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Impacts of Flood Occurrence in Itu Local Government Area of Akwa Ibom State, Nigeria

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Abstract
Flooding occurs annually in Akwa Ibom state and the impact most times is severe, leading to loss of lives, and destruction of properties and means of livelihood. This work aims at assessing the negative impact of flood occurrence in Itu Local Government Area of Akwa Ibom State. The objectives include identification of flood prone areas, identification of sectors affected by flood, and assessment of the level of damages caused by flood in each of the sector. Survey research design was adopted for this work, utilizing questionnaires, semi-structured interview and observations as the primary sources of data and other secondary sources. Relative Effective Index was used to assess the level of damages. The sector most affected by flooding are business operations with REI of 3.76, followed by food supply (3.75), drinking water supply (3.74), health sector (3.74), housing (3.62), power supply (3.60), and transportation (3.59) respectively. Robust development control activities and flood risk management plan is recommended to curtail the impacts of flooding.

Keyword: flood occurrence, Impact, Flood prone areas, damages, flood risk management

1.0 Introduction

Flooding has accounted for nearly half of all weather-related disasters worldwide since 1995, and has killed an estimated 157,000 people and affected some 2.3bn others. According to Martin, 2017, no other natural catastrophe impacts as many people as flood with an estimated 500 million people affected directly and indirectly every year, including Nigeria which is yet to recover fully from the impacts of nationwide floods experienced in 2012, 2022, and 2024. UN Office for the Coordination of Humanitarian Affairs (OCHA) (2024), observed that flooding is the most common and recurring disaster in Nigeria. Over the last two decades, the worst flood cases Nigeria has seen in at least half a century has led to deaths of hundreds of Nigerians, the displacement of over a million people, and the destruction of hundreds of thousands of hectares of farmland. This has led to devastation of houses, bridges, roads and other infrastructure across the country. (Akinloye, 2012, Usip and Koffi, 2021)

In 2024 alone, over 1,083,141 individuals were affected by flooding in Nigeria, leading to widespread displacement, loss of lives, and destruction of homes and livelihoods. The floods left 641,598 persons displaced, 285 people dead, and 2,504 injured. Houses, farmlands, and critical infrastructure devastated,

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with 98,242 homes affected. In a similar occurrence in 2022, over 3.2 million people were affected as over 600 people lost their lives, over 200,000 houses got damaged and over 569,000 hectares of farmland destroyed along with key infrastructure, negatively impinging on the cost of living across the country (OCHA, 2024, National Bureau of Statistics, 2023).

Floods impact both individuals and communities, and have social, economic, and environmental consequences. The consequences of floods vary greatly depending on the location, duration, depth, speed and extent of flooding, and the vulnerability and value of the natural and constructed environments they affect (Umar and Gary, 2022, Queensland Government,2018). Whereas there are positive impacts of flood, this paper is aimed at assessing the negative impact of flood occurrence in Itu Local Government Area of Akwa Ibom State, Nigeria.

Flooding is one of the most devastating natural disasters affecting communities across the globe, with particularly severe impacts in developing countries where data collection and disaster management are often limited. In Nigeria, many flood-related fatalities and damages remain underreported due to poor data inventory systems and inadequate sectoral assessments. Reports typically emphasize casualties and property loss, often measured in monetary terms (Mfon, Oguike, Eteng, & Etim, 2022), overlooking broader and more complex ripple effects on community well-being. These effects extend to critical sectors such as access to clean water, health care, food supply, and physical infrastructure.

Itu Local Government Area in Akwa Ibom State is a riverine region that experiences perennial flooding. Despite the frequency and severity of flood events in this area, there is a notable lack of comprehensive data detailing the sectors most affected and the extent of the damages incurred. This information gap hampers effective governmental and organizational response, which often relies on generalized monetary donations rather than targeted, sector-specific interventions.

This study aims to assess the impact of flood occurrences in Itu Local Government Area, with a focus on identifying flood-prone areas, the specific sectors affected by flooding, and the extent of damage sustained within each sector. By addressing these objectives, the research seeks to contribute valuable insights that can inform more strategic and sustainable flood management and response efforts in the region.

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2.0 Review of Related Literature

Flooding has become a major hazard in Nigeria in recent years due to a growing population, rapid urbanization and extreme weather events. Flood events have social consequences on individuals and communities which spans across space and time. These consequences are losses experienced in the community or by an individual as a result of flood event. Flood impacts are classified into direct and indirect impacts. Direct impacts refer to those impacts that result from a direct physical contact between floodwaters and humans, economic assets, or other objects. Examples of direct impacts are the destruction of houses, crops, or livestock by floodwaters, the loss of life caused by drowning or injuries and deterioration of health conditions owing to waterborne diseases. In contrast, indirect damages are induced by the direct impacts and may occur – in space or time – beyond the immediate limits or outside of the flood event such as a loss in productivity resulting from a disruption in supply chains or interruptions to flows and linkages (Sedighi, Varga, Hosseinian-Far, and Alireza, 2021).

Both the direct and indirect impacts are further distinguished into tangible and intangible impacts. Tangible impacts are those that can be expressed in monetary terms, with existing market prices. This can be referred to as goods, and they include infrastructure element, buildings, agro – products, etc. On the other hand, intangible impacts are non-marketable goods which cannot be easily quantified monetarily because of lack of market price e.g. long term health effects, destruction of cultural heritage and loss of a loved one (Philip, Otto, and Weichselgartne 2017, Queensland Government, 2018).

These impacts, direct and indirect, and both tangible and intangible affects different sectors of the society. Usip, and Koffi (2021) in their study identified the different sectors of the society that are impacted during flood events to include Impact on business operations, impact on drinking water supply, impact on power supply, impact on Food supply, impact on transportation, impact on Health and wellbeing, and impact on Shelter. This work therefore seeks to examine how these sectors are impacted by flood.

3.0 The Study Area

Itu is a Local Government Area in Akwa Ibom State, Nigeria and it occupies a landmass of approximately 606.1 0 square kilometers. It is bounded in the North and North-East by Odukpani in Cross River State and Arochukwu in Abia State, in the West by Ibiono Ibom and Ikono Local Government Areas, in the South

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and South East by Uyo and Uruan Local Government Areas, respectively. Fig. 1 shows the location of Itu L. G. A in relation to other Local Government Areas in the state.

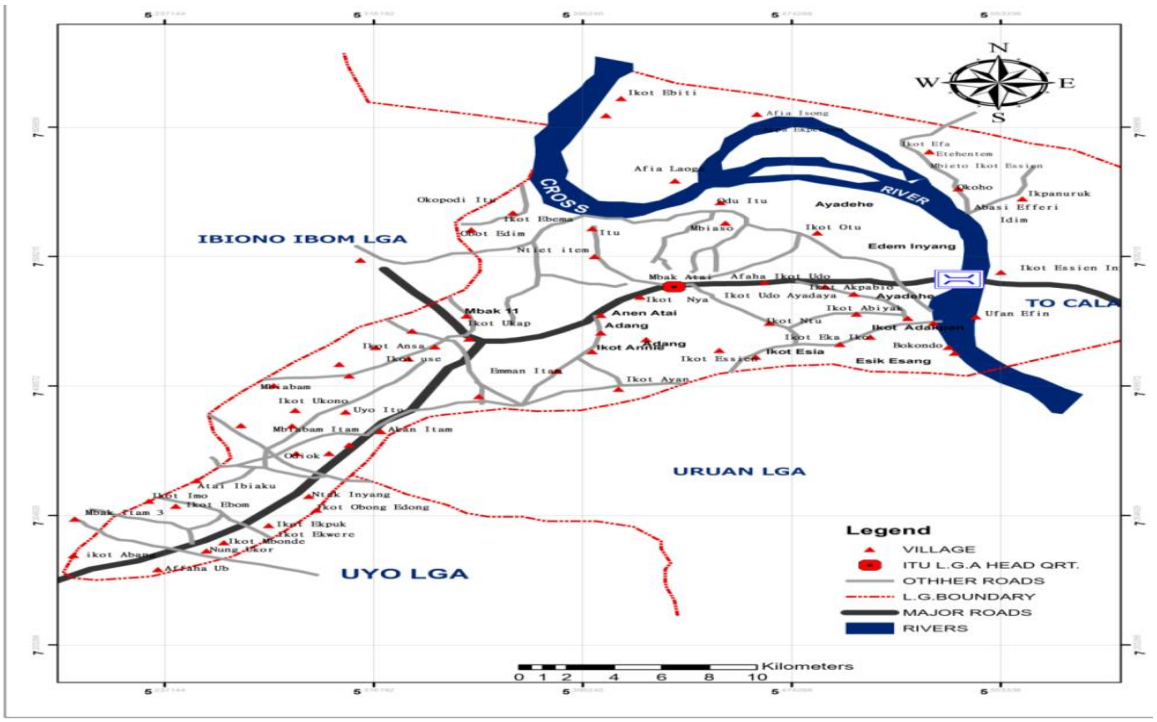


Fig. 1 Map of Itu Local Government Area
Source: Ministry of Lands, Surveys and Town Planning (2024)

Climatic Condition

The study area lies within the tropical climatic zone with two dominant seasons – the wet and dry seasons. The wet season witnesses a heavy rainfall, high relative humidity and heavy cloud cover, which reduce isolation and sunshine. Atmospheric disturbances are usually characterized by thunderstorm and squally winds with heavy cloud cover. Its intensity in the area is usually high and rainfall is torrential with heavy down pour and of short duration at the beginning and the end of the rainy season. The rainfall usually destroys crops, houses and causes soil erosion and floods particularly in the low-lying areas. The peak annual rainfall is over 3,000mm in the area.

The Case Study Community

The 12 communities selected for the study are Odu Itu, Okoho, Edem Inyang, Akpaekpeneton, Afia Isong, Ikot Otu, Etehentem, Mkpan Uruk, Mben Inyang, Mbiabo, Ikot Adakpan, and Ayadehe. All the communities are located in the North Eastern Part of Itu by the Cross River.

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The impacts of flood in the communities have been so severe in the last decade.

4.0 Methodology

Survey research design was adopted for the study and the primary data sources were questionnaires, and observations while the secondary data sources were from books, journals, government documents, Google images and unpublished works. Twelve (12) case study communities in Itu with persistent flood challenges constituted the sample frame, and the sample size of 390 was determined using Taro Yamane's formula. The questions addressed by the questionnaires addressed the frequency of flood occurrence, the duration of flood, the severity of the damages caused by flood, and the impacts of flood on business operations, drinking water supply, power supply, Food supply, transportation, Health and wellbeing, and the impact on Shelter. The data are analyzed using the Relative Effective Index, where the impact variables are rated on the scale to assess their level of impact. The result of the study can be applied in other regions in determining the impact of floods. Table 1 shows the case study communities with their population and the sample size for each of the communities.

Table 1 Showing the Case Study community

S/N	Villages	Population	Sample Size
1	Odu Itu	868	22
2	Okoho	798	20
3	Edem Inyang	1022	26
4	Akpaekpeneton	980	25
5	Afia Isong	1176	30
6	Ikot Otu	1099	28
7	Etehentem	854	22
8	Mkpan Uruk	728	19
9	Mben Inyang	672	17
10	Mbiabo	1358	36
11	Ikot Adakpan	1722	45
12	Ayadehe	3906	100
	Total	**15,183**	**390**

Source: Field Research (2025)

5.0 Discussion of results

The impacts of flood on seven variables were considered in determining the level of damages. These variables are: Impact on business operations, impact on drinking water supply, impact on power supply, impact on Food supply, impact on transportation, impact on Health and wellbeing, and impact on Shelter.

Table 2 presents the summary of the effect of flood on the variables in the 12 communities. It further reveals the ranking of the effects on each variable, and finally revealed also the rankings of the communities affected.

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Table 2 Summary of Impact Ranking

S/N	Community	Business Operations	Drinking Water	Power Supply	Food Supply	Transport ation	Health	Housing	Total	Rank
1.	Odu Itu	3.96	3.70	3.70	3.65	3.70	3.65	3.70	**3.68**	**5th**
2.	Okoho	3.95	3.84	3.63	3.79	3.74	3.74	3.68	**3.77**	**2nd**
3.	Edem Inyang	3.88	3.80	3.76	3.92	3.72	3.96	3.68	**3.82**	**1st**
4.	Akpaekpeneton	3.71	3.75	3.67	3.83	3.50	3.67	3.54	**3.67**	**6th ***
5.	Afia Isong	3.79	3.89	3.61	3.82	3.71	3.75	3.68	**3.75**	**3rd**
6.	Ikot Otu	3.85	3.78	3.59	3.81	3.63	3.74	3.70	**3.73**	**4th**
7.	Etehentem	3.67	3.81	3.52	3.71	3.57	3.67	3.62	**3.65**	**9th**
8.	Mkpan Uruk	3.72	3.56	3.33	3.67	3.28	3.83	3.50	**3.56**	**12th**
9.	Mben Inyang	3.87	3.67	3.60	3.67	3.33	3.80	3.47	**3.63**	**10th**
10.	Mbiabo	3.66	3.71	3.57	3.74	3.66	3.69	3.63	**3.67**	**7th ***
11.	Ikot Adakpan	3.66	3.74	3.61	3.70	3.59	3.68	3.64	**3.66**	**8th**
12.	Ayadehe	3.65	3.62	3.58	3.64	3.59	3.66	3.60	**3.62**	**11th**
Total		**3.76**	**3.74**	**3.60**	**3.75**	**3.59**	**3.74**	**3.62**		
Rank		**1st**	**3rd ***	**6th**	**2nd**	**7th**	**4th ***	**5th**		

The impact on business is ranked 1st with an index score of 3.76. The 2nd highest is the impact on food supply with 3.75 index. The flood impact on Drinking water and health came 3rd and 4th with the same index value of 3.74. At the 5th and 6th positions are the impact on housing and power supply with index scores of 3.62 and 3.60 respectively. The least in the ranking is impact on transportation which has an index score of 3.59.

The level of damages caused by flood disaster is severe. Whereas most flood comes with damages, however, the level of manages experience are influenced by several factors amongst whom some are level of preparedness, the topographic context of the flooded area, the volume and velocity of water, the duration of flood and the availability of conventional and traditional coping strategies as observed by Fabiyi and Joseph, (2013).

Impacts of flood on 7 sectors considered for the study areas were considered and their differences and level of damages established using R.E.I. Furthermore, the level of damages and their variations experienced in each of the community was also established. The level of damages experienced in each variable is presented below, ranked accordingly with their index scores.

Impact on Business

From Table 2, impact on business was ranked the highest with the relative effective index score of 3.76, indicating that business operations is the most affected variable by flood in the community. This is in line with the reports of Queensland Government (2018) which affirmed that one of the foremost sectors of any society crippled by flood is business operations.

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The various businesses operations / means of livelihood in the study area include: - Agricultural activities (crop cultivation, fishing, fish farming and lumbering), Commercial activities (such as wholesales/retailing of products ranging from perishable edible goods to imperishable goods), and Vocational services (such as wood/metal works, crafts, catering) are greatly affected by flood. Crops are destroyed during flood, leading to early harvesting of premature ones, while some farmlands are completely inaccessible. Fishing too is put on hold as fishermen no longer launch into the deep because of high volume of water and storms, moreover fish do migrate from the environment to deep sea. Most of the commercial areas are flooded during rainy season which results in the destruction of goods and properties, and inaccessibility to business locations as seen in fig.2 were a community market in Mbiabo is deserted as a result of flood.



Fig 2: Rear view of the Community Market @ Mbiabo
Source: Field Research (2024)

Some workshops, training grounds and business centres are closed during flood and some products such wood works, hair products, computer system, etc are destroyed. The extent the flood cover varies and the rate at which flood water builds up is often drastic leaving the people with little or no time to move.

Impact on Food Supply

Some crops planted in the area are washed away during flood while others are soaked, swollen and spoilt as a result of longer flood duration. Some of the crops destroyed by flood include cassava, water yam, sweet yam, vegetables and cereals, and these are the major staple food consumed in the area. Most of their daily consumed food are cultivated and harvested in their localities, thereby making live challenging once the crops are destroyed. This creates food

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shortage in the area. Moreover, poor accessibility during flood events hinders food supply and inflates prices of foodstuff in the areas, making it more difficult for greater percentage of the population to afford. This corroborates with the study of Sedigghi et al (2021) where disruption in supply chain was identified as a major impact of flood in the community.

Impact on Drinking Water

Clean source of drinking water is of high value in any community. The major sources of water in the communities investigated are boreholes, springs, wells and sachet water (locally known as pure water). With a price tag of N30 each, sachet water cannot be classified as a major source of drinking water since greater percentage of the population cannot afford that enough to satisfy their water demand.

As revealed by findings, the clean sources of water in the areas studied are often polluted by the flood water, leaving the people at high health risk of water-borne diseases. There is no functional public water supply system in the areas, and the very few boreholes owned by individuals are inequitably distributed geographically, with uncertainty in its treatment, quality, purity, availability and safety. This corroborates with the studies by OCHA (2024) which identified access to clean water source as one of the major impacts of flooding in any given society.

Impact on Health and Wellbeing

Health and wellbeing of the people are greatly endangered during flood. The polluted flood water pollutes the environment - the air, water and land, and this comes with great health challenges. Consumption of polluted water (by drinking, cooking), bathing, general exposure to it introduces air-bone disease and other water related disease. The flood water stinks and releases foul air into the environment which is very dangerous to human health. This leads to respiratory diseases and cardiovascular morbidity and mortality. Flood water also contaminates some crops and vegetable which renders them hazardous to health. Some of these are not checked and certified for consumption due to food shortage and lack of trained personnel.

Flood in the areas of study also restrict access to health facilities by health workers and patients. In Odu Itu, a government hospital known as Mary Slessor General Hospital is only accessed by one community road linking the community and the outside world. During flood, the road is

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rendered inaccessible by flood water, and canoes and floaters are brought in to ferry people and goods across the water with part of the access road submerged completely in the water.

Moreover, health workers are discouraged from moving to the area during flood, thereby inducing state of emergency in the health sector. Thus, while the risk of health challenges is at its peak during flood, access to health facilities, personnel and drugs are at the lowest ebb during such period.

Impact on Housing

The next affected sector is housing with index score of 3.62 at the 5th position. Despite being one of the basic human needs, its supply is in short supply due to high cost of construction/acquisition, land tenure system and socio-cultural linkages. As observed by Usip (2015), one major reason homes are washed off, broken down or affected during flood is caused by the materials used for construction. With the presence of poor-technical know-how, availability of local building materials and less resources for building construction in the area of study, the effect of flood on buildings has been devastating, rendering some buildings completely and partially inhabitable.



Figure 3: Building Foundation Exposed Completely by Flood in Ayadehe Community
Source: Field Research (2024)

Kennedy, Pottinger and Plimmer (2006), observed that the vulnerability of flood-prone buildings to damages is largely a function of flood severity, construction characteristics and the state of preparedness of occupiers. Many buildings are affected during flood in the study areas. Between 2010 and 2013, over 3,700 buildings have been affected in the study areas as observed by official of flood control unit of Akwa Ibom State. While few of the buildings are broken down during flood, some have their foundations washed off by flood water, damaged and exposed as seen in figure 3, while some houses are rendered inaccessible by the flood water as seen in Figure 4.

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Figure 4: Abandoned Buildings During Flood in Mben Inyang Community.
Source: Field Research (2024)

Impact on Power Supply

Besides housing, impact on power supply is ranked 6th with an index score of 3.60. This infers power supply is at low ebb given the great dangers posed by flood water. Moreover, damages are also incurred on the power supply facilities during flood because of the torrential rain and wind. Most activities in the study areas are power based, thus the absence or epileptic supply of electricity leads to high running cost of business. Some electric poles and power lines are broken down during flood, making it unsafe for power supply until restoration is carried out.

Impact on Transportation

On the 7th position is impact on transportation as the access roads are broken and rendered inaccessible to automobiles. This limits the access to the study area. With an index score of 3.40 which is higher than the mean R.E.I. value of 2.5, it entails the impact of flood on transportation is very devastating. Most communities are rendered inaccessible by automobiles during flood, leaving canoes and floaters as the major means transportation. This makes rescue mission excessively difficult and supplies limited and very expensive. This also cripples other sectors of the community by limiting access to business centres, farmlands, health facilities, homes and other communities. Figure 6 shows a young man using canoe to get to his farm.



Figure 6: A Boy using a Canoe to farm in Etehentem Community
Source: Field Research (2024)

With index scores of above 2.5 R.E.I. mean value, the study reveals that the level of damages caused by flood in the study area is

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high and very devastating. However, the level of damages though high, varies from community to another. The most affected community is Edem Inyang with index score of 3.80. The next community greatly affected by flood is Okoho with 3.77 score, and is closely followed by Afia Isong with 3.75 and Ikot Otu community with 3.73. The next sets of communities with flood impact in descending order include Odu Itu (3.68), Akpaekpeneton (3.67), Mbiabo (3.67), Ikot Adakpan (3.66), Etehentem (3.65), Mben Inyang (3.63), Ayadehe (3.62) and Mkpan Uruk (3.56).

6.0 Conclusion

The effect of the disaster is classified as very severe, given the impact of flood in all the fabrics of the communities. The level of damages was revealed by the devastating impact of flood on business operations in the communities, food supply, and health/wellbeing of the people, good source of drinking water availability, power supply, transportation and shelter.

7.0 Recommendation

The following recommendations are made with the view that it will help curb flood casualties in flooded regions.

1. Flood Risk Management Plan (FRM) should be prepared for the area. This will include organizing health talk, campaigns, workshop and other enlightenment programmes that will boost preparedness and resilience of the people.

2 Development control in the communities should be intensified by planning agencies. Buildings and development of flood-prone lands should be discouraged. Such developments obstruct the free flow of water thereby leading to its diversion, excessive flooding, delay in recession and destruction of systems. As far as it is feasible, human interference with the processes of flood should be reversed, compensated and, prevented in the future.

3. Having analyzed the level of damages in the area which forms one part of Flood Risk Management, there is need for the development of the second part which centres on the mitigation measures both conventional and unconventional flood coping strategies.

References

Akinloye, Lagun (2012): The Need to Prepare for a Rainy Day. http://Reliefweb.int Accessed on 14th June, 2024

Fabiyi O. O. and Joseph O (2013): Indigenous Knowledge System and Local Adaptation Strategies to Flooding in Coastal Rural Communities of Nigeria. https://www.researchgate.net/publication/279379375_Indigenous_Knowledge_System_and_Local_Adapt

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https://nitpjournals.ng/index.php/jnitp/



ation_Strategies_to_Flooding_in_Coastal_Rural_Communities_of_Nigeria Accessed on 14th June, 2024

Kenney S., Pottinger G., Plimmer F., and Pocock Y. (2006). "Flood Risk and Property. Impacts on Commercial & Residential Stakeholders' Strategies". The College of Estate Management, Whiteknights, Reading.

Martin, W. (2017) Factcheck https://www.channel4.com/news/factcheck/2-3-billion-people-affected-by-flooding-disasters-in-20-years Accessed on 14th March, 2025

Mfon, Ifiok & Oguike, Michael & Eteng, Salvation & Etim, Ndifreke. (2022). Causes and Effects of Flooding in Nigeria: A Review. East Asian Journal of Multidisciplinary Research. 1. 1777-1792. 10.55927/eajmr.v1i9.1261.

National Bureau of Statistics (2023). Nigeria Flood Impact, Recovery and Mitigation Assessment Report 2022-2023 – Key Findings. https://www.nigerianstat.gov.ng/elibrary/read/1241417. Accessed on 14th March, 2025

Philip Bubeck, Antje Otto, and Juergen Weichselgartner (2017) Social Impacts of FloodHazards https://oxfordre.com/naturalhazardscience/view/10.1093/acrefore/9780199389407.001.0001/acrefore-9780199389407-e-281 Accessed on 14th June, 2024

Queensland Government (2018): What are the Consequences of Flood? https://www.chiefscientist.qld.gov.au/publications/understanding-floods/flood-consequences Accessed on 14th March, 2025

Sedighi, Tabassom & Varga, Liz & Hosseinian-Far, Amin & Daneshkhah, Alireza. (2021). Economic Evaluation of Mental Health Effects of Flooding Using Bayesian Networks. International Journal of Environmental Research and Public Health. 18. 7467. 10.3390/ijerph18147467.

Umar, N., & Gray, A. (2022). Flooding in Nigeria: a review of its occurrence and impacts and approaches to modelling flood data. International Journal of Environmental Studies, 80(3),540–561. https://doi.org/10.1080/00207233.2022.2081471

United Nations Development Programme (2023). Nigeria Flood Impact, Recovery and Mitigation Assessment Report 2022-2023. Accessedfrom https://www.undp.org/nigeria/publications/nigeria-flood-impact-recovery-and-mitigation-assessment-report-2022-2023 Accessed on 14th March, 2025

UN Office for the Coordination of Humanitarian Affairs (2024). Nigeria: Flood Overview, As of 17 September 2024 https://www.unocha.org/publications/report/nigeria/nigeria-flood-overview-17-september-2024#:~:text=The%20floods%20have%20left%20641%2C598,to%20cope%20with%20the%20aftermath. Accessed on 14th March, 2025

Usip and Koffi (2021): *Managing Psychosocial Impacts of Flood Disaster in Nigeria* [Paper Presentation] NITP Conference 2021, Port Harcourt, Nigeria.