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Examining the Role of Media in Shaping Rural Residents' Perceptions of Gas Flaring Effect on Environment Pollution in Nigeria

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Abstract:- Gas flaring poses threats to agriculture and human wellbeing, especially in developing countries. Nigeria remains one of the most gas flaring countries in the world. Hence, gas flaring is of pivotal societal concern in Nigeria. The most affected regions are the rural areas of the country – namely, Niger Delta. The media, however, is instrumental in shaping the public's opinion on this matter; it engenders attitudes, positive or negative; reorients policies that are put in place to aid enabling environment where the effects of gas flaring are largely attenuated or completely consigned to the past.

The aim of this paper is to examine the role of media in framing rural residents' perceptions of gas flaring effect on environmental pollution in Nigeria. This paper aims to set in embryonic term the power of media, uncover the initial and current role of media in framing the perceptions of rural resident's on this issue, and propose a sketchy way forward.

I. INTRODUCTION

[1]Gas flaring is the burning off natural gas during oil extraction. Gas flaring is a significant environmental issue in Nigeria. Although efforts have been made to reduce the effects of gas flaring, Nigeria still raked among the most gas flaring countries in the world. The country is estimated to flare over 70% of associated gas produced during oil extraction, and this further fructifies environmental degradation, results in the health decline of citizens and poses great loses the economic growth of the nation. A journal by Climate Justice Programme Friends of the Earth International highlights the history of Gas flaring in Nigeria:

Gas flaring starts at the end of the colonial rule. Shell and BP started exploring for oil in the Niger Delta in the 1930s. The first field was found in 1956 and the first export was made in 1958. Flaring of gas mixed up with the crude oil began right at the start, and so did recognition of its unacceptability. In the run-up to independence in 1960, the Secretary of State for Colonies, Lord Home, was asked to address the flaring, as "there might be a wastage of energy and resources going on which, one day, those giving advice to the Nigerians (that is, the British) could be reproached." The official response, citing economics and lack of markets was complacent: "Until there is this worthwhile market and until there are facilities (e.g. pipe lines and storage tanks) to use the gas, it is normal practice to burn off this by-product from oil wells." But the unacceptability of the practice, and the massive profits to be made by Shell and BP under unsuspecting nose of the Nigerians, were officially recognised by the British.[2] The two extracts in the box on the right, from a confidential note from the British Trade Commissioner in Lagos to the Foreign Office in 1963 are particularly patronising, offensive and illuminating.

Shell/BP need to continue, probably indefinitely to flare off a very large proportion of the associated gas they produce will no doubt give rise to a certain amount of difficulty with Nigerian politician, who will probably be among the last people in the world to realise that it is sometimes desirable not to exploit a country's natural resources and who, being unable to avoid seeing the many gas flares around the oilfields, will tend to accuse Shell/BP of conspicuous waste of Nigeria's 'wealth'. It will be interesting to see the extent to which the oil companies feel it necessary to meet these criticisms by spending money on uneconomic methods of using gas." British Trade Commissioner to UK Foreign Office, 1963.[3] In the longer run, Shell/BP is going to have to consider very carefully how it should explain publicly the large outflow of capital that is likely to take place towards the end of the decade... it will no doubt come as something of a shock to Nigerians when they find out that the company is remitting large sums of money to Europe. The company will have to counter the criticisms which will very probably be made to the effect that the company is 'exploiting' Nigeria by stressing the very large contribution it is making to Nigeria's export earnings." These extracts from official, historical documents show that the British government knew of the practice of gas flaring at the very start of the oil industry in the Niger Delta. They recognised its unacceptability. They understood the significant sums of money that Shell and BP would be making by producing and exporting Delta crude. Yet they did nothing to prevent the waste. And they were completely oblivious to the impact on local communities. If the British colonial government has taken the attitude that they subsequently took in their own country, the people of Niger Delta would not have been put on a track that has led to them being exposed to continuous flaring for over four decades.

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II. THE EFFECTS OF GAS FLARING ON THE ENVIRONMENT

Gas flaring causes air pollution and incentivises climate change. Gas flaring aids in the release of harmful pollutants to the atmosphere. When gases are flared, carbon dioxide, methane, and sulphur dioxide are released into the air and therefore contributing to air pollution and climate change. [4]The World Bank ranks Nigeria among the top five gas flaring countries in the world. It is estimated that Nigeria is responsible for approximately 10% of global gas flaring. In this year, the yet-to-halt national attitude of gas flaring in the country inflames environmental degradation, negatively influences public health and undermines efforts to achieve durable and sustainable developmental goals towards attenuating the effects of gas flaring.

The economic implication of gas flaring is also incredibly high. Although gas flaring is a waste of valuable natural resources, it also denotes a missed economic opportunity for the Nigerian people. The gases that are flared can serve several purposes for the growth and development of the nation. They can be used to generate power, for industrial development and export. Nevertheless, inadequate infrastructure, regulatory challenges, and limited investment have disrupted progress and innovation in the utilisation of gases for other projects that will serve the nation well.

A. Legal and Regulatory Framework

[5]Nigeria has enacted legislation and regulatory measures to curb gas flaring, including the Associated Gas Re-injection Act of 1979 and the Flare Gas (Prevention of Waste and Pollution) Regulations of 2018. These laws impose penalties on oil companies for flaring gas and encourage investment in gas utilization projects. However, enforcement has been inconsistent, and many companies continue to flare gas due to operational challenges and financial constraints.

- *Technological Solutions*

Advancements in gas flaring reduction technologies offer promising solutions to mitigate the environmental impact of gas flaring. Technologies such as gas-to-power, gas-to-liquids, and gas reinjection enable the capture and utilization of flared gas for productive purposes. Furthermore, innovative financing mechanisms, such as carbon credits and public-private partnerships, can incentivize investment in gas utilization projects and accelerate the transition to a low-carbon economy.[6]

- *Community Engagement and Stakeholder Collaboration*

Addressing gas flaring in Nigeria requires collaboration among government agencies, oil companies, civil society organizations, and local communities. Community engagement is essential to ensuring that the benefits of gas utilization projects are shared equitably and that environmental concerns are addressed. Stakeholder collaboration can facilitate knowledge sharing, technology transfer, and capacity building initiatives to promote sustainable development in the oil and gas sector.

B. Case Study: Dangote Refinery and Gas Utilization Project

The Dangote Refinery and Petrochemical Complex, currently under construction in Lagos, represents a significant milestone in Nigeria's efforts to reduce gas flaring and promote economic development. The refinery is designed to process crude oil and utilize associated gas for power generation and petrochemical production. Once operational, it is expected to significantly reduce gas flaring in the Niger Delta region and contribute to the country's energy security and industrialization goals.

[7]Gas flaring remains a critical environmental and economic challenge in Nigeria in 2024, despite efforts to address it through legislation, technology, and stakeholder collaboration. To achieve sustainable development and mitigate the adverse impacts of gas flaring, Nigeria must prioritize the implementation of gas utilization projects, strengthen regulatory enforcement, and enhance stakeholder engagement. By harnessing its natural gas resources responsibly, Nigeria can unlock economic opportunities, reduce environmental pollution, and contribute to global efforts to combat climate change.

Gas flaring, a common practice in the Nigerian oil industry, continues to be a significant contributor to environmental pollution in the country. Despite efforts to reduce its prevalence, the detrimental effects persist, posing serious health and ecological risks to communities in the vicinity of oil facilities.

- *Air Pollution*

Gas flaring releases a cocktail of harmful pollutants into the atmosphere, including carbon dioxide, methane, sulfur dioxide, and nitrogen oxides. These pollutants contribute to air pollution, smog formation, and the exacerbation of respiratory diseases such as asthma and bronchitis. In Nigeria, [8]where gas flaring is prevalent, communities near oil fields are exposed to elevated levels of air pollutants, leading to adverse health outcomes and reduced quality of life. Moreover, the combustion of flared gas releases greenhouse gases, contributing to climate change and global warming.

- *Water Pollution*

[11]Gas flaring activities can also contaminate water sources through various pathways. The deposition of air pollutants onto the surface of water bodies can lead to acid rain, which can lower the pH of water and harm aquatic life. Additionally, leaks and spills from oil and gas infrastructure can introduce toxic substances into rivers, streams, and groundwater, contaminating drinking water supplies and disrupting aquatic ecosystems. In Nigeria, water pollution from gas flaring poses significant challenges to communities dependent on rivers and streams for drinking, bathing, and fishing, jeopardizing both human health and livelihoods.

- *Soil Contamination*

The disposal of waste materials from gas flaring, such as soot, ash, and heavy metals, can contaminate soil and degrade agricultural land. These pollutants can accumulate in the soil over time, reducing fertility, inhibiting plant growth,

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and posing risks to human health through the ingestion of contaminated food crops. In Nigeria, ˚where agriculture is a vital source of livelihood for millions of people, soil contamination from gas flaring threatens food security and economic stability, exacerbating poverty and inequality in affected communities.

C. Public Health Impacts

The environmental pollution caused by gas flaring has profound implications for public health in Nigeria. Respiratory diseases, cardiovascular disorders, and cancer rates are disproportionately high in communities near oil facilities, where residents are exposed to elevated levels of air pollutants and toxic substances. Children, pregnant women, and the elderly are particularly vulnerable to the health effects of gas flaring, facing increased risks of respiratory infections, developmental disorders, and reproductive complications. Furthermore, the lack of access to clean water and adequate healthcare services exacerbates the health burden on affected populations, perpetuating cycles of poverty and inequality.

D. Ecosystem Degradation

Gas flaring poses significant risks to biodiversity and ecosystem integrity in Nigeria's oil-producing regions. The release of pollutants into the air, water, and soil can disrupt natural habitats, endangering plant and animal species and compromising ecosystem services such as pollination, soil fertility, and water purification. Wetlands, mangroves, and forests are particularly vulnerable to the impacts of gas flaring, as they provide critical habitats for wildlife and support local livelihoods through fishing, farming, and tourism. The degradation of ecosystems from gas flaring threatens biodiversity conservation efforts and undermines the resilience of communities dependent on natural resources for survival.

Gass flaring continues to be a major source of environmental pollution in Nigeria in 2024, with far-reaching consequences for air, water, and soil quality, as well as public health and ecosystems. Addressing the environmental pollution caused by gas flaring requires concerted efforts from government, industry, and civil society to enforce existing regulations, invest in cleaner technologies, and promote sustainable development practices. By prioritizing environmental protection and public health, Nigeria can mitigate the impacts of gas flaring, safeguarding the well-being of present and future generations.

Gas flaring has significant environmental consequences, including air, water, and soil pollution. Despite efforts to reduce its impact, gas flaring remains a pressing issue, particularly in rural communities near oil facilities. This article explores the role of media in shaping rural residents' perceptions of the effects of gas flaring on environmental pollution in Nigeria in 2024. By examining media representation, information dissemination, and community engagement, we can better understand how the media influences public awareness, attitudes, and actions regarding gas flaring and its environmental consequences.

E. Media Representation of Gas Flaring

The portrayal of gas flaring in the media plays a crucial role in shaping public perceptions and attitudes toward this environmental issue. In Nigeria, [10]media coverage of gas flaring often highlights its adverse effects on air quality, public health, and ecosystem integrity, drawing attention to the environmental injustices faced by communities living near oil facilities. News articles, documentaries, and social media campaigns provide a platform for activists, scientists, and community leaders to voice their concerns and demand accountability from government and industry stakeholders. However, media coverage of gas flaring may also be influenced by corporate interests, political agendas, and sensationalism, leading to biased or incomplete representations of the issue.

F. Information Dissemination

The media serves as a primary source of information for rural residents in Nigeria, who may have limited access to formal education and internet connectivity. Radio, television, newspapers, and community meetings are important channels through which information about gas flaring and its environmental consequences is disseminated to rural communities. Government agencies, non-governmental organizations (NGOs), and community-based organizations (CBOs) often collaborate with media outlets to raise awareness about the impacts of gas flaring, educate residents about their rights, and promote advocacy initiatives aimed at reducing environmental pollution. However, language barriers, illiteracy, and cultural differences may hinder effective communication and knowledge transfer, underscoring the need for targeted outreach strategies tailored to the needs and preferences of rural audiences.

G. Community Engagement

[12]Media engagement strategies can empower rural residents to participate in decision-making processes related to gas flaring and environmental management. Community radio stations, mobile cinemas, and interactive workshops provide platforms for dialogue, storytelling, and knowledge sharing, enabling residents to voice their concerns, share local knowledge, and mobilize collective action. Community-led media initiatives, such as citizen journalism networks and participatory video projects, empower marginalized groups to document their lived experiences, advocate for their rights, and hold polluters accountable for environmental harm. Moreover, social media platforms, such as WhatsApp, Facebook, and Twitter, facilitate peer-to-peer communication, networking, and information sharing among rural residents, amplifying grassroots voices and fostering solidarity across communities affected by gas flaring.[13]

H. Challenges and Opportunities

Despite the potential of media to raise awareness and mobilize action on gas flaring, several challenges persist. Limited access to electricity, media censorship, and government control of information may impede the dissemination of accurate and timely information to rural communities. Moreover, the dominance of mainstream media outlets and the marginalization of indigenous languages and cultures in media representation can perpetuate inequalities

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and exclude marginalized voices from public discourse. However, advances in digital technology, community media platforms, and alternative communication channels offer new opportunities for media democratization, community empowerment, and advocacy mobilization. By harnessing the power of media, rural residents can amplify their voices, demand accountability, and advocate for sustainable solutions to the environmental challenges they face.

III. CONCLUSION

In conclusion, the media plays a crucial role in shaping rural residents' perceptions of the effects of gas flaring on environmental pollution in Nigeria in 2024. Through media representation, information dissemination, and community engagement, the media influences public awareness, attitudes, and actions regarding gas flaring and its environmental consequences. To effectively address the environmental challenges posed by gas flaring, stakeholders must recognize the importance of media in shaping public discourse, promoting community empowerment, and fostering advocacy mobilization. By leveraging media platforms and amplifying grassroots voices, rural residents can contribute to collective efforts to hold polluters accountable, protect the environment, and promote sustainable development in Nigeria.

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