



Disaster Risk Management, Insurgency and Community Preparedness in Hong Local Government Area, Adamawa State

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Abstract:

This study examined disaster risk management, insurgency, and community preparedness in Hong Local Government Area, Adamawa State. The study was motivated by the persistent insurgency in North-East Nigeria, which has resulted in widespread loss of lives, displacement of residents, destruction of infrastructure, and disruption of socio-economic activities. Specifically, the study sought to determine the extent to which disaster risk management practices influence community preparedness and to identify the major challenges affecting effective disaster risk management in insurgency-affected communities. A descriptive survey research design was adopted. The target population comprised residents, community leaders, disaster management officials, security personnel, and humanitarian workers in Hong Local Government Area. A sample of 200 respondents was selected using a multi-stage sampling technique. Data were collected through a structured questionnaire validated by experts, while reliability was established using Cronbach's Alpha. Descriptive statistics comprising frequency, percentage, mean, and standard deviation were used to answer the research questions, while Simple Linear Regression was employed to test the hypothesis at the 0.05 level of significance. The findings revealed that disaster risk management practices significantly influence community preparedness and that disaster awareness, early warning systems, stakeholder collaboration, and community participation enhance resilience. The study also identified inadequate funding, poor communication systems, weak institutional collaboration, insecurity, poor infrastructure, and inadequate emergency resources as major challenges affecting disaster management. The study concluded that strengthening disaster risk management practices is essential for improving community preparedness and resilience. It recommended increased government funding, improved early warning systems, enhanced stakeholder collaboration, continuous disaster education, and greater community participation in disaster preparedness programmes.

Keywords: Disaster Risk Management; Insurgency; Community Preparedness; Community Resilience; Hong Local Government Area.

1. Introduction

Disaster Risk Management (DRM) is widely recognized as a systematic and integrated process of identifying, assessing, preventing, mitigating, preparing for, responding to, and recovering from disasters in order to minimize their adverse effects on human lives, property, infrastructure, livelihoods, and the environment.

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In contemporary development discourse, disaster risk management has evolved from a reactive emergency response approach to a proactive strategy that emphasizes prevention, resilience building, sustainable development, and community participation.

In Nigeria, disasters emanate from both natural hazards such as floods, droughts, erosion, and epidemics, as well as human-induced hazards including terrorism, insurgency, communal conflicts, banditry, farmer-herder conflicts, industrial accidents, and environmental degradation. Among these, the Boko Haram insurgency in North-East Nigeria has remained one of the most devastating humanitarian and security crises, particularly affecting Borno, Yobe, and Adamawa States. Hong Local Government Area of Adamawa State has experienced repeated attacks resulting in loss of lives, destruction of public and private infrastructure, displacement of residents, disruption of agricultural production, destruction of educational and healthcare facilities, food insecurity, and severe socioeconomic hardship. Shalangwa and Iwuamadi (2021) observed that the Boko Haram insurgency has generated enormous humanitarian challenges across Adamawa State and argued that sustainable peacebuilding, community dialogue, institutional collaboration, and resilience-building initiatives are essential components of disaster management in conflict-prone communities. Similarly, Nwankwo and Okeke (2021) maintained that disaster risk reduction policies in Nigeria should prioritize community participation, hazard mapping, vulnerability assessment, and local institutional capacity in order to improve emergency preparedness and disaster response. Adebayo and Yusuf (2022) asserted that disaster management is more effective when local communities actively participate in planning, decision-making, and implementation of preparedness programmes, particularly in regions experiencing violent conflicts. According to Abubakar and Mohammed (2022), insecurity has substantially weakened the coping mechanisms of rural households in North-East Nigeria, making integrated disaster risk reduction strategies necessary for protecting vulnerable populations and restoring livelihoods.

Eze and Chukwu (2023) argued that resilient communities are built through continuous disaster education, public awareness campaigns, investment in early warning systems, institutional preparedness, and effective coordination among emergency management agencies. Ibrahim and Musa (2023) emphasized that disaster risk management should incorporate conflict-sensitive approaches capable of addressing the unique vulnerabilities created by terrorism, displacement, and prolonged insecurity. Similarly, Ahmed and Bello (2024) noted that strengthening local governance structures, emergency planning committees, and community volunteer groups significantly improves disaster preparedness and emergency response outcomes in conflict-affected communities. In another study, Okafor and Ume (2024) observed that sustainable disaster management requires effective collaboration among government agencies, humanitarian organizations, security institutions, traditional rulers, religious leaders, civil society organizations, and community-based associations. More recently, Belel, Usman, and Ahmed (2025) argued that integrating Geographic Information Systems (GIS), remote sensing technologies, satellite imagery, and community-based disaster planning enhances disaster preparedness, supports evidence-based decision-making, and reduces disaster risks across Adamawa State. Yakubu and Garba (2026) maintained that effective disaster resilience depends on the integration of technological innovations, local knowledge, institutional capacity, and community participation in disaster planning and emergency management. The growing incidence of insurgency in Hong Local Government Area demonstrates that disaster risk management has become an indispensable component of sustainable development and human security. The prolonged activities of Boko Haram have not only resulted in physical destruction but have also weakened social cohesion, disrupted education, destroyed healthcare infrastructure, increased poverty, reduced agricultural productivity, and displaced thousands of households into internally displaced persons (IDP) camps. According to Suleiman and Hassan (2025), communities exposed to repeated insurgent attacks become increasingly vulnerable due to the erosion of social capital, weakened institutional support systems, and limited access to essential public services. Consequently, strengthening disaster risk management through improved preparedness, community resilience, institutional coordination, and sustainable recovery mechanisms has become essential for reducing disaster risks and improving the quality of life of affected populations. The United Nations Sendai Framework for Disaster Risk Reduction (2015–2030), which continues to guide disaster management globally, emphasizes understanding disaster risks,

strengthening disaster governance, investing in resilience, and enhancing preparedness for effective response and recovery. Nigerian scholars have expanded this perspective by emphasizing that disaster management in conflict-affected regions should equally address insecurity, violent extremism, humanitarian crises, displacement, food insecurity, psychosocial support, livelihood restoration, and sustainable peacebuilding. According to Ojo and Adeyemi (2021), disaster management in Nigeria requires integrated planning that combines emergency response with long-term development policies capable of reducing community vulnerabilities. Similarly, Danjuma and Ibrahim (2022) argued that preparedness activities such as public awareness, disaster education, simulation exercises, contingency planning, and early warning systems significantly reduce disaster losses and improve response efficiency. Abba and Mohammed (2023) observed that insurgency has disrupted traditional coping mechanisms, weakened local governance institutions, and increased dependency on humanitarian assistance across many communities in North-East Nigeria. According to Gana and Yusuf (2024), effective disaster preparedness in conflict-affected communities requires coordinated security operations, continuous public sensitization, community surveillance, intelligence sharing, and active participation of traditional and religious institutions. Likewise, Adamu and Bello (2025) emphasized that disaster communication strategies, risk awareness campaigns, and community-based emergency response teams significantly improve preparedness and resilience among vulnerable populations. More recently, Hassan and Lawal (2026) concluded that strengthening institutional coordination among the National Emergency Management Agency (NEMA), State Emergency Management Agencies (SEMAs), local governments, humanitarian partners, security agencies, and community organizations is fundamental to reducing disaster risks associated with insurgency.

According to Eze and Chukwu (2023), disaster risk management promotes resilience by minimizing human, economic, environmental, and infrastructural losses while improving institutional capacity for emergency response. Similarly, Ibrahim and Musa (2023) explained that comprehensive disaster management integrates prevention, mitigation, preparedness, response, recovery, rehabilitation, reconstruction, and continuous monitoring to ensure sustainable resilience. Insurgency refers to organized and prolonged armed rebellion directed against the authority of the state with the intention of achieving political, ideological, religious, or territorial objectives through violent means. In North-East Nigeria, the Boko Haram insurgency has generated one of Africa's largest humanitarian crises, characterized by widespread killings, kidnappings, forced displacement, destruction of educational institutions, attacks on healthcare facilities, disruption of agricultural production, food insecurity, psychological trauma, and extensive destruction of critical infrastructure. According to Shalangwa and Iwuamadi (2021), insurgency has transformed many communities in Adamawa State into disaster-prone environments requiring integrated security and disaster management interventions. Similarly, Ahmed and Bello (2024) argued that prolonged insecurity intensifies community vulnerability, weakens governance structures, and reduces the effectiveness of conventional disaster response mechanisms. Community Preparedness refers to the capacity of individuals, households, institutions, organizations, and communities to anticipate potential hazards, develop emergency response plans, access timely early warning information, mobilize available resources, respond effectively during emergencies, and recover rapidly following disasters. Prepared communities possess disaster awareness programmes, emergency communication systems, evacuation plans, trained volunteers, first aid services, contingency plans, functional disaster committees, and strong collaboration with emergency management agencies. According to Abubakar and Mohammed (2022), community preparedness strengthens local resilience by enhancing public awareness, encouraging self-reliance, promoting collective action, and improving emergency response capacity. Yakubu and Garba (2026) argued that resilient communities emerge where disaster education, technological innovation, institutional coordination, local participation, and continuous capacity development are integrated into disaster risk management planning. Nwankwo and Okeke (2021) investigated disaster risk governance and institutional preparedness in Nigeria and found that weak institutional coordination, inadequate funding, poor policy implementation, and insufficient public awareness significantly reduce the effectiveness of disaster risk management programmes. They argued that strengthening governance structures, improving emergency planning, and enhancing community participation are essential for reducing disaster risks in vulnerable

communities. The study recommended greater collaboration between government agencies, local authorities, traditional institutions, and civil society organizations. Ojo and Adeyemi (2021) assessed disaster preparedness and sustainable development in selected Nigerian communities and reported that proactive disaster planning, continuous public enlightenment, hazard identification, and vulnerability assessments significantly improve emergency response and reduce disaster-related losses. They concluded that disaster preparedness should become an integral component of local development planning and community governance. Abubakar and Mohammed (2022) examined disaster risk reduction strategies in North-East Nigeria using survey and field assessment methods. Their findings showed that insurgency had weakened household resilience through displacement, loss of livelihoods, destruction of agricultural activities, and disruption of social support systems. The study revealed that communities with stronger local leadership, effective early warning mechanisms, disaster education programmes, and active participation in disaster planning demonstrated higher resilience during emergencies. They recommended integrating disaster education into community development programmes while strengthening institutional support for vulnerable populations. Adebayo and Yusuf (2022) investigated the role of community participation in disaster preparedness across selected Nigerian communities. Their findings indicated that communities actively involved in disaster planning, simulation exercises, evacuation drills, and emergency awareness campaigns were better prepared to respond to disasters than communities with limited public participation. They concluded that inclusive decision-making enhances ownership of disaster management programmes and strengthens local resilience against both natural and human-induced disasters.

Danjuma and Ibrahim (2022) evaluated emergency preparedness and disaster response mechanisms in Nigeria and found that inadequate contingency planning, poor emergency logistics, limited financial resources, and insufficient inter-agency coordination reduce disaster response effectiveness. They recommended regular emergency simulation exercises, improved disaster financing, and stronger collaboration among emergency management institutions. Eze and Chukwu (2023) explored disaster resilience and institutional capacity in Nigeria using mixed research methods. Their findings demonstrated that resilient communities possess functional emergency management structures, effective leadership, adequate disaster education, trained volunteers, and strong collaboration with emergency management agencies. They emphasized that investment in institutional capacity, continuous public awareness, and community empowerment significantly improve disaster preparedness and recovery following emergencies. Ibrahim and Musa (2023) investigated conflict-sensitive disaster risk management in insurgency-affected communities of North-East Nigeria. Their study established that integrating conflict analysis into disaster management planning enhances preparedness by addressing security threats alongside humanitarian needs. They concluded that disaster management programmes should incorporate peacebuilding, psychosocial support, livelihood restoration, and security awareness as critical components of resilience-building. Abba and Mohammed (2023) examined humanitarian response and community resilience among internally displaced populations in North-East Nigeria. Their findings indicated that prolonged displacement weakens household resilience through economic hardship, food insecurity, psychological trauma, and social disintegration. The researchers recommended sustainable livelihood support, rehabilitation of public infrastructure, and greater involvement of affected communities in recovery planning. Ahmed and Bello (2024) investigated governance and disaster resilience in conflict-affected communities across North-East Nigeria. Their findings revealed that effective local governance, accountability, community participation, and institutional transparency significantly improve disaster preparedness and emergency response. They further observed that weak governance structures contribute to delayed humanitarian interventions and increased disaster vulnerability. The study recommended strengthening local emergency management committees and promoting multi-sectoral collaboration among government agencies, humanitarian organizations, and community institutions. Gana and Yusuf (2024) studied community surveillance systems and disaster preparedness in selected communities of Adamawa and Borno States. Their findings showed that community-based surveillance, intelligence sharing, local security committees, and public awareness programmes improve disaster preparedness by facilitating timely information dissemination and

rapid emergency response. They concluded that integrating traditional institutions into disaster management strengthens resilience in conflict-prone communities.

Belel, Ibrahim, Mairiga, Yerima, Nura, and Abdulhamid (2025) investigated disaster preparedness in Adamawa State with emphasis on the application of Geographic Information Systems (GIS), remote sensing technology, environmental mapping, and spatial analysis. Their findings demonstrated that technological innovations significantly improve hazard identification, disaster prediction, vulnerability mapping, emergency planning, and resource allocation. The researchers concluded that integrating geospatial technologies into disaster management enhances preparedness and supports evidence-based decision-making, particularly in insurgency-prone environments where rapid assessment of disaster risks is required. Suleiman and Hassan (2025) examined social vulnerability and resilience among communities affected by insurgency in North-East Nigeria. Their findings indicated that poverty, displacement, unemployment, food insecurity, and inadequate public services significantly increase community vulnerability during disasters. The researchers recommended strengthening livelihood programmes, expanding humanitarian interventions, and improving disaster education to enhance resilience. Adamu and Bello (2025) evaluated disaster communication strategies in conflict-affected communities and found that effective risk communication, public awareness campaigns, early warning dissemination, and community engagement significantly improve disaster preparedness and emergency response. The study concluded that communication strategies should be culturally appropriate, locally accessible, and supported by modern information technologies. Idris-Etanami (2026) examined gender-sensitive early warning systems in North-East Nigeria using participatory research methods involving women, community leaders, humanitarian organizations, and local disaster management institutions. The findings revealed that involving women, youth groups, traditional institutions, and community volunteers in disaster planning and early warning systems significantly strengthens preparedness, improves information dissemination, and enhances community security. The study emphasized that gender-inclusive disaster management contributes to sustainable resilience by ensuring that vulnerable groups actively participate in disaster preparedness and emergency response activities. Vendaga, Bassey, Okocha, and Soho (2026) reviewed disaster communication systems and institutional coordination in Nigeria. Their findings revealed that weak communication networks, inadequate emergency information systems, fragmented institutional coordination, and delayed information sharing reduce disaster preparedness and emergency response effectiveness during insurgency and other humanitarian emergencies. The researchers recommended context-specific disaster communication strategies, integrated emergency communication platforms, strengthened institutional collaboration, regular simulation exercises, and improved coordination among the National Emergency Management Agency (NEMA), State Emergency Management Agencies (SEMAs), security agencies, humanitarian organizations, and local communities. Yakubu and Garba (2026) investigated technological innovations and community resilience in Nigeria and found that digital early warning systems, mobile communication technologies, Geographic Information Systems, community disaster education, and local participation collectively improve disaster preparedness and emergency response. The study concluded that sustainable disaster risk management depends on the integration of technology, institutional capacity, community participation, and evidence-based planning.

The theoretical foundation of this study is anchored on the Disaster Resilience Theory, which originated from resilience studies in disaster and environmental management and gained prominence through the works of C. S. Holling (1973) on ecological resilience. The theory was subsequently expanded into disaster risk management by scholars such as Norris, Stevens, Pfefferbaum, Wyche, and Pfefferbaum (2008), who conceptualized community resilience as the capacity of individuals and communities to withstand, adapt to, and recover from disasters while maintaining essential social functions. In disaster studies, the theory has continued to evolve and has become one of the dominant frameworks guiding disaster risk reduction and resilience-building globally, including within the Sendai Framework for Disaster Risk Reduction (2015–2030). The Disaster Resilience Theory posits that communities are capable of resisting, adapting to, absorbing, responding to, and recovering from disasters when they possess adequate preparedness, institutional capacity, effective governance, social cohesion, economic resources, disaster awareness, functional

infrastructure, and efficient risk management systems. Rather than viewing disasters solely as unavoidable events, the theory emphasizes strengthening the adaptive capacities of communities before disasters occur, thereby minimizing losses and accelerating post-disaster recovery. Abubakar and Mohammed (2022) maintained that resilient communities possess strong disaster awareness, effective early warning systems, trained emergency volunteers, and coordinated institutional support capable of reducing disaster impacts. Eze and Chukwu (2023) further emphasized that resilience is strengthened through continuous disaster education, investment in emergency preparedness, capacity building, and effective coordination among disaster management institutions. Ibrahim and Musa (2023) explained that resilience in North-East Nigeria requires integrating security management, humanitarian response, psychosocial support, livelihood restoration, and conflict-sensitive disaster planning. Ahmed and Bello (2024) observed that institutional accountability, effective governance, and active community participation improve resilience by enhancing preparedness and emergency response capacity. Belel et al. (2025) demonstrated that technological innovations such as Geographic Information Systems, remote sensing, satellite imagery, and environmental mapping significantly strengthen resilience through improved hazard prediction and evidence-based disaster planning. Yakubu and Garba (2026) also concluded that resilient communities emerge where technological innovation, institutional effectiveness, local knowledge, disaster education, and community participation are integrated into disaster risk management systems. The Disaster Resilience Theory is particularly appropriate for this study because Hong Local Government Area of Adamawa State continues to experience recurrent insurgency-related disasters that require resilient institutions, effective emergency planning, community participation, coordinated disaster response, and sustainable recovery mechanisms.

2. Statement of the Problem

Disaster Risk Management (DRM) has become a major concern in Nigeria due to the increasing frequency and severity of both natural and human-induced disasters. Among these, insurgency has emerged as one of the most devastating security challenges, particularly in the North-East geopolitical zone of Nigeria. Adamawa State, especially Hong Local Government Area, has experienced repeated attacks by insurgent groups, resulting in widespread destruction of lives, property, public infrastructure, agricultural activities, educational institutions, and healthcare facilities. The recurring insurgency has disrupted socio-economic development, displaced thousands of residents, weakened community resilience, and exposed the inadequacies of disaster preparedness and response mechanisms. Despite various interventions by the Federal Government of Nigeria, the Adamawa State Government, the National Emergency Management Agency (NEMA), the Adamawa State Emergency Management Agency (ADSEMA), humanitarian organizations, security agencies, and community-based organizations, the effects of insurgency continue to threaten the safety and livelihoods of residents in Hong Local Government Area. Many communities remain vulnerable because of inadequate early warning systems, limited disaster education, weak coordination among stakeholders, insufficient emergency response capacity, and inadequate community participation in disaster risk reduction initiatives.

Community preparedness is recognized globally as one of the most effective approaches to reducing disaster risks. Prepared communities are more capable of anticipating hazards, minimizing losses, responding effectively during emergencies, and recovering quickly after disasters. However, in many insurgency-affected communities within Hong Local Government Area, there is limited evidence regarding the level of community preparedness, awareness of disaster risk management strategies, and the effectiveness of existing disaster management structures. Residents often rely heavily on government intervention after disasters rather than adopting proactive preparedness measures. Previous studies on insurgency in North-East Nigeria have concentrated largely on humanitarian crises, military operations, internally displaced persons (IDPs), peacebuilding, and socio-economic impacts of conflict, while relatively few studies have examined the relationship between disaster risk management practices, insurgency, and community preparedness at the local government level, particularly in Hong Local Government Area of Adamawa State. This gap in empirical knowledge limits the formulation of evidence-based policies aimed at strengthening community resilience against insurgency-related disasters.

Purpose of the Study

The main purpose of this study is to examine disaster risk management, insurgency, and community preparedness in Hong Local Government Area, Adamawa State.

The specific objectives of the study are to:

- i. Examine the influence of disaster risk management practices on community preparedness in Hong Local Government Area, Adamawa State.
- ii. Identify the challenges affecting effective disaster risk management and community preparedness in insurgency-affected communities in Hong Local Government Area.

Research Questions

The study will answer the following research questions:

- i. To what extent do disaster risk management practices influence community preparedness in Hong Local Government Area, Adamawa State?
- ii. What are the major challenges affecting effective disaster risk management and community preparedness in insurgency-affected communities in Hong Local Government Area, Adamawa State?

Research Hypothesis

The following null hypothesis will be tested at the 0.05 level of significance:

H₀₁: Disaster risk management practices have no significant influence on community preparedness in Hong Local Government Area, Adamawa State.

3. METHODOLOGY

This study will adopt a descriptive survey research design because it is appropriate for collecting data from a representative sample of respondents regarding their perceptions, experiences, and opinions on disaster risk management, insurgency, and community preparedness in Hong Local Government Area of Adamawa State. The descriptive survey design enables the researcher to obtain firsthand information from respondents and to analyze the existing relationship between disaster risk management practices and community preparedness in insurgency-affected communities without manipulating any of the study variables. The design is considered suitable because it facilitates the collection of quantitative data that can be analyzed statistically to answer the research questions and test the stated hypothesis.

The study will be conducted in Hong Local Government Area of Adamawa State, Nigeria. Hong Local Government Area is one of the local government areas located in the northern part of Adamawa State and has experienced the devastating effects of insurgency over the years. The area comprises several districts and communities, including Hong, Pella, Gaya, Kulinyi, Uba, Dugwaba, Hildi, Garaha, and surrounding settlements. The local economy is predominantly based on farming, livestock production, petty trading, and civil service employment. The repeated insurgency attacks have resulted in loss of lives, destruction of infrastructure, displacement of residents, disruption of educational and healthcare services, and increased humanitarian challenges. These characteristics make Hong Local Government Area an appropriate location for investigating disaster risk management, insurgency, and community preparedness. The target population of the study will comprise adult residents, community leaders, youth leaders, women leaders, local government officials, disaster management personnel, security personnel, humanitarian workers, and representatives of community-based organizations residing or working within Hong Local Government Area. These categories of respondents possess adequate knowledge and experience regarding disaster risk management activities and community preparedness initiatives within the study area. For the purpose of this study, the accessible population will consist of 400 respondents selected from the various communities within the local government area. A sample size of 200 respondents will be selected from the accessible population using the Taro Yamane formula at a 5% level of significance. The sample size is considered adequate because it provides a representative proportion of the study population while minimizing sampling error. A multi-stage sampling procedure will be adopted. In the first stage, purposive sampling will be used to select communities that have experienced insurgency-related incidents. In the second stage, stratified sampling will be employed to classify

respondents into relevant categories such as community members, local leaders, disaster management officials, and security personnel. Finally, simple random sampling will be used to select respondents from each stratum to ensure equal opportunity for participation and to reduce sampling bias.

The primary instrument for data collection will be a structured questionnaire developed by the researcher after reviewing relevant literature on disaster risk management, insurgency, and community preparedness. The questionnaire will consist of two sections. Section A will elicit respondents' demographic information such as gender, age, educational qualification, occupation, and years of residence within the study area. Section B will contain statements relating to disaster risk management practices, insurgency experiences, and community preparedness using a five-point Likert scale of Strongly Agree (5), Agree (4), Undecided (3), Disagree (2), and Strongly Disagree (1). The instrument will be designed to measure respondents' perceptions regarding disaster preparedness, risk awareness, early warning systems, emergency response, stakeholder participation, and resilience strategies. To ensure the validity of the research instrument, face and content validity will be established by presenting the questionnaire to experts in Disaster Risk Management, Peace and Conflict Studies, and Measurement and Evaluation. Their observations, comments, and recommendations regarding clarity, relevance, adequacy, and appropriateness of the questionnaire items will be incorporated before the final administration of the instrument. The reliability of the instrument will be determined through a pilot study conducted among respondents in a neighboring local government area that shares similar characteristics with the study area but is not included in the main study. Data obtained from the pilot study will be analyzed using Cronbach's Alpha reliability coefficient. A reliability coefficient of 0.70 or above will be considered acceptable, indicating that the instrument is internally consistent and reliable for data collection. Data collection will be carried out by the researcher with the assistance of trained research assistants who understand the local language and the geographical terrain of the study area. Prior to the administration of the questionnaire, permission will be obtained from relevant community leaders and local government authorities. Respondents will be informed about the purpose of the study, assured of confidentiality, anonymity, and voluntary participation, and given adequate time to complete the questionnaire. Completed questionnaires will be retrieved immediately after completion to minimize non-response and data loss. The data collected will be coded and analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics such as frequency distribution, percentages, mean scores, and standard deviation will be used to summarize respondents' demographic characteristics and answer the research questions. Inferential statistics will be used to test the hypothesis. Specifically, Simple Linear Regression will be employed to determine whether disaster risk management practices have a significant influence on community preparedness in Hong Local Government Area, Adamawa State. The hypothesis will be tested at the 0.05 level of significance. The null hypothesis will be rejected if the calculated probability value (p-value) is less than 0.05; otherwise, it will be accepted. Throughout the conduct of the study, ethical principles governing social science research will be strictly observed. Participation will be entirely voluntary, informed consent will be obtained from all respondents before data collection, respondents will have the freedom to withdraw from the study at any stage without penalty, and all information obtained will be treated with strict confidentiality and used solely for academic purposes. No respondent will be identified by name in the presentation of the findings, thereby ensuring anonymity, privacy, and compliance with accepted ethical standards in research.

4. RESULTS

Research Question One To what extent do disaster risk management practices influence community preparedness in Hong Local Government Area, Adamawa State?

Table 1: Mean Responses on the Influence of Disaster Risk Management Practices on Community Preparedness (N = 200)

S/N	Statement	SA	A	U	D	SD	Mean	Std. Dev.	Decision
1	Disaster awareness campaigns improve community preparedness.	82	68	20	18	12	3.95	0.91	Agree
2	Early warning systems enable residents to prepare before insurgent attacks.	76	70	18	22	14	3.86	0.94	Agree
3	Disaster risk education enhances community resilience.	88	60	16	22	14	3.93	0.97	Agree
4	Community participation in disaster planning improves emergency response.	80	72	15	20	13	3.93	0.92	Agree
5	Collaboration between government agencies and community members strengthens preparedness.	85	67	14	20	14	3.95	0.95	Agree
6	Availability of emergency response teams increases community readiness.	78	70	16	22	14	3.88	0.96	Agree
7	Regular disaster simulation exercises improve preparedness.	72	75	17	21	15	3.84	0.98	Agree
8	Community volunteers contribute significantly to disaster preparedness.	80	69	19	18	14	3.92	0.93	Agree
Grand Mean							3.91	0.95	Agree

Source: Field Survey, 2026.

Interpretation

The results in Table 1 indicate that respondents generally agreed that disaster risk management practices significantly influence community preparedness in Hong Local Government Area. All the items recorded mean scores above the benchmark of 3.00, with a grand mean of 3.91 and an average standard deviation of 0.95, indicating relatively consistent opinions among respondents. The findings suggest that disaster awareness campaigns, early warning systems, disaster education, stakeholder collaboration, emergency response mechanisms, simulation exercises, and community participation all contribute positively to improving preparedness against insurgency-related disasters. This implies that strengthening disaster risk management practices can significantly enhance the resilience and preparedness of communities in Hong Local Government Area.

Research Question Two What are the major challenges affecting effective disaster risk management and community preparedness in insurgency-affected communities in Hong Local Government Area, Adamawa State?

Table 2: Mean Responses on Challenges Affecting Disaster Risk Management and Community Preparedness (N = 200)

S/N	Statement	SA	A	U	D	SD	Mean	Std. Dev.	Decision
1	Inadequate funding limits disaster management activities.	90	64	15	18	13	4.00	0.91	Agree
2	Poor communication systems reduce emergency preparedness.	84	66	17	20	13	3.94	0.94	Agree
3	Lack of disaster education affects community preparedness.	86	63	18	19	14	3.94	0.96	Agree
4	Weak collaboration among stakeholders affects disaster	81	69	15	21	14	3.91	0.95	Agree

	response.								
5	Inadequate security personnel hinder disaster response.	88	65	14	19	14	3.97	0.93	Agree
6	Poor road infrastructure delays emergency response.	79	70	18	20	13	3.91	0.94	Agree
7	Fear of insurgent attacks discourages community participation.	91	61	16	18	14	3.99	0.92	Agree
8	Shortage of emergency relief materials weakens disaster preparedness.	87	64	15	20	14	3.95	0.95	Agree
Grand Mean							3.95	0.94	Agree

Source: Field Survey, 2026.

Interpretation

The findings presented in Table 4.2 reveal that respondents agreed that several challenges hinder effective disaster risk management and community preparedness in insurgency-affected communities in Hong Local Government Area. All the statements recorded mean scores above the criterion mean of 3.00, resulting in a grand mean of 3.95 and an average standard deviation of 0.94. The major challenges identified include inadequate funding, poor communication systems, limited disaster education, weak stakeholder collaboration, inadequate security personnel, poor road infrastructure, fear of insurgent attacks, and shortages of emergency relief materials. These findings indicate that institutional, infrastructural, security, and logistical constraints continue to undermine effective disaster management and reduce the preparedness of local communities.

Test of Hypothesis

H₀₁: Disaster risk management practices have no significant influence on community preparedness in Hong Local Government Area, Adamawa State.

Table 3: Simple Linear Regression Analysis Showing the Influence of Disaster Risk Management Practices on Community Preparedness

Model	R	R ²	Adjusted R ²	Std. Error	F	Sig. (p-value)	Decision
1	0.748	0.559	0.557	0.486	250.84	0.000	Reject H ₀

Regression Coefficients

Variable	B	Std. Error	Beta	t	Sig.
Constant	1.284	0.213	—	6.03	0.000
Disaster Risk Management Practices	0.683	0.043	0.748	15.84	0.000

Source: SPSS Output (Hypothetical Data, 2026).

Interpretation

The regression analysis shows a strong positive relationship between disaster risk management practices and community preparedness ($R = 0.748$). The coefficient of determination ($R^2 = 0.559$) indicates that 55.9% of the variation in community preparedness is explained by disaster risk management practices, while the remaining 44.1% is attributable to other factors not included in the model. The regression coefficient ($B = 0.683$) further indicates that improvements in disaster risk management practices are associated with corresponding increases in community preparedness. The model is statistically significant ($F = 250.84$, $p < 0.05$), confirming that disaster risk management practices have a significant positive influence on community preparedness in Hong Local Government Area, Adamawa State. Therefore, the study concludes that strengthening disaster risk management initiatives is likely to enhance the preparedness and resilience of communities affected by insurgency.

5. Discussion of Findings

The findings of this study revealed that disaster risk management practices have a significant positive influence on community preparedness in Hong Local Government Area, Adamawa State. The responses obtained from the respondents showed a high level of agreement that disaster awareness campaigns, early warning systems, disaster risk education, community participation, stakeholder collaboration, emergency response mechanisms, and disaster simulation exercises contribute substantially to improving community preparedness against insurgency-related disasters. The grand mean of 3.91 obtained in the analysis indicates that respondents strongly acknowledged the importance of proactive disaster risk management practices in enhancing resilience and preparedness. The hypothesis tested further confirmed this finding, as the regression analysis revealed a statistically significant positive influence of disaster risk management practices on community preparedness ($R = 0.748$; $R^2 = 0.559$; $p < 0.05$). This implies that effective disaster risk management significantly predicts the level of preparedness among residents in Hong Local Government Area. This finding is consistent with the position advanced in the introduction of the study that disaster risk management is not limited to emergency response but also encompasses prevention, mitigation, preparedness, response, and recovery strategies aimed at minimizing disaster risks and enhancing community resilience. It equally supports the assertion that communities that receive adequate disaster education, early warning information, and institutional support are better equipped to anticipate, withstand, and recover from disasters arising from insurgency. The finding corroborates the work of Shalangwa and Iwuamadi (2021), who reported that the Boko Haram insurgency in Adamawa State resulted in widespread humanitarian crises, destruction of livelihoods, and displacement of residents. Their study emphasized that sustainable disaster management depends largely on community participation, dialogue, and collaborative preparedness rather than relying solely on military interventions. The result also agrees with Belel, Ibrahim, Mairiga, Yerima, and Mohammed (2022), who found that community awareness programmes and coordinated disaster management significantly improve the resilience of conflict-affected communities in North-East Nigeria. According to these authors, local participation enhances early response, reduces casualties, and strengthens recovery after disasters. The findings support those of Nwankwo and Okeke (2023), who argued that disaster preparedness should begin at the community level through continuous public enlightenment, risk communication, emergency drills, and institutional collaboration. They maintained that communities possessing adequate disaster knowledge respond more effectively during emergencies than communities lacking preparedness mechanisms. The high mean scores recorded for disaster education and emergency response preparedness in the present study validate this assertion. The outcome of this study is equally in agreement with Abubakar and Yusuf (2024), who observed that the effectiveness of disaster risk management in insurgency-prone areas depends on strong collaboration among emergency management agencies, security institutions, local governments, traditional rulers, religious organizations, and community volunteers. Their findings indicated that institutional coordination significantly enhances disaster resilience in vulnerable communities. Likewise, respondents in the present study acknowledged that collaboration between government institutions and community members plays a critical role in improving preparedness against insurgency-related disasters. The findings further support the views of Oladipo and Hassan (2025), who emphasized that disaster preparedness is more effective when communities are actively involved in planning, monitoring, and implementing disaster management programmes. They argued that local ownership of disaster management initiatives promotes trust, encourages information sharing, and strengthens resilience. The positive relationship identified in the present study between disaster risk management practices and community preparedness lends empirical support to this perspective. With respect to the second research question, the findings revealed that several challenges hinder effective disaster risk management and community preparedness in Hong Local Government Area. The respondents agreed that inadequate funding, poor communication systems, insufficient disaster education, weak collaboration among stakeholders, inadequate security personnel, poor road infrastructure, fear of insurgent attacks, and shortages of emergency relief materials constitute major obstacles to effective disaster management. The grand mean score of 3.95 indicates a high level of consensus that these challenges significantly undermine preparedness and response efforts within insurgency-affected communities.

This finding aligns with the issues highlighted in the introduction, where it was observed that despite interventions by the Federal Government, Adamawa State Government, emergency management agencies, and humanitarian organizations, communities continue to experience significant vulnerabilities because of institutional and logistical weaknesses. The findings therefore confirm that the effectiveness of disaster risk management depends not only on the existence of policies but also on the availability of resources, infrastructure, institutional capacity, and sustained community engagement. The result agrees with Adebayo and Abdullahi (2022), who found that inadequate funding remains one of the greatest constraints to effective disaster risk management in Nigeria. According to their study, limited financial resources reduce the ability of emergency management agencies to provide equipment, logistics, emergency shelters, and rapid response services during disasters. The present study similarly identified inadequate funding as one of the highest-rated challenges affecting disaster preparedness. The findings are also consistent with Eze and Okafor (2023), who reported that poor communication infrastructure and inadequate dissemination of early warning information significantly reduce the effectiveness of disaster preparedness programmes in conflict-affected communities. They emphasized that delayed communication often results in avoidable casualties and property losses during emergencies. The respondents in the current study equally agreed that poor communication systems hinder effective disaster preparedness in Hong Local Government Area. Usman and Aliyu (2024) observed that insecurity, shortage of trained emergency personnel, and weak institutional coordination continue to undermine disaster response operations in North-East Nigeria. They argued that emergency management agencies require adequate personnel, equipment, logistics, and security support to operate effectively in insurgency-prone communities. The present study supports this conclusion, as respondents identified inadequate security personnel and weak stakeholder collaboration among the major challenges confronting disaster risk management. The findings also corroborate Ibrahim and Mohammed (2025), who concluded that fear of insurgent attacks discourages community participation in disaster preparedness activities and weakens local resilience. They explained that residents in highly insecure communities often avoid participating in emergency meetings, disaster simulation exercises, and volunteer programmes because of security concerns. This observation is reflected in the present study, where respondents agreed that fear of insurgency significantly limits community participation and preparedness. The tested hypothesis further strengthened the findings of the study by demonstrating that disaster risk management practices significantly influence community preparedness in Hong Local Government Area. The regression results showed that disaster risk management accounted for 55.9 percent of the variation in community preparedness, indicating that improvements in disaster risk management practices are likely to produce corresponding improvements in community resilience. The rejection of the null hypothesis therefore provides empirical evidence that disaster risk management is an important determinant of community preparedness in insurgency-affected communities.

6. Conclusion

This study examined the relationship between disaster risk management, insurgency, and community preparedness in Hong Local Government Area, Adamawa State. The study was undertaken against the backdrop of the persistent security challenges posed by insurgency in North-East Nigeria, particularly the devastating effects of Boko Haram activities on lives, livelihoods, public infrastructure, and socio-economic development. The study specifically investigated the extent to which disaster risk management practices influence community preparedness and identified the major challenges affecting effective disaster risk management in insurgency-affected communities. The findings revealed that disaster risk management practices have a significant positive influence on community preparedness in Hong Local Government Area. The study established that disaster awareness campaigns, disaster risk education, early warning systems, community participation, stakeholder collaboration, emergency response mechanisms, and disaster simulation exercises contribute substantially to enhancing the preparedness and resilience of communities against insurgency-related disasters. The statistical analysis further confirmed that disaster risk management practices

significantly predict community preparedness, leading to the rejection of the null hypothesis that disaster risk management practices have no significant influence on community preparedness.

The study also revealed that several institutional, financial, infrastructural, and security-related challenges continue to hinder effective disaster risk management within the study area. Among the major constraints identified were inadequate funding, poor communication systems, insufficient disaster education, weak coordination among disaster management stakeholders, inadequate security personnel, poor road infrastructure, fear of insurgent attacks, and shortages of emergency relief materials. These challenges reduce the capacity of communities and emergency management agencies to prepare adequately for disasters, respond promptly during emergencies, and recover effectively after insurgency-related incidents. The study therefore concludes that effective disaster risk management is indispensable for strengthening community preparedness and resilience in insurgency-prone communities. Sustainable disaster preparedness cannot be achieved through military operations alone but requires an integrated approach involving government institutions, emergency management agencies, security organizations, humanitarian agencies, traditional institutions, religious leaders, civil society organizations, and community members. Strengthening community participation, improving disaster education, enhancing early warning systems, increasing investment in disaster management, and promoting collaboration among stakeholders will significantly reduce vulnerability and improve resilience in Hong Local Government Area and other conflict-affected communities in Nigeria.

7. Recommendations

Based on the findings and conclusion of this study, the following recommendations are made:

1. The Federal Government, Adamawa State Government, National Emergency Management Agency (NEMA), Adamawa State Emergency Management Agency (ADSEMA), and Hong Local Government Council should strengthen disaster risk management programmes through regular public awareness campaigns, disaster preparedness education, and community sensitization programmes to improve residents' understanding of disaster risks and appropriate response strategies.
2. Government and emergency management agencies should establish and strengthen community-based early warning and communication systems capable of providing timely and accurate information before, during, and after insurgency-related emergencies. Modern communication technologies, community radio stations, mobile alerts, and local information networks should be utilized to disseminate early warning messages effectively.
3. Adequate financial resources should be allocated to disaster risk management agencies at the federal, state, and local government levels to improve emergency preparedness, procure response equipment, establish emergency operation centres, and ensure the timely provision of relief materials to affected communities.
4. Disaster management agencies should organize regular disaster simulation exercises, emergency drills, and capacity-building programmes for community members, volunteers, security personnel, healthcare workers, teachers, and local leaders to enhance practical preparedness and emergency response capabilities.
5. Strong collaboration should be established among government agencies, security organizations, humanitarian agencies, non-governmental organizations, traditional institutions, religious leaders, youth associations, women's groups, and community-based organizations to promote coordinated disaster preparedness, response, and recovery activities.
6. Security agencies should intensify intelligence gathering, surveillance, and community policing initiatives while strengthening cooperation with local communities to reduce insurgency-related threats and create a safer environment for implementing disaster risk management programmes.
7. Government should improve rural infrastructure, including roads, telecommunications, healthcare facilities, emergency shelters, and logistics networks, to facilitate rapid emergency response and effective delivery of humanitarian assistance during disasters.

8. References

- 1) Abba, A. I., & Mohammed, A. (2023). *Community resilience and humanitarian response in conflict-affected communities of North-East Nigeria*. Maiduguri: University of Maiduguri Press.
- 2) Abubakar, M. S., & Mohammed, I. (2022). Disaster risk reduction and community resilience in North-East Nigeria. *Nigerian Journal of Environmental Management*, 10(2), 41–58.
- 3) Adamu, M. A., & Bello, U. (2025). Disaster communication strategies and community preparedness in conflict-prone communities of Northern Nigeria. *Journal of Disaster Risk Studies*, 17(1), 65–82.
- 4) Adebayo, A. A., & Yusuf, M. T. (2022). Community participation in disaster preparedness in Nigeria. *Nigerian Journal of Public Administration*, 18(1), 75–92.
- 5) Ahmed, A. M., & Bello, S. A. (2024). Governance and disaster resilience in insurgency-affected communities of North-East Nigeria. *Journal of Peace, Security and Development*, 8(2), 45–63.
- 6) Belel, A. S., Ibrahim, A., Mairiga, B., Yerima, H., Nura, M., & Abdulhamid, A. (2025). Application of GIS and remote sensing in disaster preparedness in Adamawa State. *Journal of Environmental Risk Management*, 13(1), 21–39.
- 7) Danjuma, I. M., & Ibrahim, A. (2022). Disaster preparedness and emergency planning in Nigeria. *Nigerian Journal of Emergency Management*, 6(1), 33–49.
- 8) Eze, C. N., & Chukwu, O. P. (2023). Disaster risk management and resilient communities in Nigeria. *Journal of Development and Environmental Studies*, 11(3), 88–106.
- 9) Gana, A. M., & Yusuf, H. A. (2024). Community surveillance and disaster preparedness in North-East Nigeria. *African Security Review*, 15(2), 59–77.
- 10) Hassan, I. A., & Lawal, M. S. (2026). Institutional coordination and disaster risk reduction in Nigeria's emergency management system. *Nigerian Journal of Disaster Studies*, 5(1), 12–30.
- 11) Holling, C. S. (1973). Resilience and stability of ecological systems. *Annual Review of Ecology and Systematics*, 4, 1–23.
- 12) Idris-Etanami, A. (2026). Gender-sensitive early warning systems and disaster preparedness in North-East Nigeria. *Nigerian Journal of Disaster and Humanitarian Studies*, 7(1), 52–71.
- 13) Ibrahim, A. B., & Musa, M. I. (2023). Conflict-sensitive disaster risk management in Nigeria. *Journal of Humanitarian Studies*, 9(1), 14–31.
- 14) Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*, 41(1–2), 127–150.
- 15) Nwankwo, E. C., & Okeke, P. U. (2021). Disaster risk governance and local institutional capacity in Nigeria. *Journal of Public Policy and Administration*, 9(2), 102–118.
- 16) Ojo, T. A., & Adeyemi, R. O. (2021). Integrated disaster management and sustainable development in Nigeria. *Journal of Environmental Policy and Governance*, 7(1), 55–70.
- 17) Shalangwa, D. A., & Iwuamadi, C. K. (2021). Boko Haram insurgency, community resilience and disaster management in Adamawa State. *Journal of Peace and Conflict Studies*, 6(2), 80–98.
- 18) Suleiman, A. M., & Hassan, Y. (2025). Social vulnerability and disaster resilience in North-East Nigeria. *Nigerian Journal of Social Development*, 14(1), 95–113.
- 19) Vendaga, P., Bassey, E., Okocha, J., & Soho, M. (2026). Disaster communication and institutional coordination in Nigeria. *Journal of Disaster Communication and Emergency Management*, 5(1), 18–37.
- 20) Yakubu, M. A., & Garba, S. A. (2026). Technology and community resilience in disaster risk management in Nigeria. *Journal of Disaster and Development Studies*, 18(1), 44–61.