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Original Research Article

Assessment of Climate Change Mitigation Policy Elements in Oye-Ekiti, Ekiti State, Nigeria

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Stakeholders' participation.

ABSTRACT
The implementation of effective Climate Change Mitigation Policies (CCMPs) is vital for protecting local communities from the adverse effects of climate variability. However, in rural settings like Oye-Ekiti, Nigeria, the enforcement of CCMPs is often lacking, and institutional coordination is inadequate to meet national climate objectives. This study assessed the Climate Change Mitigation Policy Elements (CCMPE) in Oye-Ekiti, identifying existing policies, awareness levels, and challenges to implementation. A simple random sampling method selected 120 stakeholders in environmental use, including farmers, artisans, traders, and forestry staff. Data were collected through secondary sources and a structured questionnaire, analyzing existing CCMPE, awareness of climate change, effectiveness in reducing greenhouse gas emissions, stakeholder participation, and enforcement levels. The findings indicate that respondents were aware of climate change (68.3%) but lacked understanding of greenhouse gases (71.7%). About 32.5% were unsure of CCMPE effectiveness in reducing emissions. Many were unaware of government programs (53.3%) and enforcement agents (56.7%), with only 43.3% occasionally involved in policy implementation. Identified CCMPE included tree planting and efficient waste management. Educational status, communication methods, government program awareness, and presence of enforcement agents significantly influenced stakeholders' participation. The study concludes that CCMPs are not yielding desired results due to low awareness and lack of strict measures for effective implementation. The government must address these gaps to achieve desired results, including increasing awareness, improving enforcement, and ensuring stakeholder participation.

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INTRODUCTION

Climate change has emerged as one of the most significant challenges facing humanity in the 21st century. Its impacts are felt across all continents, affecting ecosystems, economies, and communities. In Nigeria, the ramifications of climate change are particularly pronounced due to the country's heavy reliance on agriculture, which is vulnerable to climatic variations. Oye-

Ekiti, located in Ekiti State, is no exception. The region's agrarian economy makes it susceptible to the adverse effects of climate change, necessitating a focused assessment of local mitigation policies to address these challenges effectively (Smith, 2020). The historical context of climate change in Nigeria dates back several decades, with increasing awareness and recognition of its impacts beginning in the late 20th century. The Intergovernmental Panel on Climate Change (IPCC) has consistently highlighted Nigeria as one of the countries at high risk due to climate change, particularly in relation to agriculture, water resources, and health. In Oye Ekiti, the effects of climate change have manifested in altered rainfall patterns and increased temperatures, leading to reduced agricultural yields and food insecurity (Adetunji, 2019).

Nigeria's approach to climate change has evolved through various frameworks and policies. The country ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1994, marking a commitment to international climate action. In subsequent years, Nigeria developed its National Adaptation Strategy and Plan of Action on Climate Change (NASPA-CC) which aimed to address both mitigation and adaptation strategies at various levels including local governance in Oye Ekiti, as part of this national framework has been involved in implementing policies that align with these broader objectives, although local adaptations and specific policy elements have varied (Ogunleye, 2019).

The Nigerian government has initiated various policies aimed at addressing climate change, with the National Climate Change Policy (NCCP) being a significant step in this direction. The NCCP launched in 2012 aims to provide a framework for climate change mitigation and adaptation across the country. However, the implementation of these policies at the local level, particularly in rural areas like Oye Ekiti, has faced numerous challenges including insufficient funding, lack of technical expertise. and inadequate community engagement (Olawale, 2021).

Historically, local governments in Nigeria have struggled to implement national climate policies effectively. This is particularly evident in Oye Ekiti, where local governance structures often lack the necessary resources and capacity to address climate change effectively. The historical neglect of rural communities in policy formulation has further exacerbated the situation, leading to a disconnect between national objectives and local realities (Adebayo, 2022). The importance of community engagement in climate change mitigation cannot be overstated. Historical assessments indicate that successful climate policies must be rooted in local knowledge and practices. In Oye Ekiti, traditional agricultural practices, local governance, and community structures hold valuable insights into sustainable resource management and climate resilience. However, these elements have often been overlooked in the formulation of national policies leading to ineffective implementation at the local level. (Eze, 2021).

Effective policies and legislation resolve conflicts between ecology and economy. Implementing frameworks that promote responsible behavior incentivizes sustainable practices. Collaboration and partnerships address complexities, tackling crises and creating a resilient future. Agreements like the Paris Accord showcase unity, limiting temperature increase, curbing emissions, and enhancing measures. Working together promotes justice, fairness, and trust, strengthening bonds and nurturing relationships, leading to a brighter future where everyone thrives (Salami *et al.,* 2025). Furthermore, the historical context of climate change in Oye Ekiti is intertwined with socio-economic factors. The region has experienced significant demographic changes, including urban migration and population growth, which have put additional pressure on local resources. These socio-economic dynamics have implications for climate change mitigation strategies, as they influence land use patterns. resource allocation, and community resilience (Ogunleye, 2020).

Conclusively, the assessment of climate change mitigation policy elements in Oye Ekiti requires a comprehensive understanding of the historical background of climate change impacts and responses. The interplay of national policies, local governance community engagement, and socio-economic factors shape the effectiveness of mitigation strategies. By examining these historical elements. stakeholders can identify gaps and opportunities for enhancing climate resilience in Oye Ekiti.

In the light of the above, this paper identified the existing climate change mitigation policy elements in Oye Ekiti, examined the awareness of the existence of climate change and evaluated the effectiveness of these policy elements in reducing greenhouse gas emissions, assessed the level of awareness and participation of stakeholders in climate change mitigation policy implementation, assessed the level of enforcement by the government and adherence of the stakeholders to the formulated laws responsible for the effective identified policy elements' implementation, identified challenges and promising strategies for improving their implementation in the area and lastly, identified factors influencing stakeholders' participation in climate change mitigation policy implementation.

MATERIALS AND METHODS

The Study Area

The study area is Oye-Ekiti in Ekiti State, southwestern Nigeria. The area lies between longitude 5°18'30'' to 5°21' East of the Greenwich and between latitude 7°47'N to 7°49' North of the Equator (Fig 1). Oye-Ekiti is an administrative center of Oye Local Government Area in

Ekiti State, Nigeria. Oye is a large semi-urban town in the northern part of Ekiti State and is an economic and socio-political center for surrounding communities. It is also renowned for hosting institution like the Federal University Oye-Ekiti (FUOYE), and as a hub for all sorts of human endeavors like agriculture, commerce and craftsmanship. The town is strategically located on key roads that connect other parts of Ekiti State and is also a node for intra-state and inter-state travel. Like most Nigerian towns, Oye is not immune to the impacts of climate change irregular rainfall, rising temperatures, deforestation, and inadequately managed waste systems.

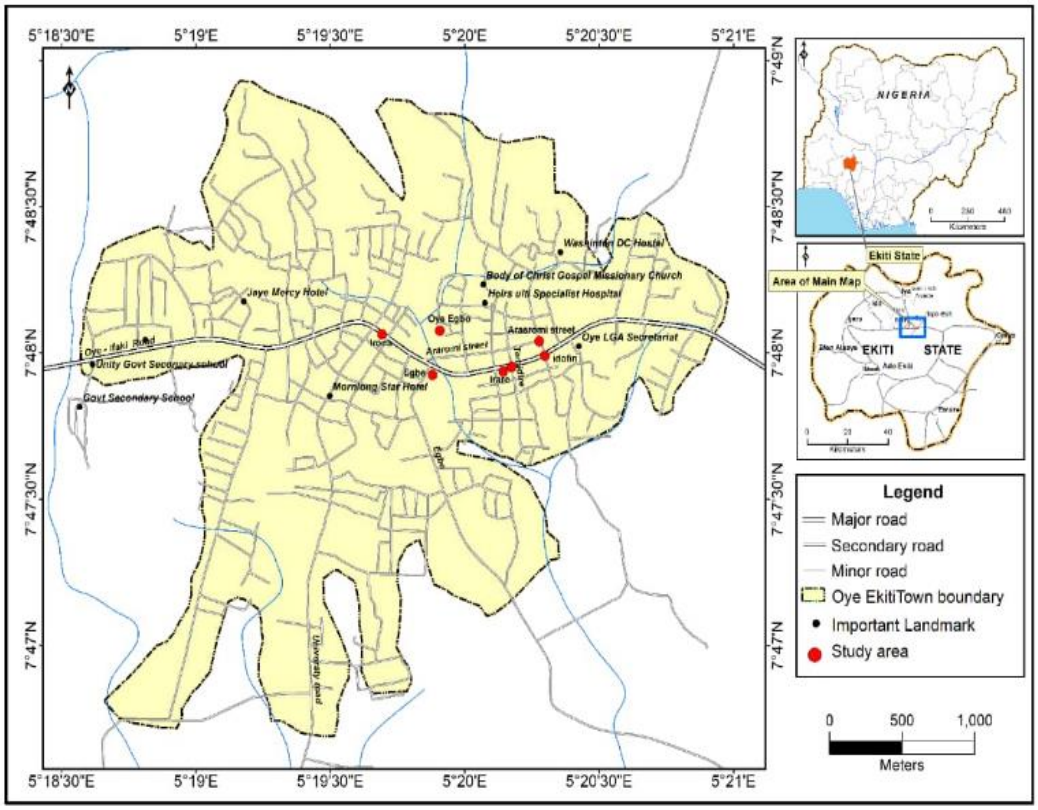

Figure 1: Map of Oye Ekiti Showing the Study Areas

Data Collection and Sampling Procedure

The target population for the study were farmers, artisans, traders, forestry staff which included the forest guards, forest officers and technical staff from the local forestry office in the study location. A total of 1,504 stakeholders were identified through their various associations and other affiliations in the study area: Farmers (482), Artisans (589), Traders (403) and Forestry staff (30). Simple random sampling was used to select 120 respondents whose activities bothers much on environment (Stakeholders): Farmers (48), Artisans (29), Traders (40) and Forestry staff (3). Samples were drawn in proportion to the total size of the identified population. Precisely, Diaw *et al.* (2002) was used to sample from the identified stakeholders, where 10,5,2.5 percent sampling intensity were used to select respondents in Oye where the identified stakeholders are less than 500, between 500 and 1000 and over 1000 respectively. A set of structured questionnaire was designed and used as the instrument of data collection for the study. However, 120 copies of structured questionnaire were administered and retrieved from the field which represents 100% returns. Secondary data were also collected where necessary from the Department of Climate Change of Ekiti State Ministry of Environment.

Data Analysis

Data collected were subjected to both descriptive and inferential statistics. Precisely, Logit regression model was used to estimate factors influencing stakeholders' participation in climate change mitigation policy implementation.

The regression models are implicitly specified as:

$Y = b0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9 + U$

where,

Y = Participation in climate change mitigation policy (1 if participated, otherwise 0)

X_1 = Age (in years)

X_2 = Gender (1 male, 2 female)

X_3 = Occupation (1 farming; otherwise, 0)

X_4 = Education (years)

X_5 = Climate change awareness (if aware=1, otherwise 0)

X_6 = Communication methods (1 if radio; otherwise, 0)
X_7= Government program awareness (if aware=1, otherwise 0)
X_8= Existing law awareness (if aware=1, otherwise 0)
X_9= Presence of Enforcement Agencies in your Vicinity (if present=1, otherwise 0)
e = error term

RESULTS AND DISCUSSION

Socio-economic Characteristics of Respondents in the Study Area

Age of the respondents

The results presented in Table 1 showed that a large proportion of the respondents in the study area (38.3%) were within the 31-43 years age bracket with a mean age of 35 years. This implies that the respondents are within their economically productive age bracket and hence, can be very much involved in the day-to-day activities of their business. Olaoye *et al*. (2012) stated that most fish farmers in Nigeria are within the 30–50-year age bracket, considered to be the most productive economic age group in respect to agricultural activities, of which most the respondents indicated to be farmers (40%). In other words, persons in this category have the strength and motivation as well as adaptability to be actively engaged in agricultural production.

Gender of the Respondents

The result of the gender distribution of the respondents in Table 1 showed that the majority of the respondents were males (53.3%). This result implies that respondents in the study area, engage themselves more in male dominated work enterprises. According to Dudafa (2025), in rural Bayelsa State, men dominate labor-intensive activities like land preparation and harvesting, while women take responsibility for planting and marketing. The study noted: "Decision-making within households is predominantly controlled by men, limiting women's influence on key agricultural decisions." The UNDP report (2014) mirrored this observation by reporting that women constitute about 60–80% of agricultural labor, yet men disproportionately control land, credit, and institutional resources. Such structural imbalance perpetuates male control of production decisions even in areas where women participate at a high level. Oladele *et al*. (2015) amplified that the gender imbalance still persists in crucial farm activities and in critical decision-making and resource access through extension services, credit, and land, making it a classic male-dominated enterprise in spite of female labor involvement.

Education of the Respondents

Findings from the study (Table 1) revealed that 13.3% had no formal education while 15.8%, 28.3% and 40.0% of the respondents had primary, secondary and tertiary education respectively. This means that respondents are dominated by the educated class and mostly by those armed with a high level of education. Their educational status as it is, however, is enough to provide them with the ability to read and write, handle and interpret messages relating to their climate change. Onemolease and Alakpa (2010) argued the necessity of education, in their opinion, for equipping farmers with the knowledge and information to understand and utilize new technologies, environmental matters, and managerial methods, including those that pertain to climate change.

Occupation of the Respondents

The distribution of the respondents based on occupation is presented in Table 1. The result of which showed that the respondents' primary occupation was largely farming as indicated by (40.0%) of the respondents in the study area. According to Fanafa, Unongo, and Barnabas (2024), farming remains the predominant livelihood activity in many rural Nigerian communities, with over half of surveyed household heads identifying agriculture as their main source of income. Also, Idi (2004) found that 67.14% of rural respondents in Kano State said farming was their primary occupation, drawing attention to the centrality of agriculture for sustaining rural livelihoods and the scarce opportunities for out-of-farm diversification.

Table1: Distribution of respondents according to socio-economic characteristics

Socio economic characteristics	Frequency	Percentage
Gender		
Female	56	46.7
Male	64	53.3
Age Group		
18-30	30	25.0
31-43	46	38.3
44-56	25	20.8
57-69	18	15.0
70-82	1	.8

Education		
No formal education	16	13.3
Other	3	2.5
Primary	19	15.8
Secondary	34	28.3
Tertiary	48	40.0
Occupation		
Artisan	29	24.2
Environmentalist	2	1.7
Farmer	48	40.0
Other	1	.8
Trader	40	33.3
Total	120	100.0

Existing Climate Change Policy Elements in Oye-Ekiti

The identified existing climate change policy elements in Oye-Ekiti are itemized and discussed as follows;

1. Ekiti state has Commenced the production of actionable climate change plan
2. The ministry has commenced Planting of trees in a bit to ensure greening and carbon sinks
3. In the area of waste management, the state government through the ministry of environment has equally adopted efficient waste management programs e.g. recycling.
4. There is an advocacy programs aiming at sensitizing the populace on low best to mitigate the effect of climate change. e.g school advocacy
5. The state government ensured regular representative at different conference of party organized by the united mission, frameworks, on climate change convention
6. Desiltation of drainage to avoid erosion.

Climate change mitigation options: With the proposal and introduction of a working climate change plan in the state of Ekiti, there was a critical landmark in defining climate change mitigation policy options in Oye Ekiti. This plan may have contained strategic interventions in energy, agriculture, land use, and infrastructure that would reduce environmental degradation and GHG emissions. This denotes a development in sub-national climate governance in Nigeria, where states such as Ekiti attempt to localize climate action to fit their own contexts. These constitute the framework elements for a clear policy map that contains the set targets, stakeholders who bear some responsibilities, and deadlines for completion. According to Akinbami, Salami, and Olukoya (2022), these subnational action plans provide a contextualized response to climate change by enabling state governments to prioritize local vulnerabilities while still aligning with national and international frameworks. Tree planting activities for greening as well as carbon sinks stand as commitments by the state towards emission reduction. Trees absorb CO_2, which is GHG in major proportions, and that is the best mitigation. Implying erosion control, climate regulation, and restoration of other forms of biodiversity in Oye Ekiti, the policy is practical in this sense. When implemented properly, tree planting may serve as a major force in lowering atmospheric carbon concentration. Adebayo and Ogunleye (2020) have reported that afforestation programs in southwestern Nigeria have helped improve carbon sequestration; however, the effect depends mostly on continued implementation and community participation. Waste management and recycling programs promoted by the Ministry of Environment continue to do their job of climate mitigation in Oye Ekiti. Reduce landfill wastes aiming at minimizing methane emissions and promote sustainable consumption. Having a law concerning this shows that the government has acknowledged urban waste as a major emission contributor. By involving citizens in recycling practices, the policy enhances the mindset of the circular economy, thereby reducing illegal dumping and ensuring environmental cleanliness. Ezeudu and Ezeudu (2019) opined that these programs do enhance environmental consciousness in these Nigerian communities and minimize pollution to a great extent when local governments provide the right infrastructure and incentives

The entry of climate change advocacy programs into schools and communities highlights a strategic entry toward extreme awareness and stakeholder participation. These programs exercise an important effect on the mindset and behavioral pattern of youth and community members. In Oye Ekiti, advocacy helps to demystify climate science, encouraging climate-friendly ways of living, and empower citizens to take action on a local scale. This therapeutic intervention strongly correlates with the view of Okpara, Stringer, and Dougill (2021), who emphasized that the continued engagement of focused stakeholders in climate mitigation efforts is directly reliant upon enhanced awareness through external agents who communicate in the local language using culturally relevant tools. Therefore, this strongly suggests that an increase in awareness leads to an increase in climate action.

The attendance of officials from the government at global climate summits such as the Conference of the Parties (COP) is indicative of an emphasis on policy-level alignment and enforcement. This hands-on presence guarantees that Ekiti is abreast of global climate protocols and is carrying into local strategies the best international practices. It also bears the imprint of the political will and capacity of the government to execute in the interest of the public within its jurisdiction. Enforcement of these laws in Oye Ekiti really depends on how well the international obligations are translated into local community-level actions. As Nzeadibe *et al*. (2020) mentioned, Nigeria has enforcement gaps because of poor institutional coordination, lack of funding, and weak legal enforcement. Addressing these issues should go hand in hand with compliance.

Finally, desiltation of drainages to prevent erosion represents both an adaptation and a mitigation policy; it enhances environmental resilience. The policy seeks to address flooding, which has become more frequent due to changing rainfall patterns. The desilting itself is laudable; however, for it to succeed in the long run, the community must cooperate, and the government needs to engage in regular maintenance. Challenges include funding, technical manpower inadequacy, and low awareness. On the other hand, promising strategies would be the use of community-based monitoring, public-private partnerships, and investments in local environmental education. Adeolu *et al*. (2021) further posited that integrating local knowledge and institutions into climate interventions augments outcomes and sustainability of policies, especially in rural and semi-urban areas like Oye. The presence of government representatives at global climate summits, such as the Conference of the Parties (COP), highlights a significant effort to ensure policy alignment and enforcement. This presence ensures that Ekiti remains updated with global climate protocols and integrates international best practices into its local strategies. It also reflects the government's political will and capacity to enforce policies within its jurisdiction. The enforcement of these policies in Oye Ekiti is largely dependent on how well international commitments are translated into community-level actions. As noted by Nzeadibe *et al*. (2020), enforcement gaps in Nigeria often result from poor institutional coordination, inadequate funding, and weak legal frameworks, which must be addressed for compliance to improve.

Awareness of Existence of Climate Change and Effectiveness of its Mitigation Policy Elements

The results of the analysis in Table 2 showed the awareness of the existence of climate change and the effectiveness of its mitigation policy elements. The results showed that 68.3% of the sampled respondents had knowledge about climate change but the majority (71.7%) were unaware of the greenhouse gas. About the sources of cooking energy which invariably have an effect on climate change, the majority of the respondents (33.3%) used cooking gas as the source of cooking energy. About 57.5% of the respondents used a fridge. Majority (58.3%) were not aware of the environmentally friendly usage of some fridge. Waste disposal has a significant effect on the environment and affects climate. The study revealed that 55.8% of the respondents disposed of their waste by burning. Bush meat was being sourced by the usage of traps by 54.2% of the respondents. On the issue of tree cutting replacement, about 63.3% of the respondents did not involve in tree cutting replacement in the study area and this is also as indicated in the findings that majority (73.3%) did not witness tree planting campaign. Majority, 80.0% of the community involved in the study normally witness heavy duty vehicular movement with 80.0% fully aware of the government policies formulated to reduce the emission of greenhouse gases. About 51.7% of the respondents did not comply with the policy despite their awareness of the policies and this was also because the result showed that there were no government agencies put in place to enforce the policies as indicated by about 55% of the sampled respondents. On the effectiveness of the policies in mitigation of emitted greenhouse gases, about 32.5% couldn't ascertain the effectiveness of the policies and this is common with most of the policies not achieving its objectives due to the failure on the side of the government from putting measures in place for the effectiveness of the policies. Madaki, Muench, and Kaechele (2023) found that most farming communities in Nigeria have a general awareness of climate change but lack knowledge about specific causes, such as greenhouse gases. Such findings also revealed that a few households use cleaner methods like LPG for cooking, but waste disposal still largely proceeds through burning, and the use of environmentally-friendly appliances is poorly understood. On the other hand, limited participation in tree planting projects exists, and government enforcement of climate policies remains weak, which weakens the compliance prospects and renders the policies less effective.

Table 2: Awareness of Existence of Climate Change and Effectiveness of its Mitigation Policy Elements

	Frequency	Percentage
Climate Change knowledge		
No	38	31.7
Yes	82	68.3
Greenhouse Gas awareness		
No	86	71.7
Yes	34	28.3
Source of Cooking Energy		
Charcoal	38	31.7
Firewood	32	26.7
Gas	40	33.3
Solar Stove	10	8.3
Fridge Usage		
No	51	42.5
Yes	69	57.5
Awareness of Environmentally Friendly usage of some Fridge		
No	70	58.3
Yes	50	41.7
Waste Disposal method		
Burning	67	55.8
Dump in drainages	6	5.0
Dump in nearby river	17	14.2
Packed by waste vehicles	30	25.0
Bush Meat Source		
Bush burning	12	10.0
Dog hunting	19	15.8
Gun hunting	24	20.0
Traps	65	54.2
Tree Cutting replacement in the community		
No	76	63.3
Yes	44	36.7
Tree planting campaign witness		
No	88	73.3
Yes	32	26.7
Does this community normally witness heavy duty vehicular (Trailers) movement		
No	24	20.0
Yes	96	80.0
Do you know whether there are government policies formulated to reduce the emission of greenhouse gases or not		
No	96	80.0
Yes	24	20.0
Compliance to the policies		
No	62	51.7
Yes	58	48.3
Are there government agents enforcing them		
No	66	55.0
Yes	54	45.0
To what extent would you rate the effectiveness of those policies in mitigation of emitted greenhouse gases		
Effective	26	21.7
Ineffective	29	24.2
Neutral	39	32.5
Very effective	17	14.2
Very ineffective	9	7.5
Total	120	100.0

Awareness and Participation of Stakeholders in Climate Change Mitigation Policy Implementation

The results of the analysis in Table 3 showed the awareness and participation of stakeholders in climate change mitigation policies implementation. The results showed that 53.3% of the respondents were not aware of any government's programmes or initiatives towards climate change mitigation policy implementation. The few who were aware of the policies got to know through television (23.3%). Majority of the community (66.7%) did not join any of the initiative or the program and this is not unconnected to the low-level awareness of the policies.

There was occasional involvement in the participation in the policies as indicated by 43.3% of the respondents while 42.5% were actively involved. Emission reduction (55.0%) was the particular climate change mitigation policy implementation process/ mechanism being partake in by the respondents. Radio (37.5%) had been considered as the most effective means for raising awareness of climate change mitigation and its implementation mechanisms. Olalekan *et al*. (2017) have argued that awareness about climate change policy and stakeholder engagement remain low in rural Nigeria. They observed that more than half of the respondents were not aware of mitigation measures carried out by the government, and among those who are aware, information was largely disseminated through mass media such as radio and television. There was little participation with only a few sporadically engaged in emission-reduction activities. The study further identified radio as a key medium for climate policy awareness and engagement, as opposed to print or face-to-face outreach.

Table 3: Awareness and Participation of Stakeholders in Climate Change Mitigation Policy Implementation

Awareness and Participation of Stakeholders in Climate Change Mitigation Policy Implementation	Frequency	Percentage
Are you aware of any government's programmes or initiatives towards climate change mitigation policy implementation		
No	64	53.3
Yes	56	46.7
How did you get to know about it		
Church	9	7.5
Community Campaign	26	21.7
Community Meetings	10	8.3
Mosque	2	1.7
Radio	21	17.5
Social media	16	13.3
Television	28	23.3
Town Criers	8	6.7
Have you or the community as a whole joined any of such initiatives or programmes		
No	80	66.7
Yes	40	33.3
How would you characterize your participation?		
Active Involvement	51	42.5
Minimal Involvement	17	14.2
Occasional Involvement	52	43.3
What particular climate change mitigation policy implementation process/ mechanism did you partake in		
Emission Reduction	66	55.0
Recycle	36	30.0
Reforestation	18	15.0
What channel do you consider most effective for raising awareness of climate change mitigation and its implementation mechanisms		
Church	5	4.2
Community Meetings	16	13.3
Mosque	5	4.2
Radio	45	37.5
School	15	12.5
Social media	34	28.3
Total	120	100.0

Enforcement and Adherence of the Stakeholders to the Formulated Policy Laws

The results of the analysis in Table 4 showed the enforcement and adherence of the stakeholders to the formulated policy laws. The results showed that the majority of the respondents, 70.0%, were not aware that there exist some laws put in place by the government to ensure effective implementation of the identified policy elements in their area. There were no enforcement agents of climate change mitigation laws in this vicinity (56.7%). Majority (79.2%) had never been confronted by any of the enforcement agents for violating any of the laws. The results showed that 59.2% of the respondents normally obeyed or complied the laws. About 89.2% of the respondents said they had never been found wanting in the violation of any of the laws. Majority, 42.5% suggested alternate resource availability as the determinants of adherence to climate change mitigation policies and laws. Oruonye and Ahmed (2020) stated that enforcement of environmental legislation in Nigeria is grossly compromised by low public knowledge of existing laws, institutional weaknesses including under-staffing and lack of adequate funds, and high levels of corruption, thereby denying rural areas enforcement presence. The authors further observed that while most inhabitants claim that they comply with these regulations, enforcement officers rarely patrol; hence, most of the violators escape punishment. That finding is similar this one where most respondents of the survey were either also unaware of such laws or had never been confronted by agents for violating such laws.

Table 4: Enforcement and Adherence of the Stakeholders to the Formulated Policy Laws

Enforcement and Adherence of The Stakeholders to The Formulated Policy Laws	Frequency	Percentage
Are you aware that there exist some laws put in place by the government to ensure effective implementation of the identified policy elements in your area		
No	84	70.0
Yes	36	30.0
Are there any enforcement agents of climate change mitigation laws in this vicinity?		
No	68	56.7
Yes	52	43.3
Have you ever been confronted by any of them for violating any of those laws?		
No	95	79.2
Yes	25	20.8
Do you normally obey or comply with those laws?		
No	49	40.8
Yes	71	59.2
Have you ever been found wanting in violation of any of those laws?		
No	107	89.2
Yes	13	10.8
In your opinion, what are the determinants of adherence to climate change mitigation policies and laws		
Alternate resource affordability	17	14.2
Alternate resource availability	51	42.5
Awareness of Laws	31	25.8
Strict Enforcement	21	17.5
Total	120	100.0

Challenges and Promising Strategies for Improving Policy Implementation

The results of the analysis in Table 5 showed the challenges and promising strategies for improving policy implementation. The results showed that 70.0% of the respondents said there were no cultural or social factors impacting negatively on the policy implementation. The majority of the respondents (49.2%) suggested that government should take the lead in ensuring that climate change mitigation policies succeed. Akinwale *et al*. (2025) argued that Nigeria's environmental policy and climate resilience success depends primarily on governance quality and political will instead of cultural or community resistance. The authors established that effective government leadership together with institutional commitment acts as the main factor to overcome implementation challenges.

Table 5: Challenges and promising Strategies for Improving Policy Implementation

Challenges and Promising Strategies for Improving Policy Implementation	Frequency	Percentage
Are there cultural or social factors impacting negatively on the policy implementation?		
No	84	70.0
Yes	36	30.0
Who should take the lead in ensuring that climate change mitigation policies succeed?		
Community Leaders	21	17.5
Government	59	49.2
Individuals	19	15.8
NGOs	21	17.5
Total	120	100.0

Factors Influencing Participation of Stakeholders in Climate Change Mitigation Policy Implementation

The logit regression model was estimated using STATA 13 software in estimating factors influencing participation of stakeholders in climate change mitigation policy implementation in the study area. The estimated coefficients of the model, along with the t-values are presented in Table 6. Educational status of the respondents had an estimated coefficient of 0.114 and statistically significant and have direct relationship with factors influencing participation of stakeholders in climate change mitigation policy implementation in line with *a priori* expectation at 1% probability level. This implies that an increase in the educational status of the respondents will lead to an increase in stakeholders' participation in climate change mitigation policy implementation in the study area.

Moreso, the communication method (radio as reference point) had an estimated coefficient of 0.000 and statistically significant and had a direct relationship with factors influencing participation of stakeholders in climate change mitigation policy implementation at 1% probability level. This implies that usage of radio as a means of communicating climate change policies to the respondents will increase stakeholders' participation in climate change mitigation policy implementation in the study area when compared to other communication sources. Government programme awareness had an estimated coefficient of 0.172 and was statistically significant and had a direct relationship with factors influencing participation of stakeholders in climate change mitigation policy implementation at 10% probability level. This implies that an increase in the government program awareness level will lead to an increase in stakeholders' participation in climate change mitigation policy implementation in the study area.

Also, presence of enforcement agencies within the vicinity had an estimated coefficient of 0.000 and statistically significant and have direct relationship with factors influencing participation of stakeholders in climate change mitigation policy implementation at 1% probability level. This implies that increase in the presence of enforcement agencies within the vicinity will lead to increase in stakeholders' participation in climate change mitigation policy implementation in the study area. According to Ebele and Emodi (2016), the level of education along with radio accessibility and government programme knowledge and regulatory institution visibility determines how much stakeholders participate in climate change mitigation efforts. The research shows that higher educational attainment leads to better policy understanding which drives increased participation in policy initiatives. The study identifies radio as the most effective medium for climate communication in rural Nigeria and finds that enforcement agencies help increase both participation and compliance.

Table 6: Factors Influencing Participation of Stakeholders in Climate Change Mitigation Policy Implementation

Variables	Co-efficient	S. Error	T-value
Age	0.004	0.018	0.26
Gender	-0.001	0.000	-1.23
Occupation	-0.139	0.435	-0.32
Education level	0.511***	0.114	4.45
Climate change awareness	-0.010	0.070	-0.15
Communication methods	0.000***	0.000	2.56
Government Program Awareness	0.224*	0.172	1.90
Existing Law Awareness	-0.000	0.000	-1.22
Presence of Enforcement Agencies in your Vicinity	0.000***	0.000	2.54
Constant	-1.892	1.316	-1.44

*Source: Field survey, 2025. Note: 1% Significance level= ***, 5% Significance level= ** and 10% Significance level= **

CONCLUSION

The study concludes that the country is suffering with the menace of climate change basically because nothing or little is being done to combat the problem associated with climate, and policies put in place to mitigate the effect of climate change are not yielding the desired results due low level of awareness and strict measures were not put in place for the effective implementation of the policies. Therefore, there should be policy harmonization between the various tiers of government in the country, effective utilization of donor funds, eradication of corruption in the management of the programmes and strict adherence to the various multilateral climate change protocols in place. Also, public education and enlightenment on climate change should be intensified by relevant government agencies, mass media, schools and other public places, this will facilitate public participation in the overall efforts to mitigate the effects of climate change in the country. In the same vein, domestic uses of clean energy sources should be encouraged in Nigeria such as solar, wind and other energy sources. The government should empower enforcement agencies like the customs to seize and confiscate used generators, motorcycles, freezers and second hand or used cars. Lastly, afforestation projects and tree planting programmes should be re-organized and sustained while it is also necessary for the government to arm forest guards for effective policing of our forest so as to reduce or curtail the activities of illegal loggers in the area.

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