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Article

# Flood Impacts on Vulnerable Communities in Aweil East and South: A Qualitative Assessment

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## Abstract

This study presents a qualitative analysis of the socio-economic and health impacts of recurrent flooding in Aweil East and South, South Sudan, based on Focus Group Discussions (FGDs) with women, elders, farmers, fishers, internally displaced persons (IDPs), returnees, and persons with disabilities (PWDs). The findings reveal that flooding is not just an environmental event but a catalyst that exacerbates pre-existing vulnerabilities and deepens social inequalities. Participants reported the widespread destruction of livelihoods, severe disruption of essential services, and an increase in physical and mental health risks. The study also highlights profound social injustices, including the economic disempowerment and gender-based violence faced by women, the systemic exclusion of elders and PWDs from disaster response, and the precarious existence of displaced persons. The findings underscore the urgent need for inclusive, community-driven, and gender-sensitive disaster preparedness and recovery strategies that prioritize dignity, resilience, and justice for all.

**Keywords:** flood impacts; gender vulnerabilities; disaster preparedness; humanitarian response; social injustices

## 1. Introduction

Climate change has become one of the most significant and complex challenge of the 21st century especially in fragile states that are already faced with a network of socio-political crises. The Sub-Saharan Africa has been experiencing the devastating effects of extreme weather events attributed to rising temperatures and increasingly erratic precipitation patterns leading to adverse impacts on human populations (Serdeczny et al., 2017). South Sudan, in particular, is one of the Counties most susceptible to these climatic changes, a reality underscored by its weak social and political situations. The majority of citizens in South Sudan are highly dependent on climate-sensitive activities such as traditional agriculture and pastoralism, and thus the state is highly susceptible to climate-related shocks (UNDP, 2025). This environmental crisis and the conflict have created a humanitarian crisis with environmental catastrophes not being a one-disaster but rather strong forces that have exacerbated existing vulnerabilities therefore, leaving communities in an endless cycle of poverty and hardship (Eberle & Boswell, 2023).

Consecutive years of flood disasters as a result of extreme rainfall and high-water levels in the Nile basin, have affected South Sudan since 2019. By the end of 2024, there have been over 890,000 people affected in the country with Northern Bahr el Ghazal being one of the states with newly confirmed populations. Inundations have also permanently transformed the landscape in certain areas, leaving large parts inundated and thus overwhelming the community's local adaptation mechanisms. According to United Nations Office for the Coordination of Humanitarian Affairs (OCHA), November 2024 report on the scale of the floods, approximately 1.4 million people have been affected and more than 379,000 displaced by flooding across numerous counties. With the humanitarian aid response yet to match the scale of the devastating floods in South Sudan, research

focus has gravitated towards an analysis of the multi-faced repercussions of flooding on societies and populations. While broader studies associate climate change with conflict, and displacement in the region, they do not reflect multi-layered reality of how vulnerable and marginalized communities are disproportionately affected, particularly in places such as Aweil East and South. This shortcoming shows the necessity of more specific qualitative studies to understand how these macro-level shocks are experienced at the community level.

This study addresses this gap by providing a qualitative assessment of the lived experiences of communities subjected to floods in Aweil East and South. Moving beyond high-level statistics, this study employs Focus Group Discussions (FGDs) carried out in five bomas in Aweil East and South, to get a micro and human level view of the effects of the recurring floods on aspects such as socio-economic, health, and psychological issues. The study intentionally solicits the perspective of a wide range of marginalized groups such as women, elders, farmers, fishers, internally displaced persons (IDPs), returnees, and persons with disabilities (PWDs) in order to expose the highly established levels of social injustices and gender vulnerabilities that the climatic-induced adverse events prey on. By amplifying the voices of those who are typically excluded from official reports and policy discussions, this article seeks to illuminate how flooding acts as a threat multiplier, exacerbating a humanitarian crisis already fuelled by conflict and poverty, as well as a severe disruption to food security, a key pillar of livelihood sustenance in the area (Khisa, Kipkemoi et al., 2025). Ultimately, the specific objective of the study is to document the lived experiences of such populations to inform inclusive recovery planning and resilience-building strategies (Gakai, Waweru et al., 2025).

The results herein serve to reinforce that there cannot be a blanket solution to disaster preparedness and recovery. Rather they have to be customized according to the specific needs and vulnerabilities of the individual segments of the populations. The following sections highlight, respectively, the issues that each group deals with, including the disempowerment of women on economic grounds to the exclusion of PWDs in aid. The study then summarizes its findings with a list of focused recommendations on the development of inclusive, community-based, gender-sensitive approaches that would aim at ensuring dignity, justice, and long-term resilience to all.

## 2.0. Methodology

The research design was qualitative with data collected through Focus Group Discussions (FGDs) in order to provide a micro view of the lived experiences of those most affected by the flooding. FGDs engaged various groups of marginalized individuals such as women, farmers, fishermen, elders, traditional leaders, internally displaced persons (IDPs), returnees, and persons with disabilities (PWDs) to capture a range of views from them. This purposive design was intentionally used to collect deeper and more detailed information than high-level statistics.

Discussions were conducted in local languages so that participants could present their experiences and thoughts in the most convenient and genuine way. Sessions were audio-recorded and the discussions transcribed to provide the basis of a thorough thematic analysis which focused on identifying patterns and recurring themes.

The fieldwork was conducted in certain sites in Aweil East and South: Mading Village (Pagai Boma), Marial Ngap Boma, Adoor Boma and Mangar Tong Payam. This locally tailored study allowed for the examination of context-specific vulnerabilities and challenges. The purpose of recording these lived experiences, especially in terms of gender, ages, disability, and displacement, was to inform inclusive recovery planning and resilience building plans.

## 3.0. Findings

The analysis of FGDs conducted in Aweil East and South reveals that flooding has far-reaching socio-economic and health consequences, disproportionately affecting vulnerable groups.

### 3.1. Women's Perspectives on Flood Impacts

### Pagai Boma (Mading Village)

Women reported severe disruption to daily life as water sources such as wells and boreholes were destroyed by floods thus forcing them to walk over one and half hours to search for clean water or rely on contaminated river water that exposed them to water borne diseases. The absence of irrigation materials, seeds, and permanent water sources hindered their ability to engage in microbusinesses that could empower them hence economically dependent on men. They reported a lack of conducive environment or social spaces whereby they could meet, discuss and address issues collectively. Hygiene kits were inaccessible during flooding seasons which could impact their health conditions and the fact that the health care facilities are far with no near means of transport. Additionally, schools were also inaccessible leading to their school closure thus disrupted children's education. Women also described household-level disempowerment and gender-based violence, often looked as household caretakers with limited freedom to contribute to decision-making.

### Marial Ngap Boma

Women highlighted the inaccessibility of sexual and reproductive health services during extreme weather events. Past droughts compounded vulnerability to flooding, leading to displacement of communities and deepened economic and social inequality. Gender norms and limited access to technology further restricted women's ability to access resources and services. Floods damaged personal belongings and eroded both individual and local identity. Hygiene kits remained inaccessible, and school closures continued to undermine children's educational progress.

### 3.2. Farmers and Fishermen: Livelihood and Safety Challenges

#### Pagai Boma

Floods destroyed farms, livestock, and homes, which led to forced annual rebuilding making human life hard. There were frequent aquatic wildlife hazards such as snake attacks, crocodile attacks, and rhino encounters. Roadsides evacuations posed additional risks and loss of property. Communities resulted in sharing water sources with animals leading to contamination and spread of waterborne diseases. Farmers and fishers lacked fishing equipment and modern technology that could enhance their resilience and adaptive capacity. Additionally, floods caused soil depletion and nutrient loss, while the continued reliance on outdated farming techniques further reduced agricultural productivity. Access to health services remained severely limited, and poor communication networks hindered timely response during emergencies.

### 3.3. Elders and Traditional Leaders: Age-Specific Vulnerabilities

#### Adoor Boma

Elders were among the most vulnerable groups, facing mobility challenges and limited access to transportation, which made evacuation during floods extremely difficult. Communication gaps often left them uninformed and unprepared in times of emergency. Financial insecurity and the absence of emergency savings further heightened their vulnerability, as they lacked resources to cope with disasters. Poor nutrition combined with inadequate health services contributed to high mortality rates among this group. In addition, mental health concerns were widespread, with trauma from repeated flooding events leading to significant psychological distress. The lack of counselling and psychosocial support services exacerbated their suffering, compounding the impacts of displacement and loss.

### 3.4. Displaced Persons: Barriers to Recovery and Reintegration

#### Mangar Tong Payam

Internally displaced persons (IDPs) and returnees faced severe hardships during the post flood period, including lack of shelter, food, medicine, and clean water in the camps. Poor road conditions and limited relocation support further restricted access to basic services. A large number of IDPs were unable to return home due to financial constraints, lack of building materials and other necessities. Although some received assistance with legal documentation, access to education and healthcare remained critically disrupted. Floods destroyed schools, while health facilities were left without adequate medicines and supplies, leaving communities with little to no support in meeting their basic needs.

### 3.5. Persons with Disabilities: Exclusion from Disaster Response

Persons with Disabilities (PWDs) faced severe challenges receiving aid during and after floods, largely due to inadequate communication, lack of transportation, and absence of assistive services as the disaster had affected entire communities. Camps were not designed to be disability-friendly, lacking designated shelters and evaluation centers to serve their needs. Essential mobility aids such as wheelchairs, dry batteries, and other support equipment were urgently needed but unavailable. Furthermore, PWDs were excluded from disaster preparedness training, leaving them unprepared for emergencies. The necessary critical adjustments to inclusive response such as availability of medicine, proper communication channels, and disability-friendly facilities did not exist, further enhancing their vulnerability.

## 4.0. Key Vulnerabilities Across Groups

Based on the findings from the FGDs, the following tables illustrate the shared and unique vulnerabilities reported by the different groups.

*Table 1.* Top 5 Reported Challenges by Group.

Group	Water Access	Health Services	Economic Loss	Education Disruption	Social Exclusion
Women	✓	✓	✓	✓	✓
Farmers/Fishermen	✓	✓	✓	X	✓
Elders	✓	✓	✓	X	✓
Displaced Persons	✓	✓	✓	✓	✓
Persons w/Disability	✓	✓	✓	✓	✓

**NB:** Social exclusion for farmers and elders refers to issues with communication and social support networks. It does not apply to their decision-making power within the household in the same way it does for women.

*Table 2.* Access to Services During Floods.

Service Type	Accessible	Inaccessible
Clean Water	X	✓
Hygiene Kits	X	✓
Health Facilities	X	✓
Education	X	✓
Legal Documentation	✓	X
Disaster Preparedness	✓	✓

## 5.0. Discussion and Recommendations

The finding of the study indicates that floods in Aweil East and South are not merely an environmental catastrophe but a catalyst for deepening social and economic inequalities. Women are especially at a risk due to gender-based violence and lack of inclusion in decision-making even at household level, while elders and persons with disabilities are often marginalized during evacuation and aid processes. Farmers and fishers suffer the loss of livelihoods and domestic productivity. The Internally displaced persons remain trapped in cycles of vulnerability, with poor infrastructure, weak communication, lack of finances and non-inclusive planning further undermining resilience and recovery. To build inclusive resilience, the study recommends the establishment of permanent water infrastructure such as boreholes and water yards with raised platforms and elevated water towers and water distribution systems with separate animal troughs to prevent contamination and spread of waterborne diseases. Women should be empowered economically through provision of irrigation equipment and access to seeds, and create safe spaces with psychosocial support for women and elders. Additionally, upgrading farming and fishing technologies, improving health service delivery and communication networks, and ensuring inclusive disaster preparedness with disability-friendly infrastructure are crucial for reducing vulnerability and strengthening long-term community resilience.

## 6.0. Conclusion

Flooding events in Aweil East and South, South Sudan, exacerbates the vulnerability of marginalized communities underscoring the urgent need for equitable and inclusive solutions. By amplifying the voices of those most affected, this study calls for a reimagining of humanitarian response, one that prioritizes dignity, resilience, and justice for all.

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