



RESEARCH ARTICLE

STRATEGIES FOR CREATING AWARENESS ON EFFECTIVE IMPLEMENTATION OF ENVIRONMENTAL SUSTAINABILITY PROGRAMMES IN OWERRI WEST, NIGERIA

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ABSTRACT

It is observed that most of the environmental policies and programmes on environmental sustainability are rarely implemented, even when people are aware of such policies. This study investigated into the strategies for creating awareness for effective implementation of environmental sustainability programmes in Owerri West. The study adopted the descriptive survey research design. Both primary and secondary data were used. Primary data was collected through the use of structured questionnaire, while secondary data was obtained from relevant articles. Multiple stage sampling technique was used in the selection of the communities while the sampled villages were selected purposively. A total of 280 respondents selected randomly were issued questionnaires out of which 260 were properly filled and used for the study. The data was analyzed using descriptive statistics, involving relative frequency and percentage tables. The pair-wise comparison technique was used to rank the preferred strategies for creating awareness on effective programmes implementation. The study identified inadequate government support and infrastructure, poor literacy level, economic challenges among other as barriers to effective implementation of sustainability programmes in the study area. Provision of Financial incentives and infrastructure are the most preferred strategies in the area. Hence, the study recommends the mitigation of economic barriers by providing eco-friendly jobs and incentives for sustainable practices. Furthermore, strengthening policy implementation, enforcing compliance and proactive community engagement are viable options for creating effective strategies for implementation of environmental sustainability programme in the area.

Keywords: Strategies, creation, awareness, infrastructure, financing, environmental sustainability.

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1.0. INTRODUCTION

Environmental sustainability has become one of the issues of paramount concerns in the contemporary world. This could be attributed to man's increasing understanding of the intricate relationships between human activities and his natural environment. The quest for sustainability in the case of Nigeria is acerbated mainly by the challenges of uncontrolled population growth and rapid urbanization. Being the most populated country in Africa, Nigeria is confronted with a myriad of environmental problems such as waste management, deforestation, erosion, air and water pollution, and a significant decline in biodiversity. These environmental challenges can pose a great danger to man and the immediate environment if left unchecked. In such instances, Owerri as one of the cities in Nigeria experiencing a rapid population growth and urbanization cannot be exempted from the challenges occasioned by unsustainable practices in the environment.

The importance of creating strategies on awareness for effective implementation of environmental sustainability programmes cannot be over emphasized. A well-informed populace is crucial for the implementation of sustainable practices and participating in community-driven initiatives. Studies have shown that a lot has been done on the provision of sustainable environmental laws, policies and programmes, but what remains is the effective implementation of such policies and programmes (Adesina, 2020; Bamgboye, 2018). A good number of the Nigerians in general and Owerri West in particular remain largely unaware of the implications of environmental degradation and the importance of sustainable living (Nwankwo et al., 2019). Limited knowledge on effective implementation strategies and Inadequate engagement in sustainability discourse have contributed in no small measures to the continued unsustainable environmental practices despite the laudable environmental policies and programmes (Adesina, 2020).

Some researchers underscore the effectiveness of diverse communication strategies in enhancing public awareness regarding effective implementation of environmental issues. According to Igbokwe et al. (2021), approaches such as traditional media campaigns, social media engagement, community workshops, and educational initiatives have proven instrumental in disseminating information and mobilizing community action. However, the efficacy of these strategies is often influenced by cultural, economic, and social factors unique to Nigeria's diverse regions (Ugbaja et al., 2018). Hence, there is the need to critically analyze strategies for creating awareness on effective implementation of environmental sustainability programmes in Owerri West, Nigeria, by assessing the current level of public awareness, identifying the barriers to implementation and exploring potential strategies for effective implementation.

Many Nigerians, particularly in rural areas and low-income communities, are unaware of the direct connection between environmental degradation and their day-to-day lives. This lack of awareness has led to a continued reliance on unsustainable practices, such as illegal logging, improper waste disposal, and the excessive use of non-renewable resources among others. Consequently, these practices exacerbate environmental challenges like soil erosion, flooding, and pollution, leading to adverse effects on public health, agricultural productivity, and overall economic stability. Despite efforts from governmental and non-governmental organizations in the provision of policies and programmes towards ensuring environmental sustainability, gap between the policies and their implementation continues to remains wide. Although there have been efforts to raise public awareness



through media campaigns on environmental policies and programmes in recent times, not much has been done on effective implementation of such policies. This persistent gap between environmental policies and policy implementation underscore the need for a more comprehensive and effective strategies for implementation of the policies, without which the country's efforts toward sustainable environment is unlikely achievable

Hence this study seeks to explore and evaluate the most effective strategies for raising environmental consciousness, with a particular focus on communication strategies, community-based initiatives, and educational outreach programs. By addressing this critical gap, the research aims to contribute to the development of a robust framework that will empower citizens to adopt sustainable practices, thereby enhancing Nigeria's environmental resilience for future generations.

1.1. Research Questions

- 1) What is the current level of awareness on environmental sustainability in the study area?
- 2) What are the barriers to effective implementation of environmental sustainability programmes in the area?
- 3) What are the effective strategies for implementation of environmental sustainability programmes in the study area?

2.0. CONCEPTUAL AND THEORETICAL FRAMEWORK

2.1. Conceptual Framework

Environmental sustainability is defined as the responsible management of natural resources aimed at maintaining ecological balance, particularly in the face of significant challenges such as deforestation, pollution, and climate change. Within this context, public awareness encompasses the collective knowledge, attitudes, and behaviors of individuals regarding environmental issues. Enhancing public awareness is pivotal for fostering community engagement and promoting sustainable practices.

However, several barriers can impede effective awareness on environmental sustainability. Among such barriers include; Socio-cultural factors, including traditional beliefs and cultural values. These significantly influence the reception and interpretation of environmental messages, which can either facilitate or hinder public engagement with sustainability initiatives. Also, economic constraints play a crucial role in terms of limited resources and economic instability which often restrict access to information and the implementation of sustainable practices, especially in rural communities.

Strategies for Public Awareness and Engagement

Increasing public awareness on environmental sustainability requires the use of a variety of communication strategies. Dunlap (2019), emphasizes that successful environmental communication must involve both information dissemination and public engagement. These strategies should include media outreach, public education campaigns, and the active involvement of communities in the dissemination process. Traditional media such as radio, television, and newspapers are essential for reaching broader audiences, while digital platforms offer the advantage of interactive engagement, especially among younger, more urbanized populations (Williams, 2014).



Community-based communication strategies, as discussed by Eje and Adamu (2020), are particularly effective in fostering deeper connections with local populations. Research conducted by Obi (2020) in rural Nigerian communities shows that participatory approaches, including workshops and town hall meetings, have proven successful in raising environmental awareness and prompting local actions. These grassroots strategies not only increase understanding but also empower communities to address environmental issues in ways that are relevant to their context and culture.

Additionally, Williams (2014) suggests that visual communication tools such as infographics, posters, and videos can enhance understanding and retention of environmental messages. In Nigeria, where literacy rates in rural areas are relatively low, visual content can transcend language barriers and provide clear, accessible information on sustainability. Research by Aliyu and Yusuf (2020) also highlights the importance of story-telling and local narratives, suggesting that environmental communication is most effective when it is rooted in the local culture and speaks to community values.

Barriers to Effective Implementation of Environmental Sustainable Programmes in Nigeria

Implementation is very vital in achieving environmental sustainability, several barriers hinder its effectiveness, particularly in Nigeria. Dunlap (2019) identifies key obstacles such as socio-economic factors, lack of media access, and insufficient education as challenges to effective implementation of environmental policies. In Nigeria, rural communities often lack access to digital technologies and formal education, which limits their exposure to environmental issues and sustainability messages (Olayemi & Adebayo, 2019). Without proper access to information, rural populations are less likely to understand the long-term consequences of environmental degradation and may be less inclined to adopting sustainable behaviors.

Cultural factors also play a significant role in shaping how environmental messages are received. Traditional beliefs and practices in Nigeria can sometimes conflict with modern environmental initiatives. For example, sacred groves and ancestral forests are protected by local taboos, which can conflict with environmental conservation efforts that promote deforestation. Study by Yusuf (2021) highlights how deeply ingrained cultural practices can present a challenge to the acceptance of sustainability initiatives. To overcome these barriers, environmental programme implementation strategies must align with local culture while still promoting sustainable practices (Atuma & Adekoya, 2018).

Furthermore, political and economic factors contribute to the gap between policymaking and policy implementation in environmental sustainability programmes. Eze and Nwosu (2021) argue that there is often a disconnect between government policies on environmental sustainability and the effective implementation strategy among the people. Environmental policy makers in Nigeria frequently fail to engage with the public and as a result, many individuals are usually unaware of the existence of such policies or programmes not to talk of the implementation (Uche, 2021). This disconnect between policy and the implementation is a key challenge in promoting widespread environmental sustainability practices.



2.2. Theoretical Framework

The major theories adopted in this research are chronologically presented in what follow.

Diffusion of Innovations Theory

Everett Rogers' Diffusion of Innovations Theory (2003) examines how new ideas and practices such as sustainable technologies spread within communities. This theory is particularly relevant to understanding the adoption of eco-friendly practices, such as solar energy and proper waste management. Research in Nigerian communities has shown that early adopters, especially community leaders or influencers play a critical role in normalizing sustainable practices. The social acceptance and perceived benefits of these innovations are essential for wider adoption (Olusola, et al., 2019). This illustrates the importance of targeted communication strategies to promote the diffusion of environmentally sustainable behaviors.

Theory of Planned Behavior (TPB):

Strategies should focus on improving attitudes toward sustainable behaviors, reinforcing supportive social norms, and empowering individuals with the necessary resources to act. For example, public campaigns could highlight the economic and health benefits of sustainable actions to cultivate positive attitudes, while social marketing techniques can help shift norms around behaviors like waste disposal.

Social Cognitive Theory (SCT):

Role modeling is essential for behavior adoption. Visible figures, including community leaders, celebrities, and government officials, demonstrating environmental practices (e.g. recycling or energy conservation) enhance public self-efficacy and provide examples for emulation. For instance, organizing community events where these figures actively participate in sustainable practices can make environmental behaviors more aspirational.

3.0. MATERIALS AND METHOD

3.1. Study Area

The study was conducted in Owerri-West Local Government Area of Imo State. It is located on latitudes $5^{\circ} 16' 30''$ north and $5^{\circ} 31' 30''$ and longitude $6^{\circ} 51' 00''$ and $7^{\circ} 5' 00''$. The area shares boundary with Owerri Municipal, Ngor-Okpala and Mbitoli Local Government Areas. It is located in the south eastern part of the state. Crop farming is the primary activity and means of livelihood in the area.

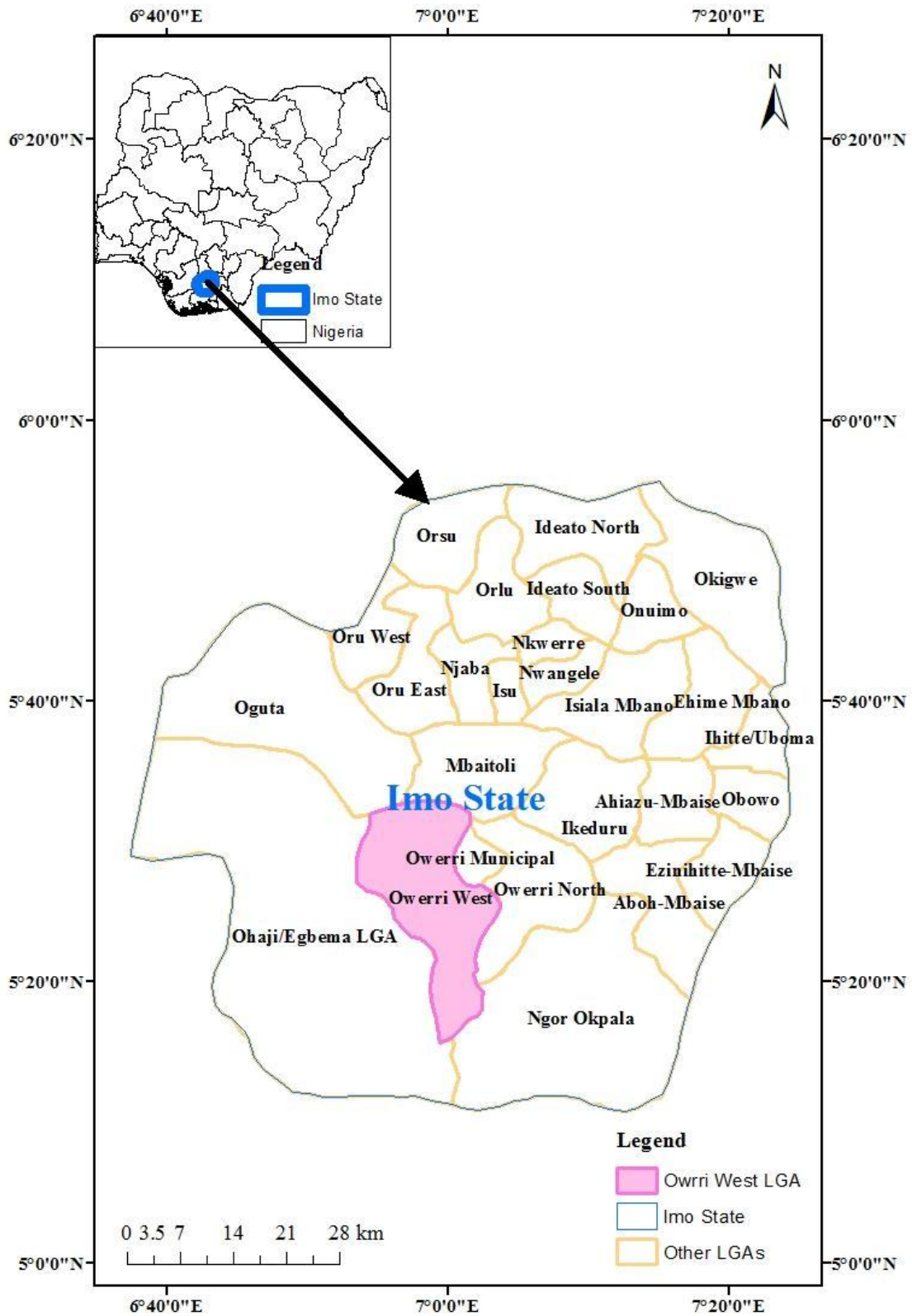


Figure 1: Map of Imo State Showing the Study Area



3.2. Research Design

This study adopted the descriptive survey research design to determine empirically the strategies for creating public awareness on environmental sustainability policies and programmes in Owerri west. This research design was adopted because it specifies the nature of a given phenomenon and a picture of a situation as a pre-requisite for drawing inferences and generalization.

Population of the Study

All household heads in Owerri West constituted the target population of the study except on occasions where the spouse or other adult members of the family stood in for the household head.

Sampling Techniques and Sample Size

The respondents were selected using the multi-stage sampling technique. Firstly, four communities from the local government areas were purposively chosen from each of the three political blocks in the study area (Ara, Umunwoha and Ochie) based on the highest population.

Secondly, four villages were systematically selected from each of the four communities. Finally, from each of the four villages, twenty household heads were randomly selected. This gives a sample size of two hundred eighty (280). Out of this figure, 260 respondents properly completed the questionnaire and were used for the study.

Methods and Instruments for Data Collection

The questionnaires were administered to the sampled population with the help of three trained enumerators using simple random sampling method. Modalities and rubrics for the completion of the questionnaires were spelt out to the respondents after which the completed questionnaires were retrieved from the respondents.

3.3. Method of Data Analysis

Descriptive statistics was used to identify and describe the various barriers and effective strategies for creating awareness on environmental sustainability programmes in the study area and this involved relative frequency and percentage table. Respondents knowledge on awareness of environmental sustainability programmes and sources of information on environmental sustainability awareness programmes were also presented in tables. The pair-wise comparison technique was used to rank the respondents' preference for the various strategies for effective implementation of environmental sustainability programmes in the area.

4.0. PRESENTATION OF RESULTS AND DISCUSSION

4.1. Presentation of Results

Analysis of Questionnaire from Respondents

This section analyzes the data collected through the questionnaires in the process of this research. The analyses were as presented below:



Demographic/ Socio-Economic Characteristics of the Study Area

Data on the current demographic/ socio-economic characteristics of the study area is shown in Table 1

Gender

Table 1 above (gender) shows the distribution of interviewed respondents by gender at the time of survey. Thus approximately 68.6% of the respondents were male while 31.2% were female. The dominance of male stems from the fact that males are the heads of households and could not be there while females attend to issues like this. Hence there were more males than females who participated in the survey.

Table 1: Demographic /Social Economic Characteristics of the Study Area

Variables	Categories	Frequency	Percentage
Gender	Male	179	68.8
	Female	81	31.2
	Total	260	100.00
Age structure	18-30	14	5.40
	31-45	71	27.30
	46-60	110	42.30
	>60	65	25.00
	Total	260	100.00
Marital status	Single	10	3.80
	Married	211	81.10
	Widow	39	15.00
	Total	260	100.00
Educational status	F.S.L.C	87	33.50
	W.A.S.C	68	26.20
	OND/NCE	53	20.40
	B.SC/HND	41	15.80
	PG	11	4.20
	Total	260	100.00
Religion	Christianity	231	88.40
	Islam	4	1.50
	Others	25	9.60
	Total	260	100.00
Occupation	Student	18	6.90
	Farming	132	50.80
	Civil service	52	20.00
	Business	39	15.00
	Others	18	6.90
	Total	260	100.00
Income	₦20,000 or less	93	35.71
	₦ 21,000-50,000	76	29.20
	₦ 51,000-100,000	48	18.50
	₦ 101,000-200,000	27	10.40
	₦ 200,000 and above	16	6.20
Total	260	100	

Source: Researcher's Fieldwork (2025)



Age

In terms of age structure of the respondents, there were more people between the ages of 46-60 (42.30%) followed by those between ages 31-45(27.30%) and those above 60 ranked fourth while those aged between 18-30 (9.40%) were the least. The frequency and percentage distributions are shown in table 1 (age). As a matter of fact, the age range 31-60 are more economically active in every society. This implies that more of the respondents are within their active and productive age.

Marital Status

Table 1 above indicates that over two third of the respondents were married, less than 3 in 10 are single while less 1 than in 10 are widowed. It implies that respondents are more responsible and can participate in environmental sustainability programmes.

Religion

Also, Table 1 shows the respondents religion and indicates that Christians constitute a large percentage (88.40%) in the survey; this is because the study area is dominated by Christians, followed by other religions (9.60%) while Islamic religion is the least (1.50%).

Educational Status

The result of the educational status as show in Table 1 above indicates that about 33.50% of the respondents have First School Leaving Certificate (FLSC) and 26.20% possess West African School Certificate (WASC), 20.40% had either Ordinary National Diploma (OND) or National Certificate of Education (NCE). The remaining 15.80% and 4.20% obtained Higher National Diploma (HND)/ Bachelor's degree (B.Sc /A/ED) and above bachelors respectively. This implies that majority of the respondents are literates since they can read and write and are likely to adopt innovation in environmental sustainability, considering the fact that education is an important factor influencing the adoption of innovation

Occupation

From that Table on occupation, more than half of the respondents (50.80%) were farmers, 20.00% were civil servants while 15.00% have business as their occupation. Students constitute 6.90% of the respondent's occupation while 6.90% engage in other forms of occupation.

Monthly Income

The average monthly income of respondents in the study area shows that a higher percentage lived on a monthly income between the range of N20,000-N50,000 while fewer percentage lived on N200,000.00 and above. Income can affect environmental sustainability in terms exploitation of environmental resources. Poverty has serious implication on environmental sustainability such deforestation for wood fuel, illegal mining and hunting among others.



Table 2: Distribution of Respondents on the Awareness of Environmental Sustainability Programmes

Awareness of Environmental Sustainability	Frequency	Percentage
Yes	214	82.30
No	46	17.70
Total	260	100

Source: Researcher Fieldwork (2025)

Table 2 shows that about 17.17% percent of the respondents were not aware of the issue of environmental sustainability while the rest of the respondent (82.30%) indicated that they were aware of it. The rate of awareness is an indicator of the level of consciousness of the people on the problem under investigation. Awareness of environmental sustainability is the starting point for the actualization of a safer environment. By this result, most of the respondents are aware of environmental sustainability. This is contrary to the findings of Nwankwo, et al, (2019). Who were of the opinion that most Nigerians are largely unaware of the implications of environmental degradation and the impact on sustainable living.

Table 3: Sources of Information on Environmental Sustainability Programmes in the Area

Variables	Frequency	Percentage
Government Agencies	12	4.60
Radio	63	24.23
Social Media	28	10.80
Newspaper	14	5.40
Educational Inst.	60	23.10
Religious Gathering	11	4.20
Community meeting	24	9.23
Magazine	11	4.23
Television	32	12.31
Other	5	1.90
Total	260	100.00

Source: Researcher’s Fieldwork (2025)

Table 3 shows that 4.60% of the respondents got information on environmental sustainability from government agencies, 24.23% from radio which is highest source of information on environmental sustainability in the area. Educational institutions are the second highest source, accounting for about 23.10% of the respondents. This is followed by television (12.31%). Hence radio stations, educational institutions and television stations play vital role in the dissemination of information on environmental sustainability programmes.

Perceived Barriers to Effective Implementation of Environmental Sustainability Program

Lack of government campaign/infrastructure, poor level of literacy among the people, cultural practices and believe among others were significant factors influencing the effective implementation of environmental sustainability programmes in the study area. Economic challenges are expected to



be a barrier to effective implementation of sustainability programme. The issues of implementation where poverty prevails is a mirage, since the main means of eking out a living for the people in the area is through the environment. Therefore, environmental degradation is inevitable.

Table 4: Ordinary Least Square Showing Perceived Factors that Affect Effective Implementation of Environmental Sustainability Programmes in the Study Area

Factors	Coefficient	t-value
Inadequate government campaign/infrastructure	6711.248	0.142
Poor literacy level	-2837.338***	-3.245
Economic challenges (poverty, unemployment)	0.0001	1.248
Cultural practices/believe	2349.551	0.407
Lack of awareness among communities members	-95.211	-0.306
Adjusted R ²	0.564	
F-Value	3.138***	

Source: Researcher’ Computation, (2025)

*** shows that factor is significant at 1% probability level.

The F-value of 3.138 which is significant at 1% level of significance shows a good fit of the model. Adjusted R² Value of 0.564 equally indicated that 56% of the factors observed on the barriers to effective implementation of environmental sustainability programmes were as a result of the factors included in the model.

Effective Strategies for creating Awareness on Implementation of Sustainability Programmes

Table 5: Analysis of Preferred Effectiveness of Strategies in Creating Awareness for Implementation of Environmental Sustainability Programme

Variables	Frequency	Percentage	Ranking of Prefer strategies
Government effective enforcement of environmental laws.	42	16.20	4 th
Financial incentives/provision of infrastructure	86	33.10	1 st
Increased awareness through media	41	15.80	5 th
Religious and cultural endorsement	48	18.50	2 nd
Community based initiative	43	16.50	3 rd
Total	260	100	

Source: Researcher’s Fieldwork (2025).

Table 5 contains information on the effective strategies for implementing environmental sustainability programmes in the study area based on level of preference. From the table, 33.10% of the respondents preferred financial incentive and provision of infrastructural facilities. Majority of them were of the opinion that poverty is one of the main problems why they were not interested in environmental sustainability programmes. Religion and cultural initiatives account for 18.50% of the respondents, they believe that if such sustainability programmes are preached in their churches, people will pay greater attention to them. Community based initiative is the third in terms of preference (16.50%), while the least preferred is increased awareness. This implies that even though they may be aware of environmental sustainability, implementation is a problem.in the study area.



5.0. CONCLUSION

Environmental sustainability in most of the developing nations has been an abstract concept. This paper has highlighted the major economic and socio-economic barriers influencing effective implementation of environmental sustainability programmes in Owerri West in particular and Nigeria in general. Factors such as economic challenges, religious and cultural belief, low levels of enforcement of environmental policies have continued to negatively affect the level of environmental consciousness among the people.

There is the need therefore to evolve effective implementation strategies to manage these barriers.

Such strategic interventions' must be economically and culturally inclusive, leveraging economic incentives, integrating environmental education into formal and informal gathering. These can help in bridging the gap between awareness and implementation of sustainability programs and encourage behavioural change among the people. Hence collective effort from government, private sectors and individuals are crucial in this aspect. Also, with strengthened policy advocacy/enforcement and proactive community participation, environmental sustainability will be a way of life of the people. This can lead to mitigating environmental degradation thereby creating a healthier and more resilient environment for present generation and generation yet unborn.

Conflict of Interest

The author declares that no conflict of interest exist in this manuscript.

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