

Impact of Flooding on the Livelihood of Women in Damaturu Local Government of Yobe State.

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DOI: <https://doi.org/10.47772/IJRISS.2026.100400095>

Received: 31 December 2025; Accepted: 06 January 2026; Published: 28 April 2026

ABSTRACT

When water exceeds a dry area and cannot be absorbed by the ground, flooding occurs. Flooding is a yearly occurrence that has caused millions of people to be relocated globally, as well as the loss of lives and property, this study centers on assessing the impact of flooding on the livelihood of women in Damaturu local government of Yobe State. The study will assess impact of Flooding on women livelihood. The study is anchored around Human ecology theory and gender and development theory. This study is rooted in the interpretivist philosophy adopting a qualitative approach with a phenomenology research design aimed to explore the experience of women with respect to flood on their livelihood. In-depth interview technique was used to collect the primary data for this study and thematic analysis technique was used to analyze the data for this study. The findings of the study revealed that there is loss of livelihood and economic disruption among women in Damaturu of Yobe State, the findings revealed that Food Insecurity and many women were struggling to meet basic needs as a results of the reoccurrence of flooding in Damaturu local government. Therefore, the study conclude that flooding have significantly affected the livelihood of women in Damaturu local government. Based on this, the study recommended that, there is the need for stake-holder intervention to address the livelihood challenge facing women in Yobe State.

Keywords: Economic, Flood, Intervention, Livelihood, Women

INTRODUCTION

The long term change in weather has rapidly moved from future concern to an alarming current issue in the world. It is generally understood as a long-term change in weather patterns and atmospheric temperatures. In recent years, particularly over the last 30 years, the effects of weather change driven by global warming have increased in generating serious world concern. This circumstance attracts the attention of the globe to act for sustainable responses (WHO, 2012). Global warming serve as the most universal kind of weather change, affecting activities of human at many levels and leading to problems such as drought, flooding and exhaustion of natural resources (Arnell & Reynard, 1996). Although climate change impacts negatively to both developed and developing nations, third world countries suffer the greatest effects due to limited capacity and infrastructure to adapt (IPCC, 2007).

In attempt to tackle it, the pressing need to curb global warming and reducing its impacts especially the growing risk of flooding global leaders convened in Dubai for the United Nations Climate Change Conference (COP28) toward the end of 2023 (United Nations, 2023). This landmark meeting lead to the urgency for decisive action, as the far reaching consequences of climate change have become increasingly disrupting ecosystems and communities worldwide (Filho et al., 2023; Jansson & Wu, 2023). The growing atmospheric temperatures have also tightly drawn evaporation from oceans and other water bodies, leading to higher moisture levels in the atmosphere.

In the year 2020, the global average temperature had increase by approximately 1.1°C compared to levels at the start of the century, signaling that high degree and unprecedented flooding events were likely to occur more frequent (UN Environment Programme, 2024). The United Nations Development Programme (UNDP) reports

that sea-level rise has intensified coastal flooding over the past two decades, exposing an additional of up to 14 million people worldwide to a 1-in-20 annual risk of coastal flooding. Furthermore, the UNDP projects that within this century, the effects of climate change on coastal flooding will increase up to five times (United Nations Development Programme, 2024).

Nigeria ranks among the most flood-vulnerable state in West Africa, a reality starkly demonstrated by the 2022 floods, which resulted in the deaths of over 600 people and affected nearly 3.2 million individuals across 34 of the country's 36 states. The severity of these floods is further reflected in the destruction of more than 569,251 hectares of agricultural land nationwide (Ongoma & Dike, 2023). Based on historical flood records, the Nigerian Meteorological Agency (NiMet) has identified Bayelsa State as a high-risk area for flooding (Ejike, 2022).

The issue of flooding disproportionately affects vulnerable populations, with women often positioned at the forefront both as key agents of change and as vital contributors to household and local economies (Andersen et al., 2023; Ngcamu, 2023). Nigeria's riverine areas lively illustrate regions hold with the adverse impacts of climate change, particularly the increasing frequency of flood events.

When water exceeds a dry area and cannot be absorbed by the ground, flooding occurs. Flooding is a seasonal occurrence that has leads to millions of people to be moved globally, as well as distruction of lives and property (Bronstert 2003). Nigeria experiences floods yearly, particularly flash floods and floods caused by dams during the rainy season (Bariweni et al., 2012; Etuonovbe, 2011). Every disaster though, seems to get worse and have a high effect than the one before it. The severity of the floods in 2012 left the impacted areas in a bad condition. Over 2.1 million Nigerians were left homeless as a effect of the flood. Properties, including hundreds of thousands of hectares of farmland, were washed away, and hundreds of lives were lost (NEMA 2012). Communities along the river zone were totally drowned, and the northern parts of the country were particularly hard hit, particularly the states where the main rivers flow.

Flooding occurs when water spreads over normally dry land and the soil is unable to absorb the excess. It is a recurring annual phenomenon that has led to the displacement of millions of people worldwide, along with significant loss of life and property (Bronstert, 2003). In Nigeria, floods occur every year, especially flash floods and dam stimulate flooding during the rainy season (Bariweni et al., 2012; Etuonovbe, 2011). Each successive flood event appears more severe and destructive than the recent. The 2012 floods, in particular, caused widespread devastation, leaving affected communities in dire terrible conditions. Over 2.1 million Nigerians were displaced, vast areas of farmland and other properties were destroyed, and hundreds of lives were lost (NEMA, 2012). Rivers communities area were completely submerged, in the northern regions of the country especially states traversed by major rivers bearing the effect of the flood.

Bunu (1999) asserts that the climate of northern Nigeria, particularly in the northwestern and north eastern states, is extremely hot and dry. Therefore, the primary focus of climate change difficulties and environmental degradation issues has always been drought and desertification. The general temperature in northern Nigeria is constantly high during the day especially in dry seasons reaching a maximum of roughly 40° on really hot days. A few northern state, such as the Jos and Biu plateau, have a climate that differs some what from the hot, dry climate that prevails throughout the region. Because of the high altitude, temperatures on the plateau can be very cold, with most of the time a temperature differential of less than 10 degrees. Undoubtedly, drought is challenge but flooding has also grown to be crucial concern. But in Nigeria, flooding has become a recurring occurrence during the past three decades.

It is against this background that the paper tends to focus on examining the impact of flooding on livelihood of women in Yobe State, Nigeria which has been an calamity in this raining season of the year 2024-2025 and automatically affects the social, economic and environmental well-being of the affected regions and country at large.

Objective Of The Study

The main objective of the study is to examine the impact of flooding on the livelihood of women in Damaturu local government Yobe State. The study will assess impact of Flooding on women livelihood.

Significance Of The Study

This study will be of benefit to the policy makers, the study will be significance in suggestion practical way out to the occurrence of flood.

Scope Of The Study

The Scope of this study will assess the impact of flooding on the livelihood of women in Damaturu local government of Yobe State Nigeria, from 2024-2025.

Operational Definitions Of Terms

Flooding: Flooding is an overflowing of water onto land that is normally dry. Floods can happen during heavy rains, when ocean waves come on shore, when snow melts quickly, or when dams or levees break. Damaging flooding may happen with only a few inches of water, or it may cover a house to the rooftop.

Women: Refers to Women adult female person or a woman belonging to a particular category as by birth, residence, membership, or occupation.

Livelihood: livelihood is the job or other source of income that gives you the money to buy the things you need.

REVIEW OF RELATED LITERATURE

Flood outcome are natural occurrences; however, the extent of their effects, damages, and associated to losses of live and property is largely influenced by human activities (Action Aid, 2006). In Nigeria, flooding has increasingly become an yearly threat to lives and property in both cities and rural communities (Olanrewaju & Fadiro, 2003). Flooding happens when surface water overwhelmed land that is usually dry or when water exceeds its normal channels. As the most common natural disaster, floods may result from unusually heavy rainfall, storm surges linked to tropical storms and dam failures. Most flood pose serious risks to human populations (Etuonovbe, 2011); nevertheless, not all flooding leads to disaster, as floods play an essential role in sustaining river ecosystems. They help restore soil nutrients, support irrigation and fisheries, and provide seasonal water essential for life in very dry regions. Although flooding is fundamentally a natural process, human actions often trigger its occurrence. Flooding has also been recognized as a major barrier preventing Africa's rapidly growing urban population from escaping poverty and undermining the United Nations' 2020 objective of significantly improving the living conditions of urban slum dwellers (Action Aid, 2006).

This is largely due to the fact that many African cities lack adequate infrastructure to cope with extreme weather events. Weak urban planning, along with broader challenges in urban governance, increases the vulnerability of residents in informal settlements, making slum dwellers particularly at risk (Adelekan, 2009). Such unexpected events often result in extensive loss of life and significant damage to property.

Flooding in Nigeria

Flooding in Nigeria is generally annually and anticipated, typically occurring during the rainy season in the form of intermittent flash floods, particularly in coastal areas, along river area and waterways. However, in 2012 the country experienced exceptionally severe and widespread flooding that caused extensive destruction of property and farmland and displaced millions of people, especially in the north-eastern states. In many rural communities, mud houses were completely destroyed and livestock swept away (NASA, 2011). The overall impact was overwhelming, as normal livelihoods and economic activities were severely disrupted. Damage extended to farmlands, roads, railways, schools, and hospitals including maternity facilities along with significant loss of lives and properties valued at millions of naira (Aderogba, 2012). According to an official 2012 report by the National Emergency Management Agency (NEMA), 7,705,378 people were affected, 2,157,419 individuals were displaced, 5,800 sustained injuries, 32 out of Nigeria's 36 states were impacted, and 597,476 homes were damaged.

Effect of Flooding

Nearly one billion people worldwide live in extreme poverty marked by severe hunger (Lobell & Burke, 2010), with a large proportion of this population residing in Africa. This situation is further aggravated by conflict, environmental degradation, and limited adaptive capacity (IPCC, 2007). As Africa's most populous country (Etuonovbe, 2011), Nigeria where about 70% of the population lives in poverty is particularly vulnerable to the impacts of social unrest and natural disasters such as flooding (Agwu & Okhimamhe, 2009). Food security, which is highly sensitive to extreme events like floods, is especially at risk (Nzeh et al., 2012). The regular occurrence of flooding in northern Nigeria, combined with the scale of the devastating 2012 floods, impacted serious threat to national food security. Studies and official reports have documented significant damage to agriculture, with NEMA (2012) and Aderogba (2012) indicating that vast areas of farmland were destroyed by floodwaters.

Afolabi (2013) reported that in Lafia, Nassarawa State, a rice farm valued at \$90 million was submerged by flood. Previous flood events have had similar devastating consequences, destroying farmlands and livestock, which are essential components of agriculture in northern Nigeria (Ibrahim et al., 2010). Flooding is a major obstacle preventing Africa's rapidly growing urban population from escaping poverty and hinders the United Nations' 2020 goal of achieving substantial improvements in the living conditions of urban slum residents (Action Aid, 2006). These impacts can be understood from the following views:

The socio-economic consequences of flooding are immediate, as floods disrupt daily activities and business operations (Bronstert, 2003). Bariweni et al. (2012) found that the 2012 floods negatively affected socio-economic life for days, weeks, and even months in certain areas. Roads and buildings were submerged, leaving victims stranded due to blocked roads and damaged bridges. Schools were closed, workers were unable to commute, and market traders could not operate, all of which negatively impacted the economy. The destruction of buildings, bridges, dams, embankments, drains, roads, railways, and electricity infrastructure amounted to losses worth billions of Nigerian Naira (Etuonovbe, 2011; NEMA, 2012). Health issues also rose, particularly in northern regions, with cholera from contaminated water and malaria from stagnant water increasing, disproportionately affecting women and children in poor rural areas (Agwu & Okhimamhe, 2009). Additionally, disruptions to electricity and communication networks further compounded the challenges faced by affected communities (Bariweni et al., 2012; Ijeoma, 2012). Similar devastating impacts were also reported during the 2011 floods.

Review of Government Policy on Flood Control

The 1999 National Policy on the Environment in Nigeria aims to promote sustainable development across the country, with specific objectives to:

1. Ensure a high-quality environment that supports good health and overall well-being.
2. Conserve and manage the environment and national resources for the benefit of both present and future generations.
3. Restore, maintain, and enhance ecological processes vital for the biosphere, preserve biodiversity, and apply the principle of optimal sustainable yield in utilizing living natural resources and ecosystems.
4. Increase public awareness and understanding of the critical connections between the environment, resources, and development, while encouraging individual and community involvement in environmental improvement initiatives.
5. Collaborate in good faith with other nations, international organizations, and agencies to achieve the sustainable management of transboundary environmental issues.

Impact of Flood on women's livelihoods

Climate change negatively affects various segments of the Nigerian population, particularly in communities heavily reliant on natural resources. In such societies, women are especially vulnerable because any disruption to their livelihoods due to their dependence on natural resources can quickly lead them into poverty, bringing severe hardships. In Nigeria, the impacts of climate change have contributed to major challenges, including

conflicts between farmers and herders, resulting in loss of lives, destruction of property, and forced migration, particularly affecting women and children. Some specific ways in which women are affected by flooding include:

Economic consequences of floods on women

Entrepreneurship: According to the NSW government, climate change affects businesses and entrepreneurship in two main ways: directly and indirectly.

The direct impacts involve immediate damage to businesses, such as physical destruction caused by floods. When this occurs, women are often forced to close their businesses and relocate to safer areas, making it extremely difficult to resume trading in the new location. Globally, women engage in operating small businesses, and their efforts to support their families and achieve financial independence are severely disrupted by such events.

While the indirect impacts refer to the secondary effects of flooding that negatively influence women's income. For example, in Nasarawa State, floods destroyed yam and rice crops, creating food shortages later in the year. Women involved in trading these food products faced severe losses as their supply was drastically reduced or entirely wiped out, undermining their business operations and financial stability.

Agriculture: Climate change has profound effects on agriculture in Nigeria. The International Fund for Agricultural Development (IFAD) noted that 75% of the world's 1.2 billion poor reside and work in rural areas (IFAD, 2001). Akingbami et al. (2019) reported that in developing countries, 50% of the rural population are small holder farmers, while 25% are landless. Research by Davies (2009), supported by Oxfam (2010), indicates that women in rural areas of developing nations are particularly vulnerable to climate change due to their limited adaptive capacity. Occurrence such as droughts, floods and landslides have devastated crops, forcing people to migrate to safer areas to continue farming or grazing livestock. This movement of herders has caused serious conflicts in several Nigerian states. Farmers, striving to protect their farms, frequently clash with herders, resulting in significant loss of lives and property over the years. Women bear the brunt of these crises, experiencing immense suffering as they witness the destruction of their communities and the loss of family members to these conflicts.

Unemployment: Onwutuebe (2019), in her article "Patriarchy and Women's Vulnerability to Adverse Climate Change in Nigeria", explains that in communities where women are denied the rights, privileges, and opportunities to engage in economic or public activities on par with men, they face significantly higher risks from the impacts of climate change. Men, benefiting from a privileged status financially, economically, socially, and politically granted by patriarchal systems, generally have greater adaptive capacity to withstand and respond to the adverse effects of climate change.

Political consequences of floods on women: The United Nation record notes that women constitute a large proportion of poor communities that rely heavily on local natural resources for their livelihoods. This vulnerability is reflected in decision-making processes, as women in Nigeria often have limited opportunities to participate in boardroom discussions and policy forums addressing climate change and its mitigation.

Social consequences of floods on women: According to Action Aid, climate-related events whether slow onset disasters like droughts or sudden ones such as hurricanes can render women's homes and neighborhoods uninhabitable. Consequently, women and girls may be forced to relocate to displacement camps, where living under temporary shelters exposes them to various forms of violence. Many displaced women have faced attacks from host communities, ranging from sexual assault to being forced into prostitution due to their urgent need to survive and provide for their families.

Household: Extreme climate events impact entire households. For instance, the 2024 floods in Nigeria displaced millions, preventing men from working on farms, women from running their businesses, and children from attending school. Families often had to move to safer areas, leaving behind their homes and primary sources of livelihood, relying on charity and government assistance. Women in these circumstances face immense pressure, caring for distressed spouses and children who may lack food or education, while also struggling to provide for their families. This dual burden leaves women overwhelmed, stressed, and frustrated.

b. **Women's Sanitary Life:** Women and girls are significantly affected by the lack of access to clean water and adequate sanitary facilities, such as toilets, bathrooms, and sanitary pads. Often, women must travel long distances to fetch water, and many cannot afford quality sanitary products, particularly when their livelihoods are disrupted. For girls in these communities, these challenges make attending school difficult, reducing their opportunities for proper education. The absence of climate-resilient facilities traps women, their families, and communities in cycles of poverty and illness.

Migration: Climate change impacts lead to different forms of migration among women and girls seasonal, temporary, and permanent. Seasonal migration occurs when climate effects are experienced at specific times, prompting people to move away temporarily and return once the period passes. In Nigeria, some states experience annual flooding during the rainy season, forcing women and girls to leave their homes, businesses, schools, and personal sanitary facilities for shared ones in camps or with relatives. This migration is temporary, as they return home after the flood season. Permanent migration, however, involves relocating permanently from their homes, leaving women and children vulnerable, stressed, and often depressed. Such long-term displacement is largely driven by poor urban planning and ineffective government policies.

Physical and Mental Health: According to the Rule of Law and Empowerment Initiative, Partners West Africa Nigeria, an Non Governmental Organization focused on promoting citizen participation and improving security governance in Nigeria and West Africa, climate change has negatively consequences for human health. Direct health impacts may result from extreme weather events such as floods and hot season while indirect effects can arise from malnutrition due to food shortages and the spread of infectious diseases, including those transmitted through food, water, and air. Additionally, women who have lost family members, experienced displacement, and endured a loss of time, stability, and dignity often suffer severe psychological trauma.

What roles can women play In curbing these impacts of climate change on their livelihood.

In celebration of International Women's Day on March 8, 2023, the United Nations (UN) Climate Change news highlighted that in many societies, particularly in developing countries, women are primarily responsible for managing household energy, food, water, and caring for children and the elderly. Climate change drawn these responsibilities, often forcing women and girls to travel longer distances to access daily necessities, reducing their time for paid work and increasing risks to their personal safety. However, as noted earlier, there are ways to mitigate these impacts through women's empowerment through.

Inclusion of women in policy making and implementation: Women hold central roles in communities as caregivers, educators, and knowledge bearers. They are often the first point of contact in households and exert considerable influence within the community. Because women bear a disproportionate share of climate change's effects, their perspectives are essential in developing effective policies. Involving women in policy making and implementation allows them to share first hand insights and contribute practical solutions to address climate change impacts effectively.

Training women in first aid and emergency medical care: Women in climate-affected communities who have the capacity to learn should be trained in basic medical and first aid skills to assist individuals injured or affected by climate-related events, such as farmer-herder conflicts, floods, or landslides. Equipping women with these skills is crucial, particularly in areas where access to formal emergency healthcare facilities is limited.

Women as frontline climate activists: As Anne-Marie Slaughter, CEO of New America, observes, "women are often the rule takers while men are the rule makers." Women tend to notice issues early and raise concerns within their communities. Being closely connected to families and neighborhoods, they are often the first to respond to climate impacts. Training women to engage their communities in safe and environmentally conscious practices enhances climate resilience. Additionally, empowered women can educate their families on environmental preservation and, through increased income, support their children's education.

Equal participation in decision-making and policy implementation: Gender inequality and marginalization exacerbate women's and girls' vulnerability to climate change impacts. Nigeria's 2023 budget lacks specific programs addressing the effects of climate change on women and girls. Studies indicate that 70% to 80% of

women are engaged in agriculture and small and medium enterprises (SMEs), sectors highly vulnerable to the economic consequences of climate change. Ensuring women have equal opportunities in decision-making and policy actions is essential to reducing these vulnerabilities.

THEORETICAL FRAMEWORK

Human Ecology Theory

The term ecology originates from the Greek word (oikos), meaning household or place to live, and is defined as the study of the relationships between organisms and their environment, as well as interactions among organisms themselves (Smith & Pimm, 2013). One of the earliest references comes from the Greek philosopher Theophrastus, a contemporary of Aristotle, who emphasized the interrelationships between organisms and between organisms and their non-living environment” (Smith & Pimm, 2013). Ernest Haeckel was the first to formally use the term “ecology” in 1868 in his study of plants, and it entered the English language through the translation of his book in 1876. The concept of human ecology was first introduced by Robert Park and Ernest Burgess in introduction to the Science of Sociology (1924). During the initial decades following its introduction, sociologists had little consensus on the definition or focus of human ecology (Alihan, 1938), and even today, there are multiple approaches and orientations.

Freese (2001) notes that approaches to human ecology differ largely based on scholars’ perspectives. He identifies three main orientations:

1. **Biological perspective:** Originating with Haeckel and influenced by Darwin, this view defines ecology in terms of evolution and the adaptations of organisms to both biotic and abiotic aspects of their environment. Human ecology naturally emerged from this perspective, though biologists have shown limited interest in human-focused ecology (Freese, 2001).
2. **Metaphorical approach:** This perspective derives from biologists’ theories of community succession in natural ecosystems. Sociologists have applied these ecological metaphors to understand social organization and community dynamics (Freese, 2001).
3. **Ideological approach:** Emerging in the 1960s alongside the modern global environmental movement, this approach combines biological and metaphorical interpretations of ecology with value judgments, integrating ecological science with societal concerns (Freese, 2001).

A seminal contribution to human ecology in sociology is Amos Hawley’s *Human Ecology. The Theory of Community Structure* (1950), which remains a foundational text in the field. Hawley defines human ecology as the study of how growing, multiplying beings maintain themselves in a constantly changing but ever-restricted environment. For human populations, this involves examining how individuals collectively act to optimize the use of their habitats (Poston & Frisbie, 2005).

Gender and Development Theory

Gender and Development is an interdisciplinary field that applies a feminist perspective to examine and address the unequal effects of economic development and globalization on individuals, considering factors such as location, gender, class, and other socio-political identities. While traditional economic approaches to development focus on quantitative indicators such as job creation, inflation control, and high employment rates to enhance a nation’s economic well-being and overall quality of life, gender and development expands this focus. Quality of life in economic terms typically includes access to essential rights and resources, such as quality education, healthcare, affordable housing, clean environments, and low crime rates.

Gender and development examines these same aspects but emphasizes the complexity of how they intersect with culture, governance, and globalization. To capture these nuanced impacts, the field often employs ethnographic research, which involves the researcher immersing themselves in the daily lives and environment of a specific community or group. This approach provides a deeper understanding of how development policies and practices influence the everyday experiences of the targeted populations.

Human Ecology Theory provides a useful framework for understanding the impact of flooding on the livelihood of women in Damaturu Local Government Area of Yobe State by examining the relationship between human and the physical environment. The theory give emphasizes on how man shaped by environmental constraints such as flood. Most women largely engage in environment dependent activities including farming, food processing and small businesses. When flood occur it negatively effect their life. It relevant because it provides basis of understanding how flooding affects women's livelihoods through the interaction with environmental disruption.

While Gender and Development on the other hand provides a relevant point in analyzing the impact of flooding on the livelihood of women, by emphasizes that development challenges and environmental disasters such as flooding do not affect men and women equally, due to roles between men and women. When flood happen disrupts most of the activities by destroying farmlands, markets, household assets, and sources of water and sanitation that women depend upon for their daily activities. The study also provide understanding the impact of flooding to explore the social, cultural, and institutional dimensions of women life.

METHODOLOGY

This study is rooted in the interpretivist philosophy adopting a qualitative approach with a phenomenology research design aimed to explore the experience of women with respect to flood on their livelihood. In-depth interview technique will be used to collect the primary data for this study, government gazettes, scientific journals and essays will be used as secondary source of data, the population of the study includes women residents of Damaturu, Community leaders, government representatives and community based organizations. The study planned to select 6 key informants as the sample size of the study pending when saturation is reached. Purposive Sampling technique will be used to select these respondents. Thematic analysis technique used to analyzed the data for this study.

RESULTS AND DISCUSSION

Loss of Livelihood and Economic Disruption

On this note, R1, R2 and R4

Yes, the flood affected my husband's source of income and directly affected mine, because he missed agricultural products such as maize, beans, and animals. This has affected my livelihood (R1, R2 and R4).

The findings of R1, R2 and R4 corroborated with the findings of Adekola, Adesiji , Adetarami, Ose And Komolafe (2023) whose findings reveals that that flood has caused heavy erosion and damage to farm infrastructures and food insecurity.

The findings of of Adekola, Adesiji , Adetarami, Ose And Komolafe (2023) also reveals that flood incidence has negatively affected livelihood activities, thereby resulting in food insecurity, crops, livestock destruction and malaria sickness.

R3 and R5 also added that:

This incident has forced us to relocate from my husband's residential area to primary school; this is exactly how it affects his ability to farm.

R6 had a different view:

Yes, my financial situation has significantly declined.

was corroborated with the The findings of R6 reveals how flooding affected the income and monetary gain resulting from farming activities were affected by flood, this finding findings of Week and Wizer (2020) where it was revealed that flood leaves individuals and households with insufficient money or fund for the purchase of food.

Food Insecurity and Basic Needs Challenges

R1 and R3 shares the view that:

Yes, it has changed the way he earns a living. Before the flood, he used to earn a living from farming and rearing animals, but now we depend on assistance from neighbours and daily work as labourers. We do not have the option to adapt to the situation we found ourselves in. Yes, start selling coils, generating income.

The findings of R1 and R3 were supported by the findings of week and Wizer (2020) where it was stated that basic food is scarce after all flood incident with , the finding of Week and Wizer (2020) further reveals that households or residents find it difficult accessing food after every flooding incident.

Differently, R2 and R5 believe that:

Yes, it has affected our daily income. I face difficulty in accessing basic needs of life, especially food, shelter, and means of living. Yes, there is a challenge in caring for our children and taking care of their responsibility.

R2 and R5 have lamented how flooding affected their daily income which is mostly geared towards farming, however, this finding is further supported by the work of Week and Wizer (2020) where it was established that flood makes individuals not to gain from the crops planted in farms or gardens. It was further reveals that growth and development of crops is affected when flood washes away farmlands.

Family Welfare and Educational Disruptions

R3 views that:

As a housewife, where my husband provides all necessities of life, I now find myself in this situation, and it is very difficult in caring for the family.

The findings of of Adekola, Adesiji , Adetarami, Ose And Komolafe (2023) also reveals that flood incidence has negatively affected livelihood activities, thereby resulting in food insecurity, crops, livestock destruction and malaria sickness.

R4 and R5 also believe that:

Yes, my children missed school due to relocating from the main residential area, and regarding status, some of my children suffer from malaria due to environmental change.

The findings of R4 and R5 were supported by the findings of Tijjani, Usman, Eje, Mohammed and Ya'u (2024) where they established in their studies that school attendance was disrupted due to impassable roads and destruction of school infrastructures.

Future Uncertainty and Need for Stakeholder Intervention

R3 and R5 shared that

In the long time coming, if this kind of disaster will continue to occur, it will negatively affect our livelihood in terms of access to food, because farming will be difficult. I think so; it will be difficult to rebuild our daily routine due to the situation we found ourselves in. But if proper measures were taken, it would be easy to rebuild our farming activities.

The above findings was supported by the findings of Escalante, Mamboundou, Meyindjui and Omoju (2025). Which reveal that Given the rising risk of food insecurity, our analysis indicates that certain public policies could be applied in Nigeria, though each has its limitations. Cash transfers to households can boost consumption, especially for rural households, but may increase prices and reliance on imports.

If required measures were not taken and the government did not commit its effort in providing measures to prevent the occurrence of such incidents. Yes, everyone has a responsibility to protect his or her environment; there is a need to educate citizens on ways of protecting the environment from disasters.

Similarly, Escalante, Mamboundou, Meyindjui and Omoju (2025). Also established that reducing income taxes restores purchasing power to urban dwellers but increases vulnerability to food imports. Investing in the crop production sector, which is highly impacted by climate disasters, can lower consumer prices but doesn't benefit other sectors.

Cultural and Gender Considerations in Aid Distribution

R1, R2, R3 and R5 connotes that:

There is no gender challenge in providing aid. The only if can be found in the religious and cultural challenge; it is not allowed to mingle both genders in place to provide assistance.

Even though, similar to other findings, this finding has been unique and calls for cultural and gender consideration in event of aid distribution.

CONCLUSION

This study conclude that flooding have significantly affected the livelihood of women in Yobe State. Particularly, it disrupts women's primary source of income which is majorly link to agriculture, petty trading, livestock, which were fuelled by the displacement from residential areas. The study also conclude that there is loss of farmlands, livestock and assets belonging to women in Yobe State, this had further cripple women productive ability and increase their dependence on external assistance.

RECOMMENDATIONS

1. There is the need for Government to strengthen flood prevention and environmental management strategies in Yobe State bearing in mind women needs and vulnerabilities in flood risk planning.
2. Since women were the major victims of flooding in Yobe State, post flood intervention should give more priority to women particularly in areas such as provision of Farming input, livestock, start up capital and skills acquisition programs to enable them build sustainable livelihood.
3. Women in Yobe State, Particularly from the flood affected areas should be targeted with food support and other means of livelihood with a view to reducing hunger and economic dependence.
4. Government and development partners should ensure continued access to healthcare and education for women and children in flood-affected and displacement areas.
5. Community-based education on environmental protection, flood preparedness, and disaster response should be intensified to reduce future livelihood losses among women.

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