world as its functions at any point of time, which a multitude of spatial elemental and socio-economic systems distinguished by equality and attributes of space and mode of behaviour of biotic and a biotic forms (Dikshit, 1984).

Mass media is any material, objects, instruments or system which serves to communicate information including letters, pamphlets, and other written and printed materials, all types of cinema films, radio, television and video system. Radio is democratic in nature it reaches a large number of people, radio is portable, people can listen to radio anytime, anywhere, it does not need expensive and large infrastructures like other medias. It remains the most used mass-communication medium. It has widest geographical and greatest audiences compared with the internet, television and newspapers; it doesn't run out of air time or data. Radio is free always and forever, it reaches rich and poor, educated, uneducated, young, old, every tribe, every region, each gender and race, radio informs and educates.

It is the most effective way of delivering information, radio programmes are broadcasted in local languages-whether it's nutrition information for mother, medical update for health workers, conservation farming for farmers, harvesting, hunger eradication or school lesson for children and therefore it can be accessed and used by almost everyone, this convenience makes radio the most extensive and widely used tool among other mass communication tools, radio still plays a vital role in today's world, radio is more than just announcers, news and songs, radio is about companionship and the emotional connection with the listener. Radio broadcasts provide real-time information, and some that broadcast 24 hours a day, can provide the most recent updates to listeners, radio has the ability to reach across borders and can become a valuable source of information where reliable news is scarce, radio has proved its worth in times of emergency such as when access to the mobile network is down as a result of an overload, or phone lines are cut.

For many decades, radio is life-saving; broadcasters have been the primary source of critical information to the public in the event of disasters such as tornadoes, hurricanes, floods, snowstorms, earthquakes, tsunamis, and even terrorist attacks and industrial catastrophes, due to their wide coverage (Sanjay, 2013). Even when there is no electricity, most radio sets can be battery operated or has the ability to be hand-cranked. Radio is not just important for reception of emergency announcement and communications during disasters; it provides an outlet for regular community messaging and activities such as local sports, community events, special events, local business advertising, etc.

More importantly, radio remains one of the most user-friendly media; it is live, accessible, and continues to thrive because of its simplicity. Just wake up, get ready, step into the car, and turn it on. Propaganda is another function of the radio that can be considered within the scope the news function. Radio is one of the most important inventions that effected and changed the social life substantially, it drew the attention of large masses in a short time, (Bay, 2007). In general, functions of radio are classified in five groups as: news information, education, advertisement, entertainment and persuasion and actuation. (Ozturk, 2003).

In Nigeria, radio is considered as an effective tool to disseminate general information among others and it is one of the most powerful mass media for broadcasting information quickly. It is a powerful communication medium, particularly in Nigeria; people have to depend on radio to meet their needs for information. Radio can reach large audience at the same time. In terms of cost, it is an extremely economical medium as compared to other extension media and methods involving individual and group contacts. Radio is considered as a credible source of information and is taken as authentic, trustworthy and prestigious medium of communication". Radio influences the adoption of agricultural technology as farmers. A credible source of information stimulates farmers to adopt the recommended package which is suitable to local community condition. One of the special features of all Nigerian radio is engagement in disseminating scientific information to needy people living mostly in poorly accessible villages. Attitudinal changes toward community environmental protection, improvement required, proper dissemination of information is very crucial for the growth and development nation. Attitudinal changes toward environmental protection, improvement and climate change in community knowledge could thus be achieved with effective dissemination of information through radio media.

### **Environmental Protection, Improvement and Climate Change**

Nigeria endowed with unique phytogeographical and agro-ecological diversity comprising of a wide variety of agro climatic zones and plenty of plant and animal species. The biodiversity is found in forest, grasslands, mountains, water lands, deserts and marine ecosystem. With the emphasis on economic and development, there is increasing expansion of agriculture, reckless exploitation of forest and mineral wealth as well as the development of projects in biodiversity areas. This has led to deforestation of habitats. Consequently, there has been extinction of plants, animal and microbiological species and loss of genetic resources (Steve and Woodwards, 2000).

Deforestation refers to the clearing of trees and natural vegetation. This is done to make way for industries, towns, roads, highways, dams, and other infrastructure. Deforestation has become a significant challenge, particularly in rural areas. The term refers to a gradual reduction in forest cover, especially in virgin forests. This reduction is often caused by agricultural activities and the adverse effects of resource exploitation, which degrade both the quality and quantity of vegetation. The major driver of deforestation is the growing demand for land to support arable farming. Population pressure and declining soil fertility often force farmers to seek new land. Industrial expansion and urban development also intensify the problem by encroaching on forest areas.

This point has been succinctly made by Salau, (1992) who posits that about 5% of forests in Nigeria is lost yearly through the above demands. Nigeria presently, is facing a lot of environmental problems which do only pose a big threat to the present generation, but generations of Nigerians yet un-born. The problems results from the quest to industrialize; grow economically and be ranked among the leagues of developed countries. To overcome or minimize the threats posed by this development there is the urgent need for adopting market-based approaches for the protection of environment. The approaches will point to the consumers and industries about the cost of using natural resources on the environment. These costs are reflected in the prices for paid goods and services so that industries and ultimately the consumers are guided by them to reduce air and water pollution in this era of globalization. The market-based instruments (MBIs) approaches should be vigorously pursued by Nigerian authorities. MBIs are of two types; quantity based and price based. They

are in the form of environmental taxes that include pollution charges (emission tax/pollution taxes) marketable permits, depositors fund system, input taxes/product charges, differential tax rates and user administrative charges and subsidies for pollution abatement equipment for air and water resources (Jhingan, 2003).

Aside this, good regulatory policies can also help to reduce environmental degradation and so ensure a realistic environmental and sustainable development. Regulators have to make decisions regarding price, quantity and technology. In making decisions, they have to choose between the quantity and the price of pollution or resource use or technologies. The regulating authority has also to decide whether policies should target the environmental problem directly or indirectly. It should lay down technical standards and regulations and charges on air, water and land pollutants. Regulators should be impartial in applying environmental standards to both the public or private sector polluters and resources users (Bill, 1990).

Like regulatory policies, economic incentives relate to price, quantity and technology. Incentives are usually in the form of variable fees to resources users for the quantity of pollutants in air, water and land use. They are to be given rebates if less wastes or pollution is generated than the emission standard lay down. One other good way through which environmental and sustainable development can be attained in Nigeria in this era is trade policy in relation to environment. This as a matter of fact has two implications first for domestic policy reforms and secondly for international trade policy. Domestic trade policy emphasizes on the establishment of less polluting industries away from the cities and the use of environmental friendly processes for polluting industries by adopting cleaner Technologies. As regards quality, controversy has-been going on as to whether liberalized trade, one of the brain child of globalization causes environmental degradation. The controversy leads to the conclusion that overall trade liberalization is likely to produce negative environmental externalities. Cost effective policies that optimize externalities should be adapted. Environmental degradation from free trade should be reduced by strict domestic policy measures based on the polluter pay principle. (David and Edward, 2000).

There are many international conventions and agreements on environmental protection and conservation which every country is expected to follow. They include the Montreal Protocol regarding the phasing out of ozone depleting chemicals; The Basel convention which relates to the control of Trans- boundary movement and disposal of hazardous wastes. Among others, there is the Rio declaration on environment and development and the Agenda 21 which is the operational programme for sustainable development. Not all countries are signatories to the various agreements and conventions. Nigeria should be a signatory to these global environmental efforts. Lastly, public awareness and participation are highly effective in improving environmental conditions. Conducting formal and informal education programmes relating to environmental management and awareness can go a long way in controlling environmental degradation and keeping the environment clean. For instance, the scheme of eco-labeling of products helps consumers identify products that are environment friendly. In Japan, there are consumer cooperatives that popularize green products which are recycle able, biodegradable, rechargeable, ozone friendly and unleaded. As a further step, firms, industries and other establishment in Nigeria has to disclose in their annual report the extent to which they are adopting environmental friendly measures (Giddens, 2006). Nigeria should follow this path if realistic environmental and sustainable development is to be achieved in this era of globalization.



## **Statement of the problem**

Environment is one of the cornerstone of human civilization and plays some vital roles in the functioning of society, economic and sustainable development around the world, it is also one of natural endowment from God, climate change effecting the global environment sustainability in various ways, such as higher temperatures, earth heats up, hunger, malnutrition, mass migration and insecurity, food insecurity, health problems, desertification. Therefore, proper utilization of radio media is of paramount importance strategies to mitigate the climate changes. Unfortunately, the issues of climate change for sustainable development are still lingering issues in Nigeria. this paper furnished and evaluated the utilization of radio media in disseminating awareness toward environmental protection, improvement and climate change by Extension Agent in Northern Nigeria and suggestion as to the way forward to tackle the challenges were proffered.

## **Research Methodology**

Research work was carried out in Northern Nigeria. The research adopted survey design. The data was collected from questionnaire.

The population of the study comprised the total population of the Nigerian North west zone numbered 58,539,886 (NBS, 2023). The data was collected from a sample of 384 (Research Advisor, 2006). using Random Proportionate Sampling Procedure. The designed structured questionnaire used as an instrument and SPSS statistics software version 21 was used for data processing. Percentage and mean were used to describe and summarized the data.

## **Objectives of the Study**

The aim of the study is to assess radio media utilization for environmental awareness protection by extension agents in Northern Nigeria. The specific objectives: To

Ascertain the impact of Radio Media in Disseminating Awareness towards environmental protection by Extension Agent in Northern Nigeria

Determine the effects of Environmental Protection, Improvement and global cooling in Northern Nigeria

Examine the listeners reaction of radio media programmes in disseminating awareness toward Environmental Protection, Improvement and Climate Change in Northern Nigeria.

## **Data Presentations and Data Analysis**

Research Question 1: What is the impact of Radio Media in Disseminating Awareness toward Environmental Protection, Improvement and Climate change by Extension Agent in Northern Nigeria?

### **The impact of Radio Media in Disseminating Awareness towards environmental protection by Extension Agent in Northern Nigeria**

Impact	Mean	SD
The Flare Gas and oil approach	2.75	.83
Strategy for preventing air pollution and climate change	2.61	.94
Minishing Agricultural land and soil gradation method, Deforestation, flood, drought tackling techniques desertification, soil degradation, erosion, corrosion and rust	2.96	.98
Skill on the flaring of natural gas; the protection of the environment; the prevention of waste and pollution of natural resources; and the creation of capture social and economic benefits from gas flare	3.12	.94
Promote Climate Resilience and Environmental Sustainability method	2.63	.82
TOTAL	2.77	.90

The above table presents the result of the impact of Radio Media in Disseminating Awareness towards environmental protection by Extension Agent in Northern Nigeria. The table revealed that flare gas and oil approach agreed with mean score of 2.75 (.83 standard deviation). 2.61 mean score (.94 standard deviation) agreed that the Strategy for preventing air pollution and climate change, when the earth's temperature rises, not only does our air get dirty, but there are also more allergenic air pollutants released into the environment causing dangerous air-borne diseases. 2.69 mean score (.98 standard deviation) agreed that minishing Agricultural land and soil gradation method, deforestation, flood, drought, desertification, soil degradation, erosion, corrosion and rust tackling techniques. 3.12 means score (.94 standard deviation) agreed that skill on the flaring of natural gas; the protection of the environment; the prevention of waste and pollution of natural resources; and the creation of social and economic benefits from gas flare capture. 2.63 means score (.82 standard deviation) agreed that promote Climate Resilience and Environmental Sustainability method.

Research Question 2: What is effect of Environmental Protection, Improvement and global cooling in Northern Nigeria?

### **The effects of Environmental Protection, Improvement and global cooling in Northern Nigeria table**

Effects	Mean	SD
Straightforwardly cause disasters deeply affecting human lives and destroys property	2.64	.70
Root cause to some inevitable result to natural disaster such as continental drifts, volcanoes, changes in rainfall patterns, change in wind patterns, increase in temperature, flood, drought, desertification amongst others.	2.59	.68
Leading hunger and food insecurity i.e. diminishing agricultural productivity and soil degradation	2.88	.80
Devastate social amenities i.e. houses, roads etc	2.76	.78
Cause insecurity, protest, violence, crime, social disorder	3.37	.76
TOTAL	2.85	.74

The above table indicates the consequence of the effect of environmental protection, improvement and global cooling in Northern Nigeria: It also discovered that responses agreed with mean score 2.64 (.70 standard deviation) straightforwardly cause disasters deeply affecting human lives and destroys property. 2.59 .68 mean score (.68 standard deviation) also agreed that root cause to some inevitable result to natural disaster such as continental

drifts, volcanoes, changes in rainfall patterns, change in wind patterns, increase in temperature, flood, drought, desertification amongst others. 2.88 mean score (.80 standard deviation) agreed that leading hunger and food insecurity i.e. diminishing agricultural productivity and soil degradation. 2.76 mean score (.78 standard deviation) agreed with devastate social amenities i.e. houses, roads etc. 3.57 mean score (.76 standard deviation) agreed that it can cause insecurity, protest, violence, crime, social disorder.

Research Question 3: What are the listeners' reaction of radio media programmes in disseminating awareness toward Environmental Protection, Improvement and Climate Change in Northern Nigeria?

**The listeners' reaction of radio media in disseminating awareness toward Environmental Protection, Improvement and Climate Change in Northern Nigeria table**

Awareness	Mean	SD
Regular listening the programmes	2.16	.43
Pay attention during listening	2.61	.93
Understanding, adopting and practicing the lesson gains	2.60	.93
Disseminating information to others	2.22	.46
Sensitizing others to listen the programme	2.27	.50
TOTAL	2.37	.65

The above table shows the listeners' reaction of radio media programmes in disseminating awareness toward environmental protection, improvement and climate change in Northern Nigeria: 2.16 mean score (.43 standard deviation) disagreed with the regular listening the programmes. 2.61 mean score (.93 standard deviation) agreed with pay attention during listening. 2.60 mean score (.93 standard deviation). 2.60 mean score (.93 standard deviation) agreed that understanding, adopting and practicing the lesson gains. 2.22 mean score (.46 standard deviation) disagreed that disseminating information to others. 2.27 mean score (.50 standard deviation) indicates disagreed with sensitizing others to listening the programme.

## Conclusion

Consequently, going with what has been highlights specific about utilization of radio media in disseminating awareness toward environmental protection, improvement and climate change by Extension Agent in Northern Nigeria in this study, it is boldly indicates the challenges and the way out in which help extension agent in addressing issues. And also improve process of utilization of radio media in disseminating awareness toward environmental protection, improvement and climate change by Extension Agent in Northern Nigeria.

## Recommendation

Based on the findings of the study, the following recommendations are made:

1. The government should collaborate with non-governmental organizations, philanthropist and stakeholders to mount a strategic campaign, community mobilization and awareness through various media platforms and physical orientations to educate the general public on how human activities or behaviours endanger the environment. There is no doubt that there are various programmes set up

- to create proper awareness of the use of the environment to enhance the quality of human life. However, the persistence of these environmental problems is an indication that a more strategic method of public awareness is adopted toward Environmental Protection, Improvement and Climate change by Extension Agent in Northern Nigeria.
2. There is a need for the government at all levels of governance to provision of enough and available sanitation materials and mobilize the environmental sanitation enforcement officers on period inspection of the environment for the monitoring of human activities endangering the quality of the environment as these routine inspections will curb the excesses of people which impacts negatively on the environment.
  3. The radio managers should look for more methods and strategies that attract, encourage and motivate the listener's attention.

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