**A qualitative study of lived experience and life courses following dam release flooding in Northern Ghanaian communities.**

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Dams and reservoirs play a critical role in meeting human and animal needs, particularly in the face of climate change. Since ancient civilizations like Egypt and the Assyrians around 1500 BC, dams have contributed significantly to development. Today, dams are linked to all 17 Sustainable Development Goals (SDGs). For example, they support irrigation to boost agricultural production (Goal 2), alleviate poverty (Goal 1), and provide clean water (Goal 6). Dams also contribute to air quality (Goal 3) by producing renewable hydropower (Goal 7), and they reduce the burden on women and children in water-stressed areas by supplying potable water (Goal 5). Additionally, dams can aid in transporting heavy equipment.

However, dam construction and operation have sparked significant concern due to their social, environmental, and health impacts. Climate change, particularly unpredictable rainfall around dam catchments, increases the risk of rapid water spills to prevent dam collapse. Global warming is expected to increase extreme precipitation, leading to higher runoff, dam failure, and spillage, which can intensify flooding downstream.

These dam-related floods pose severe threats to downstream populations, especially in developing countries and tropical regions, where the environmental, agricultural, and public health impacts are profound. Floods often displace large numbers of people and result in high death tolls, while livelihoods face new levels of vulnerability. Although immediate physical impacts attract public, government, NGO, and media attention, long-term effects such as changes in lifestyle, marriage, psychological issues, divorce, and impacts on children's well-being and education receive far less recognition in both literature and public discourse.

None of the existing reports or assessments in Ghana after flooding disaster have addressed the long-term impacts of hazards on life course transitions, such as early marriage, childbirth complications, community stigmatization, or divorce. This is likely because such long-term effects are difficult to quantify, especially in the context of life-course transitions.

Understanding the severity of dam-related flood regimes over time is crucial for grasping the full extent of the damage and its consequences. This study adds to the existing knowledge of dam release flooding and its impact on downstream populations. It addresses gaps in the literature by using detailed face-to-face interviews with victims to explore the long-term effects on life course transitions, a topic that has rarely been studied. The study also examines the impact of dam release floods on early child marriage, offering insights for policy discussions. Additionally, it explores the connection between flooding, migration, marital issues, and the effects on children's education. Moreover, it contributes to the literature on seasonal human-animal interaction dynamics and finally the adaptation strategies and gender specific role among affected downstream communities.

**Data Description (Abstract)**

This qualitative dataset includes transcripts from interviews with key informants (KII) and focus group discussions (FGDs). Key informants were purposively selected based on their roles as community representatives (such as chiefs or traditional authorities) or professionals involved in flood-related institutions (e.g., health sector, local government, or disaster relief organizations). This provided a broad range of perspectives. FGDs were conducted with residents of eight flood-affected communities, aged 18 and older, who had lived in the area for at least ten years and had direct experience with floods.

The study aims to understand the impacts of dam release flooding as reported by downstream communities, assess how flooding affects their lived experiences and life course, and identify adaptive behaviours and gender-related issues in response to flooding. It also explores community responses to flood sensitization efforts and the broader effects of flooding.

While the study used a sequential exploratory mixed-methods approach, this dataset reports only on the qualitative data collected through a hermeneutic phenomenological approach, including Key Informant Interviews (KIIs) and FGDs. The qualitative sample included 43 participants: 33 FGDs (17 male, 16 female) and 10 KIIs (8 male, 2 female). Discussions covered topics such as the impact of flooding on livelihoods, life course transitions, social and health issues, economic effects, short- and long-term impacts, and gender adaptation roles.

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**Coverage and Methodology**

**Collection period: Date from:** **Date to:**

**14th September 2020 27th September 2020**

**Geographical area:** Northern Ghana (Northern and Upper East Region)

**Country:** Ghana

**Data collection method:** Four focus group discussion (FGD) sessions were conducted, with two held in each district. In each district, one FGD session was organized for men and the other for women, ensuring a gender-based perspective on the impacts of dam release flooding and related issues. Ten Key Informant Interviews (KIIs) were conducted, with five interviews from each district.

**Observation unit:** Individual, Group

**Kind of data:** Text

**Type of data:** Qualitative data

**Resource language:** English

**Access and Administration**

**Data sourcing,** FGD audio recordings were transcribed and as appropriate translated into English.

**processing and** any potentially disclosive comments made by participants were coded and then

**preparation:** redacted.Participant names have been replaced with codes to anonymise the data.

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