Assessment of Socio-Economic Impact of Flood: Evidence from Semi-urban Areas of Ile-Ife, Osun State, Nigeria

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Abstract— *This study assessed the socio-economic impact of floods in semi-urban areas of Ile-Ife, Osun State, Nigeria, to identify the causes of flooding in the rural areas and the adaptation mechanisms employed by people in the study area. The study was carried out in the semi-urban areas of Ile-Ife (Esinmirin and Omirin, Eleyele, Ogbon-Agbara, and Akarabata) with a population size of three hundred and sixty-six (366) households, out of which one hundred and seventy-five (175) households constituted the sample size of the study. Slovin's formula was used to determine the sample size. The data were obtained through the administration of questionnaires to the respondents, and the data collected were analyzed using descriptive statistics such as frequency and percentage counts. The results obtained from the study showed that improper drainage systems (81.1%), waste dispositions into the stream (79.5%), buildings on the floodplain (93.7%), and improper building layout (76.5%), respectively, are the major causes of flooding in the study areas. The study also established that improved and respected building structures and codes (80.5%), packing of valuable properties to an area not affected by flood (80.6%), and also use of a protected wall to reduce the speed of flood water (53.3%), respectively are the adaptation mechanism employed in the study areas. The study concluded that the improper building layout, encroachment of flood plain, improper drainage systems, and lack of proper waste disposal centers are the factors responsible for flooding in the study areas*.

Keywords— Flood, Socio-economic, Perception, Awareness, and Adaptation.

I. INTRODUCTION

Flood is a notable natural disaster that can severely damage an area's social, economic, and infrastructural facilities and innovation (Rahman *et al*., 2020). Flooding is defined as an overabundance of water flowing onto normally dry land (Djimesah *et al.*, 2018), for example, when rainfall surpasses the soil's absorptivity, resulting in substantial environmental implications (Nwachukwu *et al.*, 2018). Flooding has become more common in recent years, with 70 % of the population worldwide exposed to flooding each year and over 800 million residing in flood-prone areas (Kundzewicz *et al*., 2014; Andreadis *et al*., 2022). During 1-in-100-year flood events, 1.47 billion people, or 19% of the world's population, are directly exposed to noteworthy risks (Johnson, 2023). Natural factors that contribute to flooding include heavy rainfall, storms, and hurricanes (Salhab, 2024). Human factors include land use changes such as urbanization and deforestation, which can increase the amount of runoff and make it harder for water to be absorbed into the ground (Alshammari *et al*., 2023). Climate change also plays a role, as it can cause sea levels to rise and lead to more frequent and severe floods (Das and Swain, 2024). Additionally, inadequate infrastructure and poor land-use planning can also contribute to flooding in developing countries (Umar and Gray, 2022).

Overflowing rivers flood one-fifth to one-third of the country each year during the pre-monsoon (April to May) and monsoon (June to September) seasons (Rahman, 2019). These floods cause physical damage to crops, buildings, and other infrastructure, along with social disruptions and both direct and indirect monetary losses (Baky *et al*., 2020; Abubakar *et al*., 2020). Flooding has been the most common natural hazard in Africa over the last decade, and Nigerians have experienced two major floods in the past 50 years, in 2012 and 2018 (Umar and Gray, 2022). Flood hazards are considered among the most significant natural disasters in terms of human impact and economic loss (Jonkman, 2005; Yu *et al*., 2022). Developing countries, especially those in Africa, face substantial challenges in managing floods (Anwana and Owojori, 2023). While developed nations have emphasized flood control and prevention, many developing countries, such as Nigeria, still struggle with this issue (Olawuni *et al*., 2015; Eneh *et al*., 2024). Adeloye and Rustum (2011) also examined urban flooding in Nigeria and found that human activities, including deforestation, indiscriminate waste dumping, and floodplain encroachment, are more significant contributors to the problem than climate change.

Flood disasters, according to Olawuni *et al*. (2015) and Aslam *et al*. (2021), are aided by ethically questionable human activities along the floodplain. (Garg, 2010) believes that flood losses are measurable in monetary units and that they can include livestock and cattle losses, as well as personal damage to property. Furthermore, disaster reduction, contingency planning, and prevention must consider socioeconomic factors in addition to geological and meteorological aspects. Flood disasters in Nigerian cities and towns in recent years have caused great concern and challenges for residents, governments, and researchers (Aderogba, 2012). Since August 8, 2011, the government of Osun (Osun Defender, 2011) has listed Ile-Ife town as one of the state's flood-prone areas due to floods that occur every year during the rainy season. Esinmirin and Omirin, Eleyele, Ogbon-Agbara, and Akarabata are the locations listed in Ile-Ife. As a result, the continuous occurrence of flooding in Ile-Ife virtually every year has prompted the need to investigate the socioeconomic impact of flooding in the areas.

Much of the research on flooding in Nigeria has indeed focused on urban areas such as Ibadan, Port Harcourt, and Lagos. However, it is also important to consider the possibility of floods in rural settings, as these areas may be more vulnerable due to factors such as a lack of infrastructure and resources to mitigate and respond to flooding. Factors such as improper channeling of drainage, floodplain encroachment, deforestation, and indiscriminate dumping of refuse contribute to urban flooding, but different or additional factors may be responsible for flooding in semi-urban or rural areas. Therefore, conducting research in these areas is crucial for understanding the potential risks and developing effective strategies for flood management and disaster response in Nigeria. This research, therefore, strictly focuses on the factors responsible for the flood, socio-economic impacts, perception, awareness levels, and the adaptation mechanisms of the populace in the Semi-Urban areas of Ile-Ife, Osun State, Nigeria.

II. RESEARCH DESIGN AND METHODOLOGY

2.1 Study design:

The study employed a quantitative approach. The study was conducted in four (4) different locations in semi-urban areas of Ile-Ife town, Osun State, Nigeria, and those locations were selected because they are flood-prone areas that experience floods every year during the rainy season. The study data were derived from fieldwork involving the administration of a questionnaire.

2.2 Sample population:

All households of the semi-urban area of Ile-Ife constituted the population for the study. Ile-Ife is located between latitudes 7°28′N and 7°45′N and longitudes 4°30′E and 4°34′E with a population of 501,952 residents. The following areas are purposively selected as the sample sites; (Esinmirin and Omirin, Eleyele, Ogbon-Agbara, and Akarabata) Ile-Ife. Figure 1 indicated map of Ile-Ife, Osun State and their coordinates were obtained using hand-held global positioning system (GPS).

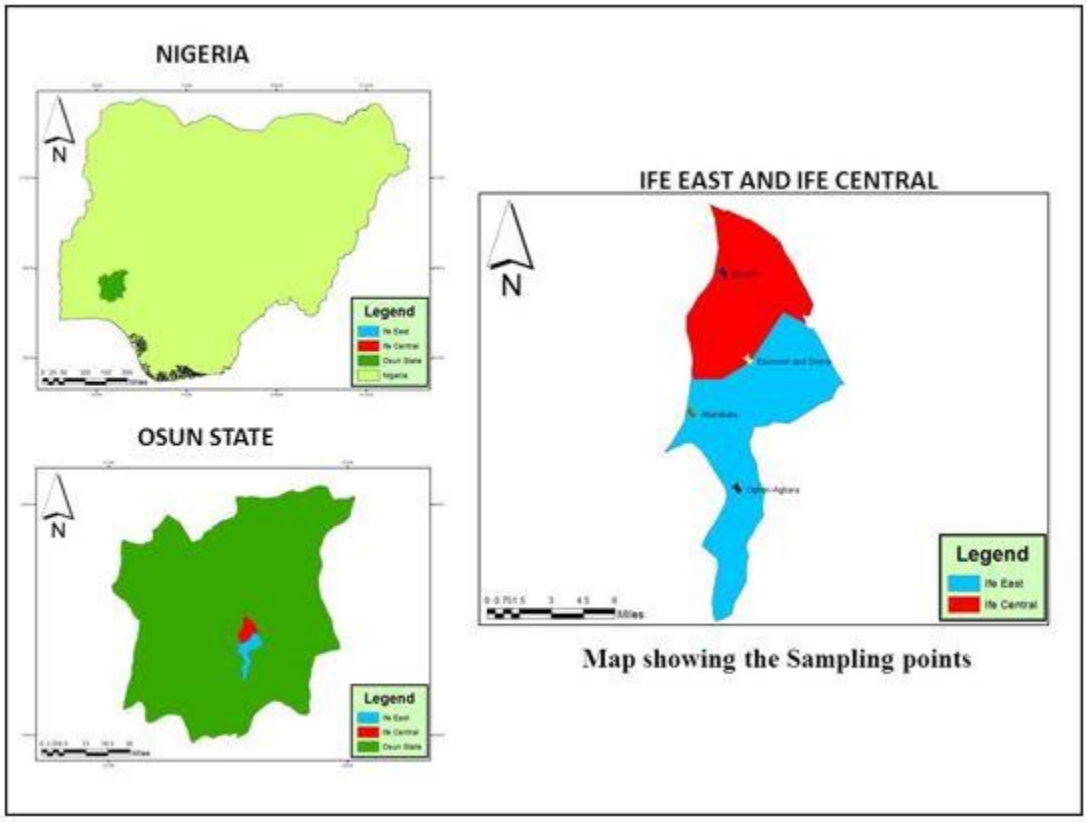

FIGURE 1: Map of Nigeria, Osun State, and study areas in Ife East and Ife Central

2.3 Sample size determination:

Based on the aim of this study in assessing the socio-economic impact of flood in four different locations of Ile-Ife semi-urban areas, the sample size was determined with the use of slovin's formula. The size of the sample in each location was chosen in relation to the household total population size of the area.

Slovin's formula,

$$n = \frac{N}{1+Ne^2} \quad (1)$$

Where n= Number of samples; N= Total population and e= Error tolerance at confidence level of 95% (0.05 margin error) and the population size of the household in the study areas was Three hundred and sixty-six (366), out of which one hundred and seventy-five (175) were the sample size based on the above formula at 95% confidence level.

2.4 Data collection:

The data was obtained through fieldwork involving the administration of questionnaires to one hundred and seventy-five (175) respondents from four (4) different sample household locations of semi-urban areas of Ile–Ife, Osun State, Nigeria, which were randomly sampled are Esinmirin and Omirin 140(76), Eleyele 70(33), Ogbon-Agbara 104(50), and Akarabata 104(50).

2.5 Data analysis:

Data collected were coded and entered into SPSS Windows version 20, and the data were analyzed through the use of descriptive statistics such as frequency counts and percentage counts.

III. RESULTS

3.1 Demographic distributions of the respondents in the semi-urban areas of Ile-Ife:

The demographic distributions of the respondents in the semi-urban areas of Ile-Ife are presented in Table 1. The results showed that (61.1%) of respondents were male. The findings also showed that the majority of the respondents (44.6%) were between the ages of 46 and 60 years. Most of the respondents did not have a formal education (32.0%), while 29.1% and 14.3% of them

had secondary education and tertiary education, respectively. The result indicated that the majority of the respondents (29.1%) had lived in the community for about 11-15 years. The study showed that 66.9% of the respondents are christians. The relative proportion of the respondents in percentage frequency of the sample locations of the respondent is as follows, Esinmirin and Omirin 67 (33.3%), Eleyele 33 (18.9%), Ogbon- agbara 50 (28.6%), and Akarabata 25 (14.3%). The result showed that most of the respondents (78.3%) are married. This indicates that the majority of the respondents have those they are responsible for, i.e., families

TABLE 1
SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS IN THE SEMI-URBAN AREAS OF ILE-IFE

Variables	Levels	Frequency	Percentage (%)
Sex	Male	107	61.1
	Female	68	38.9
Age	16-30 years	6	3.4
	31-45 years	32	18.3
	46-60 years	78	44.6
	61-75 years	51	29.1
	76-90 years above	8	4.6
	Total	175	100
Educational level	No formal	56	32.0
	Primary	23	13.1
	Vocational	20	11.4
	Secondary	51	29.1
	Tertiary	25	14.3
	Total	175	100
No of years in the community	< 5 years	22	12.6
	6-10 years	45	25.7
	11-15 years	51	29.1
	16-20 years	23	13.1
	Above 20 years	34	19.4
Religion	Christianity	117	66.9
	Islam	49	28.0
	Traditional	9	5.1
Sample's location	Esinmirin and Omirin	67	38.3
	Eleyele	33	18.9
	Ogbon-Agbara	50	28.6
	Akarabata	25	14.3
Marital Status	Single	12	6.9
	Married	137	78.3
	Widow	25	14.3
	Divorced	1	0.6
	Total	175	100

3.2 Sources of livelihood of people in the semi-urban areas of Ile-Ife:

The sources of livelihood of people in the semi-urban areas of Ile-Ife are presented in Table 2. The study showed that trading (32.6%) is the most common livelihood activity, followed by farming (24.0%) and civil service (12.6%) of the people in the study areas. Other prominent livelihoods comprise handicraft and tailoring, with each accounting for 6.9%, whereas clerical work (5.1%), teaching (4.6%), and bricklaying (2.9%) signify reduced proportions. The least common sources of livelihood of people in the study areas include hairdressing, with 0.6% of the total respondents. The results indicated that 4.0% of the total respondents living in the study areas engaged in other sources of livelihood.

Generally, the findings indicated that people in the study areas engaged in different occupations as their sources of livelihood, with a substantial dependence on informal commercial practices, mainly trading and farming, which in total gave 56.6% of the total respondents to the source of livelihood of people in the semi-urban areas of Ile-Ife.

TABLE 2
PERCENTAGE FREQUENCY OF THE RESPONDENT SOURCE OF LIVELIHOOD OF PEOPLE IN THE SEMI-URBAN AREAS OF ILE-IFE

Means of Livelihood	Frequency	Percent
Civil service	22	12.6
Trading	57	32.6
Farming	42	24.0
Teaching	8	4.6
Tailoring	12	6.9
Hairdressing	1	0.6
Bricklaying	5	2.9
Handicraft	12	6.9
Cleric	9	5.1
Total	168	96.0
Others	7	4.0
Total	175	100.0

3.3 Possible factors responsible for flooding in the semi-urban areas of Ile-Ife:

The possible factors responsible for flooding in the semi-urban areas of Ile-Ife, Osun State, Nigeria are presented in Table 3. The results of the findings indicated that (93.7%) of the total respondents agreed that there is no proper drainage system in their area. The majority of the respondents (70.9%) strongly disagreed with the fact that waste is always been disposed of into the stream in their houses. Most of the respondents (75.4%) agreed that the closeness of houses to the stream/river in their area contributes to flooding activities. The result of the study also indicated that the majority of the respondents (72.6%) disagreed that land in their area is cheaper compared to other locations in the community. The results also reveal that most of the respondents (61.1%) disagreed that the land in their area is close to the commercial center of the town. (95%) of the respondents disagreed that their area was overpopulated.

From the study, 81.1% of the respondents disagreed that the land where they built their house is an inheritance. The majority of the respondents (96.6%) disagreed with the carefree attitude toward drainage system management. Most of the respondents (54.9%) disagreed with the fact that there are no drainage systems at all in their area. The results from the study showed that the majority of the respondents (93.7%) agreed that their house was situated on the floodplain. The study revealed that the majority of the respondents (89.7%) agree that there are no proper waste disposal centers in their area. Some of the respondents (76.5%) agreed that flooding in their area is a result of improper building layout, the study maintained.

TABLE 3
POSSIBLE FACTORS RESPONSIBLE FOR FLOODING IN THE SEMI-URBAN AREAS OF ILE-IFE

Factors	Percentage Level of Response			
	Strongly Agree	Agree	Strongly Disagree	Disagree
No proper drainage systems	81.1	12.6	5.1	1.1
Waste disposed into the stream	5.7	13.7	70.9	8.6
Closeness of house to the stream/ river	56	19.4	18.9	5.1
Cheapness of land	4.6	22.9	61.7	10.9
Land closeness to the commercial center	5.1	33.7	52	9.1
Overpopulation	0	4.6	73.7	21.7
Land is an inheritance	1.7	16.6	65.1	16
Care free attitude to drainage management	0.6	2.9	73.7	22.9
Absence of drainage systems	29.7	12.6	12.6	42.3
Building house on the flood plain	73.1	20.6	4.6	1.1
No proper waste disposal center	6.3	83.4	9.7	0.6
Improper building layout	25.1	51.4	18.3	5.1

3.4 Socio-economic impact of flood in the semi-urban areas of Ile-Ife:

The socio-economic impact of flood in the semi-urban areas of Ile-Ife, Osun State, Nigeria is presented in Table 4. The result revealed that (57.7%) of the respondents' businesses/means of livelihood have been affected by the flood. The findings also show that (82.9%) of the respondents had fall victim to a reduction in their household income due to the menace of a flood. It was revealed that the majority (93.7%) of the respondents spent more money on their houses due to the activities of the flood. The findings show that the majority of the respondents (97.1%) have not lost any of their households to flood activities. The result revealed that (93.7%) of the respondents engaged themselves in economic activities to prevent flood activities from affecting their properties.

The majority of respondents' households (77.7%) have not received support from the government. It was revealed that (79.4%) of the respondents do not have access to any form of credit in supporting either their business or managing the impact of a flood on their means of livelihood. The results revealed that a larger percentage of the respondents (84%) had not borrowed money to solve flood problems. The majority of the respondents (86.9%) consider living in their area risky. The study also revealed that (89.7%) of the respondents consider owning a property in their area risky. The result of the findings also shows that (85.7%) of the respondents were battling with flooding and are unable to move their business due to financial constraints. The study revealed that (97.7%) of the respondents agreed that the cost of living is affected by the flood.

TABLE 4
RESPONDENTS' LEVELS OF RESPONSE TO THE SOCIO-ECONOMIC IMPACT OF FLOOD, IN THE SEMI-URBAN AREAS OF ILE-IFE

Questions	Percentage Level of Response (n=175)			
	Freq	YES (%)	Freq	NO (%)
Business/means of livelihood Affected	101	57.7	74	42.3
Properties have been destroyed	162	93.2	12	6.9
Household income affected	145	82.9	30	17.1
Increased house maintenance cost	164	93.7	11	6.3
Caused death	5	2.9	170	97.1
Engaged in Preventable practices	164	93.7	11	6.3
Government assistance	39	22.3	136	77.7
Access to credit	36	20.6	139	79.4
Used loan for financing loss	28	16	147	84
High risk of living in the area	152	86.9	23	13.1
Highly risky in owning property in the area	157	89.7	18	10.3
Business relocation	25	14.3	150	85.7
The increased cost of living	171	97.7	4	2.3

3.5 The perception, awareness, and adaption mechanisms to flood in the semi-urban areas of Ile-Ife:

The perception, awareness, and adaption mechanisms to flood in the semi-urban areas of Ile-Ife, Osun State, Nigeria are presented in Table 5. The results of the findings revealed that the majority of the respondents (93.8%) disagreed that flood is a normal occurrence. The majority of the respondents (94.9%) were against the opinion that a proper drainage system would not be able to stop the activities from the flood. The majority of the respondents (69.8%) disagreed that the increase in population contributed to flooding occurrence. This shows that flood action in the study area was not a result of an increase in population. The majority of the respondents (95.5%) believed that it is not too early to discuss floods as a real problem. Most of the respondents (94.9%) disagreed that flood action in their area is a result of supernatural power or maybe the gods were angry.

TABLE 5
RESPONDENTS' PERCEPTION LEVELS OF FLOOD IN THE SEMI-URBAN AREAS OF ILE-IFE

Perception Levels	The percentage level of Response (n=175)			
	Strongly Agree	Agree	Strongly Disagree	Disagree
Flood is a normal occurrence	2.9s	3.4	70.9	22.9
The proper drainage system cannot control flooding	1.7	3.4	70.3	24.6
Flooding is due to population growth	0	30.3	54.9	14.9
Early to discuss flood as a real problem	2.9	1.7	62.9	32.6
Flooding is due to supernatural power.	0.6	4.6	52.0	42.9

3.6 Awareness levels to flood in the semi-urban areas of Ile-Ife:

The awareness levels to flood in the semi-urban areas of Ile-Ife are presented in Table 6. The result showed that the majority of the respondents (95.8%) agreed that, they were aware that flood could cause loss of life. Most of the respondents (62.9%) disagreed that; the recent flood in the study locations is a result of the dumping of refuse into the stream and waterways. The majority of the respondents (59.4%) agreed that building houses close to the stream and rivers is the major cause of flood in their area. A very little number of the respondents (10.9%) agreed while the majority of the respondents (89.1%) disagreed that they were uncertain about flood occurrences. This indicates that the majority of the respondents knew much and they were certain about the occurrence of flood. The majority of the respondents (98%) agreed to the fact that flood is a real problem.

TABLE 6
RESPONDENTS AWARENESS LEVELS TO FLOOD IN THE SEMI-URBAN AREAS OF ILE-IFE

Awareness Levels	Percentage level of Response (n=175)			
	Strongly Agree	Agree	Strongly Disagree	Disagree
Flood can cause loss of live	50.9	44.9	3.4	1.1
Flooding is due to dumping of refuse into the stream and water ways.	12.6	24.6	54.3	8.6
Building proximity to stream and rivers is the major cause of flood	42.3	17.1	28.0	12.6
Uncertain on flood occurrences	4.6	6.3	57.1	32.0
Flood is a real problem	86.9	11.1	0.6	1.1

3.7 Adaptation mechanism to flood in the semi-urban areas of Ile-Ife:

The adaptation mechanism to flood in the semi-urban areas of Ile-Ife are presented in Table 7. The findings revealed that the majority of the respondents (56%) disagreed that, they would have to leave their house when rain is about to start and returned after the rainfall while the remaining (24%) agreed to this fact. The majority of the respondents (80.6%) agreed that they always adopt the adaptation mechanism of packing valuable properties to their relative's houses in another part of the community which were not been affected by flood while the remaining (19.4%) disagreed with this adaptation mechanism. Most of the respondents (80.2%) agreed that improving building structures and respecting building codes of conduct would prevent their houses from being damaged by flood while the remaining (19.4%) disagreed with this. The result revealed that the majority of the respondents (93.2%) agreed that the use of a protected wall would reduce the water speed from the flood.

TABLE 7
RESPONDENTS' ADAPTATION MECHANISM TO FLOOD IN THE SEMI-URBAN AREAS OF ILE-IFE

Adaptation Mechanism	The percentage level of Response (n=175)			
	Strongly Agree	Agree	Strongly Disagree	Disagree
Leaves house when it's about to rain and comes back after the rain	21.1	22.9	32.6	23.4
Valuable properties are packed to an area not affected by flood	38.9	41.7	14.3	5.1
Improved and respected building structures and codes.	33.1	47.4	17.7	1.7
Protected wall to reduce floodwater	50.3	42.9	5.1	1.7

IV. DISCUSSION

The relative proportion of the respondents in percentage frequency of the sample locations of the respondent is as followed Esinmirin and Omirin 67 (33.3%), Eleyele 33 (18.9%), Ogbon- agbara 50 (28.6%), and Akarabata 25 (14.3%). This study showed that children and women are more likely to be susceptible to flood which align with the finding of Ariyabandu and Wickramasighe (2005) and Bradshaw and Fordham (2018), who reported that women and children are more susceptible to flood. The marital status of any individual respondent in a household serves as a very important indicator in determining the socioeconomic power of a respondent (Yande, 2009). This study agrees with the report of Brouwer *et al*. (2007) and Parvin *et al.* (2016) who stated that the hardest hits by flood disasters are the poor people who also have very little capacity to cope with the loss of property and income.

Flooding in semi-urban Ile-Ife is basically ascribed to poor land-use planning and inadequate drainage infrastructure. This agreed with the fact that flood disasters are aided by unethical human activities along the flood plain (Olawuni *et al*., 2015; Mitrović *et al*., 2019). Generally, the respondents identified lack of proper waste disposal systems and nearness to floodplains as main contributors to flood risk (Wantim *et al*., 2023). In contrast to notions that, factors such as proximity to commercial hubs, inheritance of land, and overpopulation were not seen as main causes of flooding in the study areas. The building of residential houses near waterways and Inappropriate building aggravate water runoff and decrease natural penetration. The findings agree with recent studies signifying that urban development into zones that are prone to flood, together with feeble environmental mismanagement and institutional planning, deepens flood vulnerability in Nigerian metropolises (Adeloye and Rustum, 2011; Lorie *et al*., 2020; Higuera Roa *et al*., 2022; Aiyewunmi, 2023). The study indicated that the larger percentage of the total respondents' businesses/means of livelihood have been affected by the flood. This agreed with (Theron, 2007; Gizaw and Baye, 2025) that floods could destroy means of livelihood such as houses, roads, farms, crops, cattle, and livestock. This study proved that effective flood mitigation must therefore address public infrastructure development, spatial planning and drainage management.

Flooding in semi-urban Ile-Ife imposes significant socio-economic problems on the households that were affected. The interruption of livelihoods and amplified household expenses cause a decline in economic firmness. This implies that floods had brought financial difficulties to the occupants of this flood-prone areass in the semi-urban area of Ile-Ife, and the study was in line with (Nott, 2006; Ngwira and Bag, 2017), which stated that physical property damage is one of the major causes of tangible loss in floods. Inadequate financial capability hinders residents from moving or securing defensive infrastructure, which aligns with the report by Lindsell and Prater (2003) and Jha *et al*. (2011). The absence of government backing and access to credit aggravates these vulnerabilities. Numerous residents participate in self-driven flood mitigation despite systemic neglect. The risk perception backing property ownership and residence in flood-prone zones signifies growing environmental uncertainty. These encounters indicate wider trends in Nigerian, where flooding intensifies penury and limits resilience (Amadi *et al*., 2023). Also, insufficient institutional funding and financial elimination deepen the long-term effects (Finucane *et al*., 2020).

Residents of semi-urban areas of Ile-Ife showed a high level of awareness concerning the causes and implications of flooding. This agrees with Slovic (1987) and Ali *et al*. (2022) report, who stated that the knowledge of risk perception is supported as a prerequisite for achieving effective risk communication. The largest percentage of the respondents disagree with traditional views and supernatural accounts as a cause of flooding, indicating a change toward reasoning and environmental literacy that is scientific in nature. This indicates that the majority of the respondents do not believe in any superpower or gods as the main cause of flooding in their area, this finding disagrees with the report of Mustapha (2002) and Bempah and Øyhus (2017). They also uphold the efficacy of good drainage system in flood management, showing a solid understanding of structural adaptation approaches. The perception that flooding is not a normal or inevitable incident indicates growing concern over its human

sources. In contrast to the notion that population growth is not broadly perceived as a main flood driver, indicating a necessity to focus on planning and infrastructure failures. The urgency stated by inhabitants in tackling flooding similar with wider demands for practical risk communication. These studies support previous research highlighting the role of awareness and perception in shaping community resilience (Ansari *et al*., 2022; Savari *et al*., 2025). Integrating homegrown knowledge and perceptions is crucial in designing comprehensive flood management approaches in the semi-urban areas of Nigeria.

Residents of the semi-urban areas of Ile-Ife show a high awareness of the risks posed by flooding, mainly its possibility to cause loss of life, and this agrees with the report of Abegaz *et al*. (2024), who stated that floods can cause serious loss of life. The denunciation of misrepresentation, such as ascribing flooding to waste dumping alone, shows a nuanced understanding of manifold contributory factors. Many appropriately acknowledged the nearness to waterways as a noteworthy contributor, indicating a sound grasp of spatial flood risks. The stout agreement that flooding is a real and pressing issue agrees with findings highlighting the increasing awareness in flood-prone regions in Nigeria (Savari *et al*., 2025). Such awareness is vital for determining adaptive behavior and policy engagement.

Flood adaptation strategies among residents of semi-urban Ile-Ife show an integration of structural, behavioral, and community-based responses. Though brief dislodgment during rainfall is least favoured, many depends on moving valuables items to safer places within the municipal. This agreed with Madhani and Jay (2011) and Esariti *et al*. (2023), who reported that the timely evacuation of people and property from the flood-prone area is one of the major adaptation mechanisms against flood menace. Structural adaptations, such as strengthening buildings and obeying codes of construction, are extensively known as efficient measures. This implies that the use of a protected wall has been the stronghold in preventing the impact of flood water in the study area (Xian *et al.* 2018; Ogie *et al.,* 2020). The usage of defensive barriers to reduce water flow is also a usual practice, signifying an understanding of flood dynamics. These findings are consistent with the studies that highlight household-level resilience through informal practices and low-cost structural interventions to curb floods menace (Oukes *et al*., 2022; Tan *et al*., 2024). Encouraging obedience to building regulations and community-based planning could improve long-term flood resilience in the semi-urban areas of Ile-Ife, Osun State, Nigeria.

V. CONCLUSION

This study assessed the Socio-Economic Impact of Flood in Ile-Ife, Osun State, Nigeria. The analysis revealed that improper building layout, encroachment of flood plain, improper drainage systems, and lack of proper waste disposal centers are some of the factors responsible for flooding in the study area. The study also established that the cost and standard of living were affected by flood and that use of a protected wall would prevent the activities of flood in the study area.

ETHICAL APPROVAL

Not Applicable

CONSENT TO PARTICIPATE

Not applicable

CONSENT TO PUBLISH

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All the authors declare no competing interest for this research.

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