



Women On the Forefront of the Climate Crisis: A Study Of Vulnerability & Adaptation Strategies

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Session: Indigenous Innovation and Leadership – Gender, Risk & Resilience

Introduction and Background

- Emerging evidence suggests **climate change may negatively impact livelihoods and food security, health and safety and socio-economic stability** (Sellers et al. 2022).
- Women may be disproportionately impacted by Climate Change due to **existing inequities**, including **poverty, GBV, unequal access to resources/education, constraints of movement/freedom, and childcare responsibilities** (Alston et al. 2013).
- Women in LMICs face additional challenges due to limited climate-related **governance/policy** and **leadership positions** (Stone et al. 2022).
- Weather hazards (**floods, wildfires, storms & heatwaves**) and Climate Change (**droughts, sea-level rise** etc.) may negatively affect **mental health** (Hayes et al. 2018, Wilcox et al. 2012)
- Women have higher **mortality/increased violence** during extreme weather (Alston et al. 2013).

Real-world examples linking Climate Change outlining climate anxiety and mental health

1. Women's representations of heat-related health risks in a climate vulnerable coastal community in Accra, Ghana. **Dr. Vida Asah-Ayeh (University of Ghana).**
2. Climate Change Anxiety, PTSD, and Suicidality Among Young Women in Kampala's Urban Slums: Insights from The TOPOWA Project. **Dr. Monica Swahn (Virginia Commonwealth University).**
3. 'Cleaning' up our act: Understanding the (continued) barriers to clean cooking and implications for health and the environment. **Dr. Charlotte Ray (Bristol University).**
4. Embodied adaptation: Decolonial feminist perspectives on extreme heat in rural Mexico. **Dr. Beth Anna Bee (East Carolina State University).**
5. The bioethics of climate change research involving women and young girls. **Muthise Bulani (South African Medical Research Council).**

Women's representations of heat-related health risks in a climate vulnerable coastal community in Accra, Ghana. Dr. Vida Asah-Ayeh

- **Ga-Mashie:** (James Town & Ussherstown) densely populated coastal community – poor ventilation & limited green spaces.
- **Estimated population:** 60,000+ (GSS, 2021); Low formal education levels (dropout among girls)
- **Livelihoods and Work:** Largely informal economy (GLSS, 2019)
- Common occupations:
 - Fishing, Artisanal work (Men), Fish processing, Petty trading, Street food vending (Women) (de-Graft Aikins et al., 2014)
- Rising temperatures worsen socioeconomic challenges, disproportionately affecting women (Adeloye et al., 2023).

Study Objective and design

- **Objective:** Explore women's lay perspectives of heat exposure, coping & adaptation to inform heat-health competence.
- **Design:** Exploratory cross-sectional qualitative study.
- **Participants:** 32 women (18–65 years).
- **Data:** 4 FGDs + 12 situated conversations (in Ga).
- **Analysis:** Thematic analysis guided by local knowledge; interpreted through Social Representations Theory (sources, content, functions) (de-Graft Aikins, 2006; 2019; Jovchelovitch, 2012)

Findings on Women’s Knowledge, Experiences, and Responses to Extreme Heat

SRT Dimension	Themes	Sample Quotes
Sources of Knowledge	Local language: 'jen dole / jen dole kpokpaano' (intense burning heat). Cultural & lived experiences: loss of trees, deforestation, crowded homes, cooking heat, poor ventilation.	<i>When I was a child, we used to have trees, but now the trees are no more” (FGD1, Female p3)</i>
Content of knowledge	Drivers: Natural – prolonged sunshine, deforestation; Social – urbanisation, commercial cooking, overcrowded housing; Structural – poor ventilation, closely built housing. Gendered exposure: traders, vendors, fish processors, hawkers. Health impacts: <i>Physical</i> – skin diseases, headaches, fatigue; <i>Reproductive</i> – heavy menstruation, menstrual pain, irregular periods, hot flushes, menopausal fatigue; <i>Psychosocial</i> – irritability, anxiety, sleep disorders, relational tensions.	There is always heat because there is always fire in the community from women who are engaged in commercial cooking (FGD3, Female, P1)
Functions of knowledge	Coping & adaptation strategies: Physiological – drinking water, light clothing; Environmental – fans, sleeping outdoors	<i>“I usually take off my clothes when I’m feeling extremely hot and itchy” FGD4, Female P5.</i>

Implications and Recommendations for Building Heat-Health Competence from knowledge to action

- **Recommendations:** community cooling spaces, well-shaded/ventilated Infrastructure
 - **Plant more trees** within the community to provide shade and reduce ambient heat.
 - **Create designated commercial cooking areas** to minimise heat.
- **Next step:** strengthen community heat-health competence.

Climate Change Anxiety among Young Women in Kampala's Urban Slums: Insights from The TOPOWA Project

Dr. Monica Swahn.



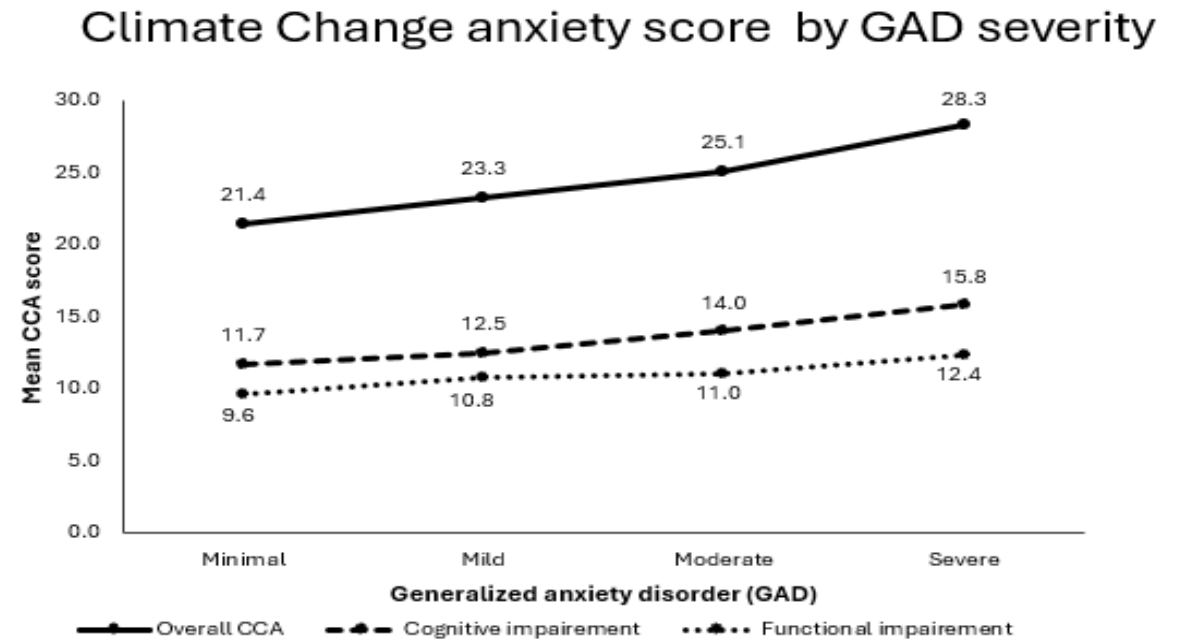
- Research question: What is the prevalence of climate change anxiety and what are the associated factors?
- We used cross-sectional baseline findings from cohort study of young women (N=300), ages 18-24 years of age, living in urban slums.
- Interviewer-administered surveys of the Climate Anxiety Scale (CAS), General Anxiety Disorder (GAD-7) and socio-demographic characteristics.



Findings among Young Women in Kampala: Climate Change Anxiety & General Anxiety Disorder

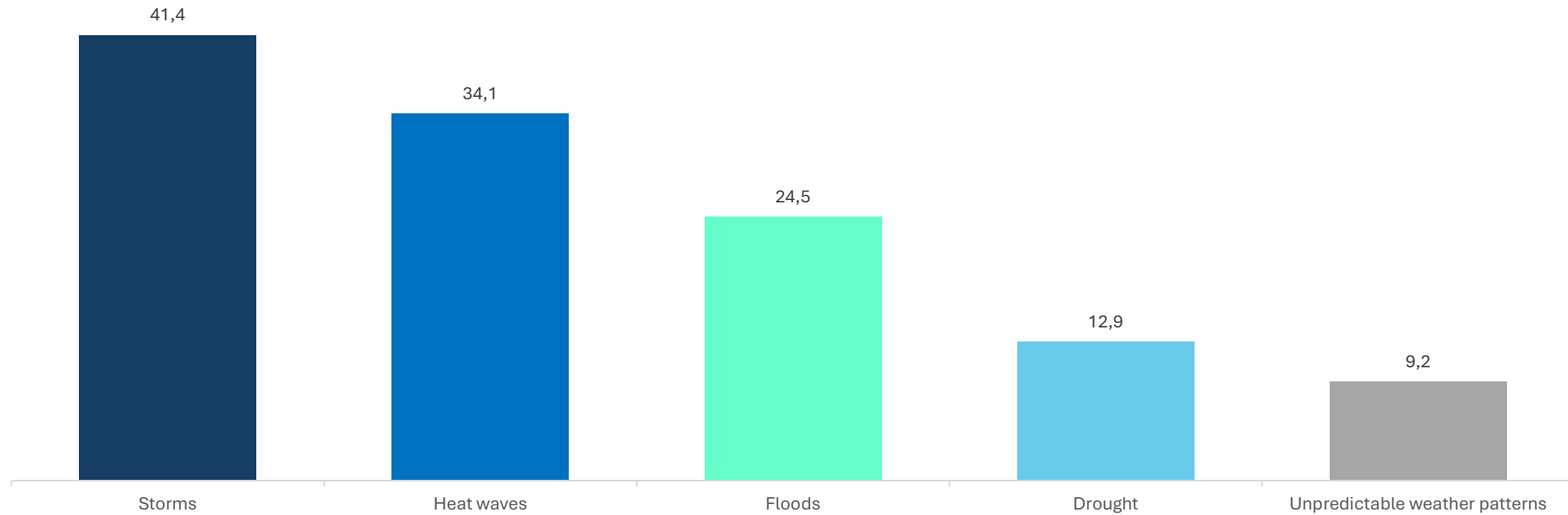


- **1 in 5** women presented with moderate to severe climate change anxiety.
- Moderate ($\beta = 3.56$) and severe ($\beta = 6.61$) generalized anxiety was significantly associated with higher climate change anxiety.



Finding: 46% of the young Women Self-Reported being Impacted by Global Warming in the past year.

Percentage of women Impacted by type of Climate Event



Discussion Points

- High level of awareness of climate change.
- Nearly half of the participants have directly experienced climate change.
- Participants with severe climate change anxiety exhibited higher levels of general anxiety disorder.
- Lower education levels were linked to more severe climate change anxiety.
- Parenting and living in smaller households were significantly associated with higher climate change anxiety.
- Need for targeted educational initiatives and community-based interventions. Also, social support systems are needed within multi-generational households.
- Future research focusing on prospective assessments and establishing causal relationships and incorporate objective environmental data are also needed.



Source: TOPOWA Project (PhotoVoice)

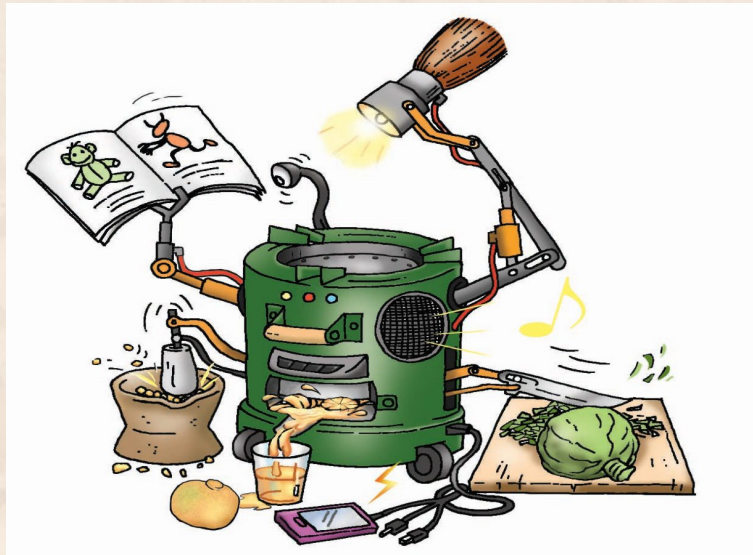
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Cleaning' up our act: Understanding the (continued) barriers to clean cooking and implications for health and the environment. Dr. Charlotte Ray

- SDG7 - Access to affordable, reliable, sustainable, and modern energy for all
- Clean cooking efforts since the 1940's
- Narrative shift: **improved, efficient, advanced, modern, clean**
- Always a focus on technology (despite wide recognition of **users**)
- 'Users' vs 'People'



Cleaning' up our act: Understanding the (continued) barriers to clean cooking and implications for health and the environment.

- Cooking for Survival



“When we left Mali, we first stayed in the village of Deo for six months. We then went to a camp near the village of Fererio, then when that was closed we were moved here to Goudoubo. I came with my wife and children and whatever we could bring. We brought 2 bags of clothes, a small mattress, some money and a small 2kg ‘Marmite’ cooking pot. The pot is very important to us. It allowed us to use a three-stone fire anywhere, I was able to feed my children!!”

Cleaning' up our act: Understanding the (continued) barriers to clean cooking and implications for health and the environment.

- Cooking to preserve Culture, Identity and Heritage



“I ran a restaurant when I lived in Mali but when I left I took nothing. When I came [to Burkina], my sister gave me a pot she was given by UNHCR and I bought a small pot in the market and I started to sell food here But it wasn't the same. I gave my brother the keys to my house in Mali to get my big Marmite pot... I bought that pot for 40,000CFA. This pot is the best pot to use for good food. The risk was worth it”

Cleaning' up our act: Understanding the (continued) barriers to clean cooking and implications for health and the environment.

- Cooking in solidarity

“We realized and we learnt that being together would give us a voice, would give us some bargaining power in our activities and in whatever we do..... and I can ask you to assist me, we will finish faster”



Cleaning' up our act: Understanding the (continued) barriers to clean cooking and implications for health and the environment.

- Clean Cooking Transition
- As narratives in the global North shift, options available to energy poor communities also change –
- Once widely celebrated clean cooking options now relegated
- Leave no-one behind?



Embodied adaptation: A decolonial feminist perspective. Dr. Beth Anne Bee.

- Households are not black boxes
 - Gender is the point around which household resources, knowledge production, and the capacity to act pivot.
- Gender is not a black box
 - Gender intersects with race, ethnicity, class, age and other social categories that shape access to resources.
- Decolonial feminist approaches to climate adaptation centre the embodied experiences and knowledge system of women and people across the gender spectrum and historically marginalized communities world-wide.
- The body is the physical space where the climate crisis manifests.

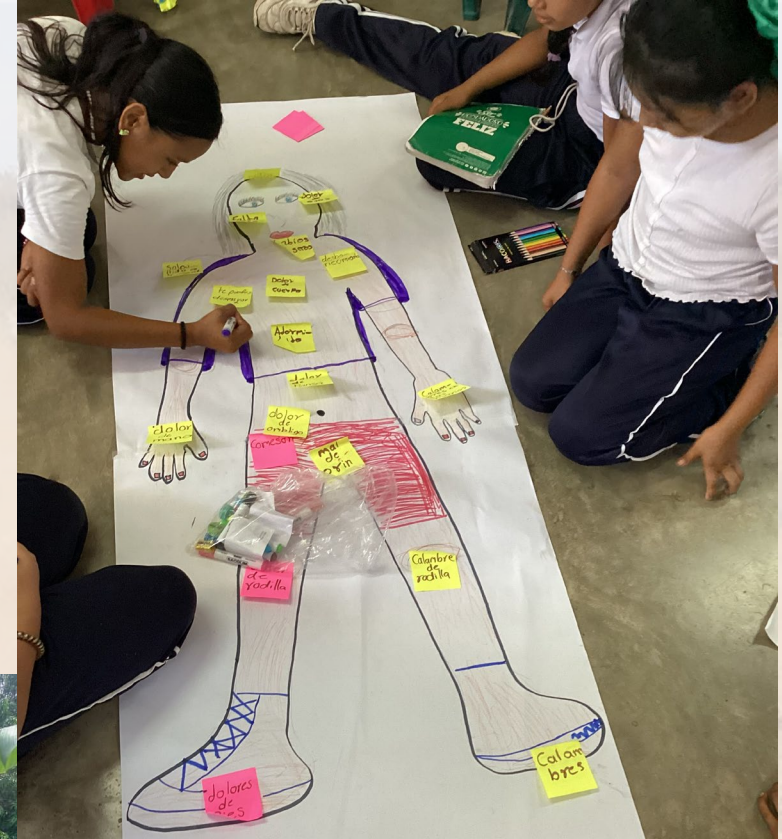


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Faye Collombet,
Antonio Trejo

The bioethics of climate change research involving women and young girls. Muthise Bulani.

- Heat extremes have more profound health impacts on women compared to men (physiologic, biologic, cultural, and socioeconomic factors)
- Women in LMICs are particularly vulnerable
- It is an ethical responsibility to ensure that interventions and policies enhance women's resilience to extreme heat
- Therefore, this study explored ethical issues and concerns around rural South African women's perceptions and experiences of a heat intervention (<https://acdi.uct.ac.za/heat-adaptation-benefits-vulnerable-groups-africa-habvia>)

Methods

- Qualitative approach incorporating:
- Focus group discussions (FGDs) with 28 female study participants from HABVIA Thohoyandou site(South Africa)
- Key informant interviews (KIIs) conducted with policy-makers involved in the climate change and health response strategy.

Results

In the FGDs, four themes were identified:

1. the perceived impacts of climate change on the environment and public health;
 2. the specific benefits of climate and health intervention studies for women's health and wellbeing;
 3. the critical need for prioritizing underrepresented voices in climate change heat intervention research;
 4. barriers to meaningful participation for these groups.
- From the key interviews the dominant themes were the lack of financial support for adaptation efforts, low prioritization of climate change impacts and needed action by decision makers

Panel Summary

- Women are disproportionately affected by Climate Change
- Climate Change increases mental health challenges, particularly among young women
- Local and indigenous knowledge may drive adaptation and coping strategies
- Cultural identity and social cohesion shape environmental behaviours
- Ethical, gender-responsive, and decolonial approaches are essential to ensure women's voices, needs, and resilience are prioritized in climate adaptation policies and research.