

Reducing Vulnerability of Somali Women to the Global Climate Crisis: A Call to Action for Gender-Sensitive Adaptation and Mitigation Strategies

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Abstract

Women are disproportionately impacted by the effects of climate change, which presents a serious problem in Somalia. Somali women are particularly vulnerable to climate-related disasters, face discrimination and violence due to weak governance systems, limited resources, and unreliable peace-building initiatives. These necessitate urgent action to address the unprecedented climate change crisis. In this systematic review paper, the factors that increase Somali women's susceptibility to climate change are examined, resulting to the identification of gender-sensitive adaptation and mitigation measures for Somali Women. The study examined 47 pertinent sources published between 2015 and 2024 after searching academic databases and institutional repositories in accordance with PRISMA principles. The results indicated that the Somali women's vulnerability is exacerbated by institutional barriers, cultural constraints, limited access to resources, and environmental pressures. These issues lead to gender-based violence, forced relocation, and economic marginalization. Effective gender-sensitive adaptation initiatives in Somalia include increased women's access to climate finance and decision-making. Other measures include incorporating gender considerations into resource allocation, capacity-building initiatives, and strengthening regulatory frameworks. The study concludes that creating resilient communities in Somalia requires gender-responsive climate action. It recommends expanding women's access to climate funding and resources, incorporating gender into national climate policy, fortifying institutional frameworks to encourage women's participation, and improving capacity-building initiatives to cater to the unique requirements of women. It has implications for policymakers, development professionals, and researchers who are dedicated to advancing gender-equitable

adaptation techniques in Somalia.

Keywords

Gender-responsive Policies, Gender-Responsive Climate Adaptation, Climate Change, Women Empowerment and Environment Preservation, Somali Woman

1. Introduction

Climate change refers to the gradual increase in health hazards caused by variability in weather patterns (Helpdesk, 2021). It can also be described as the general increase in weather variations compared to the long-term weather conditions that existed initially (International Organization for Migration [IOM], 2021). In specific terms, climate change is explained by the impact felt as a result of greenhouse gas emissions resulting from fossil fuel, deforestation, industrialization, livestock production processes and fertilizer use (Helpdesk, 2021). Some of the notable impacts of climate change include temperature increases and bad calamities such as floods, extreme drought, storms, snow melting, sea level rise, wildfires, hurricanes and winds (Godfrey & Tunhuma, 2020). The International Organization for Migration [IOM], (2021) noted that climate change could have a negative impact on human mobility, economic growth, food security, and political stability. Climate change also aggravates fragile situations and may hinder reconciliation and peace-building efforts (IOM, 2021). Moreover, it has been reported that, if the global threat of climate crisis is not managed through strategic responses, it poses adverse impact on the life of marginalized groups hence affecting the vulnerable Somali women (Helpdesk, 2021).

Climate change is an ongoing global issue affecting all aspects of life, with some communities more vulnerable than others—Somali women being a prime example. Gender inequality, poverty, conflict, and environmental degradation worsen Somali women's exposure to climate impacts, as they often rely on rain-fed agriculture and must travel long distances for resources, heightening their poverty and vulnerability (Federal Government of Somalia, 2022; Helpdesk, 2021). Without effective climate adaptation strategies, Somali women continue to face displacement, gender-based violence, health hazards, and an increased dependence on humanitarian aid due to escalating droughts and conflict (UNHR & UNEP, 2023).

The Federal Government of Somalia recognizes these challenges, developing policies like the Somalia National Climate Change Policy (2020), Disaster Management Policy, and Environment Policy to build resilience. However, these policies remain in early stages of implementation and inadequately address women's specific needs, such as their experience with gender-based violence and forced migration (UNHR & UNEP, 2023; UNDP, 2023). Additionally, women face barriers like limited education, restricted access to information, and minimal involvement

in decision-making, which impede effective adaptation (Mohamed, 2021; Seidu et al., 2022).

Research indicates that climate change affects men and women differently due to their societal roles, with women particularly disadvantaged in adapting to environmental changes. This is intensified by their employment in informal sectors tied to natural resources, leaving them more exposed (UNDP, 2023). Addressing these disparities requires gender-sensitive strategies that empower Somali women through awareness, education, and inclusion in policy-making, ultimately reducing their vulnerability to climate crises.

Addressing environmental degradation and climate change is the responsibility of Somalia's Ministry of Environment and Climate Change, which has produced important policies like the Environment Policy, Disaster Management Policy, and the 2020 National Climate Change Policy. Additionally, climate adaptation has been incorporated into the National Development Plan (NDP-9) 2020-2024. The UNFCCC's Nationally Determined Contributions provide coordinating assistance for these measures. These frameworks, however, are still in the early phases of implementation and do not adequately address important social requirements, such as the empowerment of Somali women and gender-responsive climate adaptation.

Rising temperatures, decreased agricultural productivity, reliance on humanitarian aid, forced migration, and gender-based violence make Somali women more vulnerable. As a result, there is an urgent need for focused climate adaptation and mitigation strategies that put gender inclusivity and resilience-building first. The purpose of this study was to identify gender-sensitive adaptation and mitigation measures to lessen the vulnerability of Somali women to the global climate catastrophe by analyzing the elements that increase their susceptibility to it.

Research Questions

- 1) What factors particularly aggravate the vulnerability of Somali women to the global climate crisis?
- 2) What gender-sensitive adaptation and mitigation strategies can be considered for worsening the vulnerability of Somali women to the global climate crisis?

2. Methodology

2.1. Research Design

This study used a systematic literature review to investigate the factors that heighten Somali women's vulnerability to climate change. It aimed to identify factors that aggravate the vulnerability, and gender-sensitive adaptation and mitigation strategies that are sensitive to gender differences. The review process adhered to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines.

2.2. Search Strategy

A number of electronic databases were methodically explored to find pertinent

literature. African Journals Online (AJOL), Web of Science, Scopus, PubMed, Google Scholar, institutional repositories from major Somali universities, and databases of international institutions such as the World Bank, the African Development Bank, and UN agencies were among them. The search approach was based on a combination of keywords with Boolean operators. “Somalia” or “Somali” in conjunction with “women” or “gender” and phrases like “global warming,” “climate change,” or “climate crisis” were the main terminology utilized. Secondary concepts such as “vulnerability,” “adaptation,” “mitigation,” and “resilience” were added to focus the discussion. To focus on pertinent aspects of climate change, specific elements including “agriculture,” “water resources,” “displacement,” “conflict,” and “gender-based violence” were added.

2.3. Inclusion and Exclusion Criteria

The inclusion criteria entailed studies published between 2015 and 2024, written in English or Somali, and specifically focused on the impacts of climate change on Somali women. The papers that were accepted included peer-reviewed papers, official government reports, and publications from respectable international organizations. The selected studies had to address gender-specific climate issues in Somalia, including primary or secondary data on climate vulnerability and adaptation.

The studies published prior to 2015 were excluded from the review. Other studies excluded included those that focused exclusively on technical climate science without a gender perspective, did not specifically address the Somali context; were opinion-based or lacked empirical data, or failed to demonstrate methodological rigor or clear data sources.

2.4. Data Extraction and Analysis

Three steps were undertaken during the screening procedure. In the first instance, titles and abstracts were reviewed for relevance, followed by a full-text examination of studies that appeared eligible. Finally, a quality assessment was conducted using standardized evaluation tools. Specifically, from each selected study, the information was systematically gathered, including publication details (author, year, and publication type), research methodology, geographic focus within Somalia, main findings related to vulnerability factors, suggested adaptation strategies, and quality indicators or limitations. The quality of studies was evaluated using the Mixed Methods Appraisal Tool (MMAT) for empirical studies. Additionally, the AACODS checklist for grey literature and the CASP checklist for qualitative studies were used.

2.5. Synthesis of Findings and Analysis

A thematic synthesis approach was used to analyze the findings. This involved identifying recurring themes and patterns, categorizing factors contributing to vulnerability, synthesizing adaptation strategies, which helped to ultimately come

up with practical recommendations.

2.6. Ethical Considerations

This systematic review was conducted with full adherence to ethical research norms. In this paper, all sources were appropriately cited, while the selection and analysis were transparent. Diverse viewpoints were fairly represented, and cultural sensitivity was taken into account while interpreting the results. The retrieval and assessment of sources had several limitations including limited access to certain local Somali research archives, possible publishing bias favoring documented projects. Others included data gaps from conflict-affected areas, and language obstacles that might have resulted in the omission of non-English sources.

3. Results and Discussion

This being a systematic review paper, it provides results of the systematic review alongside discussion. The reviewed literature shows that the Somali women face a unique and multifaceted vulnerability to climate change, which are attributed to socio-economic, socio-cultural, environmental, and other gender-specific challenges. A discourse on the same is provided below.

3.1. Factors Exacerbating the Vulnerability of Somali Women to the Global Climate Crisis

3.1.1. Socio-Economic Factors

Somali women's susceptibility to climate change is significantly influenced by socioeconomic factors, including social roles, work experience, and resource availability (Lwanga-Ntale & Owino, 2020). Numerous Somali women labor in informal occupations, particularly in rain-dependent agriculture, which is severely impacted by natural disasters including floods and droughts (Hassan, 2023). Women's mobility and access to resources are restricted by poverty and the patriarchal social structure, which also limits their capacity to adjust to shifting environmental conditions. They thus experience prejudice, restricted access to opportunities, and frequent exclusion from positions involving decision-making (UNHR & UNEP, 2023; Whipkey & Abdelghani, 2022).

The difficulties faced by Somali women are further compounded by financial and educational obstacles. Cultural norms restrict women's access to school, particularly in rural areas, which results in lower literacy rates and fewer abilities to adapt or obtain formal job (Mohamed, 2021). Additionally, many may not have access to financial services, which hinders their capacity to recover from climate-related shocks or invest in resilient livelihoods (Seidu et al., 2022). Somali women's resilience to climate pressures is further weakened by poor nutrition and health, which are linked to their low socioeconomic level. Women's capacity to work, support their families, and deal with environmental disasters is impacted by limited access to healthcare and greater rates of malnutrition (UNHR & UNEP, 2023).

3.1.2. Social-Cultural Factors

Somali women's responsibilities, values, and decision-making authority are significantly influenced by social-cultural elements such as religious convictions, customs, and social norms (Hassan, 2023; United Nations Report, 2021). Cultural norms like hypermasculinity and patriarchy inhibit women's participation in community choices and climate action by preventing them from attending formal meetings and limiting their inheritance rights (Mayen, 2013). These conditions are made worse by the consequences of climate change, which increase the prevalence of early pregnancies, forced marriages, gender-based violence, and female genital mutilation (FGM), especially during protracted droughts (Lwanga-Ntale & Owino, 2020; United Nations Report, 2021).

In Somali society, women are heavily burdened by gender duties during climate-related catastrophes. Women experience physical and emotional strain as they are expected to manage family resources like food and water, especially in times of scarcity. As a result, they have limited opportunities to enhance their socioeconomic status or adapt to the effects of climate change (UN Women, 2022). By defending their exclusion from leadership positions or supporting behaviors detrimental to their well-being, religious beliefs can occasionally strengthen these roles, diminishing women's autonomy and decision-making ability (Lwanga-Ntale & Owino, 2020).

Additionally, social norms prioritize men in education, leadership, and resource access, limiting women's ability to engage in climate-related decisions (UN Women, 2022). Restricted educational opportunities result in lower literacy rates among women, making them more dependent on vulnerable forms of work like subsistence farming (UNDP, 2023). Limited healthcare access exacerbates these challenges, as poor health restricts their work capacity, especially during climate-induced food and water shortages (Hassan, 2023). Climate-related relocations often increase early marriages and adolescent pregnancies, impacting women's long-term health (UNHR & UNEP, 2023).

3.1.3. Environmental Factors

Gender, ethnicity, religion, class, and geography all influence how vulnerable women are to climate change in Africa, especially Somalia (UNDP, 2023). Due to their duties in domestic and agricultural work, which are exacerbated during climatic crises, women in rural and drought-stricken areas are particularly affected. Women are left to run households under increasing stress when men migrate to find employment during droughts (Godfrey & Tunhuma, 2020). Droughts and floods, among other climate disasters, cause resource scarcity, interrupt agricultural operations, and add to the labor of women as they fight to obtain firewood, food, and water. These responsibilities are made more difficult by environmental degradation, such as desertification and deforestation, which reduces fuel and arable land supplies, forces women to travel farther for necessities, and increases their risk exposure (Schalatek, 2022).

Climate change has a disproportionately negative impact on women's health,

particularly in places where access to healthcare is scarce (UNDP, 2023). Women are particularly susceptible to waterborne illnesses brought on by droughts and floods because of their duties in sanitation and water collecting (Godfrey & Tunhuma, 2020). Women suffer from malnutrition as a result of cultural norms that prioritize men and children during times of food scarcity, which exacerbates their health and reduces their ability to withstand the effects of climate change (UNDP, 2023). Climate disaster displacement creates additional difficulties because Somali women living in overcrowded camps are at risk of gender-based violence, have little access to reproductive health care, and frequently lose their traditional means of subsistence, which leads to long-term financial instability and aid dependency (Schalatek, 2022; United Nations Report, 2021).

3.1.4. Traditional Gender Roles

Societal norms and cultural practices place the burden of climate adaptation on Somali women, often limiting their agency and decision-making power. Traditionally, women in Somali society are responsible for homemaking, herding, farming, and childbearing (Hassan, 2023). Due to gender roles, they rely heavily on climate-sensitive livelihoods like farming and livestock rearing (Godfrey & Tunhuma, 2020). However, climate change-induced droughts and food insecurity have severely impacted these sectors, diminishing women's economic independence and increasing their vulnerability to discrimination, sexual exploitation, and gender-based violence (UNHR & UNEP, 2023). Climate change has, therefore, been linked to higher rates of exploitation, inequality, and violence against women. Moreover, while men and women experience climate impacts differently, women's unique contributions to climate action often go unrecognized (UNDP, 2023). This study argues that empowering women, enacting gender-responsive policies, and raising awareness are crucial steps to amplify their role in climate adaptation and mitigation efforts.

3.1.5. Limited Access to Resources

Climate-related disasters such as droughts and floods worsen Somali women's limited access to essential resources like clean water, food, healthcare, and education (Kidane, 2024). Compared to men, women face considerable inequalities due to constrained roles, limited resource access, and cultural norms that confine their agency and responsibilities (UN Women, 2022). In rural areas, where women are primary providers of fuel, water, and food, resource scarcity due to climate change makes their duties harder and riskier (UNHR & UNEP, 2023). Cultural expectations restrict women's control over economic and natural resources, further limiting their capacity to adapt to climate challenges (Antwi-Agyei et al., 2021). As a result, women are vulnerable to early marriages, forced migration, and health issues, including increased risks of maternal mortality, malnutrition, and complications during pregnancy (Hassan, 2023). These intersecting issues of resource scarcity, healthcare inadequacies, and cultural constraints compound Somali women's vulnerability to climate change and perpetuate systemic inequalities that

hinder their resilience and adaptation.

3.1.6. Displacement and Conflicts

Prolonged droughts and high temperatures are examples of climate-related calamities that interrupt crop growing in Somalia and push populations toward pastoralism, resulting in recurrent migrations and conflicts over arable land (UN Women, 2022; Kidane, 2024). Conflicts between farmers and pastoralists frequently become violent, displacing people and creating a great deal of insecurity, especially for women (UN Women, 2022; Antwi-Agyei et al., 2021). Displaced women are exposed to violence, exploitation, and abuse, including gender-based violence, when men join the military during these conflicts (UNHR & UNEP, 2023). Somali women are disproportionately vulnerable to violence and marginalization due to the combined stresses of resource scarcity, conflict, and climate change, which makes their fight in an uncertain environment much more difficult (Hassan, 2023).

3.1.7. Gender-sensitive adaptation and mitigation strategies

Gender-sensitive strategies are crucial for successful climate action in Somalia as the effects of climate change worsen. Gender concerns must be incorporated into climate policy, capacity building, and decision-making processes since women are frequently the ones most impacted by climate-related issues (UN Women, 2022). This strategy emphasizes sustainable development in addition to equity.

3.1.8. Aligning Policy Frameworks on Gender and Climate Change with Regional and International Normative Standards

Somalia's policy frameworks must conform to regional and international standards in order to guarantee a thorough approach to gender and climate change. The Somali Federal Government ought to accept and put into effect national and international laws that support gender equality, human rights, safety during migration, and climate change adaptation. The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), which prioritizes gender equality and women's empowerment in climate action, is one example of this (UNFCCC, 2015). Policy alignment can also be improved by implementing the African Union's Agenda 2063, which attempts to reduce gender inequality and advance sustainable development (African Union, 2020).

3.2. Gender-sensitive Adaptation and Mitigation Strategies

3.2.1. Capacity Building

Improving women's capability to adapt to climate change through specialized capacity-building programs is essential to creating resilient communities in Somalia. Women can effectively participate in adaptation activities and improve community preparation by learning about climate hazards and response tactics (Agarwal, 2018). In addition to creating required training programs centered on equity, resilience, and gender-responsive adaptation, the Ministry of Environment and Climate Change ought to give priority to climate education for women. Local

knowledge and resilience can be enhanced by including climate literacy into school curricula and holding seminars in the community (Arora-Jonsson, 2011). Women will also be better able to claim their rights to equal access to resources and land if legal advocacy information is made available. 2011). Employing community-based participatory approaches ensures that women are active agents in creating adaptation solutions, while incorporating traditional knowledge alongside modern climate science can help them develop effective strategies suited to their communities (Agarwal, 2018; Arora-Jonsson, 2011).

3.2.2. Climate Financing and Humanitarian Funding Accountability Mechanisms

Gender-responsive climate finance is critical to ensuring that Somali women benefit from efforts to mitigate and adapt to climate change. This entails integrating particular safeguards for vulnerable and marginalized populations into financial procedures. By working with NGOs, funding trusts, faith-based groups, and other humanitarian agencies, the Somali government must create gender-sensitive financial structures, come up with strategies for mobilizing resources, and distribute cash to women and girls (Dankelman, 2010). Women will be able to invest in sustainable livelihoods if grants, microloans, and other financial resources are made available to them. In order to ensure equitable and effective expenditure, women's organizations should be included in oversight positions and accountability and transparency systems should be put in place to track the distribution and effects of climate funding (Elson, 2020).

3.2.3. Empowering Women with Tools and Resources

Giving Somali women access to markets, technology, information, and resources is essential to their agricultural empowerment. Women farmers play a vital role in generating income and ensuring food security for their households, so agricultural extension services must be customized to meet their unique needs. Access to market data, weather forecasts, and best agricultural practices can all be improved by using mobile technology (Doss, 2018). Supporting women's networks and cooperatives can also make it easier for them to acquire resources and engage in collective bargaining, which will improve agricultural marketing and production results. Enhancing women's access to agricultural technologies and information also requires ongoing technical assistance and the use of digital platforms (Khatun, 2019).

3.2.4. Invest in Gender-Inclusive Climate-Smart Agriculture

To combat food poverty and advance sustainable lives in Somalia, investments in inclusive climate-smart agriculture are essential (Agarwal, 2018). Women must have access to climate-resilient crops, fertilizers, and irrigation systems since they are the major producers of food (Doss, 2018). In order to improve food security in the face of climate change, the Somali government should provide resources, infrastructure, and training to empower women (Khatun, 2019). Furthermore, it is crucial to create thorough legal frameworks to safeguard women's rights to land

tenure (Quisumbing & Meinzen-Dick, 2018). Women's access to land and their power to decide how it is used must be given top priority in agricultural plans (UN Women, 2022). According to research, women's access to resources and land, food security, and higher agricultural output are all strongly correlated (Quisumbing & Meinzen-Dick, 2018).

3.2.5. Advocating for Gender-Responsive Policies

For fair efforts to prevent and adapt to climate change in Somalia, gender-responsive policies must be promoted (Rao et al., 2017). Given Somali women's particular susceptibilities to the effects of climate change, these programs ought to especially address their needs. To avoid making gender disparity worse, officials should perform gender impact assessments while creating new rules (Rao et al., 2017). To guarantee that these policies adequately address women's issues and promote sustainable development, women's organizations and civil society must also vigorously support them and supervise their execution.

3.2.6. Strengthening Climate Resilience

To help people in Somalia become more resilient to climate change, targeted investments in early warning systems, infrastructure, and sustainable farming practices are crucial (Gaillard et al., 2019). Given that the effects of climate change on men and women are known to differ, gender-sensitive initiatives are essential. For example, because they are more likely to depend on natural resources for their livelihoods, women are especially vulnerable to climate-related disasters (Gaillard et al., 2019). Investments in sustainable farming practices, early warning systems, and infrastructure can increase the resilience of Somali communities and mitigate the effects of climate-related disasters. Programs that improve women's decision-making, training, and resource accessibility in relation to climate adaptation should therefore be included in resilience-building initiatives. Including gender viewpoints in disaster risk reduction plans can also guarantee that women are better equipped to handle and recover from climatic shocks (Gaillard et al., 2019).

3.2.7. Enhancing Climate Education and Awareness

Building resilient communities requires raising awareness and educating people about climate change. Raising community participation, engagement, and advocacy for sustainable solutions can be facilitated by raising an understanding of climate change and its effects on Somali women (Moser, 2018). If knowledge is made more freely accessible to female farmers through a women-focused extension approach, they can learn the skills they need to grow more food and increase their market access (Moser, 2018). To ensure that women have equal access to information and educational opportunities, educational programs should be inclusive (Moser, 2018). These initiatives should address the unique challenges women face in adapting to climate change and provide them with the skills and knowledge needed to develop sustainable solutions, according to Moser (2018). Somalia can increase women's leadership and participation in climate adaptation initiatives by supporting gender-sensitive methods to climate education (Moser,

2018). This will ultimately lead to more lasting and effective results (Moser, 2018).

3.3. Inclusive Participation in Decision-Making

Promoting gender equality and successfully addressing climate change depend on women's inclusive participation in decision-making. Women's organizations, feminist movements, and female human rights advocates must have their public space protected so that their voices may be heard (MacGregor, 2019). More inclusive and fair policies that benefit the entire community result from women's participation in decision-making bodies, whether they be local organizations or international forums. Initiatives should concentrate on giving women the resources and encouragement they need to actively participate in climate governance in order to strengthen their leadership (MacGregor, 2019). Furthermore, highlighting women's contributions in progress reports on a regular basis can show the worth of their involvement and inspire more involvement.

Promoting Somali Women Preparedness and Contingency Planning

Somali women must participate in emergency planning and preparation in order to successfully lessen the effects of climate-related disasters. Women are better equipped to respond to climate emergencies when they are given access to early warning systems and are included in the creation of disaster response plans (Enarson & Chakrabarti, 2009). Making women's involvement in disaster preparedness a priority will contribute to the development of more resilient Somalian communities that are better able to handle the problems posed by climate change.

4. Conclusion

The study emphasizes how social, cultural, environmental, and gender-specific factors interact to make Somali women vulnerable to climate change. The Somali government has made an effort to develop policies for climate adaptation and mitigation. However, these policies fall short in empowering women and meeting gender-specific needs. Systemic barriers, such as limited access to resources and underrepresentation in decision-making, exacerbate their challenges. The report promotes gender-responsive climate adaptation techniques, sponsors gender-inclusive agriculture, and improves climate education, in addition to bolstering gender-responsive financial institutions. It also emphasizes the need for a comprehensive, multi-stakeholder approach involving the government, local communities, and international organizations. A more resilient and sustainable future depends on mitigation strategies like investing in climate-smart agriculture, encouraging gender-responsive policies, improving women's readiness, fostering inclusive involvement in decision-making, and increasing awareness through training and education.

5. Recommendations

The Somali Government should prioritize gender-responsive climate policies

within the national development frameworks to ensure women's participation in decision-making. International organizations assisting Somalia should provide financial and technical support to help the Somali women better adapt and lessen the adverse effects of climate change. The Somali Federal Government and its federal member states (FMSs) should design and operationalize realistic, gender-responsive, scalable climate adaptation programs, particularly in rural areas where climate change consistently disrupts livelihoods and destroys lives. Additionally, the Somali Federal Government, supported by its devolved units, must cooperate with international organizations and regional NGOs to promote gender-responsive policies that comply with international frameworks such as the Paris Agreement, CEDAW *et al.* At the end of the endeavor, the Somali Government must develop a data-driven, gender-inclusive, and comprehensive disaster preparedness plan. This requires close collaboration and effective coordination with SoDMA (Somali Disaster Management Agency), Somalia's meteorological experts, humanitarian organizations, and agencies focused on disaster planning and mitigation, including the United Nations and IGAD (Intergovernmental Authority on Development).

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- African Union (2020). *A New Decade of Women's Financial and Economic Inclusion: Why Scaling up Actions Is Inevitable*.
<https://au.int/en/pressreleases/20200615/new-decade-womens-financial-and-economic-inclusion-why-scaling-actions>
- Agarwal, B. (2018). Capacity Building and Empowerment of Women in Climate Adaptation: A Key to Resilient Communities. *Environmental Research and Sustainability*, 12, 214-230.
- Antwi-Agyei, P., Dougill, A. J., Agyekum, T. P., & Stringer, L. C. (2021). Adaptation Opportunities and Maladaptive Outcomes in Climate Vulnerability Hotspots of Northern Ghana. *Environmental Development*, 39, Article 100653.
<https://doi.org/10.1016/j.envdev.2021.100653>
- Arora-Jonsson, S. (2011). Virtue and Vulnerability: Discourses on Women, Gender and Climate Change. *Global Environmental Change*, 21, 744-751.
<https://doi.org/10.1016/j.gloenvcha.2011.01.005>
- Dankelman, I. (2010). *Gender and Climate Change: An Introduction*. Routledge.
- Doss, C. R. (2018). Women and Agricultural Productivity: Reframing the Issues. *Development Policy Review*, 36, 35-50. <https://doi.org/10.1111/dpr.12243>
- Elson, D. (2020). Gender-Responsive Budgeting and Its Impact on Climate Adaptation Programs. *Journal of Gender and Public Policy*, 15, 45-60.
- Enarson, E., & Chakrabarti, P. G. D. (2009). *Women, Gender, and Disaster: Global Issues and Initiatives*. Sage Publications.
- Federal Government of Somalia (2022). *Somalia's First Adaptation Communication to the United Nations Framework Convention on Climate Change*. Ministry of Environment

- and Climate Change. Mogadishu, Somalia.
<https://unfccc.int/sites/default/files/ACR/202307/Somalia%20Adaptation%20Communication.pdf>
- Gaillard, J. C., Gorman-Murray, A., & Fordham, M. (2019). *Sexual and Gender Minorities in Disaster. Gender, Place & Culture*, 26, 1-19.
<https://doi.org/10.1080/0966369X.2018.1555148>
- Godfrey, S., & Tunhuma, F. A. (2020). *The Climate Crisis: Climate Change Impacts, Trends and Vulnerabilities of Children in Sub Sahara Africa*. United Nations Children's Fund Eastern and Southern Africa Regional Office.
<https://www.unicef.org/esa/media/7061/file/UNICEF-The-Climate-Crisis-2020.pdf>
- Hassan, A. (2023). *Somalia's Women and Girls Are Victims of Climate Change*.
<https://inkstickmedia.com/somalias-women-and-girls-are-victims-of-climate-change/>
- Helpdesk, G. A. (2021). Climate Change and Gender Based Violence: What are the Links? *Gender-Based Violence Area of Responsibility (GBV AoR) Helpdesk*, 13, 2021-2032.
<https://gbvaor.net/sites/default/files/2021-03/gbv-aor-helpdesk-climate-change-gbv-19032021.pdf>
- International Organization for Migration (2021). *Study on Environmental Migration in Climate Change Policy in Somalia*.
https://environmentalmigration.iom.int/sites/g/files/tmzbd1411/files/documents/20234/Somalia_Policy%20review_Environmental%20Migration%20in%20Climate%20Change%20Policy%20in%20Somalia.pdf
- Khatun, F. (2019). Women in Agriculture: Empowerment through Access to Markets and Technology. *Journal of Agricultural Development*, 8, 125-138.
- Kidane, R. (2024). A Call for Increased Investment in Climate Change. In *The Untold Stories of African Agriculture: Lessons from Ethiopia* (pp. 289-304). CABI.
<https://www.cabidigitallibrary.org/doi/abs/10.1079/9781800626386.0020>
- Lwanga-Ntale, C., & Owino, B. O. (2020). Understanding Vulnerability and Resilience in Somalia. *Jambá Journal of Disaster Risk Studies*, 12, a856.
<https://doi.org/10.4102/jamba.v12i1.856>
- MacGregor, S. (2019). *Gender and Climate Change: From Impacts to Discourses*. Routledge.
- Mayen, A. A. (2013). *Women in Peace Making Processes in South Sudan*. Sudd Institute.
<https://www.jstor.org/stable/pdf/resrep11056.pdf>
- Mohamed, A. A. (2021). Vulnerability and Impact of the Climate Change Assessment on the Pastoralist Community in South Central Somalia Based on Gender and Level of Education. *International Journal of Management Science and Engineering Research*, 10, 115-131.
https://www.researchgate.net/publication/348302479_Vulnerability_and_impact_of_the_climate_change_assessment_on_the_pastoralist_community_in_south_central_Somalia_based_on_gender_and_level_of_education
- Moser, C. O. N. (2018). *Gender Planning and Development: Theory, Practice, and Training*. Routledge.
- Quisumbing, A. R., & Meinzen-Dick, R. (2018). Women's Land Rights as a Pathway to Poverty Reduction: Framework and Review of Available Evidence. *Agricultural Systems*, 172, 72-82. <https://doi.org/10.1016/j.agsy.2017.10.009>
- Rao, N., Lawson, E. T., & Verma, R. (2017). *Gender, Climate Change, and Community-Based Adaptation: Perspectives from the Global South*. Routledge.
- Schalatek, L. (2022). *Gender and Climate Finance: Progress and Challenges in the Climate*

Funds. Heinrich Böll Stiftung North America.

<https://us.boell.org/en/2022/02/15/gender-and-climate-finance-progress-and-challenges>

Seidu, A., Ahinkorah, B. O., Armah-Ansah, E. K., Dadzie, L. K., Aboagye, R. G., Ameyaw, E. K. et al. (2022). Women's Household Decision-Making Power and Contraceptive Use in Mali. *Reproductive Health*, 19, 232-240. <https://doi.org/10.1186/s12978-022-01534-3>

Somalia National Climate Change Policy (2020). *The Federal Republic of Somalia Ministry of Environment and Climate Change*.

<https://moecc.gov.so/wp-content/uploads/2024/10/Somalia-National-Climate-Change-Policy-EN.pdf>

UN Women (2022). *Gender, Climate and Conflict Analysis in Somalia and Assessment of Opportunities for Climate Agriculture and Livelihood Opportunities for Crisis-Affected and At-Risk Women in Somalia*.

<https://africa.unwomen.org/sites/default/files/2022-04/Gender%2C%20Climate%20and%20Conflict%20Analysis%20in%20Somalia%20%20%28WEB%29.pdf>

UNHR, & UNEP. (2023). *Climate Change and Women's Rights in Somalia*. United Nations Human Rights Office of the High Commissioner & United Nations Environment Programme.

<https://www.ohchr.org/en/publications/reports/climate-change-and-womens-rights-somalia>

United Nations Development Programme (2023). *Gender-Responsive Climate Change Actions in Africa*.

<https://www.undp.org/africa/publications/gender-responsive-climate-change-actions-africa>

United Nations Framework Convention on Climate Change (UNFCCC). (2015). *The Paris Agreement*.

<https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

United Nations Report (2021). *Gender-Based Violence in Somalia: Trends and Responses*.

United Nations. <https://www.un.org/publications/gender-based-violence-somalia-2021>

Whipkey, K., & Abdelghani, N. (2022). *Gender-Based Violence in Somalia: A Humanitarian Crisis*. *Journal of Humanitarian Assistance*, 34, 56-72.