

**ECO-MEDIA AND GREENHOUSE GAS EMISSIONS IN NIGERIA: AN
EMPIRICAL STUDY**

Justine John DYIKUK

Department of Mass Communication, Faculty of Arts

University of Jos, Nigeria

justinejohndyikuk@gmail.com

Abstract

We are living in a country amidst huge concerns about Greenhouse Gas Emissions (GHG) which threatens the ecosystem. Inspired by the dearth of literature on eco-media as a potential for mitigating GHGs in Nigeria, the chapter titled "Eco-media and Greenhouse Gas Emissions in Nigeria: An Empirical Study" relied on the traditional and modern media theory to assess the situation qualitatively. The study found oil exploration by multinational companies, indiscriminate felling of trees, bush burning and deforestation as unwholesome activities which degrade the environment. It recommended media campaigns, training in eco-media and holding multinational companies accountable as possible remedies. While urging the press to show the way, it concluded that providing alternative sources of energy and promoting corporate media reporting are huge resources for reducing GHGs in Nigeria.

Keywords: Eco-media, Emissions, Gas, Nigeria, Soot, Green House, Environment

Background

Reporting ecology-related issues is an emerging beat in journalism. Globally, there are various concerns about bio-safety as the universe is being threatened by unwholesome activities. Although the universe is a mother who holds all things in being, it is constantly being violated. The situation in Nigeria is not different. Various illicit activities put the ecosystem at risk. In northern Nigeria for

instance, there is a looming danger of desertification due to lack of planting trees and use of charcoal as source of energy which emboldens locals to cut down trees at will for domestic and commercial purposes. In the face of Greenhouse Gas Emissions (GHG), the environment is under attack. As it were, “there is a great deal of potential to cause several and avoidable environmental harm by unchecked Oil and Gas exploration activities” (Ironkwe & Ordu, 2016,p.1) in Nigeria.

The activities of multinational companies in the rich oil Niger Delta have affected agricultural activities such as fishing and farming. What is more, oil spillage and lack of clean-up by these companies has put host communities in a sorry state without clean drinking water and a means of livelihood. Despite government’s guidelines that oil companies should visit host within 24 hours to access the situation, these companies do not comply. For example, decoders identified 89 oil spills which were photographed but these companies did not publish the pictures in their report. In the end, they blame the situation on sabotage by criminals. However, the Niger Delta has been adjudged as “one of the most polluted places on earth” (Amnesty International, 2021). This empirical study shall demonstrate the gap in literature on eco-reportage in a view to making valuable recommendations for an environment that is media friendly and secure for all Nigerians.

Conceptual Framework

a. Eco-media

In this chapter, eco-media also referred to as eco-reportage or corporate environmental reporting is conceived as establishing a link or interface between environmental issues and the media. It also deals with the relationship between the ecosystem and the world of media production, distribution and consumption. Eco-media provides a basic understanding of the environment as it relates with media impacts. It clarifies issues around media productions and cultural perceptions about the environment (Rust, Monani & Cubitt, 2016) towards a safe and clean environment.

b. Greenhouse Gas Emissions

In this study, the operational definition for Greenhouse Gas Emissions (GHG) encapsulates the violation of the ecosystem through unwholesome activities like

fossil fuels combustion. It is a gamut of activities which debases or degrades the environment.

Theoretical Framework

This study is anchored on the *traditional and modern media theory* (Nnaemeka & Ezebuenyi, 2021) which describes the synergistic application of both traditional and modern media in clearly setting up goals for achieving communication objectives irrespective of one's location and environment. This theory favours the fusion of two broad media channels namely trado-modern media in actualizing communication goals through social campaigns. The theory canvasses support for more understanding and connection between media and ecological concerns. Since this theory cannot be domesticated within a particular environment, it is appropriate for the study because it argues for employing eco-media as a medium for reducing gaseous emissions across the length and breadth of Nigeria.

Methodology

Through the qualitative method which involves review of extant data on recent studies on the subject matter, this chapter aspires to account for corporate environmental reporting in a country that is contending with gas emissions towards providing a direction for policy makers in addressing a menace that is threatening the establishment of a green and safe environment for everyone.

Literature Review and Discussion

a. Eco-Media: Accounting for an Emerging Field in Nigeria

Most studies in corporate environmental reporting have been confined to developed nations like Korea, Hong Kong, Malaysia and Singapore. Even in Africa, only South Africa and Egypt fall into that category (Belal, 2001 & Uwuigbe, 2012). This shows that in developing countries like Nigeria, the concept of eco-media or corporate environmental reporting studies is a fairly new occurrence. Although eco-media is a recently new entrant in media studies, the phenomenon has always been with man.

In Africa, eco-media was part and parcel of the traditional society. From teaching kids basic communication skills early in life to actually taking them to the farm so as to teach them the names of various trees and plants, eco-media has always been part of the life of every African. Parents used every opportunity they had to encourage the young to plant trees. In some families, children were given little

plants to plant. Everyone was expected to water his or hers and nurture it to adulthood. The kids were often excited to see the plant grow as those whose trees die are often laughed at. They were involved in practical farming, fishing, cooking, carving and knitting. Part of their intellectual training included the study of local history, knowing about the environment (Local geography, plants and animals), poetry, reasoning, riddles, proverbs, story-telling and story relays (VML, 2021).

It was the responsibility of the head of each family to teach members of the family about the importance of taking care of trees. This is why in most villages in Nigeria, it is almost difficult to visit any house without seeing a tree. This provided shelter for members of the family. Sometimes, village meetings were held under such trees. When there are visitors, they are sometimes entertained under the tree in situations where the house is small. This practice was weaved around the general ontology that there is a relationship between nature and the human person. In Africa, "media systems are materially imbedded in ecological systems" (Willoquet, 2015) as people are dependent on natural resources for their existence. To this end, any complicity in the ecological arrangement breeds crisis. Eco-media provides people with an understanding of the current global challenge of climate change. This is to confront environmental issues. Since it covers various interrelated media formats and frames used in analysing broadcast media (Brereton, 2016), in the Nigerian society, local media or traditional media provides members of the community with an opportunity to reflect on the issues that affect them and how to address them. Eco-media provides a plethora of opportunities for people to relish the essential features of the planetary ecosystem by contributing to the solution of climate chaos, biodiversity loss, ocean acidification, deforestation and water contamination (2021, Lopez, 2021).

From a background of a fair familiarity with ecological and media concerns at a tender age to the relevance of the town-crier in various communities, Nigerians are able to relate with their environment and as well as nature. Notwithstanding the current sharp practices which violate the environment across the country, in every community, there are there are huge potentials for eco-media otherwise known as essential elements of eco-media. These include object-oriented ontology, ontology of the underworld, climatic mediatization, new materialism and green mediatization. If harnessed, these huge resources are capable of enhancing a sound relationship between human beings and the aquatic world as

well as nature in general. Cubitt's recent book on Eco-media argues that "Technology has a unique position in mediating between the human world and the natural" (Cubitt, 2017). Despite the fact that eco-media remains a hidden treasure in Nigeria, only few authors have debuted works in this area of study especially as it relates to how gas emissions have potency to destroy the environment.

Green House Emissions in Africa's Most Populous Nation

The issues of Greenhouse Gas Emissions (GHG) in Nigeria are rife. For instance, a factsheet in 2014 which included an overview of emissions by sector, changes in emissions, information on carbon intensity and climate change mitigation targets and plans provided that Nigeria's total GHG emissions in that years were 492.44 million metric tons of carbon dioxide equivalent (MtCO₂e), totaling 1.01 percent of global GHG emissions. According to the report, 38.2 percent of GHG emissions were from land-use change and forestry sector as well as energy, waste, agriculture and industrial processes sector which contributed 32.6 percent, 14.0, 13.0 percent and 2.1 percent to GHG emissions in that order. The WRI CAIT data reported that Nigeria's GHG emissions increased by 25% (98.22 MtCO₂e) from 1990 to 2014 and noted that the average annual change in total emissions was 1% (USAID, 2019).

In 2009, there was a dip in Nigeria's GHG emissions. Experts attribute it to the global financial crisis which brought about decrease in economic production. Between 1996 and 2001, Nigeria experienced a drastic decrease in GHG emissions. However, the *International Energy Association* which gave the recent *Greenhouse Gas Emissions Level Report in Nigeria* indicated that it was 104.27 MtCO₂e as at 2018. The figure represents an increase of 271.6% from 1990 levels. This indicates an increment of 271.60% from 1990 which demonstrates that GHG in the country are consistently rising - a troubling trend for future emissions' projections. Nigeria's total GHG emissions is mainly comprised of carbon dioxide at 61.74%, followed by methane at 27.82%, nitrous oxide at 7.77%, and fluorinated gas at 2.66% (Hansen, 2020). Instructively, CO₂ emissions for Nigeria were 100.2 million tons in 2019. Despite fluctuations in recent years, it has increased between to 100.2 million tons from 1970-2019 (Knoema, 2019).

In Nigeria, there is no concrete policy to decrease GHG emissions or mitigate climate change. Although analysts are skeptical about making progress in this area, the country is blessed with huge sources for renewable energy. However, besides lack of due process and follow-up, the nation's handlers lack the

requisite political-will to harness these resources for both electricity and a clean environment. The issue is of climate change or environmental degradation in Nigeria has to do with bad governance (Hansen, 2020). Scholars like Hansen (2020) have opined that though Nigeria does not produce nearly as much greenhouse gas pollution as the U S and China, it nonetheless produces the 3rd highest amount of GHG in Africa behind South Africa and Zambia. In 2016, Nigeria was solely responsible for 0.97% of the total GHG emissions in the world. The absence of a significant policy intervention in Nigeria has frustrated efforts to slow down these rates.

Nigeria: Investigating Sources of Green House Emissions

a. Black Soot

People of the Niger Delta have been complaining about pollution due to black soot. The country's oil producing region is witnessing this due to the activities of oil refineries. For example, those living in the southeastern city of Port Harcourt claim that there is a literal cloud hanging over the region. Clothes they dry are often covered in soot. The streets too are covered in soot. Black soot which is a by-product of both legal and illegal refineries has huge health implications. For the residents, the soot has become a hellish phenomenon they have to live with (Giles, 2018 & Elem, 2021).

b. Bush Burning

Bush fires in Nigeria are a recurrent decimal. Experts are of the view that more than half of bush fires in Nigeria which costs damages amounting to millions of naira annually are deliberately lit. This causes environmental pollution, health hazards as well as depletes the ozone layer. Bush burning fires also destroy natural nutrients in soil such as fertilizer elements, trees, plants and wildlife (Idris, 2008). It has been established that "Burning of biomass is a major source of many air borne particles and traces gases that influence the concentration of ozone at ground level" (Hamid, Usman, Elaigwu, & Zubair, 2010, p.244).

c. Gas Flaring

Although gas flaring was officially banned across the country in 1984, the practice still persists. According to the *World Bank's Global Gas Flaring Reduction Partnership* rankings from July 2018, Nigeria is the sixth-largest gas-flaring country globally. The World Bank emphasizes that gas flaring is a significant contributor to global warming. It equally notes that gas flares also contribute to

climate change through the emission of millions of tons of CO₂ to the atmosphere (Anjorin, 2020). Nigeria still ranks in the top 10 gas flaring countries in the world, with 7.4 billion cubic feet in 2018 accounting for 6.9% (PwC, 2021).

d. Air Pollutants (Carbon Dioxide and Methane)

Carbon dioxide emissions are those stemming from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during consumption of solid, liquid and gas fuels. For instance, in Nigeria, carbon (CO₂) emissions for 2018 was 130,670.00; a 15.72% increase from 2017 (Macrotrends, 2021). The pollutants have adverse effects on human health especially children who are the most vulnerable. Also, sulphur dioxide, nitrogen dioxide gaseous substances are fingered to cause respiratory tract illnesses like asthma and lung infection (Oluwatoyin, Osabohien, Fasina & Fasina, 2018).

e. Fossil Fuels Combustion

While “Global CO₂ emissions from fuel combustion remained relatively flat at 33.62 GtCO₂ in 2019 after peaking at 33.63 Gt in 2018,” (IEA, 2021) in Nigeria, the case is different. We are told that “at 75 million tonnes of CO₂ equivalent a year, they outstrip the emissions from all 200 million Nigerians’ use of transport or electricity” (Lo, 2021). This is linked to health problems especially among communities in the rich oil Niger Delta where gas flaring activities are common. Fuel combustion process is the source of gaseous emissions which include oxides of nitrogen, oxides of sulfur, oxides of carbon and volatile organic compounds and hydrogen sulfide (Lo, 2021; Mishra & Siddiqui, 2014).

f. Cement Manufacturing Fossils

Cement manufacturing **emissions also stare the nation in the face**. Cement industry is potential anthropogenic source for air pollution. Typical among gaseous emissions to air from cement production are NO_x, SO_x, CO, CO₂, H₂S, VOCs, dioxins, furans and particulate matters. Also, quarrying, drilling, blasting, hauling, cement mill, fuel preparation, packaging, road cleaning and stacks are sources of particulate matter in the form of dust and carbon particles (Mishra, & Siddiqui, 2014) which are harmful to human beings especially those residing in host communities where cement factories are domiciled.

g. Wrong Land Use Purposes

The phenomenon of wrong use of land abounds in various states across the country. Over-tilling or over-cultivation amounts to land abuses which give rise to erosion. For example, lands that are supposed to be used for agricultural purposes are converted for building houses (Dada, 2018). This could lead to food crisis especially in communities where there is no space for farming activities due to shortage of arable land. As we saw, quarrying, drilling, blasting, hauling, road cleaning and stacks (Mishra, & Siddiqui, 2014) degrades the land (Amnesty International, 2021).

Corporate Environmental Reporting in Nigeria: The Existing Gap in Literature

Corporate environmental reporting or eco-media is basically a firm's environmental performance information or public statements about its performance (Ironkwe & Ordu, 2016) or communication with its publics. The oil and gas industry guidelines provide that there should be relevance, transparency and consistency, accuracy and completeness of information (API, 2004) in reporting on GHG. These shall be highlighted thus:

a. Relevance: This requires that both internal and external information that is released should be meaningful and useful to both the company and the public.

b. Transparency: The information to be passed should be unambiguous, clear, understandable, factual, coherent in a way that it would facilitate independent review. Here, the degree to which information processes, procedures, assumptions and limitations are undertaken should be considered.

c. Consistency: Consistency in the gathering, processing and dissemination of information is essential to making a report credible. This relates to what is reported and how it is reported. This further facilitates the way in which a company's performance could be evaluated over time towards improving its services in a competitive market.

d. Completeness: Completeness has to do with ensuring that both internal and external delivery of information conforms with the mission and vision of the organisation. Every report ought to have its operational boundaries and scope as regards who it is meant for.

e. Accuracy – Accuracy is at the heart of reportage as every information is expected to be sufficiently accurate and straight to the point. This makes

consumers to understand the import of the message so as to comply with it. It deals with the levels of certainty or uncertainty of a report in a way that users tell its usefulness, reliability and limitations (API, 2004; Ironkwe & Ordu, 2016).

Where it is practiced, corporate environmental reporting improves processes for efficient data collection, creates new opportunities for internal and external benchmarking, demonstrates the commitment of the industry for consistent and transparent reportage, facilitates stakeholder feedback, engagement and dialogue processes and improves processes, strategies and actions (Ironkwe & Ordu, 2016). It also improves data collection and enhances consistency leading to improving quality of lives. The current challenge is that the emerging trend of reporting the environment is one in which companies only report activities to win the trust of stakeholders in the areas of assurance processes, materiality, value chain and performance benchmarking (API, 2005).

There is little or no room for fulfilling the demands of relevance, transparency and consistency, accuracy and completeness of information (API, 2004) as earlier outlined. **Eco-media or environmental reporting is also beset by the absence of reliable and consistent data and information.** This stands in the way of policy direction and decision (Majoroh, 2015). More worrisome is the fact that a web-based corporate environmental reporting does not exist in Nigeria (Uwuigbe, 2012). Despite the practice of sourcing data from multiple sources and variation in the size of an organisation, corporate environmental reporting is still a far cry in the country. Perhaps this is because although companies report about environmental issues through websites, they nonetheless, do not engage in robust environmental reporting (Iredele, 2020).

Recommendations: Eco-Media as a Catalyst for Reducing Gas Emissions in Nigeria

a. Media/Tree Planting Campaigns

Experts in the media industry should canvas support for media/tree planting campaigns on the need to safeguard the environment. This should encapsulated calling the attention of Nigerians on the dangers of bush burning and environmental degradation as well as encouraging people to plant trees. Also, “there is need for a clear understanding of the causes and effects of bushfires so that bushfire policies can address the undesirable effects with respect to forestry, arable agriculture, rangeland, soil conservation and wildlife” (Hamid, Usman, Elaigwu, & Zubair, 2010, pp.248-249). In this respect, media/tree planting campaign is a *sine qua non* for the promotion of eco-media and curbing gas emissions in Nigeria.

b. Enhancing Rural Media

Since we have established the importance of rural media, it is crucial to enhance this type of reporting towards care for the environment. Journalists ought to shun the current elitist approach to reportage by going into the hinterland to educate the public about the dangers of violating the environment through bush burning and indiscriminate cutting of trees for charcoal and other purposes. The Ministry of Agriculture and Rural Development and the Department of Climate Change in the Federal **Ministry of Environment** has a huge responsibility in this regard.

c. Mass Mobilization

The National Orientation Agency (NOA) in collaboration with the Federal Ministry of Communications and Digital Economy should make mass mobilisation a priority. Education on the importance of preserving the ecosystem would go a long way in helping the populace to further avoid practices which harm the environment. When the masses are duly informed in line with the dictates of the *traditional and modern media theory*, the environment is the better for it. Nigerians should be educated on threats to the environment and inappropriate use of fire (Hamid, Usman, Elaigwu, & Zubair, 2010).

d. Training in Eco-media

To make progress in reducing gas emission across the country, it is important to train journalists on the rudiments of eco-media. Based on the demands of *traditional and modern media theory* employed in this study, in an industry where most journalists prefer to take to political, judicial and economic reporting, managers of the media should encourage journalists to fall in love with reporting on ecology towards achieving a safe and healthy world. Without a descent and

good environment, journalists would not be able to practice their noble profession. As such, it is expedient for more journalists to be trained on eco-media reporting. As a matter of urgency, regulators should compel companies through regulatory instruments to make reporting of environmental information a top priority for policymakers (Iredele, 2020).

e. Holding Multinational Companies Accountable

Creating a healthy ecosystem in Nigeria and elsewhere around third world countries entail holding multinational companies such as Shell (normally called Shell Petroleum Development Company - SPDC), Mobil, Chevron, Texaco, Elf and Agip (called Nigeria Agip Oil Company) (Eweje, 2007) accountable in the face of refusal to clean up oil spillages especially in the Niger Delta. This requires enforcing legislation and prosecution to as to restore battered environments and also give the residents of the region the descent life they deserve. "If we want to be a prosperous nation, we must insist that oil and gas companies put down the necessary infrastructure to capture the gas and utilise it" (Anjorin, 2020).

f. Providing Alternative Sources of Energy

In a country where majority of the rural populace solely depend on firewood and charcoal as sources of energy for cooking, government ought to encourage citizens to seek alternative sources of energy such as cooking gas and kerosene. For this to happen, government must reduce Value Added Tax (VAT) on the two products to enable ordinary Nigerians to use these commodities. Huge investments in other sources of renewal energy such as solar should be made through public/private partnership towards making the environment safe and green.

g. Developing a Robust Policy Framework/Political-will

The Nigerian government recently announced a COVID-19 plan to remove all subsidies from fuel which will enable it save about \$2 billion per year to debut renewable energy. While this might be a big step in mitigating the effects of climate change, the additional plan to plant 25 million trees towards restoring 4 million hectares of forest is commendable. However, like most government policies, there are no significant signs that this white elephant project would be achieved (Hansen, 2020).

Conclusion

In this study, we saw that the environment is under siege due to indiscriminate felling of trees, bush burning and deforestation. Among other recommendations for a clean and safe ecosystem, the author argued that “deforestation and conservation of land, controlling of wildfire, adopting better methods of combusting residues of crops and effective use of energy by forest dwellers amongst other measures” (Oluwatoyin, Osabohien, Fasina & Fasina, 2018,p.48) would reduce gas emissions and ultimately, improve the ecosystem. There must be concerted efforts at fighting “the business as usual (BAU) emission levels” (USAID, 2019) towards improving energy efficiency and providing renewable sources of energy for rural communities thus ending the flaring of gas (USAID, 2019).

Although the Nigerian government has pledged to end gas flaring by 2030 in line with its climate plan which was recently submitted to the United Nations (Lo, 2021), **it is to be seen how that commitment will translate to reality.** Recall that in 2017 the country also pledged to reduce GHG emissions by 20% by 2030 through installing 13,000 MW solar power equipments. Unfortunately till date, GHG emissions from fossil fuels have increased by 17% (USAID, 2019). Most recently, in its bid to rebuild a new plan in the wake of the COVID-19 global health crisis, the government indicated that it would install solar power in 5 million households. While only time will tell the success of this initiative (Hansen, 2020), the media must be on top of its game to hold government accountable if this promised is not fulfilled. Indeed, promoting eco-media has the potential to reduce GHG in Nigeria and the press must show the way.

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