

Relation between climate change and gender: The case of Africa İklim değişikliği ve toplumsal cinsiyet arasındaki ilişki: Afrika örneği

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ABSTRACT: This study examines how climate change disproportionately affects women, focusing on the African region, where economic and gender inequalities are most visible. The research aims to explore the reasons behind why disadvantaged groups, particularly women, are more affected by climate change. Using a news narrative analysis method, the study considers news texts as primary sources that reflect social perceptions and facts. This method helps analyse how climate change and gender inequality are portrayed in both local and international media. The research concentrates on countries around the Sahara Desert, known as Sahel Region. These countries face severe impacts from climate change, including drought, floods, soil poisoning, rising temperatures, and desertification, which affect the agriculture and livestock sectors where women are predominantly employed. As a result, women experience compounded effects of gender and economic inequalities. The study is divided into four parts: concepts, methodology, findings and discussion. It uses a feminist political ecology approach to understand how climate change intersects with gender, race, and class dynamics. The findings reveal that women, who already face global inequality, are further burdened by climate change in the African context. The study suggests that Turkish academia should conduct more research on climate change and gender inequality in Africa and recommends practical solutions such as afforestation projects to combat desertification in the region.

Keywords: Climate change, Gender inequality, Ecological crisis, Africa

ÖZ: Bu çalışma, iklim değişikliğinin kadınları orantısız bir şekilde nasıl etkilediğini incelemekte ve ekonomik ve cinsiyet eşitsizliklerinin en belirgin olduğu Afrika bölgesine odaklanmaktadır. Araştırma, dezavantajlı grupların, özellikle kadınların iklim değişikliğinden neden daha fazla etkilendiğinin nedenlerini keşfetmeyi amaçlamaktadır. Haber anlatısı analiz yöntemini kullanan çalışma, haber metinlerini toplumsal algıları ve gerçekleri yansıtan birincil kaynaklar olarak ele almaktadır. Bu yöntem, iklim değişikliğinin ve cinsiyet eşitsizliğinin hem yerel hem de uluslararası medyada nasıl tasvir edildiğini analiz etmeye yardımcı olmaktadır. Araştırma, Cezayir, Mısır, Libya, Fas, Tunus, Çad, Mali, Nijer ve Sudan gibi Sahra Çölü çevresindeki ülkelere odaklanmaktadır. Bu ülkeler, kuraklık, seller, toprak zehirlenmesi, artan sıcaklıklar ve çölleşme gibi iklim değişikliğinden ciddi etkilerle karşı karşıya kalmakta ve bu da kadınların ağırlıklı olarak istihdam edildiği tarım ve hayvancılık sektörlerini etkilemektedir. Sonuç olarak, kadınlar cinsiyet ve ekonomik eşitsizliklerin bileşik etkilerini deneyimlemektedir. Çalışma dört bölüme ayrılmıştır: kavramlar, metodoloji, bulgular ve tartışma. İklim değişikliğinin cinsiyet, ırk ve sınıf dinamikleriyle nasıl kesiştiğini anlamak için feminist bir politik ekoloji yaklaşımı kullanmaktadır. Bulgular, küresel eşitsizlikle zaten karşı karşıya olan kadınların Afrika bağlamında iklim değişikliğinden daha fazla etkilendiğini ortaya koymaktadır. Çalışma, Türk akademisinin Afrika'daki iklim değişikliği ve cinsiyet eşitsizliği hakkında daha fazla araştırma yapması gerektiğini ve bölgedeki çölleşmeyle mücadele için ağaçlandırma projeleri gibi pratik çözümler önermektedir.

Anahtar Kelimeler: İklim değişikliği, Cinsiyet eşitsizliği, Ekolojik kriz, Afrika

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GENİŞLETİLMİŞ ÖZET

Literatür taraması

İklim değişikliği, günümüzde toplumları tehdit eden en önemli çevresel zorluklardan biri olarak kabul edilmektedir. Aşırı hava olayları, artan deniz seviyeleri, değişen iklim desenleri ve diğer çevresel dönüşümler insan yaşamını her yönüyle etkilemektedir. Ancak, bu etkiler toplumun tüm kesimlerine eşit şekilde dağılmamaktadır. Çeşitli çalışmalar, iklim değişikliğinin kadınlar üzerinde daha orantısız bir etkiye sahip olduğunu göstermektedir (Clayton, 2020). Bu durum, özellikle gelişmekte olan ülkelerdeki toplumsal cinsiyet eşitsizliğiyle birleşerek, kadınların iklim değişikliği etkilerine daha açık hale gelmesine neden olmaktadır. Kadınların bu çevresel zorluklar karşısında daha savunmasız olması, toplumsal cinsiyet eşitsizliğinin iklim değişikliğine karşı korumasız kalmaya yol açtığını ortaya koymaktadır (Caney, 2015). Feminist politik ekoloji yaklaşımı, toplumsal cinsiyet, ırk ve sınıf gibi sosyal dinamiklerin ekolojik meselelerle nasıl iç içe geçtiğini inceleyerek bu olgunun arkasındaki yapısal nedenleri açıklamaktadır (Sundberg, 2016). Bu yaklaşım, doğa ve gündelik materyal pratiklerle şekillenen toplumsal kimliklerin iklim değişikliği ile nasıl etkileşimde bulunduğunu vurgulamaktadır. Afrika, bu dinamiklerin belirgin bir şekilde gözlemlendiği bir bölge olarak öne çıkmakta ve iklim değişikliği etkilerinin toplumsal cinsiyet eşitsizliği ile nasıl birleşerek kadınlar üzerinde ağır bir yük oluşturduğunu göstermektedir.

Yöntem

Bu çalışmada, iklim değişikliği ve toplumsal cinsiyet eşitsizliğinin medya aracılığıyla nasıl temsil edildiğini anlamak amacıyla haber anlatısı analizi yöntemi kullanılmıştır. Bu yöntem, medya metinlerini toplumsal algıların ve sosyal gerçeklerin yansıtıldığı birincil kaynaklar olarak ele almaktadır. Özellikle çevrimiçi medya kuruluşları üzerinden yapılan bu analiz, iklim değişikliği ile toplumsal cinsiyet arasındaki ilişkinin hem yerel hem de uluslararası bağlamda nasıl aktarıldığını değerlendirmek için uygun bir araç olarak tercih edilmiştir. Çalışmada, Sahel Bölgesi ile ilgili haber metinleri, hükümet politika belgeleri ve raporlar incelenmiştir. Bu haber metinleri, "iklim değişikliği", "cinsiyet" ve "Afrika" gibi anahtar kelimeler kullanılarak seçilmiştir. Bu ülkeler, kuraklık, çölleşme, su kıtlığı ve aşırı sıcaklıklar gibi iklim değişikliğinin en yoğun yaşandığı yerler olup, çalışmanın amacına uygun bir çerçeve sunmaktadır.

Bulgular ve tartışma

Afrika bağlamında iklim değişikliği ve toplumsal cinsiyet eşitsizliğinin kesiştiği noktada elde edilen önemli bulgular, kadınların iklim değişikliğinden orantısız bir şekilde nasıl etkilendiğini göstermektedir. İlk olarak, tarım ve hayvancılık gibi ekonominin temel sektörlerinde kadınların yoğun olarak çalıştığı ve medya içeriklerini kapsayan bu çalışma bu sektörlerin iklim değişikliğinden doğrudan etkilendiği sonucuna işaret etmektedir. Azalan yağışlar, düzensiz hava koşulları ve uzun süreli kuraklık gibi değişiklikler, tarımsal üretimde düşüşe neden olmakta ve bu durum, çoğunlukla kadınların geçim kaynaklarını tehdit etmektedir. Bulgulara göre, iklim değişikliğinin kadınların sağlığı üzerinde de önemli riskler yarattığı ortaya konulmuştur. Afrika'nın pek çok bölgesinde kadınlar, ev kullanımı ve tarım için su toplamakla yükümlüdür ve su kaynaklarının azalması veya kirlenmesiyle bu görev giderek zorlaşmaktadır. Kadınlar toplumsal cinsiyet rollerini ve sorumluluklarını yerine getirmek daha fazla zaman ve çaba harcamak zorunda kalmaktadır. Ancak, bu bağlamda tarımsal mülkiyet haklarına erişimlerinin sınırlı olması, iklim değişikliğine uyum sağlama kapasitelerini ciddi şekilde kısıtlamaktadır. Çalışmanın bulguları, Afrika'da iklim değişikliğinin kadınların sağlık risklerini de artırdığını ortaya koymaktadır. Su kıtlığı, temiz suya erişimin azalması ve bu durumun tetiklediği su kaynaklı hastalıklar, kadınlar için sağlık sorunlarını beraberinde getirmektedir.

İklim değişikliği, kadınları ayrıca toplumsal cinsiyete dayalı şiddet riskiyle karşı karşıya bırakmaktadır; kuraklık ve sel gibi çevresel stres zamanlarında artan kıt kaynak rekabeti, özellikle savunmasız olan kadınlar açısından güvensiz durumlara yol açmaktadır. Çatışma bölgelerindeki kadınlar, cinsiyete dayalı şiddete karşı daha fazla savunmasız hale gelmekte ve geçici yaşam alanlarında güvenlik sorunları yaşamaktadır. Afrika'nın pek çok bölgesinde kadınların iklim değişikliğinin etkileriyle başa çıkarken ciddi engellerle karşılaştığı görülmektedir. Örneğin, toprak sahipliği gibi yasal hakları olmadan, kadınlar genellikle kaynak yönetimiyle ilgili karar süreçlerinden dışlanmaktadır. Bu dışlanma, geçim kaynakları

üzerindeki olumsuz etkileri azaltmaya yönelik stratejiler geliştirme yeteneklerini sınırlamakta, kadınları daha fazla ekonomik ve toplumsal baskı altına almaktadır. Son olarak, Sahel kuşağı olarak bilinen bölgede yaşayan kadınlar, topluluklarını iklim değişikliğine karşı daha dayanıklı hale getirme konusunda kilit roller üstlenmekte ve çevresel uyum süreçlerinde yaratıcı çözümler geliştirmektedir. Tarım, su yönetimi ve kaynak tasarrufu gibi alanlarda sürdürülebilir uygulamaları teşvik ederek, bu kadınlar çevresel değişikliklerin etkilerini hafifletmeye yönelik değerli katkılar sağlamaktadır. Ancak bu katkıların daha etkin hale gelmesi için kadınların ekonomik ve toplumsal katılımını artırmaya yönelik politikaların oluşturulması gerekmektedir.

Su kaynaklarına ulaşmak için daha uzun mesafeler kat etmek zorunda kalan kadınlar, fiziksel olarak zorlayıcı koşullarla yüzleşmektedir. Bu durum, özellikle aşırı sıcaklıklara maruz kalma gibi faktörlerle birleştiğinde, kadınların sağlık durumlarını olumsuz yönde etkilemektedir. Ayrıca, temiz suya erişimin azalması, su kaynaklı hastalıkların yayılmasına yol açmaktadır ve bu hastalıklar orantısız bir şekilde kadınları ve çocukları etkilemektedir. Sıtma, kolera gibi salgın hastalıklar, Afrika'nın birçok bölgesinde temiz su kıtlığının artmasıyla birlikte yayılmaktadır. Bu durum, kadınların sağlık risklerini artırmakla kalmayıp, aynı zamanda ailelerinin sağlığını koruma sorumluluğunu da kadınların üzerine yüklemektedir.

İklim değişikliği aynı zamanda kadınlar için güvenlik risklerini de artırmaktadır. Kuraklık veya sel gibi çevresel stres zamanlarında, kıt kaynaklar için rekabet çatışmalarına yol açabilmekte, bu tür durumlarda kadınlar en savunmasız gruplardan biri olarak öne çıkmaktadır. Kadınlar, çatışma bölgelerinde toplumsal cinsiyete dayalı şiddet riskine daha açık hale gelmekte ve güvenlik sorunları yaşamaktadır. Çeşitli çevresel felaketlerin ardından meydana gelen yerinden edilme, kadınların güvenlik açısından daha kırılgan olduğu geçici yaşam alanlarında güvenlik sorunlarıyla yüzleşmesine neden olmaktadır. Afrika'daki pek çok ülkede yer değiştirmeler sonucu kadınlar ve kız çocukları, cinsiyete dayalı şiddet riskine karşı daha fazla savunmasız kalmaktadır. Bu risk, aynı zamanda kadınların iklim değişikliğiyle başa çıkma kapasitesini zayıflatmakta ve onları ekonomik ve toplumsal baskı altına sokmaktadır.

Sonuç ve öneriler

Bu çalışma, iklim değişikliğinin toplumsal cinsiyet eşitsizliği ve ekonomik eşitsizliklerle birleştiğinde kadınları nasıl kırılgan hale getirdiğini gözler önüne sermektedir. Elde edilen bulgular, iklim değişikliğinin kadınları orantısız bir şekilde etkilediğini, bu etkilerin özellikle Afrika bağlamında ekonomik zorluklar ve toplumsal cinsiyet rolleri nedeniyle daha da derinleştiğini göstermektedir. Kadınların iklim değişikliği ile mücadelede önemli bir rol oynadığı görülmekte, ancak bu mücadelenin daha etkili olabilmesi için bölgesel ve uluslararası düzeyde destekleyici politikalar gerekmektedir. Ayrıca, bölgedeki çölleşmeyle mücadele için yeşil duvar ve ağaçlandırma projeleri gibi pratik çözümler önerilmektedir. Bu tür projeler, sadece çevresel sorunları hafifletmekle kalmaz aynı zamanda kadınların geçim kaynaklarının sürdürülebilirliğini sağlamak için de gerekli adımları temsil eder. İklim değişikliği, toplumsal cinsiyet eşitsizliği ve ekonomik adaletsizliklerin kesiştiği bu karmaşık yapı, daha fazla akademik çalışmayı ve çözüme yönelik girişimlerin önemini ortaya koymaktadır. Türkiye bağlamında da iklim değişikliğinin kadınlara etkisine dair daha fazla araştırma yapılması ve kadınların toplumsal ve ekonomik olarak güçlendirilmesini sağlayacak çözümler üretmesi önem taşımaktadır.

Introduction

Concepts such as climate change, global warming and ecological crisis constitute the agendas that have been much emphasized in recent years. Phenomena such as heat waves, hurricanes, floods, and droughts are evidence of climate change (Clayton, 2020: 74). Politicians, academics, and those interested in the subject participate in climate change discussions in every medium (Treen, Williams & O'Neill, 2020: 665). One of the prominent hypotheses in these discussions is that disadvantaged groups on the base of gender, class, ethnicity are most affected by climate change and other disasters such as Katrina Hurricane (Caney, 2015: 384). So, -if this is really the case- what are the reasons for this situation? This study aims to answer this question by examining the effects of climate change on women.

The region chosen for analysis is the Sahel Region where inequalities in economy and gender are most visible. The news narrative analysis method examines the narrative in news texts published on (online) media outlets with qualitative and quantitative methods (Pasquinelli & Trunfio, 2020: 1806). News narrative analysis assumes that news texts contain social and historical data (Sudhahar, Franzosi & Cristianini, 2011: 63). Based on this context, news texts, government publications and reports about the climate change will be considered and interpreted as primary sources reflecting social facts in this study. The news text, which can be considered as a reflection of society's perception of a subject, becomes a tool for understanding how the relevant subject is reproduced in each context.

While the study investigates how women are affected by climate change, another question to be answered is how women react to this change. At this point, women are seen as active perpetrators, not passive objects. In this regard, the feminist political ecology approach is used in the study. Feminist political ecology is a subfield that incorporates feminist theory and goals into political ecology. Feminist political ecology is an analytical framework built on the argument that ecological issues should be understood and analysed in relation to political economy. Feminist political ecologists argue that gender, in relation to class, race, and other related axes of power, shapes access to and control of natural resources. This approach also shows how social identities are formed in relation to and through nature and everyday material practices. Feminist political ecology builds bridges between traditionally kept separate fields (academia, political institutions, activist movements) and thus combines theory with practice (Sundberg, 2016: 1).

Methodology

In this study, narrative analysis method was employed to understand how climate change and gender inequality are represented in the media. This method treats media texts as primary sources reflecting social perceptions and realities. The analysis focused on online media organizations, as these platforms play a significant role in shaping and disseminating public discourse both locally and internationally. News texts, government publications, and reports about Sahel Region were analysed. These countries were chosen because they are among the regions most affected by climate change phenomena such as drought, desertification, water scarcity, and extreme temperatures. This geographical context provides a relevant framework for investigating the intersection of climate change and gender inequality.

The texts were selected using the keywords "climate change," "gender," "Sahel" and "Africa." The selection process involved a systematic Internet based search across international and regional platforms to ensure a diversity of perspectives. Sources included government publications, local news outlets, and international media, aiming to capture a wide range of narratives and framing styles. The analysis covered texts published between 2015 and 2024, a period marked by increasing global awareness of climate change and its social impacts. In particular, the reactions to the US's withdrawal from the Paris Climate Agreement can be seen as evidence of this awareness (Harvey, 2025). This time enabled the examination of trends and patterns in media coverage over time.

The selection of the texts was guided by their relevance to the study's objectives and the texts were found by an Internet based search. Specifically, the articles had to make explicit references to both climate change and gender, with a focus on regions or communities significantly affected by climate-induced challenges. These texts were further examined for thematic patterns, narrative framing, and their alignment with existing academic literature. By combining insights from academic literature with the

analysis of media narratives, this study aims to provide a nuanced understanding of how the intersection of climate change and gender inequality is represented and communicated to the Sahel Region public.

Concepts

Climate change, primarily driven by greenhouse gas emissions, is not merely an ecological issue but a profound social challenge that exacerbates existing inequalities (Fawzy, Osman, Doran, & Rooney, 2020: 2070). Gender, a socially constructed identity shaped by cultural, psychological, and systemic contexts, plays a pivotal role in understanding the differential impacts of climate change on populations (West & Zimmerman, 1987: 125). These impacts are not experienced equally, as structural inequities—rooted in socio-economic disparities, political marginalization, and cultural norms—disproportionately burden women, particularly in low-income and marginalized communities (MacGregor, 2010: 225). Research underscores that these vulnerabilities are not biologically determined but arise from complex interactions of social hierarchies, economic structures, and environmental crises (Dankelman, 2008: 10).

Climate change amplifies pre-existing social inequities, intensifying gendered disparities in resource access, economic stability, and adaptive capacity. Women, who constitute a significant portion of the agricultural workforce in low-income countries, are disproportionately affected by climate variability. For example, droughts, floods, and soil degradation undermine agricultural productivity, threatening food security and exacerbating poverty among rural women (UN Women, 2022). These challenges are further compounded by systemic barriers to land ownership, financial tools, and technological resources, which limit women's ability to adapt to environmental changes (Alston & Akhter, 2016: 1453-1455). Moreover, cultural norms often restrict women's access to education and decision-making roles, perpetuating cycles of vulnerability and exclusion (Angula, 2010: 17).

Disasters such as hurricanes and tsunamis reveal stark gender disparities in survival rates and recovery outcomes. Women are often primary caregivers, responsible for children and the elderly, which restricts their mobility and access to emergency resources during crises (MacGregor, 2010: 225). For instance, after the 2004 tsunami in Sri Lanka, the number of male survivors was significantly higher, as many women were unable to escape due to caregiving responsibilities (Halton, 2018). Such examples highlight how gender roles, rather than physical differences, shape vulnerability in the face of climate-induced disasters. The intersectional approach, rooted in feminist thought and critical race theory, provides a nuanced framework for understanding how overlapping social identities—such as gender, race, class, and ethnicity—interact to produce unique vulnerabilities and adaptive capacities. This perspective emphasizes that gender cannot be analysed in isolation from other social categories, as these identities collectively shape experiences of marginalization and resilience (Djoudi et al., 2016: 248-249). For example, adaptation strategies among Indian farmers illustrate how caste and geography intersect with gender to influence vulnerability to climate shocks. Similarly, conservation efforts in Mayan communities reveal how local power dynamics and interactions with NGOs shape environmental identities and decision-making processes (Gay-Antaki, 2020: 3).

Intersectionality also underscores the importance of recognizing agency within marginalized groups. Women are not merely passive victims of climate change but active agents of adaptation and resistance. Social movements, grassroots initiatives, and individual actions challenge traditional hierarchies and create pathways for transformative change. For instance, women-led cooperatives in Sub-Saharan Africa have successfully implemented sustainable agricultural practices that enhance community resilience (Abebe, 2014: 108-109). Such examples demonstrate the potential for empowering marginalized populations through inclusive and equitable adaptation strategies.

The impacts of climate change vary significantly across regions, with the most severe consequences often felt in areas already grappling with poverty, conflict, and weak governance. In Sub-Saharan Africa, prolonged droughts and declining rainfall have jeopardized food security and forced millions to migrate, placing disproportionate burdens on women left behind to manage agricultural and caregiving responsibilities (Abebe, 2014: 108-109). Similarly, in South Asia, climate-induced disasters such as floods and cyclones have exacerbated gender-based violence, as women face increased risks during displacement and in overcrowded shelters (Awiti, 2022: 4-5).

These regional disparities highlight the need for context-specific policies that address the unique challenges faced by vulnerable populations. For example, in Bangladesh, efforts to enhance women's access to weather information systems and financial tools have significantly improved their adaptive capacity and reduced disaster-related risks (UNFCCC, 2022). Such initiatives demonstrate the potential for targeted interventions to mitigate gendered vulnerabilities and promote resilience in the face of climate change. To address the intersection of climate change and gender inequality, comprehensive and inclusive policies are essential. These policies must prioritize equitable access to resources, enhance women's participation in decision-making processes, and dismantle systemic barriers that perpetuate inequality. A just transition to a low-carbon economy should emphasize fairness and support for adversely impacted communities, ensuring that climate policies do not inadvertently reinforce existing disparities (Markkanen & Anger-Kraavi, 2018: 829).

Findings and discussion: Women and ecological crisis on the African continent

In this part, the narrative analysis method outlined in the introduction is applied to news articles, government publications and reports sourced using keywords like “climate change,” “gender,” “Sahel,” and “Africa.” The study focuses on Sahel Region reflecting their intersection of environmental vulnerabilities and gender disparities. Through thematic analysis, recurring narratives and patterns are identified, revealing not only the structural impact of climate change on gender dynamics but also the narrative strategies used in media representations.

Structural vulnerabilities and gender dynamics

Since the 1970s, countries in the Sahel region have faced persistent drought conditions, interspersed with episodes of extreme rainfall beginning in the 1990s (France24, 2024). Sixty-four percent of the Sahel's population resides in rural areas, relying on rainfed agriculture as their primary source of livelihood (World Bank, 2024). For instance, in Burkina Faso, over two million individuals have been displaced due to water scarcity, with children comprising more than 58 percent of the displaced population (Dossou, 2024). In the Sahel region, escalating droughts and desertification have heightened competition for scarce resources, fuelling armed conflicts that have displaced entire communities (Izobo, 2024).

Amidst the most severe global food crisis in recent history, 850,000 people face starvation in seven countries, including Mali and Burkina Faso, which, along with Niger, form the central Sahel. A combination of armed conflict, entrenched poverty, and the compounded impacts of climate change on natural resources, agriculture, livelihoods, and food availability has forced girls into situations where they must confront unimaginable choices. In their desperation, families, and girls' resort to harmful coping mechanisms, such as family separation, where girls are left to care for younger siblings, early school dropouts, child marriages, sexual exploitation, and child labour. These practices further expose girls to heightened risks of sexual violence and rape. As of early 2023, approximately 2.78 million internally displaced people were recorded in the region, while in 2021, women and children accounted for 78% of refugees and asylum seekers throughout the broader Sahel. These statistics underscore the severe vulnerabilities faced by women and girls amidst the intersecting crises of food insecurity, conflict, and climate change in the region (Plan International, 2023).

In the Sahel region, food insecurity is a multifaceted and deeply gendered crisis, driven by a combination of climate change, socio-economic challenges, and entrenched structural vulnerabilities. Climate change exacerbates existing inequalities by intensifying resource scarcity and agricultural challenges, which disproportionately affect women and girls. Despite their critical role in agricultural production, processing, and distribution—contributing to 40% of production and 70% of distribution labour—women in the Sahel often lack access to land ownership and economic resources, which limits their ability to adapt to environmental and economic stressors. These structural barriers reinforce their vulnerability and diminish their agency in decision-making processes. The gendered dimensions of food insecurity are particularly evident in the increased risks faced by women and girls, such as reduced access to education, sexual and reproductive health (SRH) services, and heightened exposure to gender-based violence (GBV). The overlapping crises of drought, conflict, and food scarcity compel families

to adopt harmful coping strategies, including child marriage, early school dropout, and exploitative labour practices. For example, the necessity of traveling long distances to fetch water and firewood places women and girls at significant risk of sexual violence, harassment, and other forms of GBV. These threats are further compounded by displacement, with women and girls among the most vulnerable populations as they navigate unsafe environments. Food insecurity also has far-reaching implications for women's health, particularly during pregnancy and lactation. Poor nutrition and limited access to SRH services increase the likelihood of adverse health outcomes, including anaemia, low birth weights, and maternal mortality. Evidence suggests that during periods of resource scarcity, household priorities often shift to securing food, sidelining the dignity and hygiene needs of women and girls, further exacerbating gender inequalities. The Sahel's food insecurity crisis underscores the cyclical relationship between environmental degradation, socio-economic inequities, and gender dynamics. Climate-induced migration and displacement further destabilize communities, exposing women and girls to heightened vulnerabilities. Reports of increased child marriage, transactional sex, and conflict-related sexual violence reveal the compounded impacts of food insecurity and climate change on gendered experiences. These patterns emphasize the urgent need for gender-responsive interventions that address both the structural inequalities driving these vulnerabilities and the immediate humanitarian needs of affected populations (OCHA, 2023).

In the Sahel region, structural vulnerabilities and gender dynamics are profoundly shaping the human rights impacts of climate change and related migration. Rising temperatures—occurring 1.5 times faster than the global average—alongside erratic rainfall, shrinking wet seasons, and frequent flooding, have decimated livelihoods based on agriculture, pastoralism, and fishing. These climatic shifts exacerbate existing inequalities, particularly for women and girls, who are disproportionately affected by the socio-economic and environmental fallout. Women and girls, often central to household and community resilience, face heightened risks of displacement, gender-based violence (GBV), and diminished access to education and livelihoods. The gendered impacts of climate change are evident in the increased competition over resources, such as land and water, which has led to conflicts between nomadic herders and farmers in areas like the Lake Chad region. These clashes further marginalize women and girls, stripping them of opportunities and increasing their exposure to harm. For instance, child marriage has emerged as a harmful coping mechanism, while school dropouts among girls rise as families prioritize survival over education. These patterns of structural inequality not only undermine gender equality but also perpetuate cycles of poverty and vulnerability. The report highlights the multifaceted human rights challenges faced by communities in the Sahel, including threats to life, health, housing, food, and water. Women and girls are particularly vulnerable to the health impacts of climate change, such as increased exposure to waterborne diseases, malnutrition, and unsafe water consumption during droughts. These risks are further intensified for those forced to migrate without adequate resources, safety, or support systems, as they often encounter exploitation, abuse, and unsafe living conditions. Structural vulnerabilities intersect with migration dynamics, as some individuals are forced to move to escape environmental threats, while others lack the means to leave, remaining trapped in precarious situations. For women and girls, displacement amplifies risks of GBV, including sexual violence and trafficking. Despite these challenges, current migration pathways often fail to address the specific needs of displaced populations, reflecting a broader neglect of gendered dimensions in climate adaptation policies. The report underscores the urgent need for human rights-based, gender-responsive adaptation and mitigation strategies in the Sahel. These measures must prioritize empowering local communities, addressing structural inequalities, and enabling safe and regular migration as a climate adaptation strategy. Such approaches should centre the voices of women, girls, and marginalized groups, ensuring that climate policies foster equity and resilience rather than perpetuate injustice. Without immediate and coordinated action, the compounded impacts of climate change on gender dynamics and structural vulnerabilities will continue to undermine human rights and social stability in the Sahel (OHCHR, 2021).

As climate change brings more heat and erratic rainfall to the Sahel region of Burkina Faso, many people are struggling to find enough water to produce food. But the impacts of this water stress are different for farmers versus herders and men versus women. Elisabeth Ilboudo Nébié of Arizona State University surveyed about 160 households in the region about their experiences with water shortages. She says in farming families, the burden of gathering water often falls on women. So, like women in farming

families, male herders are especially vulnerable as climate change causes more water shortages in the region. For example, in Burkina Faso, water stress affects women's ability to access education and increases the risks faced by herders during seasonal migrations, illustrating the intersecting challenges of gender dynamics and structural vulnerabilities in the Sahel (YCC Team, 2024).

Thematic analysis of representation and policy narratives

Thematic analysis uncovers a complex interplay between localized narratives of resilience and overarching systemic inequalities, with media representations often highlighting both the progress and persistent barriers in addressing climate-induced gender disparities. Tunisia's political narratives prominently feature the impacts of sea-level rise and desertification, which are causing widespread disruption in critical sectors like agriculture and tourism. These environmental challenges exacerbate existing socio-economic inequalities, particularly for women in rural areas. While reports document the increasing feminization of agricultural labour—driven by male migration to urban centres—the structural barriers women face, such as the lack of land ownership rights and limited access to credit, remain overlooked in policy discussions. These omissions reflect the failure to integrate gender-sensitive approaches into broader climate adaptation strategies, leaving women disproportionately affected by both environmental degradation and economic precarity (Ministry of Foreign Affairs, 2018; Najjar & Baruah, 2021).

In Chad, news narratives centre on systemic challenges like recurrent flooding, entrenched gender norms, and weak political leadership. These issues compound the vulnerabilities of women, particularly in rural areas where access to essential resources remains limited. Initiatives like the AgriJob Booster Chad (AJB-C) project offer promising localized solutions, providing women with agricultural inputs, land, and training to improve year-round productivity (Bociaga, 2024). However, the effectiveness of such interventions is constrained by broader structural inequalities. Persistent issues like inadequate market access, water scarcity, and unresolved land conflicts reflect deeper systemic problems that local projects alone cannot resolve. For example, weak enforcement of the Land Rights Act continues to leave women dependent on male relatives or village leaders for land access, perpetuating their economic and social marginalization (Masson et al, 2019; Dekens, 2022).

Thematic analysis of the Sahel reveals the complex interplay between climate change, armed conflict, and structural inequalities, shaping the region's escalating humanitarian crisis. The compounded crises of climate-induced resource scarcity and long-standing political marginalization have deepened vulnerabilities, particularly in peripheral regions of Burkina Faso, Mali, and Niger. Historically neglected through colonial and post-colonial policies, these areas remain poor and socially excluded, leaving their populations ill-equipped to cope with rising climate shocks and conflict-driven displacement. Climate change in the Sahel has intensified resource competition, particularly over water and arable land, leading to heightened tensions between farmers and herders. With temperatures rising 1.5 times faster than the global average and desertification claiming over 100,000 hectares of land annually in Niger alone, livelihoods dependent on agriculture and pastoralism are increasingly threatened. These climate impacts disproportionately affect marginalized groups, especially women and girls, who endure the most of water collection, food insecurity, and displacement. In response to these pressures, humanitarian organizations have built infrastructure, such as water provision points, to reduce the burden on women and mitigate exposure to gender-based violence. The interconnected nature of climate change and conflict in the Sahel creates a self-reinforcing cycle. Economic marginalization fuels grievances against central governments, driving recruitment into non-state armed groups. Conflict, in turn, disrupts livelihoods, damages critical infrastructure, and displaces millions. As a result, humanitarian needs have surged by 172% since 2016, with over sixteen million people requiring assistance. Despite these challenges, international funding for climate adaptation in the Sahel remains significantly lower than in other regions, exacerbating the crisis. Policy narratives emphasize the urgent need to break this cycle through targeted interventions that address both immediate humanitarian needs and long-term structural vulnerabilities. These include improving access to climate adaptation resources, fostering economic opportunities to reduce conflict risks, and ensuring equitable resource distribution. Programs that integrate climate mitigation and economic development, while prioritizing the needs of women and marginalized communities, are essential to creating sustainable solutions for the Sahel's

compounded crises. This multifaceted approach highlights the importance of addressing systemic inequities to build resilience and foster stability in one of the world's most vulnerable regions (Rescue.org, 2023).

Intersectionality of climate change and social inequities

The intersection of climate, gender, and socio-economic disparities reveals the compounded challenges faced by marginalized groups, particularly women, in regions like Mali, Niger, and Sudan. In Mali, the dual impacts of flooding and pollution of the Niger River due to gold mining highlight the gendered dimensions of resource access and environmental degradation. Women, who are disproportionately reliant on water and land for agricultural activities, face barriers exacerbated by patriarchal norms, limited mobility, and systemic exclusion from decision-making processes. The competition over water rights between tribes such as the Songhai and Bambara exemplifies how resource conflicts further marginalize women. These disputes are often fuelled by weak governance structures that fail to mediate or resolve tensions, leaving women with reduced access to essential resources and heightened vulnerability to the impacts of climate change (Georgetown Security Studies, 2023; Pandey, 2023).

Similarly, in Niger, climate-induced monsoon variability and desertification intensify vulnerabilities for women engaged in agricultural work. The shifting rainfall patterns, which sometimes lead to prolonged droughts and at other times to devastating floods, disrupt traditional agricultural cycles, directly impacting women's livelihoods. Women often lack ownership of the land they farm and are frequently subjected to exploitative labour practices, including wage disparities and increased risks of gender-based violence. These systemic inequities are compounded by limited access to education, credit, and agricultural technologies, which could otherwise help women adapt to the changing climate. The narratives analysed emphasize how climate change not only deepens existing gender inequalities but also intersects with broader socio-economic disparities, placing women at the epicentre of these overlapping crises (Shahba, 2023).

Sudan presents a particularly stark example of how political instability, environmental degradation, and social inequities converge to exacerbate women's vulnerabilities. Reduced rainfall and advancing desertification—at a rate of 1.5 kilometres annually—have significantly diminished the availability of arable land, intensifying competition over resources and leading to widespread food insecurity (CARE International, 2023). Women, who are heavily dependent on land for sustenance and economic activity, face heightened risks of displacement and loss of livelihood. This vulnerability is further compounded by ongoing political instability and internal conflicts, which disrupt agricultural practices and force women to navigate the precarious realities of displacement camps. These camps often lack adequate resources, leaving women more exposed to violence, food insecurity, and health risks. Such overlapping crises underscore how intersecting structural and environmental inequities create a cycle of vulnerability for women, limiting their ability to adapt or recover from climate shocks (Troni, 2023).

The intersection of climate change and social inequities in the Sahel reveals a complex web of vulnerabilities exacerbated by environmental and socio-political dynamics. Women and girls, often confined by structural inequalities, face disproportionate risks as climate-induced stressors like erratic rainfall, droughts, and resource competition intensify. This region, already grappling with political instability and limited governance, experiences amplified tensions between marginalized groups such as herders and farmers, with climate change acting as a threat multiplier. Resource scarcity not only drives communal conflicts but also exacerbates gendered vulnerabilities, as women in the Sahel bear the dual burden of environmental challenges and systemic exclusion from decision-making platforms. To address these compounded risks, integrating gender-sensitive climate responses with equitable resource governance and inclusive peacebuilding mechanisms becomes imperative (NUPI & SIPRI, 2021).

Agency, resilience, and structural barriers

Amid systemic inequalities, Sahel Region's women's agency and resilience emerge as recurring and inspiring themes across the analysed narratives. Female scientists and innovators like Dr. Nzambi Matee, who developed eco-friendly paving blocks from plastic waste, and Dr. Francisca Okeke, whose research on solar activity aids in climate solutions, exemplify the transformative potential of women's

contributions to sustainable technologies and community resilience. These examples highlight how localized innovations spearheaded by women address climate challenges in ways that are both impactful and sustainable. However, the systemic underrepresentation of women in research and decision-making persists as a significant barrier. Institutional gaps, unequal funding opportunities, and sociocultural biases continue to restrict their participation, underscoring the need for gender-inclusive policies and targeted strategies to amplify women's contributions in these critical areas (Arhebamen-Yamasaki, 2024).

The Sahel region's climate crisis exposes the intersection of agency, resilience, and structural barriers faced by women, who are both critical agents of change and among the most affected by its impacts. Despite their significant contribution to agriculture—50% of the workforce—and their expertise in land and water management, women are frequently excluded from decision-making processes, with only 19% of parliamentary seats occupied by women across the region. Structural inequalities, such as limited access to education and overrepresentation in the informal sector, hinder women's ability to participate in green economies and adopt sustainable livelihood strategies. Initiatives like the African Development Bank and International Committee of the Red Cross's Economic Empowerment of Vulnerable Women in Sahel project demonstrate the transformative potential of targeted interventions. Through capacity building and financial support, the project has enabled women like Nènè Mahamane Maïga to achieve economic independence, acquire assets, and enhance their resilience to climate shocks. Addressing these structural barriers and amplifying women's agency in climate action is essential for fostering gender equity, sustainable development, and long-term resilience in the Sahel (AFDB, 2023).

Women and girls in the Sahel face numerous challenges stemming from entrenched structural barriers that limit their agency and resilience. These obstacles are particularly evident in economic and social dimensions. Economically, women disproportionately bear the burden of domestic labour, restricting their time and ability to engage in productive or formal employment. They often lack access to essential resources such as land and credit, which curtails their participation in green economies and limits entrepreneurial opportunities. Informal financial systems, like tontines (savings groups), demonstrate women's agency in circumventing systemic exclusion, yet these initiatives remain insufficient to address the broader structural inequities. Socially, gender disparities in education exacerbate inequalities, with significantly lower literacy and school attendance rates among girls, particularly at higher education levels. This educational gap diminishes women's competitiveness in the labour market and perpetuates cycles of poverty. Additionally, underrepresentation in political and decision-making roles, with women holding only 20% of ministerial positions in G5 Sahel countries, limits their ability to influence policies that address gender-specific concerns, including climate resilience and economic empowerment. Health-related structural vulnerabilities further deepen these inequalities. Limited access to sexual and reproductive healthcare, combined with prominent levels of gender-based violence (GBV), particularly in rural areas, places women at significant risk. Practices like female genital mutilation and early marriage, often exacerbated by crises, highlight the urgent need for targeted interventions. Programs that integrate gender considerations into development frameworks are crucial for addressing these structural barriers. For instance, regional initiatives like the G5 Sahel Women's Platform promote gender equality through advocacy and resource mobilization, but they face significant funding challenges. Additionally, cross-cutting approaches in development projects, such as those led by the African Development Bank, demonstrate the transformative potential of gender mainstreaming. Empowering women economically and socially not only fosters their resilience but also generates intergenerational benefits, reinforcing broader community and regional stability in the face of ongoing crises (Alliance Sahel, 2022).

A critical synthesis of media narratives

The media narratives analysed adopt metatextual strategies to underscore the multifaceted intersections of gender and climate crises. These strategies do more than recount events; they contextualize the broader systemic inequalities and sociocultural dynamics exacerbated by climate change. The Women's Climate Assembly (WCA) in Senegal, for example, highlights African women's activism by promoting community-based solutions that prioritize local needs over "false climate solutions" often imposed by

external actors. These solutions, criticized for failing to benefit local populations, are contrasted with grassroots initiatives driven by women's lived experiences and adaptive capacities (Mabo, 2024).

Similarly, narratives on gender-based violence linked to climate change expose the compounded vulnerabilities women endure, especially during displacement and resource scarcity. Climate-induced disasters like floods and droughts increase women's exposure to violence, whether during forced migration or within insecure living conditions. This framing extends beyond environmental impacts to reflect deeply embedded sociocultural issues. The analysis shows that these crises are not solely ecological but also rooted in structural gender inequalities that amplify the risks women face during environmental upheavals (Shetty, 2024).

The thematic synthesis of these narratives reveals a dual focus. On one hand, the narratives celebrate women's resilience, agency, and innovative capacity to address climate challenges. For instance, they highlight grassroots leadership in climate adaptation, as seen in projects like clean energy solutions and sustainable agricultural practices spearheaded by women. On the other hand, they critique systemic inequities, including exclusion from policymaking, insufficient financial and institutional support, and the perpetuation of patriarchal norms that restrict women's opportunities for leadership and resource access. This duality underscores the complexity of addressing climate change through a gendered lens. While women's efforts are pivotal, their potential remains constrained by the same systemic barriers that exacerbate climate vulnerabilities. The analysed media consistently calls for intersectional and multi-scalar approaches, integrating local knowledge with global strategies to bridge this gap. For example, media coverage from the WCA advocates for creating platforms like an African Women's Climate Justice Day and forming regional clusters to amplify women's voices in global climate negotiations. These efforts emphasize collaboration and justice, seeking reparations for past injustices and sovereignty over Africa's natural resources. At the same time, they challenge international actors to reframe their climate policies in ways that genuinely support the needs of marginalized communities (Mabo, 2024).

Conclusion and suggestions

Climate change remains a significant global challenge with uneven impacts across regions and populations. While this study highlights examples of how ecological crises intersect with gender inequalities, the findings underscore the complexity of these interactions and the need for further empirical research. Africa, often cited as a region highly vulnerable to climate change, provides a context to explore the interplay between environmental degradation and gender inequality. Women, particularly those engaged in agriculture and livestock activities, face compounded challenges due to systemic barriers such as limited access to resources, education, and decision-making platforms. These barriers restrict their capacity to adapt to climate-related challenges, yet the scope of this study does not permit comprehensive conclusions about the broader regional dynamics.

Although women's agency in climate adaptation is widely acknowledged in the literature, this study does not have sufficient data to fully explore their roles as transformative agents. The examples included in the analysis, such as women's contributions to sustainable agricultural practices and community-based water management, suggest potential avenues for further investigation into their adaptive strategies. However, systemic inequalities, such as restricted land ownership and exclusion from policy-making processes, remain significant obstacles, emphasizing the need for more focused research on these dynamics. The media's role in shaping public discourse on climate change and gender inequality is briefly addressed in this study. Preliminary observations suggest that media narratives often fail to engage deeply with structural inequities, instead emphasizing generalized accounts of vulnerability or resilience. This gap underscores the need for more nuanced discussions in academic and policy arenas to ensure a balanced representation that informs effective climate action.

This study recommends integrating gender-sensitive approaches into climate policies but recognizes that such suggestions remain conceptual and require further validation through targeted research. For example, initiatives like Algeria's green dam project are referenced as potential models, but additional data are necessary to assess their effectiveness in addressing gendered inequalities. Moreover, while

international frameworks like the Sustainable Development Goals emphasize inclusivity, their implementation in specific contexts, particularly in regions like Africa, warrants further examination.

Finally, this study highlights the need for Turkish academia to expand its focus on the intersection of climate change and gender inequality. Comparative research that examines diverse socio-economic and cultural contexts could enrich understanding and contribute to global climate justice efforts. By addressing these gaps, future studies can provide more robust insights into the interconnected challenges of ecological and social inequalities, supporting the development of equitable and sustainable climate responses.

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Ethical approval

This study is among the studies that do not require ethics committee approval due to there is not any living creatures.

Conflict of interest

There is no potential conflict of interest in this study.

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