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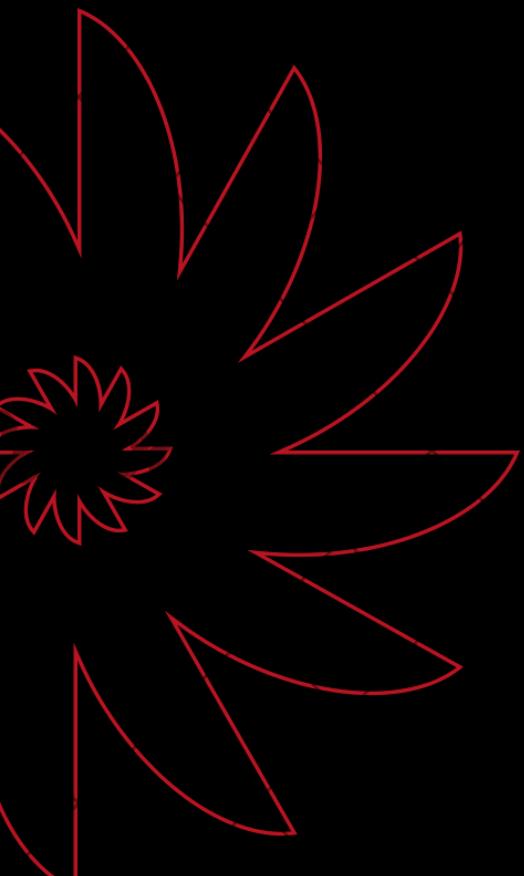
CLIMATE CHANGE AND GIRLS' EDUCATION: INSIGHTS FROM LUNDI FARM, ZVIMBA & EPWORTH

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Letter from the Founder



“It’s important to create spaces for girls and young women to dream, exchange ideas, pursue scholarships, and take action in ways that resonate with their individual passions.”

Chido Nyaruwata

Founder and Director

Flames and Lilies Climate Initiative, a Zimbabwean ecofeminist youth organization, bridges climate justice and gender equality. From July to October 2024, we conducted climate and disaster risk education workshops with adolescent girls and young women from Harare, Epworth, and Bindura. Three cohorts learned feminist participatory action research methods to identify gender-specific climate challenges in their communities.

Eight youth researchers investigate the impact of climate change on girls’ education in two distinct communities. In Lundi Farm, Zvimba, we learn of the devastating effects of veld fires on communities and girls’ ability to continue school. In Epworth, the youth researchers explore how the 2023/24 El Nino-induced drought reduces families’ income and the different ways boys and girls cope in uncertain socio-economic environments.

This work wouldn’t have been possible without a microgrant from the Urban Movement Innovation Fund.

Introduction

01

Climate change refers to long-term changes in temperature, precipitation, and other climate-related phenomena on Earth, mainly driven by human activities such as the emission of greenhouse gases like carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), which trap heat and contribute to global warming (IPCC, 2021).

These emissions result primarily from burning fossil fuels, deforestation, and industrial activities. Over time, the accumulation of these gases leads to rising global temperatures, melting ice caps, rising sea levels, and more frequent extreme weather events (NASA, 2020). The effects are already being felt worldwide, impacting ecosystems, human health, and economies, with a greater effect on vulnerable populations (WHO, 2018).

In Zimbabwe, climate change has caused more hot days and fewer cold days than in previous decades. Since 1980, Zimbabwe has experienced its warmest period on record (UNDP, 2017). This has drawn attention to the heightened challenges that girl children face in Zimbabwe due to climate change, leading to the need to investigate its impact on girls' education.

Purpose of study

This study explores climate change's impact on girls' education in Zimbabwe, focusing on how challenges like veld fires, droughts, floods, and extreme weather affect access to education, retention, and academic performance in rural and urban areas.

It investigates how climate-related issues exacerbate socio-economic and cultural factors, such as increased household duties, early marriages, and migration, contributing to gender disparities in education. The study's findings will provide recommendations for policymakers and educators to create climate-resilient strategies that support girls' education, promoting gender equality and a more resilient education system.

Research Questions

As youth researchers aged between 21-24 , we aim to address these questions:

- How does climate change affect girls' access to education in Zimbabwe?
- What is the relationship between climate-induced economic challenges and girls' school attendance and retention in Zimbabwe?
- What strategies can be implemented to build climate resilience in the education system for girls in Zimbabwe?



Literature Review

Climate change is increasingly recognized as a multidimensional issue affecting various aspects of human life, including education. Zimbabwe, due to its vulnerability to climate-related challenges such as droughts, floods, and extreme weather events, serves as a focal point for understanding these impacts. These environmental factors disproportionately affect vulnerable populations, particularly girls. This literature review explores how climate change influences girls' education in Zimbabwe, focusing on gender disparities, socio-economic impacts, and the effectiveness of policy interventions.

Climate Change and Education

Climate change disrupts educational systems, particularly in regions prone to environmental stress. In Zimbabwe, frequent droughts and floods damage school infrastructure, displace students, and interrupt schooling, with girls being disproportionately affected (Mutasa, 2020).

2. Gender Disparities in Education Due to Climate Change

Traditional gender roles exacerbate the vulnerability of girls to climate-related disruptions. Long-standing gender inequalities in Zimbabwean education are intensified by climate change, as economic hardships often compel families to prioritize boys' education over girls' (Chisango & Mudavanhu, 2016; Khan, 2019).

3. Economic Impacts on Climate Change on Girls Education

Climate change, particularly through droughts and floods, reduces agricultural productivity, which in turn affects household income in rural communities. As food insecurity rises and incomes decline, education becomes a lower priority. Girls are often withdrawn from school to help with household chores or contribute financially to their families (World Bank, 2020; Tichagwa, 2018).

4. Government Responses

While Zimbabwe's National Climate Policy acknowledges the need for resilient educational infrastructure and sustained access to education for girls, current interventions fall short in addressing the specific challenges girls face. Policies often lack a gender-responsive approach, limiting their effectiveness (Ministry of Environment, Climate, and Tourism, 2020; Mutasa & Mutsaka, 2019)

5. Conclusion

Climate change exacerbates socio-economic and cultural barriers to girls' education in Zimbabwe. Although government policies recognize the need for climate adaptation in education, more targeted interventions are required to address the unique vulnerabilities faced by girls.

Feminist Perspective

The intersection of climate change and education is an emerging concern, particularly for marginalized populations in developing countries like Zimbabwe. Climate change intensifies socio-economic inequalities, disproportionately affecting women and girls in rural areas. Feminist frameworks—such as intersectionality, power relations, and lived experiences—are essential for analyzing how climate change impacts girls' education.

1. Climate Change and Girls' Education

Climate change significantly disrupts education systems, particularly in low-income countries. In Zimbabwe, climate-induced disasters such as droughts and floods contribute to financial hardships, leading many girls to drop out of school to support their households, engage in labor, or enter early marriage as a survival strategy (Chikoko, 2018).

Rural girls are especially affected due to economic constraints and cultural norms.

Intersectionality

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Intersectionality, a concept introduced by Kimberlé Crenshaw, examines how overlapping identities such as gender, race, class, and geographical location shape individuals' experiences of oppression (Crenshaw, 1989).

In Zimbabwe, intersectionality is a relevant framework to understand drivers of climate vulnerabilities. For instance Lundi Farm and Epworth are droughts-prone area facing economic hardship. This highlight how geographical location compounds existing inequalities.

Rural girls from marginalised communities face compounded disadvantages. For instance, those living in drought-prone areas are more likely to experience educational barriers than boys (Oxfam, 2020). The gendered barriers to education during climate crisis illustrate how intersectionality is helps explain and address the overlapping challenges marginalised groups, especially girls, face in Zimbabwe.

Power Relations

Feminist theories highlight how patriarchal structures reinforce gender inequalities, particularly during environmental crises. In Zimbabwe, these power dynamics are evident in households where boys' education is prioritized over girls' during climate-induced economic hardships (Chikunda & Chimbwanda, 2016).

A feminist approach that centres on lived experiences highlights the real-life impacts of social issues on marginalised populations. In Zimbabwe, rural girls frequently drop out of school due to water scarcity, food insecurity, and domestic labour demands are exacerbated by climate change (Mutambara, 2020).

Climate Change, Gender, and Policy Response

Feminist scholars critique many climate policies for failing to address gender-specific impacts (MacGregor, 2010). In Zimbabwe, national policies may overlook the unique needs of girls and women, often focusing on broader climate-adaptation strategies instead (Chagutah, 2021). Feminist theorists advocate for gender-responsive climate policies that acknowledge girls' vulnerabilities and integrate education into climate-resilience initiatives.

Conclusion

Feminist theories provide essential tools for understanding how climate change amplifies existing inequalities, particularly for rural and underserved girls in Zimbabwe. These frameworks emphasise the need for policies that challenge power imbalances and centre the voices of marginalised populations. Addressing the gendered impacts of climate change on education is crucial for promoting gender equality and equipping future generations with the knowledge and resource.

Methodology

Feminist Participatory Action Research (FPAR)

FPAR is a research approach combining feminist theory and participatory action research (PAR). It prioritizes the involvement of marginalized groups, particularly women and gender minorities, in shaping research processes. Unlike traditional top-down methods, FPAR ensures that affected communities play a central role in research design, data collection, analysis, and advocacy.

Key principles include:

- Collaboration & Participation: Community members are co-researchers, not subjects.
- Feminist Lens: Focuses on gender inequalities and intersecting oppressions.
- Empowerment & Action: Aims to create change and challenge power structures.
- Contextual & Intersectional: Considers local realities and overlapping social factors.
- Reflexivity: Researchers examine their positionality and power dynamics to ensure the research benefits participants.

3.2 Youth-Led Approach

This research was led by young people, including Thelma Mazanhi (22), Gamuchirai Mutsambwa (22), Shelter Zengeni (22), Fadzai Samu (24), Tariro Mtukura (21), Kudakwashe Masekesa (22), Granny Zidya (24), and Tecla Tanyaradzwa Gondo (21). Their leadership ensured a grounded perspective and fostered youth advocacy, leadership, and critical thinking in education and climate action.

3.3 Participants

The study focused on diverse participants from Lundi Farm, Zvimba, and Epworth. Participants include:

- School-aged girls.
- Parents & guardians.
- Teachers & administrators
- Climate experts.

3.4 Data Collection Methods

A mixed-methods approach captured quantitative and qualitative data to understand climate change's impact on girls' education. This included using surveys, key informant interviews, document analysis, observation and focus group discussions.

This multi-method approach provided robust data for advocating gender-responsive policies and interventions that support girls' education in climate-affected areas of Zimbabwe.

Findings

This study examined how climate change affects girls' education in Lundi Farm, located in Zvimba District, and Epworth, a peri-urban area 20 kilometers from Harare. A mixed-methods approach was used, incorporating both qualitative and quantitative data collection through interviews and surveys.

In Lundi Farm, veld fires in 2015, 2018, and 2023 severely disrupted households and education. Interviews were conducted with 20 girls between the ages of 7 and 25, along with a local community leader. These fires destroyed 17 homes in 2015, 66 homes in 2018, and 40 homes in 2023.

In Epworth, water scarcity has become a major challenge affecting school attendance. Interviews were held with a key informant from an organisation running a feeding scheme, as well as two children aged 11 and 17 who are beneficiaries of the program.

Therefore, our findings revealed that climate change significantly impacts education in these communities. In Lundi Farm, none of the interviewed girls had progressed to secondary school. Additionally, half of them had experienced teenage pregnancy. In Epworth, 60 percent of children benefiting from the feeding scheme reported missing school due to water shortages.

Personal and Collective Narratives

The destruction of homesteads in this community has caused profound and enduring disruptions to people's lives. Families lost essential documents, such as birth certificates and identification cards, which have not been recovered. This loss has far-reaching implications, creating barriers to accessing critical services and perpetuating cycles of exclusion.

The burning of homes also destroyed stored food in granaries, leaving families without sustenance or reserves. Those who depended on agriculture, animal rearing, and crop cultivation as their primary livelihoods lost everything, plunging households into extreme poverty. These challenges were worsened by a serious drought in Lundi Farm following the veld fire.

For some children, the devastation was even more severe. They lost their parents, leaving them orphaned and vulnerable in the wake of these catastrophic events.

One of the most concerning outcomes has been the drastic decline in girls' school attendance and retention.

Many girls dropped out of school, and for some, the crisis marked the end of their education altogether. The instability created by these events has eroded learning opportunities, leaving young girls with few prospects for the future.

The trauma and socioeconomic hardships resulting from these events have led to harmful coping mechanisms among affected youth. Some girls as young as 12 have turned to substance abuse, seeking an escape from their harsh realities. Others, out of desperation, have become involved in transactional sex, exposing them to further risks and exploitation.

Survey data from the feeding scheme based in Epworth reveals the dual impact of poor health and hygiene further undermines their education and well-being. Families in the area largely depend on subsistence farming or vending. Climate-induced challenges have destabilised these livelihoods, leaving them struggling to provide for basic needs.

For girls, the challenges are amplified. Many parents have resorted to withdrawing their daughters from school to perform labour-intensive household roles, such as water collection and caregiving for younger siblings. This not only disrupts their education but also perpetuates cycles of poverty and inequality.

The voices of the two children interviewed provide an intimate glimpse into these struggles. One girl shared how she was forced to stop school at the primary level. Now, alongside her family, she engages in informal waste management, scavenging for scrap metal, bottle caps, and empty bottles to sell for survival. Her story underscores the limited and precarious alternatives available to those excluded from formal education and livelihoods.

Another child, currently reliant on the feeding scheme for daily sustenance, described her family's struggles following the death of her father, the household's sole breadwinner. With her unemployed mother unable to provide for the family, the feeding scheme has become their lifeline.

Recommendations

Veld fires can have devastating impacts on communities, especially in rural areas like Lundi Farm in Zvimba. It affects homesteads, and food supplies, and leads to further issues like drought. Climate induced disaster such as droughts have negative economic, health and educational outcomes for families in peri-urban centres like Epworth. These disasters have severe social and economic consequences, including forcing girls to drop out of school.

Therefore, to address these challenges, both immediate and long-term strategies are essential. They should involve communities, policymakers, NGOs, and government. Immediate actions include providing emergency educational materials and temporary learning spaces to ensure children, especially girls, continue schooling. Organising transport services for distant schools and providing emergency food relief to maintain food security are crucial.

Long-term solutions involve establishing scholarship programs to prevent girls from dropping out due to financial hardships and offering assistance for transportation, uniforms, and learning materials. Community-based learning centres could also provide vocational and adult education, helping those who dropped out to gain skills and become financially independent.

Suggestions for Future Research

Future research could focus on adaptation and resilience strategies for ensuring continued girls' education in the face of climate change. This would involve investigating how schools, families, and communities adapt to climate impacts, with a focus on measures such as flexible school schedules, climate-resilient infrastructure, and family-level coping mechanisms. Additionally, it would explore the role of governments and NGOs in supporting these efforts and overcoming climate-related challenges to girls' education.

Conclusion

Addressing these challenges presented in Lundi Farm and Epworth requires urgent interventions that integrate climate resilience, gender-responsive policies, and targeted support for vulnerable communities. As youth researchers, this process has illustrated the negative impacts of climate change on girl's access and continued schooling. We hope that our research will aid in actors taking action to mitigate the impacts of climate change and prioritise girls' education in post-disaster recovery efforts are crucial for securing their future.

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