

# **THE ROLE OF ENVIRONMENTAL COMMUNICATION IN PROMOTING SUSTAINABLE DEVELOPMENT IN THE NIGER DELTA**

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**Abstract:** This study examined The Role of Environmental Communication in Promoting Sustainable Development in the Niger Delta. It focused on the strategies used to convey environmental messages, the major issues communicated, and how such messages influence behaviour among residents. Using a survey of 400 respondents across the region, findings showed that radio, television, social media, and traditional forms such as town criers and folk songs are key channels for promoting environmental awareness. The most discussed issues include oil spillage, gas flaring, deforestation, flooding, and waste management. Results indicated that these messages have improved public awareness and encouraged community participation in environmental activities. Guided by the Participatory Communication Theory, the study concludes that communication rooted in dialogue and community involvement is vital for meaningful environmental action and sustainable development. It recommends continuous, locally driven campaigns that empower people to take responsibility for their environment.

**Keywords:** Environmental Communication, Sustainable Development, Niger Delta

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## **Introduction**

The Niger Delta region, though being the cash cow and financial and economic hub of the nation Nigeria, has continued to remain unsung. Though endowed with abundance of oil and gas resources, the region remains the most disadvantaged and environmentally degraded regions in sub-saharan Africa. Years of exploration, gas flaring and industrial pollution have devastated the ecosystem, destroyed the farmlands and threatened the livelihood of local inhabitants (Okpara & Nwogbaga, 2023; Ilesanmi, 2025). The deplorable state of the Niger Delta environment has not only brought about ecological destruction, but has also aggravated the level of penury, economic loss, health challenges, civil and social unrest, maiming and hostage taking, which has adversely affected sustainable development in the region. Following the plight of the region, environmental communication which entails the organized use of information, media education and dialogue to influence understanding and environmental behaviour has become germane to reversing these trends and building a sustainable future for the Niger Delta region. Uzah(2023).Notwithstanding the tremendous communication initiatives, policies and strategies facilitated by government and its agencies, stakeholders, NGO's, multinational exploration companies, environmental awareness and people participation programmes, environmental sustainability programmes still remain at a very low ebb. According to (Omodia&Egbe, 2023, Ijeoma &Akpan, 2024),studies have shown that many of these campaigns are often top - down, expert driven and have failed to integrate the social- cultural contexts and indigenous knowledge system of local communities, therefore, environmental messages are poorly localized, community members feel excluded from decision making processes and public skepticism about environmental remediation efforts persists. Ilesanmi (2025), adds that, this communication gap is responsible for the persistent neglect of environmental policies and feeble adoption of sustainable practices, thus bringing about a vicious cycle of ecological decline and discontent. It is therefore, obvious that these challenges rest in the lack of effective communication that are capable of empowering natives to embrace ownership of environmental protection initiatives and practices.

Connecting from the above postulations, this paper tends to examine "The role of environmental communication in promoting sustainable development in the Niger

delta region". Objectively, it is to find out the environmental communication strategies use in communicating sustainable development messages in the region, to examine the types of environmental issues communicated in the region and to evaluate the influence of environmental communication messages on behaviour changes in the region. The study is built on the following research questions. What are the environmental communication strategies uses in communicating sustainable development messages in the region? What are the types of environmental communication messages communicated in the region? And what are the influences of environmental communication on behaviour changes in the region. Significantly, the study acts as background knowledge for students, researchers and other scholars. It also acts as policy guide for policy and decision makers and other government agencies and stakeholders on policy formulation that bothers on the Niger Delta sustainable development. In addition, it will be useful to mass media practitioners and media owners on how to effectively and strategically communicate environmental messages.

### **Conceptual Clarification**

The Niger-Delta Region: The Niger Delta Region is one of the regions that constitute the six regions of the Federal Republic of Nigeria Wilson (2013) states that, "Niger Delta and South- South are often thought to be synonymous. Within the Nigeria" Political context, the expression" South-South is larger than the Niger Delta, Nigeria. Delta is believed to be subsumed in the South-South. The region comprises six minority states of Akwa-Ibom, Bayelsa, Cross-Rive, Delta, Rivers and Edo. It is one of the ten most important wetlands in the world. It is also characterized by a vast network of rivers and mangrove forest and it a home for diverse community and ecosystems. Omojimute (2008), adds that the Niger Delta occupies the Southern Niger empties its water through tributaries into the Atlantic Ocean. In addition, it is inhabited by many ethic nationalities, among which are the Urhobos, Ijaws (izons) Ibibos, Efiks, Isokos, Itsekiris, Ukwuani, Ndokwas, Ikas and other. The region significantly, stands as the major source of Nigeria's oil and gas resources, but not withstanding is plagued with untold environmental degradation, pollution, social environment.

An environment can be seen as the totality of factors that propels the survival and sustenance of human and other living creatures as these factors may include physical, social, economic, cultural, technological or even religious. It could also mean the natural surroundings and condition that affects the existence and development of living organisms. It entails the various ecosystems which include, water, air, soil, biodiversity, which is essential for human well-being and sustainable development. According to Akintomide (2004), environment means in everything, the air we breathe, the land on which crops are cultivated, houses are built, the water we drink, and used for washing, the mineral resources, human resources, and the man that supports the economy.

### **Environmental Communication**

Environmental communication involves sharing information and ideas about environmental issues, concerns and solutions. It aims to raise awareness, promote education, and foster collaboration and action to address environmental challenges. Effective environmental communication can influence behavior and policy met changes, promoting sustainable development.

It is also the strategic use of information, education, media and dialogue to influence public understanding and environmental behavior.

### **Sustainable Development**

Like the other concepts, sustainable development has also received its own fare of clarification (Bamidele and Gramah 2023) opine that involves a dynamic synergy between economic, social and environmental aspects. Their study emphasizes on the importance of balancing these elements to achieve effective sustainable developments particularly in the content of the Niger Delta region. Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs. It balances economic growth, social justice and environmental protection (Bamidele & Grama, 2023).

## **Literature Reviews**

### **Environmental Issues in the Niger Delta**

Since the inception of oil exploration in the Niger Delta in the 1950's, several environmental issues have surfaced and these have occupied a large element of school only work and media reportage. These issues range from oil pollution and spillage, gas flaring, environmental degradation, soil depletion, wastage and contamination. Empirical assessment using remote sensing and feed sampling show repeated oil spill events that degrade vegetation, fisheries and arable land, producing long-term declines in ecosystem services that communities depend on (Ukhurebor, 2025; Adebangbe, 2025). Gas flaring and oil pollution which include; acid rain and elevated greenhouse gas emission are also frequently highlighted because of the health and economic impacts on host communities (Ukhurebor, 2024; Okwulagwe, 2025). Other issues that have been identified that go beyond direct petroleum impacts include, loss of biodiversity, mangrove destruction, salt water intrusion and flooding, which are constantly featured in environmental messaging, about climate vulnerability and livelihood loss in the Niger Delta (Ukhurebor, Ngonso, Egielewa, Giniseppa, Bamikole & Balogume, 2023).

### **Environmental Strategies in Communicating Sustainable Development**

Environmental communication over the decades now has become *Sine-qua non* tools for mobilizing people and institutions towards achieving the goal of sustainable such magnitude should rest on the usage of multiple strategies. (Servaes, 2023; Oke & Eke, 2025) adduce that the traditional mass media of radio, television and print remain vital for a larger awareness creation. In the said region, radio broadcasting stands useful for reaching dispersed rural audiences and contextualizing sustainability messages in local dialects. Significantly also, include the used of participatory theatre, community dialogues and storytelling which helps to integrate indigenous knowledge systems into sustainability course (Servaes, 2023). Participatory visual methods such as community video enhances local understanding of complex environmental data such as oil-spill contamination or health's risk by translating scientific information into relatable visual narratives

(Johnson, 2024). Very crucial as a strategy in this regard is the social media platforms which include but not limited to twitter (now X), Facebook, Instagram, and Whatsapp. According to Shetty (2025), the platform now facilitates real-time interaction between citizens, activists and policy makers, promoting transparency and accountability in environmental governance. Sustainability campaigns on social media significantly increase youth engagement and behavioral change when combined with offline community activities.

### **Influence of Environmental Communication on Behavioural Change**

Environmental communication plays significant role in influencing behavioural change, through its awareness creation, attitude modification and shaping and promoting sustainable practices for development. Dessart and Van Bavel (2017), state that, environment communication increases knowledge and awareness about environmental issues, leading to change in behaviour. It also raises campaign that can influence behavioural change by highlighting the consequences of environmental degradation and promoting eco-friendly behaviour. In addition, through environmental communication attitudes and values are shaped by influencing individual's motivation to adopt sustainable behaviour (Bambang, 2023). Through environmental communication, social norms can be influenced by encouraging individuals to adopt sustainable practices, if they perceive others in their social circle (Dessart & Bavel, 2017). Also, environmental communication promotes sustainable practices for sustainable development. (Ferraro, Miranda & Price, 2011), opine that environmental communication can promote sustainable practices by providing individuals with actionable information and strategies for reducing their environmental impact.

### **Theoretical Framework**

The theory adopted in this study is the participatory communication theory; the participatory communication theory was propounded by Paulo Freire in 1970. This theoretical approach focuses on the importance of dialogue and two-way communication development activities. It emphasizes community movement and

grassroots participation, empowering people and communities by giving them control over their development by encouraging individuals and groups to voice their perceptions of reality and act on these realities. It can support sustainable development and promote environmental awareness Servaes (2008). By adopting participatory approach to communication, development project can be more effective and sustainable, leading to positive social and environmental outcomes. It can be a powerful tool for empowering local community and promoting social change (Melkote & Steaves, 2001). The participatory communication is guided by inclusiveness, empowerment, two-way communication, collective action, cultural sensitivity, dialogue and feedback (Thomas & Paolo, 2001).

### **Relevance of Participatory Communication to The Study**

This theory is relevant to this study in multiple instances, firstly, it is meant to address the long-standing power imbalances and impasse in the region. By involving community stakeholders in monitoring, planning and evaluation, environmental communication becomes a tool for social inclusion and conflict resolution (Oke & Eke, 2025). This therefore in line with broader goals of sustainable development, which requires not only environmental protection but also participatory governance and equitable resource sharing? In this regard therefore, the integration of the theory into environmental communication practices in the Niger Delta region, promotes and facilitates empowerment, ensures legitimization of policies and aids a prolong behavioural change towards sustainability.

In another dimension, this theory gives a strong conceptual background for a proper analysis of the reasons for the success of strategies in context such as that of the Niger-Delta region, as it is deeply entranced in Paulo Friere's dialogue communication notion. Participatory communication theory perceives communication as a horizontal exchange that empowers marginalized voices to co-create meaning and action (Servaes, 2023). Participatory communication approach helps to link the gap between experts, knowledge and local realities, thus, ensuring that sustainability interventions are not externally imposed, but locally owned (Servaes, 2023; Johnson, 2024). It becomes imperatives that in the region where exploring organizations have marginalized the native communities, participatory

communication becomes an option for the residents to express their grievances and also demanding for accountability and transparency.

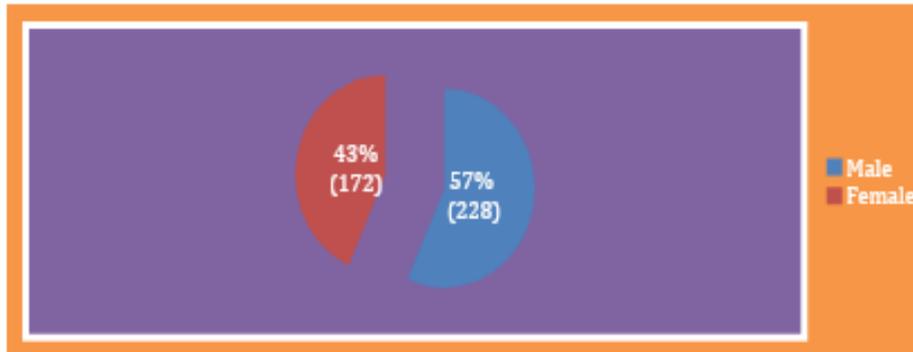
### **Research Methodology**

The study adopted the quantitative method using the cross - sectional survey design. As a quantitative research, it allows for systematic collection and statistical analysis of numerical data to give a clearer understanding of the relationship between environmental communication and sustainable development. As regards this study, it is meant to provide empirical basis for assessing how communication strategies, such as mass media campaign, environmental education and policy advocacy to influence the outcome of sustainable development such as awareness, consciousness and knowledge of the environment, resource conservation and participation of host community. The cross - sectional design is applicable because it creates room for the researcher to gather data from large respondents. It is meant to show the state of environmental communication practices and their influences on sustainable development of the Niger - Delta region. It also aids the understanding of the attitudes, awareness and behavioral patterns of the residents. The study population and area were drawn from the communities in the Niger Delta region targeting Akwa- Ibom, Cross river, Rivers, Bayelsa, Delta and Edo States. The population include; community members, leaders/opinion leader, NGO's, local government officers and media practitioners. Estimated population of state in the region is 30 million (Otite, 2009).

The sample size of the study was 400 respondents adopted using the Taro Yamane sample size formular. The multi stage sampling technique was used for the study. Stage 1 was the purposive selection of states, stage II was random selection of LGAs, stage III was the systematic selection of households, while stage IV was random selection of adult respondent. The structured questionnaire was the instrument for the collection of data for the study; it is suitable due to the large number of respondents. It is designed in a four Likert scale format. The data was administered through online goggle form distribution. The method adopted for analyzing and presentation was descriptive which include frequency table and simple percentage and mean.

## Section A: Demographic Variable

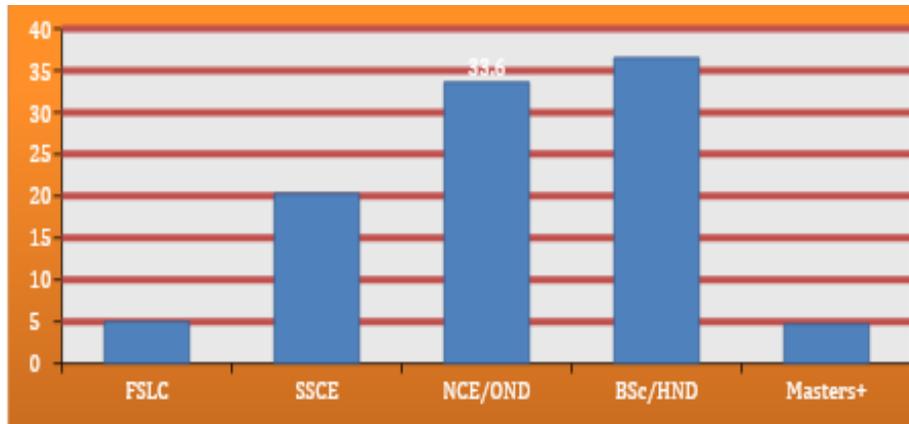
### Respondent's Gender



### Respondent's Age:

ITEM	Frequency	Percentage (%)
18-27 years	101	25%
28-37 years	155	39%
37-47 years	88	22%
48 and above	56	14%
<b>TOTAL</b>	<b>400</b>	<b>100%</b>

**Respondent's Educational Level**



FSLC.....5% (20) SSCE 20% (80) NCE/OND 34% (136) BSc/HND 37% (148) MSc 4% (16)

**Respondent's Occupation**

Frequency Indicator	Frequency	Percentage
Student	120	30%
Trader/Business	63	15%
Civil Servant	117	29%
Teaching	107	26%
<b>Total</b>	<b>400</b>	<b>100%</b>

S/ N	Statement	SA	A	SD	D	TOTAL
6	Radio and television are major media for educating the public on environmental sustainability	220 (55%)	79 (20%)	49 (12%)	52 (13%)	400 (100%)
7	Social media such as Whatsapp, facebook, twitter, instagram are used for communicating environmental message	120 (30%)	150 (38%)	50 (12%)	80 (20%)	400 (100%)

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8	Traditional communication media such as town cries, festivals, folk songs are effective for disseminating environmental communication messages.	80 (20%)	220 (55%)	50 (12%)	50 (12%)	400 (100%)
9	Billboards, posters, flyers are used but government agencies to raise awareness on environmental sustainability	180 (45%)	140 (35%)	50 (13%)	30 (7%)	400 (100%)
10	Message on waste management & sanitation are usually communicated	120 (30%)	150 (38%)	50 (12%)	80 (20%)	400 (100%)
11	Gas flaring , oil spillage and pollution are environmental issues communicated.	80 (20%)	220 (55%)	50 (12%)	50 (12%)	400 (100%)
12	Deforestation, mangrove conservation are focused on in environmental messages	180 (45%)	140 (35%)	50 (13%)	30 (7%)	400 (100%)
13	Environmental communication helps to highlight the issues of soil degradation and agricultural sustainability	120 (30%)	150 (38%)	50 (12%)	80 (20%)	400 (100%)
14	Climate change and flooding are usually addressed in environmental communication messages.	80 (20%)	220 (55%)	50 (12%)	50 (12%)	400 (100%)
15	Environmental communication messages have increased my awareness on environmental sustainability	180 (45%)	140 (35%)	50 (13%)	30 (7%)	400 (100%)
16	Environmental communication message have spurred me into community environmental clearing exercise.	220 (55%)	79 (20%)	49 (12%)	52 (13%)	400 (100%)
17	Radio and television campaign have influenced my views on environmental sustainability	120 (30%)	150 (38%)	50 (12%)	80 (20%)	400 (100%)

18	Environmental communication messages from Government Agencies and NGOs have increased public consciousness on environmental protection.	80 (20%)	220 (55%)	50 (12%)	50 (12%)	400 (100%)
19	Environmental communication messages have built a sense of shared responsibility among host community.	180 (45%)	140 (35%)	50 (13%)	30 (7%)	400 (100%)
20	Environmental communication messages have brought a positive change in behaviour	80 (20%)	220 (55%)	50 (12%)	50 (12%)	400 (100%)

### Discussion of Findings

The analysis of responses from 400 participants across the Niger Delta provides clear insight into how environmental communication promotes sustainable development in the region. Findings reveal that radio and television remain the most effective tools for public enlightenment, as over half of the respondents (55%) strongly agreed that these media play a vital role in awareness creation. This supports the views of Servaes (2023) and Oke and Eke (2025), who emphasize that traditional mass media remain crucial for large-scale communication and community education. In addition, social media platforms such as Facebook, WhatsApp, and Twitter are gaining significance (68%), particularly among young people, aligning with Shetty's (2025) observation that digital media foster youth participation and dialogue. Traditional forms of communication—such as town criers, festivals, and folk songs—were also rated highly effective (75%), reflecting a participatory approach that draws on local culture and indigenous knowledge. These findings indicate that environmental communication in the Niger Delta combines both modern and traditional channels, creating a multi-faceted strategy for wider and more meaningful engagement.

Respondents also confirmed that issues like oil spillage, gas flaring, deforestation, and flooding are the most frequently communicated environmental problems in the region. This corresponds with the findings of Ukhurebor (2025) and Adebangbe (2025), which identified such challenges as persistent ecological threats in the Niger

Delta. The study further shows that topics such as waste management and agricultural sustainability are increasingly featured, suggesting that environmental campaigns now cover broader aspects of ecological well-being. This supports the position of Ijeoma and Akpan (2024), who advocate for locally relevant and context-specific environmental messages that speak directly to community realities.

Furthermore, a large proportion (80%) of respondents agreed that environmental messages have improved their awareness and motivated them to participate in community clean-up activities. This aligns with Dessart and Van Bavel (2017) and Bambang (2023), who argue that effective communication enhances knowledge, reshapes attitudes, and promotes eco-friendly behaviour. Messages from government agencies and NGOs were also found to increase public consciousness and foster a sense of shared responsibility among residents. These findings affirm the importance of participatory models in driving sustainable development.

Overall, the results uphold the Participatory Communication Theory, which advocates dialogue, inclusion, and shared decision-making. When communities are actively engaged through local media and open discussion platforms, they exhibit stronger behavioural change and a greater sense of ownership over environmental initiatives. This supports Servaes' (2023) argument that participatory communication bridges the gap between policymakers and rural dwellers. In essence, environmental communication in the Niger Delta thrives on a blend of modern and traditional media, focuses on urgent ecological concerns, and successfully promotes awareness and positive behavioural change. For lasting impact, such campaigns must continue to be participatory, culturally grounded, and community-driven.

## **Conclusion**

The study concludes that environmental communication plays a vital role in promoting sustainable development in the Niger Delta. The findings indicate that the use of multiple media platforms ranging from radio, television, and social media to indigenous methods has helped raise environmental awareness and mobilize people towards eco-friendly practices. The study further confirms that issues such as oil spillage, gas flaring, deforestation, and flooding remain at the centre of

environmental discourse in the region, reflecting both the urgency of ecological challenges and the effectiveness of communication in drawing attention to them. Moreover, the study demonstrates that environmental messages have positively influenced the attitudes and behaviours of residents by increasing their willingness to participate in environmental protection activities. Guided by the Participatory Communication Theory, the research establishes that communication strategies that prioritise community involvement, dialogue, and local culture are more likely to yield sustainable results. Therefore, environmental communication must not only inform but also empower communities to take ownership of sustainability initiatives.

### **Recommendations**

1. Government agencies, NGOs, and the media should ensure that environmental messages are developed and delivered through participatory processes that involve local communities in decision-making.
2. Indigenous communication forms such as town criers, festivals, and storytelling should be integrated with modern media to make messages more culturally relevant and widely accepted.
3. Social media and other online tools should be strategically employed to engage young people and promote real-time dialogue on environmental issues.

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