Gendered Climate Change-Induced Domestic Water Challenges: Exploring the Plight of Women and Girls Linked to Water Challenges in Ward 32 of Buhera District, Zimbabwe.

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ABSTRACT

Climate change-induced domestic water challenges have been a threat to human rights fundamentals and a barrier towards attainment of the sustainable development goals. Apart from that, in African traditional societies, these challenges often come with gendered impacts where women tend to be more affected due to their socially accepted gender roles. This study focused on exploring the plight of women and girls related to water challenges in Ward 32 of Buhera District, Zimbabwe. A qualitative approach was utilized and data were collected from a sample of 10 girls and 10 women using in-depth interviews and focus group discussions. Findings of the study reviewed that women often participate in travelling long distances up to 3 kilometres to fetch domestic water during the period when wells in their homesteads dry up. The study utilized people who collect water from two common community boreholes (Nyoka and Maneta community boreholes) and confirmed that most women travel long distances to access these water points. Findings also revealed that women are physically and verbally abused at water points by muscular counterparts, endure musculoskeletal ailments like back pain and leg pain as well as suffering reduced personal hygiene particularly during their menstruation when they need water the most. It was thus, recommended that addressing water crises caused by climate change is a positive step towards addressing the gendered plight of women and girls in marginalized communities.

Key words: Climate Change; Water Security, Human Rights, Gender Roles

INTRODUCTION

While it is now almost universally acceptable that the availability to clean and safe domestic water is a basic human right, climate change has also become a universal barrier in attaining that common goal. Climate change has resulted in extreme temperature ranges and sporadic rainfalls leading to frequent drought (Kruger & Sekele, 2012; Rankoana, 2020). This has a huge underpinning on the availability and sustainability of water for domestic use. In 2007, the Intergovernmental Panel on Climate Change (IPCC) (2013) highlighted that water and its accessibility and quality would be the leading burdens under climate change. The United Nations Economic Commission for Africa (UNECA, 2011) also highlights that climate systems of the bulk parts of the African continent may be categorized as arid and semi-arid with high drought threats. This implies that, the impact of climate change on water accessibility is inevitable.

In recognition of the Sustainable Development Goals (SDGs), SDG 6 emphasizes the need to have clean Water and sanitation. Largely, these SDG objectives concentrate on offering universal access to sustainable water, basic sanitation and hygiene (WASH) to equalise paucities dominant among low- and middle- income countries (LMICs) and populations living in vulnerable situations (Nagabhatla *et al.,* 2019). On the other hand, the World Health Organization and United Nations International Children's Education Fund (WHO & UNICEF 2019), view rural women and girls as representatives of marginalized groups who are disproportionately burdened by poor WASH practices or experience further challenges in accessing WASH resources. For WHO & UNICEF (2017), women and girls unduly work as household water purveyors, gathering water in about 80% of rural

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households, and as consequence, regularly encounter the encumbrances of wanting to travel long distances to retrieve water.

Despite just having to travel long distances to access water, WHO & UNICEF (2017) indicated that women and girls need supplementary resources to deal with their menstrual hygiene management (MHM) essentials. According to the Joint Monitoring Programme (JMP) report of 2017 by WHO & UNICEF, MHM is indicated as;

"…*using a clean menstrual management material to absorb or collect menstrual blood, that can be changed in privacy as often as necessary for the duration of a menstrual period, using soap and water for washing the body as required, and having access to safe and convenient facilities to dispose of used menstrual management materials*." (Pouramin, Nagabhatla & Miletto, 2020).

This reflects that as water sources continue to be stressed by climate change, the suffering of women and girls may also increase disproportionately.

The plight of women and girls in the South is often aggravated by skewed power relations and unbalanced socio-cultural norms (Nellemann, Verma & Hislop, 2011). Women in general have far less access to and control over the resources they depend upon. Neither do they have prospects for direct authority and active influence in politics from the family to society, state, regional and international levels. At the end of the day, women suffer unequally in accessing water during seasons of drought. Socio-cultural norms dub women as providers and caregivers of the family (Sharma, Chakrabarti & Grover, 2016) yet they do not have much control over resources such as water. In return they travel longer distances to access water, sometimes get abused at water points or suffer from musculoskeletal infections related to the process (Geere *et al*., 2018; Graham, Hirai & Kim, 2016).

While all these challenges could be imminent in the discourse of climate change, few scholars have focused on gender skewed impacts of climate change. Men and women experience, comprehend, and acclimatize to climate change in dissimilar ways. It is imperative to understand changes and impacts presently being encountered, and expected to happen in the near future, from a gendered outlook. Climate change is expected to intensify gendered vulnerabilities and differential abilities to cope with changes on multiple fronts (Sultana, 2018). Even though climate change is repeatedly outlined as a worldwide crisis for all of humankind, the heterogeneity of its indicators, impacts, and responses has to be carefully considered. The aim of this study was to explore the gendered water challenges as a consequence of climate change threats on water points.

MATERIALS AND METHODS

Study area

This study was carried out in Ward 32 South of Buhera District. The area is known by summer temperatures of 30-40 degrees Celsius and mid-winters of 6-25 degrees Celsius with average yearly temperature of 22 degrees Celsius. This area falls under the agro ecological zone 5 and faces severe dry spells during the rainy season and frequent seasonal drought (Pisa, Dube, Mhlanga & Marikomo, 2022). The soils are sodic with a few patches of Kalahari sands. The study area is shown in figure 1.

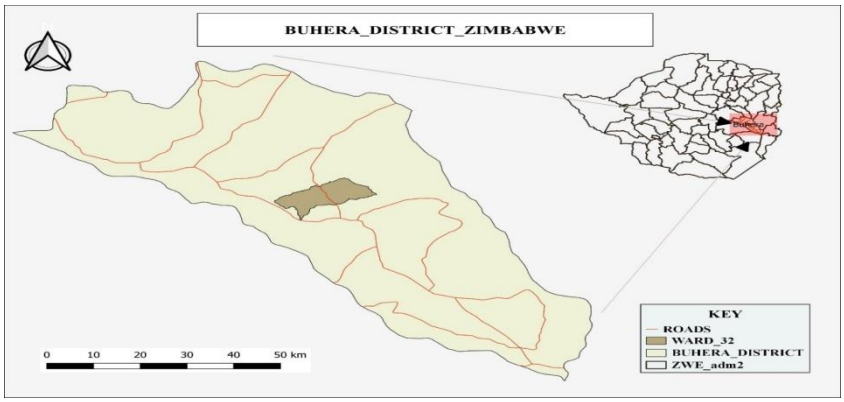

Figure 1. Buhera District, Manicaland Province, Zimbabwe

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Research design

This study followed a qualitative procedure which was found out to be the most appropriate technique to touch the people with first hand experiences of the women and girls under study. Qualitative study collects participants' experiences, acuities, and behaviour. It responses to the 'hows' and 'whys' rather than 'how many' or 'how much' (Tenny, Brannan, & Brannan, 2022). A qualitative study is a form of research that searches and delivers deeper insights into real-world challenges. As an alternative of assembling statistical data themes or arbitrate or introduce treatments just like in quantitative studies, a qualitative inquiry helps in generating assumptions as well as further probe and comprehend quantitative data (Korstjens & Moser, 2018). While this study aimed at understanding the plight of women and girls from a personal experience lens, the study design was the most fitting.

Study population

This study focused on women and girls in ward 32 of Buhera District. According to the Population Census Report of 2022, the female population of ward 32 was 3,300 people in aggregate which is approximately 52% of the total population in the ward (ZimStat, 2022).

Sampling procedures

The study used purposive sampling to select 10 women and 10 girls from ward 32 of Buhera District as well as picking participants for group discussions. For Palinkas *et al* (2015), purposive sampling is a method commonly used in qualitative studies for the identification and selection of information-rich participants for the most effective use of limited resources. According to Ames, Glenton & Lewin (2019), purposive sampling allows richness of data since the researcher seeks to deal with objects which provide rich knowledge on the subject.

Data collection

Data for this qualitative study were collected using in-depth interviews and focus group discussions. Ten women and ten girls were interviewed, particularly those subject to water challenges. Two focus groups were also conducted during water collection peak hours at two boreholes (Maneta and Nyoka community water points). Data were collected in October 2022 during the peak of the dry season.

FINDINGS

Findings of the study indicated that women and girls experience a number of challenges due to the domestic water crises created by climate change. Among the challenges were travelling long distances to get water, abuse at water points, personal hygiene challenges, and musculoskeletal disorders. The findings of this study were presented in these outlined themes.

Distance to access water for domestic use

Based on personal experiences, most of the women and girls interviewed indicated that they were not comfortable with the distance they travel to access water especially during the hottest months of the years (September to November) pointing to the fact that wells and other water sources are seasonal. Several interviewees narrated the situation;

"As you know that women participate more in acquiring water for domestic use, the challenges we face are multifarious, one of the major challenges is that during the dry season we travel longer distances to access water from boreholes. Imagine carrying 20 litres of water on top from this borehole (Nyoka community bush pump) to my homestead, it is almost half an hour walk. We need at least 5×20 litre buckets a day. This means I need more than 2 hours of fetching water daily…"

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"…on top of the challenges we encounter, the distance is just unbearable especially at the peak of the dry season,…, yes we have dug wells at our homesteads but these years the rainfall is very erratic, we normally use those wells from December to April only, in some worst years we can even go to boreholes all year round…"

"After travelling a long distance to and from school, I also proceed to look for water from the borehole which is 20 minute walk from home. Sometimes we spend significant time there in queues and we come back when it is dark…."

The narrations of interviewees concurred with the responses which were given from the focus groups where through introductions some female villagers were found to have travelled longer distances from the surroundings within approximately 2.5 to 3 kilometre radius of each borehole. Nyoka community borehole appeared to be serving more people from longer distances compared to Maneta community borehole.

Musculoskeletal illnesses

Women also reiterated that carrying water for longer distance does not spare them from physical disorders and illnesses like back pain, fatigue, neck pain, and pain in legs among others. To the women and girls, the task of fetching water is a heavy one on them which is equally compared to manual work in a heavy industry. In their testimonials women and girls specified;

"Walking for a kilometre with a 20 litre bucket of water is not as easy as thought by our male counterparts. I normally experience back aches when it is night time because of these errands I do during the day to fetch water. It is a situation that is difficult to understand because the entire household looks up to me to get water for domestic use. It is my responsibility, there is nothing I can do about that…"

"After two or three trips to fetch water, I start feeling pains in my lower back, my neck as well as my chest. …it is true, this exercise of collecting water leads to physical ailments as mentioned. Women and girls who participate in collecting water for their families should be supported. If possible, men and boys should also fully take responsibility while authorities should look at how they can help us…"

My legs are always in excruciating pain when I walk from home to Maneta here and back with a bucket full of water. In numerous occasions, we fetch water during the afternoon when the sun is extremely hot. It is after breaking from working in the field when we proceed to get water. We are exposed to both heat and weariness during the process.

This further emphasizes the difficulties encountered by women in their pursuit of domestic water, particularly under scenarios worsened by climate change. While it is widely accepted as their gender role, the pain inflicted on their bodies need not to be ignored. The call by women seeking intervention from male counterparts and the government is a clear indication that the infliction encountered during the water seeking process is not equal across all genders. Men and boys seem to be concentrating on other issues perceived by women as light while women endure the heavier role of seeking domestic water.

Abuse at water points

The findings also revealed that women often face abuse at community water points from their masculine counterparts. One of the study participants highlighted that;

"At water points there is no respect of women's rights and dignity at all. During peak hours, men often use their powers to get water first and during the process, verbal and physical abuse is not avoidable. You can see males rubbing their bodies on women's sacred parts of their bodies like the chest area, waist area and other sensitive areas. Their goal is to get water and leave but as women, we feel that our dignity is violated and that would not be the case if water was accessible easily…"

Looking at such a situation, it is quite clearer that climate change-induced water crisis is a challenge beyond just domestic water but goes on to violation of women's rights. In such a case, it is agreeable that the effect of climate change on domestic water security are gendered.

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Personal Hygiene Challenges

Women and girls also endure challenges related to their personal hygiene, these mainly include lack of enough water to thoroughly clean themselves particularly during their menstrual periods as highlighted by participants. As well in general, women are known to demand more water for personal hygiene as compared to men. One of girls attested that;

"…water is very important to us, especially for our personal hygiene during our menstrual periods. We need enough water to take care of ourselves, but with this water crises in our village, sometimes we are forced to bath only once a day…"

This demonstrates a level of dissatisfaction from the current water situation within the village, which is a threat to the girls' and women's normal hygiene routines. With water challenges aggravated by continued changes in the climate system, hygienic-related crisis is likely to affect women for a longer period unless measures are put in place to mitigate such issues.

DISCUSSION

The results strongly revealed that women and girls having socially attached to domestic water security as their gender role, they tend to be more involved in travelling longer distances to water points. Women and girls travel up to 3 kilometres in search of water for domestic use. This resonates with other Zimbabwean findings where it was noted that women and girls are responsible for fetching domestic water and on an average day they spend up to 4 hours carrying out this task (Mugandani & Mafongoya, 2019). Again, in rural Ethiopia, Eshete & Mesfin (2021) revealed that women and girls walk up to 6 kilometres in search of water, a situation which leave them with physical exhaustion as well as limited time for other daily activities. With this in mind, the need to come up with sustainable mitigating measures against climate change-worsened water challenges cannot be overemphasized.

Further, it is was notable across all participants that the physical toll of carrying water in heavy containers for long distances often lead to musculoskeletal disorders including pain in the back, legs and fatigue. This is consistent to a study in Ghana by Agyei-Baffour, et al (2018) who noted that women who consistently participate in the task of fetching domestic water often experience higher rates of physical body disorders like back pain and leg pain than those who do not participate in the task. This entails that, if no measures are put in place, women in communities like Ward 32 of Buhera District will experience more of these challenges in the face of climate change. Climate change has a huge potential of causing worsened domestic water challenges especially in marginalized communities (Douglas, et al., 2008; ECA, et al., 2020 & Hossen et al., 2021). While this suffice, the plight of women will also be aggravated.

Women and girls also provided an important revelation that they face abuse from men at these limited water points in Buhera District. Both physical and verbal abuse seem to be common at all water points were women are mostly vulnerable. This is in tandem with Tallman et al., (2023) who underscored that water insecurity is among the major determinants of gender-based violence with women often suffering more as compared to their male counterparts. Addressing water challenges in communities like Buhera would in a way address some line challenges faced by women during their quest to get domestic water from limited community water points.

Climate change effects on domestic water security has also indirectly impacted personal hygiene negatively for women in semi-arid areas like Buhera District. During menstruation in particular, women have lamented water challenges as their major barrier to hygienic practices. Lack of water for menstrual hygiene management is believed to cause feelings of shame and embarrassment while restricting mobility of women during the period (Mhlongo, 2021; Becker, 2024 & Schmitt, et al., 2021). There is therefore, a need to focus more on addressing these climate induced water challenges as a way to indirectly tackle personal hygiene issues for women in marginalized communities. By addressing domestic water issues, the rights of women are also addressed (Nehaluddin & Lillenthal, 2021).

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CONCLUSION

In summary, the study offers a significant narrative of lived experiences of women and girls in Ward 32 of Buhera District in terms of gendered effects of climate change-induced domestic water challenges. By responding to systemic disparities, addressing water crises as well as empowering women and girls, marginal communities can become more resilient event under changing climate conditions. This is not only important for sustainable development but quite important as well for upholding women and girls' human rights fundamentals.

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