Climate Change and Resilience

Technical Brief

AFRICAN COALITION FOR MENSTRUAL HEALTH

UNFPA

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Key messages

- Sustainable food security is a precondition for the onset of menarche and regular menstruation cycles among women, girls and people who menstruate.
- Droughts and water shortages hinder women, girls and people who menstruate from having adequate menstrual health.
- Climate change is leading to deteriorating menstrual health for displaced women, girls and people who menstruate.
- Sexual and reproductive health and rights (SRHR) empower women and are a necessity for achieving resilient and sustainable communities.
- More experienced-based research needs to be conducted to understand the consequences and correlations between climate change and menstrual health.

Introduction and background

Climate change acts as a driver of existing health vulnerabilities, worsening issues such as access to safe water, health care, education and food insecurity. The effects of climate change are already evident and are expected to worsen. The impacts include substantial increases in average temperatures, extreme heat events and severe droughts leading to uninhabitable areas. Subsequently, there is an inescapable risk of internal displacement, migration and food insecurity for people living in areas affected by climate change. The Intergovernmental Panel on Climate Change has acknowledged that gender-blind approaches could lead to a further exacerbation of existing gender disparities (UNFPA, 2020). Furthermore, climate-induced displacement is a growing problem worldwide, and it disproportionately affects women, girls and people who menstruate (UNDRR, 2020).

Climate change also amplifies gender inequalities, making women particularly vulnerable to climate-induced risks(DGAP, 2022). Discrimination based on place of origin can deepen pre-existing gender divides and expose women to new vulnerabilities. Women and children are 14 times more likely to die in a disaster than men and 80 per cent more likely to be displaced by climate change (IOM, n.d.).

The displacement of populations and the adverse effect on livelihoods further complicates the protection of women, girls and people who menstruate in the context of climate change.

Africa is disproportionately affected by climate change. In 2020, 21 per cent of the population in Africa, was facing hunger. Moreover, Africa has been identified as a region with notably high incidences of undernourishment, primarily driven by significant levels of food insecurity. Factors such as drought, soil erosion and the heavy reliance on agricultural activities contribute to this situation. Additionally, poor diet quality, low income and rapid population growth further intensify the occurrence of food insecurity. The frequency of extreme weather events, rising temperatures and displacement necessitates an understanding of the consequences and impacts on women, girls and people who menstruate to provide appropriate responses to the rising needs.

To explore this and other, interrelated topics with menstrual health, the UNFPA East and Southern Regional Office (ESARO) and the African Coalition for Menstrual Health Management convened menstrual health symposia in May 2021 and May 2023. These symposia have generated a breadth of knowledge about the status of menstrual health in the African context, which have informed the findings and recommendations in this technical brief (UNFPA, 2021; UNFPA, 2023).

During the 2023 symposium, a dedicated session was held on climate change and resilience where the importance of addressing climate change and building resilience, particularly regarding menstruation, and women's experiences was emphasized. It was pointed out that climate change leads to the destruction of livelihoods and homes, which can increase gender-based violence if women, who traditionally provide for their families, are unable to work. Also, it was highlighted that the economic hardships caused by climate change may also result in early marriages and heightened vulnerability for girls. Additionally, women may engage in environmentally harmful activities like charcoal burning to earn income when faced with financial difficulties, often resulting in insufficient funds for menstrual products. The lack of access to water, sanitation and hygiene facilities during menstruation further compounds the challenges women face.

Purpose and scope

At the 2023 Africa Menstrual Health Symposium, stakeholders came together to make substantial strides in understanding and planning for comprehensive, multi-sectoral menstrual health interventions of the future. This technical brief provides an up-to-date summary of key evidence on menstrual health with the main aim of presenting available information on climate change and resilience in relation to menstrual health in Africa. This technical brief also builds upon and serves as an update of key literature on menstrual health focused on the region namely, Siri Tellier and Maria Hyttel's 2018 Menstrual Health Management in East and Southern Africa: Review Paper (Tellier, Hyttel, 2018), the Technical Brief on the Integration of Menstrual Health into Sexual and Reproductive Health and Rights Policies and Programmes (UNFPA ESARO, 2021) and the 2021 Report of the Africa Symposium on Improving Menstrual Health Management (ACMHM, UNFPA, 2021).

Methodology

This technical brief presents the findings of a rapid literature review of academic and grey literature using a scoping review methodology, with a focus on the period from 2018 to 2023. To conduct a rapid literature search, search terms were used through relevant websites, databases, or search engines such as PubMed and Google Scholar. Relevant studies and/or programmes conducted in the African region[1] were included in the search and inclusion/exclusion criteria applied. Information extracted from the rapid review was analysed and grouped thematically and key findings are presented below.

While this methodology has limitations, given the general scope and limited resources, it provides an overview of recent literature, gaps in existing evidence and recommendations for future implementation derived from existing literature. Moreover, the rapid review does not approximate an academic 'systematic review,' or an attempt to assign quality to sources. Additionally, in instances where there was limited literature from African countries, relevant global literature was included. The brief highlights climate change and resilience with regards to menstrual health throughout Africa. Furthermore, this brief uses the term 'women, girls, and people who menstruate' to be inclusive of all individuals who do not identify as female, but still experience menstruation.

1 Countries of relevance included the 54 African countries covered by UNFPA regional offices at the time of review.


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Overview of the current evidence

Climate change has a negative impact on girls' and adolescents' onset of menarche

Menarche among girls and adolescents is strongly linked to nutrition and arrives when reproductive potential has been achieved. This makes women, girls and people who menstruate vulnerable to the impacts of climate change-induced food insecurity, as there is an increased demand for nutrients leading up to and during menstruation. The average age of menarche is approximately 12.4 years, although it can occur between the ages of 9 to 15. Research indicates that food insecurity and malnutrition are among the factors associated with a delayed age at menarche (Canelon et al., 2020). Girls and adolescents who experienced famine before menarche were approximately 1.5 times more likely to have prolonged irregular menstrual patterns compared to those who were not exposed to famine. Furthermore, those who faced famine twoor more years after menarche were nearly nine times more likely to experience extended menstrual irregularity. Hence, there is a correlation between nutritional challenges and the timing of menarche. If left unaddressed, it is likely that climate change could have consequences for the timing of menarche in future generations. Furthermore, late menarche and irregularities in menstruation patterns can have implications for several health concerns such as bone diseases, cardiovascular complications, mental health, and fertility difficulties. The availability of sufficient food and balance of energy consumption are crucial for reproductive function (Canelon et al., 2020). Africa's disproportionate burden of climate change impacts, including food insecurity, has led to irregularities in the age of menarche for girls and adolescents associated with increased health risks.

Furthermore, the African region has observed a higher incidence of late menarche among girls and adolescents compared to other regions (Khairzad et al., 2022).

Climate change and access to school and menstrual health for women, girls and people who menstruate

The consequences of climate change often result in the closure of educational institutions, places where girls regularly gain access to clean water, information about menstrual health and menstrual products. Also, climate change has a negative effect on school attendance for women, girls and people who menstruate. Girls and adolescents face challenges crossing flooded rivers while wearing cumbersome dresses or skirts, difficulties intensified during their menstrual cycles (Plan, 2021). Crossing flooded rivers puts their sanitary pads or other menstrual products at risk of deteriorating, and heavy rainfalls make it difficult for women, girls and people who menstruate to dry reusable sanitary pads. Conversely, water shortages and the absence of clean water can have a detrimental impact on a woman's menstrual health. Lack of access to water prevents women, girls and people who menstruate the ability to wash reusable pads, increasing their fear of odour and stigmatisation. In particularly challenging situations, women, girls and people who menstruate are forced to walk long distances in scorching conditions without adequate sanitary pads and underwear. Another case was identified where women reported sharing contaminated water with animals, increasing the risk of waterborne diseases. Because of the many barriers faced by women, girls and people who menstruate, they find it more comfortable to stay at home and only attend school once their period has ended (Plan, 2021).

A recent study shows that by 2025, climate-related events will cause at least 12.5 million girls in 30 low- and lower-middle income countries each year to abruptly stop attending school. 22 of those countries are in Africa (Malala Fund, 2021). Educational and institutional spaces are important dissemination platforms for sexual and reproductive health and menstrual health information. When these spaces are no longer available for women, girls and people who menstruate, they do not receive the comprehensive education necessary to make informed decisions regarding their sexual and reproductive health. Educating women, girls, and people who menstruate in SRHRand menstrual management is key for empowerment, leading to resilient and sustainable societies.

Displacement due to climate change

The 2020 state of climate in Africa report predicts that by 2030 approximately 118 million people will be exposed to severe climate hazards (WMO, 2021). About 1.5 per cent of Africa's population are displaced due to climate changes and it is predicted that 5 per cent of Africa's population will be displaced by 2050 (World Economic Forum, 2022). Displacement poses numerous challenges for women, girls and people who menstruate. The transit journey and temporary shelters such as refugee camps and informal settlements do not always facilitate adequate menstrual health. Ensuring proper menstrual health in such contexts entails water access, sanitation facilities, adequate menstrual products, discreet disposal, and waste management systems, as well as essential information on menstrual health. There is a substantial lack of comprehensive guidance on implementing effective, coordinated multi-sectoral approaches to address all aspects of menstrual health in displacement situations. This gap highlights the need for improved strategies and frameworks to ensure a holistic response to menstrual health in these challenging circumstances (Sommer et al., 2018).

Stigmatization and taboos of menstruations are a protection concern for women, girls and people who menstruate.

Stigmatization of menstruation is a challenge during displacement. Women, girls and people who menstruate often experience immense embarrassment when men see their menstrual products. In temporary settlements, women, girls and people who menstruate ask for dark plastic bags or paper towels to hide the menstrual products. Concerned about how to discreetly discard their menstrual products, women often bury them in remote places, putting themselves at risk of sexual violence (Moore, 2022).

Sexual and reproductive health and rights in climate change action plans and policies is crucial for resilience and sustainability

Recognizing SRHR is vital for achieving gender equality and is a fundamental element of gender-responsive approaches to climate change adaptation. SRHR serves as a cornerstone of resilience by empowering individuals, couples and communities to make choices that align with their personal circumstances and safeguard themselves and their communities from harm. National climate policies play a pivotal role in shaping responses to climate change, including strategies for building adaptive capacity and resilience. Evaluating existing climate policies in terms of SRHR components enhances the understanding of the current landscape and provides valuable insights for potential improvement and greater inclusivity. A 2021 review of 50 Nationally Determined Contributions (NDCs) globally, 23 from the East and Southern Africa region, to ascertain how these documents addressed aspects of SRHR highlighted the need to strengthen the inclusion of SRHR and gender dimensions into national climate change policies with only sixof the reviewed NDCs referring to SRHR (UNFPA, 2021). In a similar assessment of the National Adaptation Plans (NAPs), which outline a country's intended actions for adapting to climate change, it was discovered that nearly half of the reviewed NAPs did not address SRHR(NAP Global Network, 2021).

Even though health is an important element of NDCs, the framework gives limited attention to menstrual health. NDC contributions mainly focus on health related to air pollution and the co-benefits from climate change mitigation (WHO, 2020). SRHRis also significant in responding to climate change challenges. Securing SRHR can be transformational in building resilience in vulnerable communities prone to the effects of climate change (McMullen et al., 2021).

Gaps in the existing evidence

There was little recent literature focused on menstrual health and climate change that was publicly available which demonstrates that impact of climate change and resilience on the menstrual health needs of women, girls and people who menstruate is not fully understood. Several of the articles included in this review highlighted the impact of the gap in evidence-based knowledge on climate change on women, girls and people who menstruate living in rural areas in low-income countries. Khairzad et al. (2022) stressed in their study that even though evidence exists on the correlation between food shortage and menstruation cycle interruptions, more research is needed when bringing in climate change as a mediating factor.

Furthermore, future research needs to incorporate both quantitative and qualitative studies to analyse the effect climate change has on women, girls and people who menstruate.

Conclusion and recommendations

Findings from the rapid review emphasize the critical role of sustainable food security in ensuring healthy menstruation cycles for women, girls and people who menstruate. The impact of climate change, including droughts and water shortages, poses significant challenges to menstrual health and underscores the need for adequate resources and support. Recognizing SRHR as essential empowers women and contributes to the resilience and sustainability of communities. Further research is needed to explore the connections between climate change and menstrual health, providing valuable insights into potential consequences and correlations. To address the effects climate change has on women, girls and people who menstruate,additional action must be taken:

- Menstrual health needs to be mainstreamed into national and local policies, climate change preparedness plans, early response mechanisms and displacement settlements.
- Menstrual health needs to be embedded in building resilience to climate change, thereby fostering sustainability of menstrual health management among women, girls, and people who menstruate.
- Further research is needed on the effects of climate change on menstrual health.
- Health, education, and protection systems must be strengthened to cover the menstrual needs of women, girls and people who menstruate during climate-related disasters.
- Comprehensive sexuality education must address the impact of climate change on menstrual health and skills to improve adaptive capacity must be built.

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