



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

**Panellists: Prof Lara Dugas (University of Cape Town), Dr. Vida Asah-Ayeh (University of Ghana), Prof. Monica Swahn (Virginia Commonwealth University), Dr. Charlotte Ray (Bristol University), Dr. Beth-Anne Bee (East Carolina University), Ms. Muthise Bulani (South African Medical Research Council)**

**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 & Usshertown) 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	<p><b>Local language:</b> 'jen dole / jen dole kpokpaano' (intense burning heat).</p> <p><b>Cultural &amp; lived experiences:</b> loss of trees, deforestation, crowded homes, cooking heat, poor ventilation.</p>	<p><i>"When I was a child, we used to have trees, but now the trees are no more" (FGD1, Female p3)</i></p>
Content of knowledge	<p><b>Drivers:</b></p> <p><b>Natural</b> – prolonged sunshine, deforestation;</p> <p><b>Social</b> – urbanisation, commercial cooking, overcrowded housing;</p> <p><b>Structural</b> – poor ventilation, closely built housing.</p> <p><b>Gendered exposure:</b> traders, vendors, fish processors, hawkers.</p> <p><b>Health impacts:</b> <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.</p>	<p>There is always heat because there is always fire in the community from women who are engaged in commercial cooking (FGD3, Female, P1)</p>
Functions of knowledge	<p><b>Coping &amp; adaptation strategies:</b></p> <p><b>Physiological</b> – drinking water, light clothing;</p> <p><b>Environmental</b> – fans, sleeping outdoors</p>	<p><i>"I usually take off my clothes when I'm feeling extremely hot and itchy" FGD4, Female P5.</i></p>

# 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.

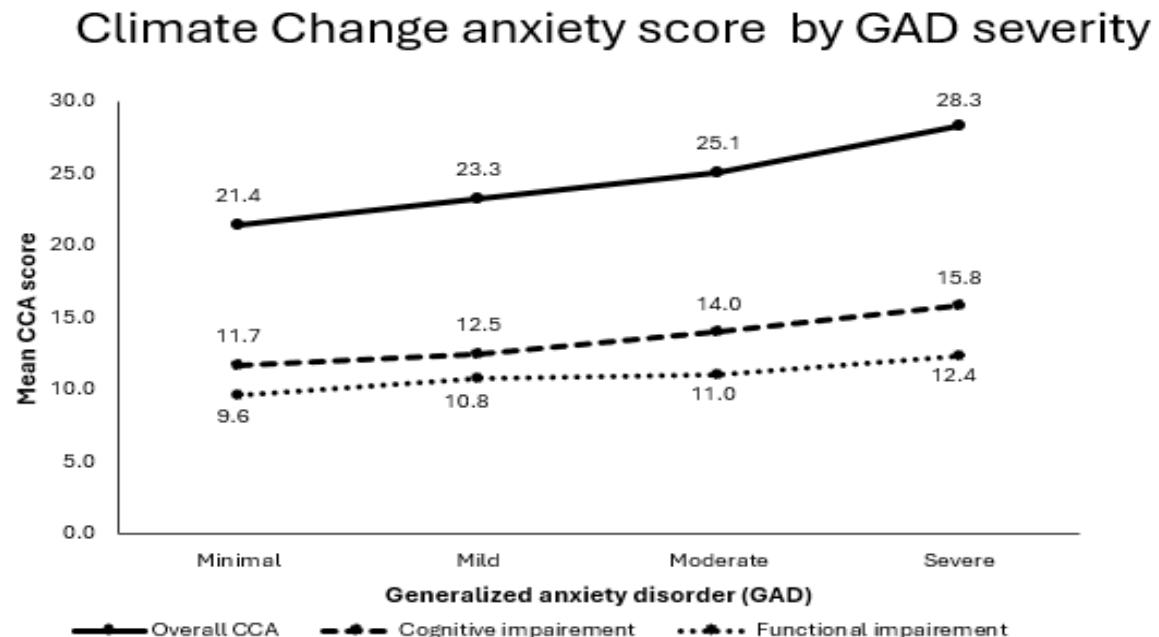
- Research question: What is the prevalence of climate change anxiety and what are the associated factors?
- We used cross-sectional baseline findings from cohort study of young women (N=300), ages 18-24 years of age, living in urban slums.
- Interviewer-administered surveys of the Climate Anxiety Scale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



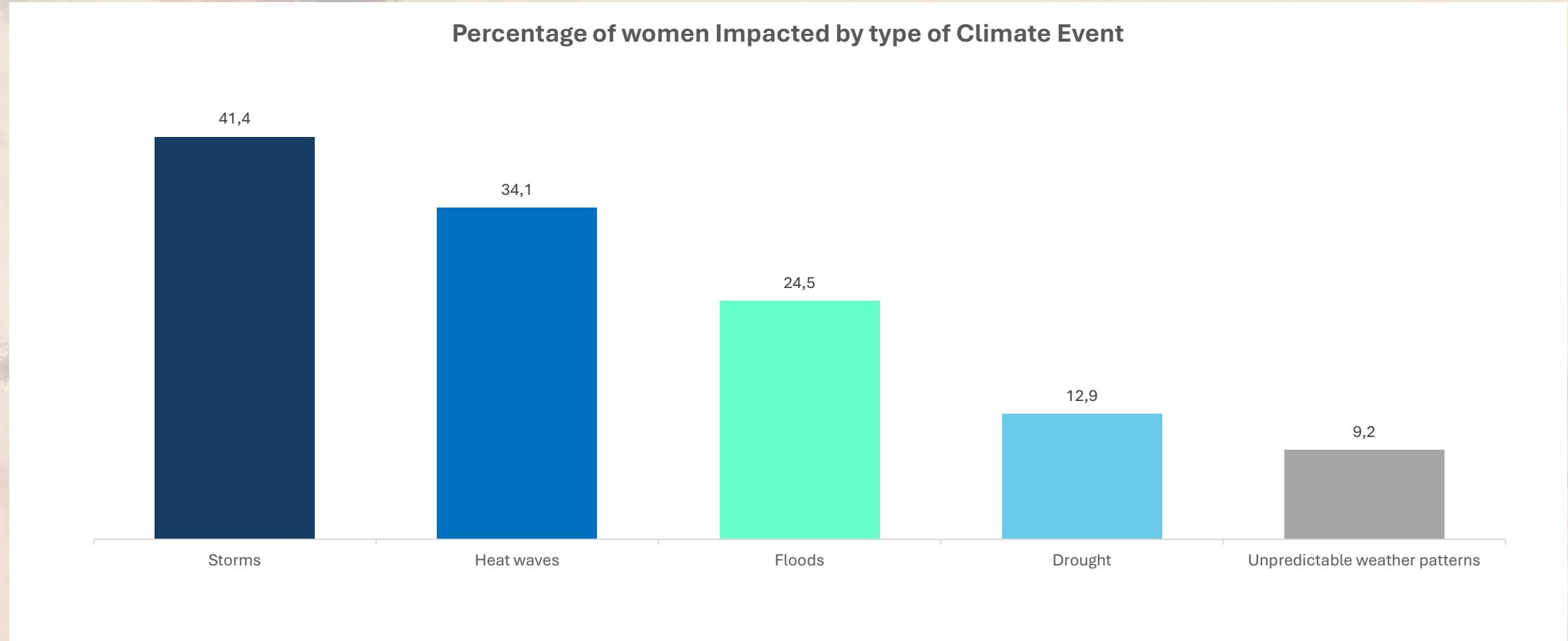
# Findings among Young Women in Kampala: Climate Change Anxiety & General Anxiety Disorder



- **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.



# 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)

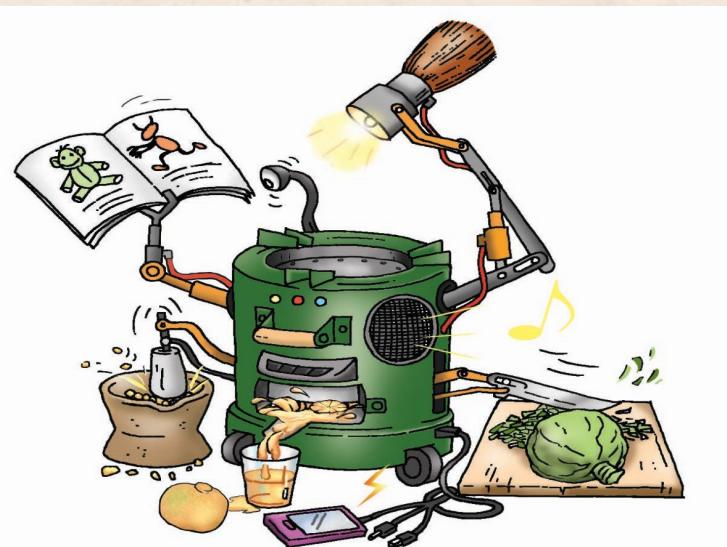
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# Cleaning' up our act: Understanding the (continued) barriers to clean cooking and implications for health and the environment. Dr. Charlotte Ray

- 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.

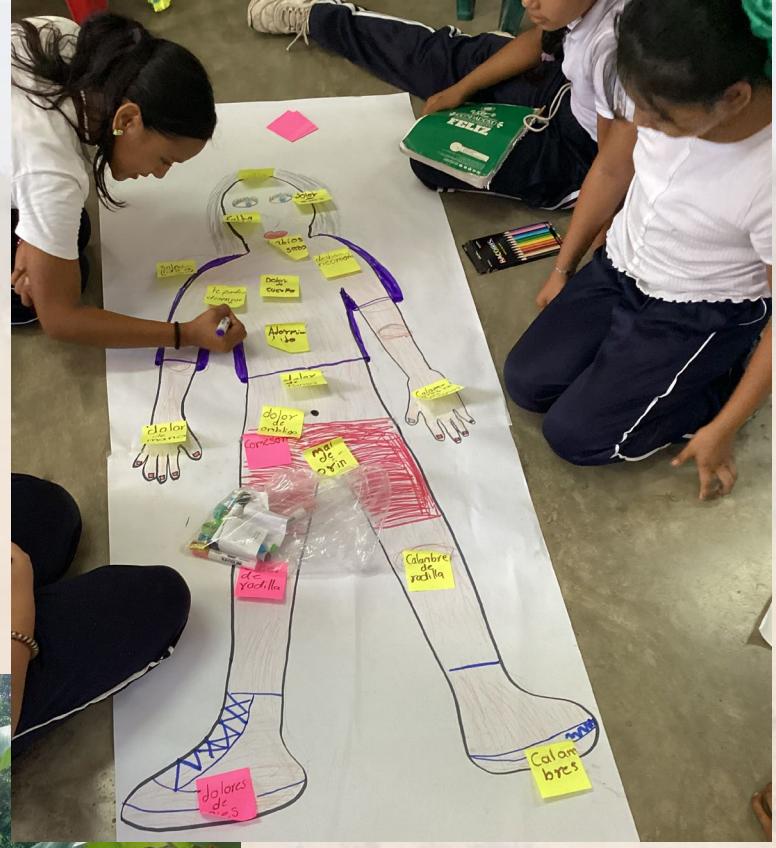


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Faye Collombet,  
Antonio Trejo

# 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.