

State Welfare Services and Rehabilitation Programmes for Flood Victims in Yenagoa Local Government Area, Bayelsa State, Nigeria

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ABSTRACT

Globally, floods are the most destructive naturally triggered disasters, accounting for over one-third of total disaster-related economic losses. Nigeria regularly experiences seasonal flooding, but the 2022 flood disaster was the most severe in a decade, submerging over 300 communities in Bayelsa State alone and displacing hundreds of thousands of residents. This study examines state welfare services and rehabilitation programmes for flood victims in Yenagoa Local Government Area (LGA), Bayelsa State. Guided by Social Welfare Theory, Climatic Determinism/Push-Pull Theory, and the Prevention-Preparedness-Response-Recovery (PPRR) model, the study utilized a descriptive cross-sectional mixed-methods design. A sample size of 400 respondents was drawn using Taro Yamane's formula, across ten flood-prone communities in Yenagoa LGA, supplemented by 29 in-depth interviews (IDIs). Quantitative data were analyzed using simple percentages, means ($\bar{X}$), and standard deviations (SD), while qualitative data were analyzed thematic-content analysis. Results indicate that while emergency welfare services—such as temporary shelter, mattress distribution, basic food items, and medical aid—were provided, they failed to meet the felt needs of victims due to a lack of systematic needs assessment, political patronage, hoarding of relief materials, and the absence of professional social workers in Internally Displaced Persons (IDP) camps. The study recommends the integration of the Displacement Tracking Matrix (DTM), institutional capacity building for Local Emergency Management Committees (LEMCs), structural flood mitigation, and formal involvement of social work professionals to ensure equitable and resilient post-disaster rehabilitation.

1. Introduction

Floods represent one of the most frequent and devastating interfaces between human settlements and natural hydrological processes. Globally, flooding causes significant loss of life, widespread destruction of critical infrastructure, severe economic disruption, and acute population displacement (Doocy et al., 2013; Halgamuge & Nirmalathas, 2017). In sub-Saharan Africa, climate-induced precipitation anomalies and sea-level rise have exacerbated vulnerability to hydrometeorological hazards, straining weak institutional systems and emergency response frameworks (Paeth et al., 2010; UNEP, 2006).

Nigeria has experienced recurring seasonal flooding over the last four decades, but the 2022 flooding disaster was the most catastrophic since the 2012 overflows (Adekola & Lamond, 2018; Maclean, 2022). Driven by prolonged heavy rainfall, urban drainage failures, climate change, and the release of water from the Lagdo Dam in neighboring Cameroon, the 2022 floods affected 33 of Nigeria's 36 states (BBC News, 2022; World Weather Attribution, 2022). Official records indicate that nationally, over 600 lives were lost, 2,400 individuals were injured, 1.4 million were displaced, and over 676,000 hectares of farmland were destroyed (NEMA, 2022; OCHA, 2022).

Bayelsa State, situated in the low-lying coastal terrain of the Niger Delta basin, was among the worst-hit states in the country. High annual precipitation, coupled with a network of river tributaries and creeks (such as the Epie and Ekole Creeks), renders the state exceptionally vulnerable to fluvial and pluvial inundation (Amangabara & Obenade, 2015; Berezi et al., 2019). In the 2022 event, an estimated 1.2 million residents were displaced across Bayelsa's eight Local Government Areas, with critical transport arteries including the East-West Road completely severed (Bayelsa SEMA, 2022; Igoni, 2022).

In Yenagoa Local Government Area (LGA), the state capital, rapid unplanned urbanization, poor drainage maintenance, and encroachment onto floodplains amplified the destructive impact of the waters (Oladimeji & Ohwo, 2022; Wizer & Week, 2014). Thousands of residents were forced into official government-approved camps (e.g., Ox-Bow Lake and Igbogene) as well as dozens of informal, private IDP shelters (Naku & Odogun, 2023; Osahon, 2022).

While post-disaster recovery mandates the provision of emergency social welfare (shelter, clean water, food, and medical care) and long-term rehabilitation (housing reconstruction, economic support, and psychosocial care), the actual delivery of these services in Nigeria remains contentious (Okafor, 2021; Uzobo & Joffa, 2020). Previous research has largely emphasized flood mapping, spatial vulnerability, or general environmental impacts (Amangabara & Obenade, 2015; Cirella & Iyalomhe, 2018), leaving an empirical gap regarding the alignment between state welfare interventions and the actual felt needs of flood victims in urban centers like Yenagoa.

Statement of the Problem

The Sendai Framework for Disaster Risk Reduction (2015–2030) underscores the obligation of national and sub-national governments to strengthen risk governance, invest in resilience, and "Build Back Better" during recovery and rehabilitation. However, in Yenagoa LGA, post-flood response mechanisms often operate on an ad-hoc basis (Sokari & Ojo, 2022). Reports suggest that state welfare distribution was marred by political interference, resource hoarding, poor inter-agency coordination, and a lack of pre-intervention needs assessments (Idio, 2022; Orji, 2018). Consequently, many flood victims experienced prolonged displacement, disease outbreaks, severe food insecurity, and unaddressed trauma (Oluka et al., 2022).

Research Objectives

This study addresses the following objectives:

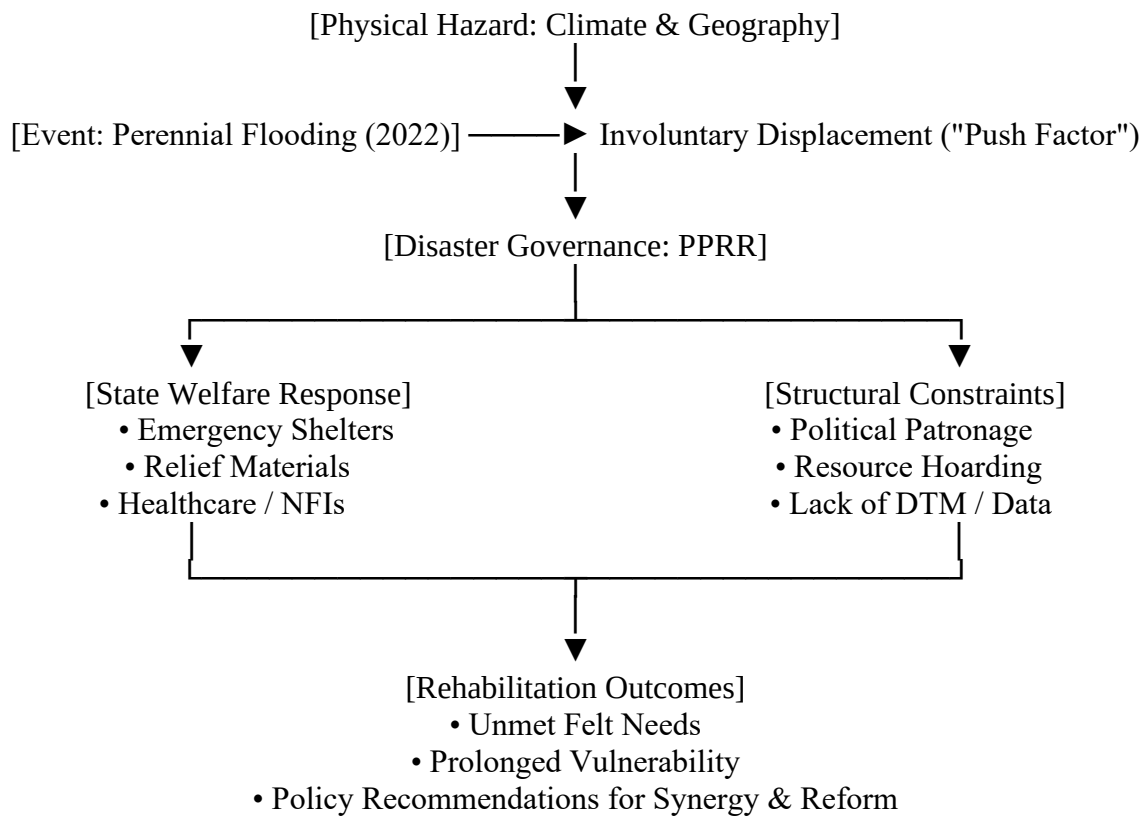
1. Identify the state welfare services and rehabilitation programmes available to flood victims in Yenagoa LGA.
2. Examine the structural and operational challenges facing the provision of welfare services and rehabilitation packages in the study area.
3. Propose strategic measures to overcome the challenges bedeviling flood welfare administration and post-disaster rehabilitation in Bayelsa State.

2. Theoretical Framework and Literature Review

2.1 Theoretical Framework

This study is anchored on three complementary theoretical frameworks:

1. **Social Welfare Theory (Stoesz, 1989; Jensen, 2011):** Asserts that structural institutions of social welfare are shaped by political and economic forces. Interest groups, budgetary constraints, and administrative viability determine how welfare and vulnerability are defined. In the context of disaster management in Nigeria, welfare resources are frequently politicized or restricted by fiscal limitations, leading to the marginalization of vulnerable groups without political capital.
2. **Climatic Determinism and Push-Pull Theory (Huntington, 1915; Lee, 1966):** Posits that physical geography and extreme climatic events serve as severe "push factors" forcing involuntary human displacement. The environmental characteristics of the Niger Delta naturally predispose Yenagoa to flooding; however, human actions (e.g., gas flaring, deforestation, poor spatial planning) amplify these natural dynamics, driving residents into displacement camps with severe socio-economic consequences (Uzobo & Ayinmoru, 2014).
3. **Prevention-Preparedness-Response-Recovery (PPRR) Model:** Framework for disaster risk management. It posits that effective public governance requires precautionary mitigation (Prevention), rigorous contingency planning (Preparedness), collaborative emergency execution (Response), and structured long-term rehabilitation (Recovery) (Sokari & Ojo, 2022).



2.2 Conceptual & Empirical Review

Social welfare services (SWS) encompass organized public and private responses designed to help individuals and communities attain acceptable standards of health, living, and personal well-being (Irene, 2006). In disaster contexts, SWS includes emergency shelter, food security, non-food items (NFIs), water, sanitation, and hygiene (WASH), and psychosocial support (IOM, 2022; WHO, 2012).

Rehabilitation, in humanitarian terms, refers to the post-disaster process of restoring displaced individuals to self-sufficiency through housing repairs, economic empowerment, education, and psychological care (ConnectNetwork, 2016; Parel & Balamurugan, 2021). Studies show that post-disaster recovery is often delayed in developing nations due to institutional fragmentation, lack of single flood management policies, and underfunding of emergency management agencies (Danhassan et al., 2023; Mashii et al., 2019).

Empirical findings by Uzobo and Joffa (2020) in Bayelsa State demonstrated that Non-Governmental Organizations (NGOs) and private philanthropists frequently shoulder a higher burden of social welfare service delivery than state institutions. Furthermore, studies on disaster-induced mental health highlight that while physical relief (food/shelter) is occasionally provided, Mental Health and Psychosocial Support (MHPSS) is almost completely neglected during Nigerian flood responses, leading to long-term Post-Traumatic Stress Disorder (PTSD) and emotional distress among victims (Aderibigbe, 2014; Oluka et al., 2022).

3. Methodology

3.1 Study Area

The study was conducted in Yenagoa LGA, the capital city of Bayelsa State, Nigeria. Located in the South-South geopolitical zone (5° 55' N, 6° 15' E), Yenagoa covers 1,698 km² with an estimated population of 385,442 (National Population Commission, 2016). The city experiences a Tropical Monsoon climate with an average annual rainfall of 2,800 mm. It features flat terrain and low-elevation alluvial soils intersected by the Epie Creek, making it highly susceptible to seasonal inundation.

3.2 Research Design

A descriptive cross-sectional survey research design utilizing mixed methods (quantitative and qualitative) was employed. This allowed the integration of numerical trends from structured questionnaires with rich contextual narratives from in-depth interviews (IDIs).

3.3 Population, Sample Size, and Sampling Technique

The target population comprised adult male and female residents across Yenagoa LGA affected by the 2022 floods. The sample size ($n = 400$) was calculated using Taro Yamane's (1967) formula for finite populations:

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

Where $N = 385,442$ and $e = 0.05$.

$$n = \frac{385,442}{1 + 385,442(0.0025)} = \frac{385,442}{964.605} \approx 399.58 \rightarrow 400$$

A multi-stage sampling technique was utilized:

1. **Stage 1 (Purposive Sampling):** Ten communities heavily impacted by the 2022 floods were selected: Igbogene, Yenegue, Akenfa, Agudama, Edepie, Okutukutu, Swali, Opolo, Amarata, and Onopa.

2. **Stage 2 (Quota Sampling):** An equal quota of 40 questionnaires was allocated to each of the 10 selected communities to ensure balanced representation.

3. **Stage 3 (Accidental Sampling):** 29 flood victims across the communities and IDP camps were sampled for qualitative In-Depth Interviews (IDIs).

3.4 Data Collection and Analysis

Primary data were gathered using a validated self-structured questionnaire (Cronbach's alpha reliability coefficient = 0.86) and an IDI guide. Out of 400 questionnaires distributed, 394 were retrieved and fully completed, yielding a response rate of 98.5%.

Quantitative data were analyzed using simple percentages, means ($\bar{X}$), and standard deviations (SD) via SPSS version 26. Benchmark decision rule for 4-point Likert scale items: A mean score $\bar{X} \geq 2.50$ indicated "Agreed", while $\bar{X} < 2.50$ indicated "Disagreed". Qualitative data from IDIs were transcribed and analyzed using thematic content analysis.

4. Data Presentation and Analysis

4.1 Socio-Demographic Characteristics of Respondents

Table 1 outlines the demographic profile of the quantitative survey participants ($n = 394$).

Table 1

Bio-Data of Respondents

Variable	Classification	Frequency	Percentage (%)
Gender	Male	296	75.10
	Female	98	24.90
Age (Years)	15–29	60	15.23
	30–39	84	21.32
	40–49	150	38.07
	50 and above	100	25.38
Religion	Christianity	284	72.08
	Islam	20	5.08
	Traditional	40	10.15
	Others	50	12.69
Marital Status	Married	204	51.78
	Single	70	17.77
	Separated	30	7.61
	Divorced/Widowed	90	22.84
Educational Level	No Formal Education	10	2.54
	Primary Education	30	7.61
	Secondary Education	90	22.85
	Tertiary Education	264	67.00

Source: Fieldwork (2023)

4.2 Research Question One: Available State Welfare and Rehabilitation Programmes

Table 2 presents the mean and standard deviation responses on available welfare and rehabilitation services provided by state authorities.

Table 2

State Welfare and Rehabilitation Programmes Available to Flood Victims

S/N	Statement / Indicator	Mean ($\bar{X}$)	SD	Decision
1	Emergency shelter was made available	3.73	0.44	Agreed
2	Provision/distribution of emergency mosquito nets	3.61	0.66	Agreed
3	Provision of children's clothing	3.41	0.53	Agreed
4	Provision of women's clothing	3.58	0.53	Agreed
5	Distribution of nylon sleeping mats	3.38	0.52	Agreed
6	Government assistance with pieces of cloth materials (Guinea brocade)	3.55	0.54	Agreed
7	Government provision of foam mattresses	3.45	0.53	Agreed
8	Provision of roofing sheets for rebuilding	3.10	0.81	Agreed
9	Provision of cement bags for rehabilitation	3.02	1.82	Agreed
10	Provision of emergency healthcare support	3.54	1.59	Agreed
	Grand Mean / Overall SD	3.44	0.80	Agreed

Source: Fieldwork (2023)

The quantitative data indicate that state emergency welfare interventions were indeed implemented, with an overall grand mean of \$3.44\$. However, qualitative IDIs revealed severe gaps in the scale, quality, and equitable distribution of these items.

"It will not be ideal to say government did nothing, but anytime they provided relief materials to the camp, it was never sufficient for the population present. We relied heavily on private individuals and NGOs for food and hygiene supplies."

— **IDI Respondent (Male, Community Resident)**

"In the area of medical supplies... the government was largely absent. Thanks to NGOs and local volunteers, basic clinics were set up, but we lacked certified health personnel and essential drugs."

— **IDI Respondent (Mr. Bob Epebiyerin, Flood Victim)**

4.3 Research Question Two: Challenges Facing Provision of Welfare and Rehabilitation

Table 3 highlights the operational and structural bottlenecks impeding effective post-flood welfare delivery.

Table 3

Challenges Bedeviling Provision of State Welfare and Rehabilitation Packages

S/N	Identified Challenge	Mean ($\bar{X}$)	SD	Decision
11	Absence of professional social workers in camps	2.79	0.91	Agreed
12	Absence of active Community Development Committees (CDCs) in distribution	2.65	0.75	Agreed
13	Lack of application of Displacement Tracking Matrix (DTM)	2.71	0.80	Agreed
14	Poor camp coordination and administration	2.86	0.78	Agreed
15	Hoarding of relief materials meant for IDPs	3.27	1.32	Agreed
16	Concentration of relief materials in designated official camps only	2.90	0.71	Agreed
17	Severe transportation logistics to reached submerged communities	3.61	4.30	Agreed
18	Lack of prior impact/needs assessment of flood victims	2.55	0.90	Agreed
19	Political patronage and administrative red tape	3.65	1.76	Agreed
20	Severe damage to road/transport infrastructure	3.80	0.98	Agreed
21	Limited government financial resources and budget allocations	3.11	0.62	Agreed
22	Widespread environmental degradation and water contamination	3.00	0.71	Agreed
23	Post-flood health concerns (e.g., cholera, malaria, skin infections)	3.08	0.81	Agreed
24	Overcrowding and loss of privacy in displacement camps	3.32	0.90	Agreed



25	Absence of structural flood mitigation channels/dams	3.22	0.54	Agreed
26	Poor communication channels between state agencies and local leaders	3.14	0.54	Agreed
27	Severe post-flood economic impact and loss of livelihoods	3.54	0.60	Agreed
	Grand Mean / Overall SD	3.13	1.05	Agreed

Source: Fieldwork (2023)

The highest-ranked structural challenges were infrastructure damage ($\bar{X} = 3.80$), political administrative issues ($\bar{X} = 3.65$), transportation barriers ($\bar{X} = 3.61$), and economic disruption ($\bar{X} = 3.54$). Qualitative responses highlighted official neglect of informal, self-established IDP camps:

"While the state government took special care of displaced persons in the two official government camps [Ox-Bow Lake and Igbogene], they completely neglected those of us taking shelter in public primary schools and community spaces. Relief trucks simply passed us by."

— IDI Respondent (Female, Displaced Trader)

4.4 Research Question Three: Strategic Interventions to Stem Post-Disaster Challenges

Table 4 presents the mean scores for strategic recommendations to overhaul state flood response systems.

Table 4

Measures to Stem Challenges in State Welfare and Rehabilitation Programmes

S/N	Recommended Action	Mean ($\bar{X}$)	SD	Decision
28	Equipping camps with essential utilities (e.g., solar power, clean water units)	2.73	0.77	Agreed
29	Establishment of a cadre of well-trained disaster preparedness officials	2.94	0.79	Agreed
30	Mandatory pre- and post-disaster household needs assessment	3.17	0.70	Agreed
31	Capacity building and funding for Local Emergency Management Committees	2.60	0.76	Agreed
32	Enforcing transparency and public accountability for donated disaster funds	3.20	0.86	Agreed
33	Mandatory deployment of qualified social workers in rehabilitation	3.31	0.58	Agreed
34	Decisive legal sanctions against corrupt hoarding of relief materials	3.32	0.67	Agreed
35	Dedicated, sustained budgetary funding for State Ecological and Welfare units	3.72	0.41	Agreed
36	Employment of professionally trained disaster management personnel	2.76	0.90	Agreed
	Grand Mean / Overall SD	3.08	0.90	Agreed

Source: Fieldwork (2023)

Discussion of Findings

The findings demonstrate a profound disconnect between the official provision of emergency relief items and the actual, felt needs of disaster victims in Yenagoa LGA. Although state authorities distributed shelter materials, food, mattresses, and non-food items ($\bar{X} = 3.44$), the intervention failed to build long-term resilience or deliver dignified rehabilitation.

First, consistent with Social Welfare Theory (Stoesz, 1989), the distribution of welfare items was severely distorted by political interest, administrative bureaucracy, and resource hoarding ($\bar{X} = 3.27$, $\bar{X} = 3.65$). The state response favored designated high-visibility camps (e.g., Ox-Bow Lake), while dozens of informal shelters scattered across community schools were left unserved (Idio, 2022).

Second, the absence of standardized data-gathering frameworks—specifically the International Organization for Migration's (IOM) Displacement Tracking Matrix (DTM)—severely undermined

distribution efficiency ($\bar{X} = 2.71$). Without biometric registration or baseline needs assessments ($\bar{X} = 2.55$), relief distribution operated blindly, leading to mismatched aid (e.g., distributing cloth materials like Guinea brocade rather than potable water, sanitation kits, or clean cooking fuel).

Third, the complete omission of certified social workers ($\bar{X} = 2.79$) and Mental Health and Psychosocial Support (MHPSS) left flood victims exposed to secondary trauma, depression, and unaddressed psychological grief over lost homes and livelihoods. This aligns with findings by Oluka et al. (2022) and Aderibigbe (2014), who observed that Nigerian disaster management frameworks routinely treat emergency response as a cash-and-grain disbursement exercise while neglecting psychosocial recovery.

Finally, structural governance deficits such as the failure to complete long-standing flood control projects like the Dasin Hausa Dam, poor urban drainage maintenance, and underfunded Local Emergency Management Committees (LEMCs) reinforce the premise of the PPRR model: without proactive *Prevention* and *Preparedness*, emergency *Response* and *Recovery* remain prohibitively expensive, inefficient, and disruptive to human security (Danhassan et al., 2023; Sokari & Ojo, 2022).

Conclusion

The 2022 flood disaster exposed major structural vulnerabilities in disaster governance, social welfare administration, and post-disaster rehabilitation in Yenagoa Local Government Area, Bayelsa State. While emergency relief items were deployed, distribution mechanisms were undermined by political patronage, hoarding, lack of empirical needs tracking, and the exclusion of professional social workers. True rehabilitation must transcend ad-hoc material handouts; it requires an integrated approach that restores livelihoods, repairs damaged infrastructure, attends to psychosocial wellbeing, and builds long-term flood resilience.

Recommendations

Based on the empirical findings, the following actions are recommended:

1. **Mandatory Deployment of the Displacement Tracking Matrix (DTM):** Bayelsa SEMA and NEMA must adopt IOM's DTM tools for real-time biometric profiling, vulnerability mapping, and needs assessments prior to and during relief distribution to eliminate arbitrary aid allocation.
2. **Integration of Professional Social Workers:** The Bayelsa State Ministry of Women Affairs and Social Development should formally employ certified social workers within emergency management teams to oversee camp administration, conduct needs assessments, combat aid hoarding, and provide Mental Health and Psychosocial Support (MHPSS).
3. **Decentralization and Institutional Capacity Building:** State authorities must statutory fund and equip Local Emergency Management Committees (LEMCs) and Community Development Committees (CDCs) across all 24 districts of Yenagoa LGA to manage localized emergency responses and prevent camp overcrowding.
4. **Structural Mitigation and Spatial Planning:** The Federal and State governments must prioritize long-term engineering controls, including dredging the Epie and Ekole Creeks, constructing elevated flood-proof shelter hubs, enforcing strict floodplain zoning laws, and completing regional water retention dams.

Anti-Corruption Oversight and Accountability: Independent civil society organizations (CSOs) and social work advocacy groups must be embedded in relief supply chains to ensure financial transparency, audit donated disaster funds, and prevent the political hijacking of welfare materials..

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