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FLOOD AND TRADITIONAL COPING STRATEGY IN AHOADA EAST (2012–2020), RIVERS STATE

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ABSTRACT: *This study focused on the traditional methods of dealing with flooding used by residents in Ahoada East LGA of Rivers State, Nigeria. It aimed to address two research questions using ecological resilience theory as its theoretical framework. A sample of 173 individuals was taken from 10 randomly selected communities out of 81 villages in the LGA. Taro Yamen technique was used for sample selection. Results were analyzed using simple regression (ANOVA) and simple percentages. The findings showed that heavy rainfall was the most frequent cause of flood disasters, and recurrent flooding had a negative impact on people's livelihoods and well-being. The study concluded by recommending that traditional coping mechanisms be adopted by governments in their disaster preparation and response efforts for cultural relevancy programming.*

KEYWORDS: Flood, traditional coping strategies, Ahoada East LGA, Rivers State.

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INTRODUCTION

Floods continue to be one of the key obstacles to a country's growth and have attracted a lot of research over the years, particularly in developing countries. The focus of research on this issue is inextricably linked to its causes, the consequences of painful property losses and sometimes irreversible loss of life, and mitigation strategies. It is undoubtedly one of the main obstacles preventing the inhabitants of Africa from escaping poverty (Olanrewaju, Chitakira, Olanrewaju, & Louw, 2019). According to Nwaogazie and Sam (2020), a flood is a normal result of stream movement in a dynamic environment. The most common natural disasters, floods, have affected over 2.8 billion people worldwide and claimed over 200,000 lives over the previous 30 years (Olanrewaju, Chitakira, Olanrewaju, & Louw, 2019). With 2.3 billion lives affected between 1995 and 2015, floods account for 47% of all weather-related disasters worldwide (UN 2021). Flooding is caused by a variety of intricate and connected factors (Halgamuge & Nirmalathas, 2017; Ahmed & Ghumman, 2019).

Globally, there is growing recognition of the value of traditional coping strategies as an underutilized knowledge base that gives poor nations, especially Africa, a strong asset in disaster techniques (Kemp, 2007). In particular, local people in Africa have been using traditional knowledge to master and monitor climate and other natural systems and build early warning signs for their own advantage and the benefit of future generations since the dawn of humanity (Lerner-Lam, 2007). In the traditional African worldview, environmental resources (land, water, animals, and plants) serve as a crucial component of environmental protection and the prevention, preparation, and reaction to natural disasters, in addition to being a priceless national resource.

Local communities in Africa were more adaptable to environmental change because they had well-developed traditional indigenous knowledge systems for environmental management and coping mechanisms (Boyce, 2000). This information was widely accepted by the majority of the populations where it was kept, and it still is. These communities can easily relate to this information, which also makes it easier for them to comprehend some cutting-edge scientific ideas for catastrophe prevention, preparedness, response, and mitigation. According to OCHA (2016), the effects of floods in Nigeria are comparable to those in Mali, Senegal, Burkina Faso, and Niger, although the coping mechanisms may differ. Massive losses in property, infrastructure, and business have been caused by floods, which have also raised the danger of disease. For instance, the Ogunpa flood in Ibadan in 2011 caused a staggering number of fatalities. As a result of the negative effects on their enterprises, it was observed that roughly 25% of households in Ibadan lost their means of subsistence (WHO, 2016). Floods similar to those in Ogunpa occurred in the Niger Delta in 2012, the states bordering the Niger and Benue in 2012 and 2017, and Lagos in 2011 and 2012. Floods have several advantages when they happen naturally, away from human populations (Opperman, Galloway, & Duvail 2013). However, a natural occurrence turns catastrophic when it occurs in places with extensive human activity, particularly in densely populated areas.

Nwaogazie and Sam (2020) analyzed the severe impacts of the 2012 flood disaster in Nigeria, which resulted in many deaths and displacements due to waterborne infections and other risk factors. In Nigeria, urban areas experience more flooding. During the rainy season, severe urban flooding is frequent in Lagos, Ibadan, Kaduna, Kano, Benin City, Warri, Calabar, and Port Harcourt. Although storms in these cities may not be as severe as those in some developed

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nations (such as Hurricane Katrina, which devastated much of the East Coast of the United States, or Hurricane Sandy, which hit New York), the effects of flooding there are more severe and have become a major concern for the government and the general public (Olanrewaju, Chitakira, Olanrewaju, & Louw, 2019).

A critical review of the various works of literature reveals that the concept of traditional coping strategies for flood disasters is yet to be covered in the study area under investigation, and constraints on efficient techniques and reduction of flood disasters are also yet to be dealt with, as are the areas vulnerable to flooding. Therefore, this paper seeks to identify flood and traditional coping strategies in Ahoada East, Rivers State.

Statement of Problem

Flooding is one of the most dangerous natural calamities the globe is now facing. Natural disasters have incurred significant financial and human consequences since the beginning of time. Some significant natural catastrophes, such as the severe flooding in Pakistan, the enormous earthquake in Haiti, and the tsunami in China, have elevated catastrophic events to the top of the international agenda. These emergency circumstances typically receive a lot of media coverage both in the academic field of disaster studies and in newspapers, TV shows, etc. According to the United Nations' Integrated Regional Information Network (IRIN, 2005), natural catastrophes are occurring more frequently and having a significant impact on the global economy and human population.

Bangladesh has experienced one of the most destructive river flooding episodes in its history. Flooding in the northern part of the country severely affected 6.9 million people, destroyed 593,250 homes, and resulted in the deaths of over 114 individuals (NDRCC, 2017). To respond to and recover from the effects of the last flood, Bangladesh used a variety of coping techniques, including asset disposal and temporary relocation. Over the years, Ahoada East has suffered annual flooding that submerged communities, displaced men, women, and children, destroyed properties, claimed lives, and altered their behavioral pattern. To return to the old pattern is difficult, but in order to survive, the people will think outside the box to adopt a new pattern to cope with the flood.

Through Act 12 as amended by Act 50 of 1999, the Nigerian government formed the National Emergency Management Agency (NEMA) to coordinate and respond to disaster-related operations in Nigeria, such as flooding and accidents brought on by both natural and man-made sources (Adeoye, 2009). The creation of policies, the evaluation of man-made and natural disasters, the supply of mitigation measures for disaster-related activities, and the coordination of plans and programs for providing aid to victims of such disasters are all tasks that fall under the purview of NEMA. In order to create prevention and mitigation strategies to limit flooding in the study region, it is crucial to evaluate NEMA's operations as they relate to the identification of flood risk zones.

The National Emergency Management Agency (NEMA) was established by the Nigerian government under Act 12, as amended by Act 50 of 1999, to coordinate and respond to disaster-related operations in Nigeria, such as flooding and accidents caused by both natural and man-made sources (Adeoye, 2009). NEMA is responsible for developing policies, assessing natural and man-made catastrophes, offering mitigation measures for disaster-related activities, and coordinating plans and programs for helping those affected by disasters. It is essential to assess

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NEMA's operations as they relate to the identification of flood risk zones in order to develop prevention and mitigation methods to reduce flooding in the study region.

On the topic of floods and coping mechanisms, prior research by Kushe and Mtembenuzeni (2018) is accessible. Research was conducted in the Chikuse Traditional Authority area of Chikhwawa to determine why floods continue to damage people despite their frequent occurrence. The pressure and release model (PAR) and the access model were used to critically analyze the assessment of local residents' vulnerabilities. Through interviews, focus groups, and the utilization of interviews, data from the communities was gathered. The interrelationships between pressure circumstances, access/release conditions, vulnerability, and disaster situations were understood using the cluster and circle techniques. The study showed that floods have a major impact on people's socioeconomic circumstances.

In a study focused on Ahoada West LGA, Adaku, Oduduabasi, and Francis (2019) analyzed the susceptibility and protective measures to the flood disaster in Rivers State. The study analyzed the socioeconomic traits of the study population, determined the causes of flood outbreaks, calculated how frequently flood outbreaks occurred in the study area, determined factors that hindered effective management of the flood disaster, and determined how vulnerability to the flood disaster could be minimized, as well as the most vulnerable areas and the coping mechanisms used by the populace. This study looked into the customary coping mechanisms that the residents of Ahoada East LGA used when it flooded. As a result, this study is being done to assess how natives of Ahoada East LGA traditionally cope with flooding.

Research Objectives

The two main objectives of this research are:

to identify the traditional coping strategies among people under investigation

to identify causes of flooding that led to traditional coping strategies.

Research Questions

There are two research questions to be answered:

What are the traditional coping strategies adopted by the people under study?

What are the causes of flooding that lead to traditional coping strategies?

LITERATURE REVIEW

Traditional flood coping involves balancing and integrating the restoration of natural features and processes with existing land uses. As a result, it does not involve setting aside enormous amounts of land; instead, it focuses on enhancing existing defenses and preparing them for climate change. Traditional flood techniques can be utilized in conjunction with more conventional engineering approaches to, for instance, shorten the lifespan or reduce the height needed for flood walls or embankments. It entails dredging rivers by excavating additional burrow pits and curves and removing fine sand, clay, and small pieces of rock from the riverbed in order to boost the river's capacity to carry water downstream (SEPA, 2015), clearing clogged

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drainages to allow for water channelization. This is especially crucial in view of predicted climate change, which indicates that the protective standards we put in place now may not be adequate in the coming decades. Planting cover-producing vegetation, such as grass or clover, as opposed to leaving bare soil, prevents soil erosion, preserves soil fertility, and lowers surface runoff (Pattison, 2021).

In the aftermath of natural disasters such as floods, different vulnerabilities and victims used various coping mechanisms. According to Davis (1996), "the consequence of coping methods is that the victimized person's portfolio of activities changes to deal with extraordinary stress." The relatively brief periods of stress experienced by flood victims include shock, grief, and bereavement. Additionally, during the recovery and rehabilitation phases, afflicted victims make an effort to maintain their way of life by adopting coping mechanisms. Coping mechanisms are understood as a spectrum of actions ranging from external to internal causes or as methods of controlling, adjusting, and responding to the danger, directly associated with threat and survival. However, it is a fact that every coping mechanism has a social cost. It is important to remember that there is no universal standard for coping mechanisms. It varies according to sociocultural elements, including place, community, social group, home, gender, age, circumstance, season, and time period, which are all strongly influenced by people's prior experiences (Davis, 1996; Blaikie, 1994).

Flood-prone areas should plan for disaster well in advance of the rainy season by stocking up on food, clean water, and animal feed because these essentials can be hard to come by in times of flooding when movement is restricted. The rise in the water level is constantly watched, even at night, and rafts built from banana trunks are always on standby. As additional defenses against the spread of floods, sandbags, frozen cement, and bricks are also kept on hand.

Additionally, the vulnerable communities have voluntarily created Community Based Organizations (CBOs) to aid one another in times of need, such as flood catastrophes, by conducting search and rescue operations and treating the injured. Additionally, the volunteers plan school-based campaigns, public plays, folk songs, and rallies to spread flood awareness throughout the year. Governmental organizations frequently train these CBOs in preparedness strategies, capacity development, and first aid administration.

Risk management and flood mitigation are not solitary endeavors. Long-term realization will necessitate a collective effort. Therefore, the government cannot handle it on its own, and religion can help improve flood risk management. The majority of religious organizations see it as a means of approaching religion in a way that is more rational and scientific. The majority of churches adopt a scientific strategy by analyzing the environment through their regular contact with it (Iguisi, 2019). Even before government engagement reaches the devastated populace, religious organizations are usually used as a forum for flood calamity victims to gain some sort of support during inundation. This indicates how non-governmental organizations and religious institutions have developed into crucial havens for disaster victims. Most of the time, the government asks reputable religious groups or quasi-governmental organizations (NGOs) to help those who have been harmed by natural disasters like floods or societal issues.

There are various causes of flooding. Kakulu and Brisibe (2014) made it clear that low-lying areas are prone to inundation. Imegi (2014) grouped the causes into two categories: natural causes and man-made causes. Man-made causes of flooding include absence of drainage or

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blockage of drainage, burning of fossil fuels, lack of town planning, subsidence, river dumping, a poor road network, and the construction of dams. The natural causes of flooding include the greenhouse effect, climate change, river overflow, hurricanes, tornadoes, monsoon rains, and moon phases.

Flood mitigation and risk management are collaborative efforts. A team effort will be required for long-term realization. Because of this, the government cannot manage it alone, but religion can aid in better flood risk management. Most religious organizations view it as a method to approach religion in a more logical and scientific way. Most churches use a scientific approach, studying the environment based on their regular interactions with it (Iguisi, 2019). Religious organizations are typically employed as a venue for flood disaster victims to get some type of support during inundation, even before government intervention reaches the damaged populace. This demonstrates how non-governmental organizations and places of worship have evolved into vital safe havens for those affected by natural disasters. The majority of the time, the government invites respectable religious institutions or non-governmental organizations (NGOs) to assist those who have been hurt by societal problems or natural catastrophes like floods.

Among the flood control techniques that have been used in the past are planting vegetation to hold back extra water, creating flood forecasting systems, building drainage systems and dams, ensuring population awareness and readiness, proactive town planning, discouraging development in flood-prone areas, and developing other institutional capacities that are tasked with environmental consciousness and management. According to Nwaogazie and Sam (2020), the amount of flood information that is accessible and awareness of the places that are likely to be affected during a flooding event will have a significant impact on the ability to reduce flood risk. "Early Warning" is recommended by Agbonkhese, Yisa, and Daudu (2014) as a preventative method to reduce the flood threat in Nigeria. Early warning is a proactive system in which recognized bodies or agencies study the climate and how people interact with the environment to predict when floods will happen. They then send warnings to both individuals and government structures so that they can be ready and stop floods from happening, preventing loss of lives and property and the spread of diseases (Agbonkhese, Yisa, & Daudu, 2014).

Ngenyam, Miles, and Gordon (2018) investigated the sustainable livelihoods of Northern Cameroon's floods. The Sustainable Livelihood conceptual framework is first applied and modified to the situation in Northern Cameroon. Secondly, this study evaluates the 2012 floods, which are regarded as the worst to impact Northern Cameroon, and thirdly, it looks at how regular flooding affects food security and livelihood assets, concentrating on two case study locations. Findings show that key infrastructure is frequently severely damaged by floods, with severe consequences for food security and livelihood resources. In order to promote additional improvements to the Sustainable Livelihood framework, the essay finally draws on actual facts related to the post-2012 flood in Cameroon. According to the authors, there is a significant amount of "value added" if the framework allows for a more explicit disaster management perspective. Further insights into the future role of changing structures and processes that affect livelihood strategies and result in a food-insecure Cameroon confronted with increasingly regular flooding are also made available by the explicit integration of disaster management perspectives.

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In order to determine the level of preparedness for flood coping mechanisms among residents of the Apete Community in Ibadan, Femi and Olutayo (2015) performed a study. In order to conduct the study, the researchers used a random sampling approach in which 172 household heads completed a standardized questionnaire concentrating on the socioeconomic characteristics of residents, causes, impacts, and control measures of flood disasters (44 in Fanawole, 41 in Morubo, 35 in Papa, 2 in Apete-Oja, and 27 in Akere). Community representatives were extensively questioned about their coping mechanisms. Quantitative data were evaluated by descriptive statistics and Pearson product moment correlation at a 0.05 level of significance, while qualitative data were content assessed.

Theoretical Framework

This work is theoretically framed using Norman's theory of environmental resilience. Norman Garmezy (1974) propounded the theory of "ecological resilience," which aims to comprehend the causes and functions of ecological changes, especially those that alter the activities that affect the ecosystem in a certain geographic area. It is a hypothesis of dynamic cycles connected across both temporal and spatial dimensions. According to the resilience theory, how we respond to and manage flooding disasters when they happen is more significant than their specific characteristics. Resilience aids us in overcoming hardship, bad luck, or environmental frustration. It aids in our ability to endure, bounce back from, and even flourish after adversity, but that is not all it does (Duarte et al., 2017). According to Duarte et al. (2017), Holling (1973) originally defined resilience in an ecological context as the amount of disturbance an ecosystem could tolerate without affecting its self-organizing processes and structures. Recently, there has been a movement toward embracing the idea and using it to explain how human civilizations function in relation to sustainability (Duarte et al., 2017). However, resilience, like sustainability, is a wide notion that can be interpreted in many different ways (Gunderson, 2000). According to Duarte et al. (2017), resilience can be viewed as the preservation of opportunities, which implies the requirement for some sort of action or intervention during flooding. This theory is relevant to this work because it offers a strong theoretical framework for interpreting recent developments and ecological phenomena that are shaped by our ability to adapt to our environment. This theory also has clear implications for understanding decision-making behavior during flooding. It offers a sociological and psychological perspective on how to handle flooding situations and other environmental difficulties by accepting the state of the environment and seeking help when needed. This suggests that environmental problems have a temporal dimension, just like natural disasters. As a result, when flooding becomes uncontrollable by humans, residents of flood-prone areas can adapt to a new environment.

METHODOLOGY

A descriptive survey design was used for this study. The researcher's optimal decision to use the descriptive survey method was due to the fact that the survey would focus on vital facts, people, and other attributes. Hence, the study used primary and secondary sources of data. The study population included respondents from selected communities in Ahoada East. The LGA is made up of 81 communities, but only 10 communities were selected through simple random sampling for the purpose of this study. The study area is Ahoada East LGA, with a population of 233,700 (NPC census data, 2006). Simple random techniques were adopted to choose groups that represented the entire communities. 173 samples were drawn from the total population

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using the Taro Yamen method of sample selection. The data collected were subjected to descriptive statistics, using simple statistical tools in analyzing the research questions. Inferential statistics of simple regression and ANOVA were used to unravel the substantial association.

RESULT AND DISCUSSION

Administration and Retrieval of QuestionnaireS

In order to effectively cover the scope of this study, 173 copies of questionnaires were properly completed and returned, and analysis was conducted from the 200 copies of questionnaires that were administered as indicated in Table 1.

Table 1: Administration and Retrieval of Questionnaire from the 10 Communities

S/No.	Communities	Estimated no. of household	Respondents	No. of Questionnaires retrieved
1	Igbu Ogbor	250	30	27
2	Odiemelu	300	20	14
3	Edeoha	273	25	24
4	Abarikpo	89	18	16
5	Ulaehuda	100	15	15
6	Ihugbogo	120	12	9
7	Ikata	280	22	10
8	Ogbele	300	15	11
9	Odiabidi	260	26	23
10	Odiokwu	300	25	24
		2272	**200**	**173**

***Source**: Researcher, 2021.*

Table 1 shows the retrieval of 173 questionnaires from respondents out of the 200 copies of the questionnaire served.

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Research question 1: What are the causes of flooding that lead to the adoption of traditional coping strategies in Ahoada East LGA?

Table 2: Causes of Flooding in Ahoada East LGA

	Communities	Factors						
		Blocked Drains	Houses On Flood Plain	Heavy Rainfall	Absence Of Drainage	Poor Heading To Prediction	Others	Total
1	Igbu Ogbor	10	2	10	5	-	-	27
2	Odiemelu	3	-	4	4	-	3	14
3	Edeoha	7	-	10	7	-	-	24
4	Abarikpo	5		8	3			16
5	Ulaehuda	5	-	7	3	-	-	15
6	Ihugbogo	2	-	4	3	-	-	9
7	Ikata	4	-	6		-	-	10
8	Ogbele	8	-	2	1	-	-	11
9	Odiabidi	5	-	15	3	-		23
10	Odiokwu	9	-	11	2	-	2	24
	Total	**58**	**2**	**77**	**31**	0	**5**	173

Source: Researcher, 2021.

Table 2 shows the opinions of individuals residing in the various communities that make up the study area on the causes of flooding. Out of the 173 people under study in about 10 communities, the opinions were based as follows: blocked drains (58 persons), heavy rainfall (77 persons), absence of drainage (31 persons), houses on flood plains (0 persons), and others (5 persons). As a result, this report indicates that heavy rainfall is the primary cause of floods in AELGA, as the majority of indigenous people believe.

What are the traditional coping strategies employed by the people of Ahoada East LGA?

Table 3: Traditional Coping Strategies

	Communities	Traditional coping strategies						
		Planting of cover crop	Use of sand bag	Construction of buildings above flood level	digging of more burrow pit, curvet	Stream channel	Others	Total
1	Igbu Ogbor	4	10	1	5	7	1	27
2	Odiemelu	2	8	-	-	4		14
3	Edeoha	3	6	4	7	4		24
4	Abarikpo	2	8	2	2	2		16
5	Ulaehuda	1	4	3	4	3	-	15
6	Ihugbogo	2	4	1	1	1		9
7	Ikata	1	3	1	3	1	1	10

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8	Ogbele	3		3	3	2		11
9	Odiabidi	1	14		4	3		23
10	Odiokwu	2	9	4	4	3	2	24
	Total	21	66	19	33	30	4	173

***Source**: Researcher, 2021.*

Table 3 shows the opinions of individuals residing in the various communities that comprise the study area on the traditional coping strategy of flood disaster in Ahoada East LGA. Out of the 173 people under study in approximately 10 communities, the opinions were based on the following: use of sag bags as a traditional coping strategy (66 persons), digging of more burrow pits and curvets (33 persons), stream channels (30 persons), planting of cover crops (21 persons), and construction of dams (21 persons). As a result, according to the majority of indigenes, the use of sag bags is the most applicable traditional coping strategy for flood disaster in Ahoada East LGA.

Summary of Regression Analysis between Traditional Coping Strategy Variables and Flood Occurrence in the Study Area

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.545	2.584		4.854	.000
	Flood	.855	.039	.859	21.988	.000

Dependent Variable: People's Lives

The standardized beta coefficient is .859, as shown in Table 5. When subjected to an alpha level of significance of.05.000, the t-calculated value of 4.854 associated with simple regression is significant at .000. Therefore, the null hypothesis is rejected, and hence there is a significant influence of floods on people's livelihoods. By implication, traditional measures of flood control are a good predictor of flood management strategies since the probability level was less than 0.05.

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Flood[b]	.	Enter

Dependent Variable: People's Lives
All requested variables entered.

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ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33101.148	1	33101.148	483.467	.000[b]
	Residual	11707.731	171	68.466		
	Total	44808.879	172			

Dependent Variable: People's Lives
Predictors: (Constant), Flood

DISCUSSION OF FINDINGS

Research question one sought to determine the causes of flooding that led to the adoption of traditional coping strategies in the study area. To do this, the numbers of respondents from each of the chosen communities were compared, along with their levels of agreement on each item. The findings indicated that excessive rainfall is the primary contributor to flood disasters. Furthermore, when exposed to an alpha level of significance of 0.05, the t-calculated value of 4.854 linked with simple regression is significant at .000. Given that the likelihood level was less than 0.05, it follows that conventional flood management techniques are an effective predictor of flood coping mechanisms. Given that rainfall is fundamentally difficult when the water table is high or above sea level, this outcome was widely anticipated. This current discovery supports the findings of Adaku, Oduduabasi, and Francis (2019), who examined Ahoada West's flooding as a result of heavy rainfall in their study on the flood disaster's susceptibility and protective measures in Rivers State. This study supports the findings of Ngenyam, Bang, Miles, and Gordon (2018), as well as Adaku, Oduduabasi, and Francis (2019), who discovered that flooding is largely influenced by the local climate.

The second research topic focused on the customary coping mechanisms used by Ahoada East LGA residents to stop flooding outbreaks. This was done by comparing the number of responses from each of the chosen groups with their levels of agreement on each topic. Out of the 173 people who participated in the study in 10 communities, the findings revealed that the opinions were based on the following: the use of sag bags as a traditional coping strategy (66 people), the digging of additional burrow pits, curves, and stream channels (33 people each), the planting of cover crops (21 people each), the construction of buildings above flood levels (19 people), and others (4 persons). The majority of the locals in Ahoada East LGA agree, as shown by this report, that the use of sag bags is the most practical traditional response to a flood calamity, followed by stream channelization. This study supports the findings of SEPA (2015), which revealed that traditional coping mechanisms include expanding burrow pits and dredging rivers to remove fine sand, clay, and small pieces of rock from the riverbed, which may boost the river's ability to carry water. clearing of obstructed drainages to enable water channelization (Pattison, 2021). This is especially crucial in view of predicted climate change, which indicates that the protective standards we put in place now may not be adequate in the coming decades.

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CONCLUSION

This work observed that persistent floods are a setback because they affect the livelihoods and general well-being of humans. The high mortality rate of children from diarrheal epidemics, malaria, and typhoid fever brought on by stagnant and contaminated drinking water is a result of persistent floods. The manmade causes of the floods in Nigeria must also be addressed through a review of urban and environmental planning and management in order to move forward and ensure sustainable development. Nigeria must address the threat of floods if it is to meet its sustainable development targets.

RECOMMENDATIONS

Based on the findings, the following recommendations were made:

1. To prevent landowners in Ahoada East LGA from encroaching on wetlands and other restricted areas, the Ministry of Lands and Environment should regularly inspect compliance with land policies.

2. In order to better plan for and respond to disasters, governments should adopt these strategies. Traditional ways of coping can make a big difference in how easy it is for the donor and the community to use them in culturally relevant programming.

3. To prevent floods, the local government should be urged to construct drainage systems in the streets or other locations that have been classified as flood-prone zones.

4. The government should send a representative to assist in setting up a seminar for the redesign of dumpsites. This will lessen the likelihood of flooding.

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