



Gendered impact of climate change: Roles and prospects

Authors:

**Adefisoye
Ibironke
Damilola**

**Yakubu
Funom
Rapha**

**Akinmolayan,
Akintunde
Temitope**

Affiliation:

Center for
Gender,
humanitaria
n and
Developme
nt Studies,
Redeemer's
University
Ede.



Abstract

There has been an unprecedented increase in awareness and advocacy for better climate conditions, albeit with relatively less improvement in the current climate conditions. The consequences of which have been linked to the unsustainable production and consumption levels of the planet's resources. The impacts of human activities on the planet have ranged from the aggravation of poverty to the destruction of infrastructure and exacerbation of insecurity issues, amongst others. Nevertheless, environmental degradation has differential impacts on women and men. Despite this, the United Nations Women has stated that only 29% of the featured speakers on international platforms on climate change are women. This paper, therefore, engaged in an extensive review of existing literature to understand the differential role of women and men in regard to environmental degradation and its impact on both sexes. This paper employed mainly secondary sources of data collection to arrive at its conclusions. In its findings, it observed that women's subordination in climate issues could be largely attributed to differences in power relations between women and men, women's lack of access to resources resulting in the high rate of poverty, thereby exposing them unequally to the effects of changes in climate. It also established the impacts of climate change on women, with implications ranging from less crop yield to a rise in vulnerability to natural disasters and diseases, among other things.



Therefore, this paper recommends acknowledging women's role in the adaptation and mitigation of the impact of climate change.

Keywords: Climate Change, Gender Roles, Women Subordination, Environmental Degradation

Introduction

Advocating for actions towards better climate conditions became a necessity among different communities, nations and territories across the world due to the negative impacts of changes in climate. Climate change affects the well-being and livelihoods of all, irrespective of their colour, race and sex, with its impact felt across the board. Suffice to say that climate change impacts are not gender-neutral or geographically specific, nor does it have respect for socio-economic status (International Union for Conservation of Nature, 2021)

Arguably, women depend more on natural resources for survival despite having less access to and control over these resources. The UN Women (2022) posited that women are disproportionately affected by the impacts of climate change because, in many regions, they bear the responsibility for the supply of food, water, and fuel. Furthermore, women (particularly in rural areas) are more vulnerable to the implications of climate change than men, even in the poorest countries. They confront far greater historical disadvantages in many of these scenarios, owing to the fact that they form the largest portion of the world's poor and are more reliant on natural resources endangered by climate change, limited access to decision-making and economic assets which aggravate climate change challenges (Commission on the Status of Women, 2008).

Similarly, the research report published by Moosa and Tuana (2014) and Morchain, Prati, Kelsey, & Ravon (2015) presented a gendered interconnection between vulnerabilities associated with climate change and its impact on communities. The report recognised that women are more vulnerable to the effect of climate change due to their gender roles which include homecare and food preparation, among other things (Moosa & Tuana, 2014). Nonetheless, initiatives targeted at creating and enhancing local communities' adaptive ability often fail to address the gendered dimension of everyday realities and experiences.

The concept of gender has been debated from countless perspectives in development, including equality, exclusion or integration, exploitation or empowerment, marginalisation or



participation, and equity as an inclusive means of strengthening development effectiveness. However, gender issues as it regards climate change require necessary attention. This is premised on the fact that climate change, like other social issues, has a differential impact on women and men (Sucheta & Sanghamitra, 2022).

Awiti (2022) opined that women are more negatively impacted by climate change than men in five key areas: (i) agricultural production; (ii) food and nutrition security; (iii) health; (iv) water and energy; and (v) climate-related disaster, migration, and conflict. However, it is worthy of note that women are not just vulnerable to climate change; they can also be change agents in climate change mitigation and adaptation strategies (UN Women, 2022).

Likewise, women's domestic roles as natural resource stewards in the community have prepared them effectively for livelihood strategies responsive to environmental changes. They are, however, underrepresented in decision-making on sustainable development, including climate change, limiting their ability to contribute their unique and valued insights and experience on climate change (Commission on the Status of Women, 2008). To this end, this paper seeks to understand the differential impact of climate change on women and men while explaining their roles and prospects.

Theoretical framework

Giving a theoretical basis, this paper is hinged on Ecofeminism theory. Ecofeminism is one theory that explains the interconnection between women and the environment. Ecofeminism is a movement that posits that there exists a connection between the exploitation and degradation of the natural world and the subordination and oppression of women (Mies & Shiva, 2014). Ecofeminism believes that the destruction of the environment and the oppression of women in society are symbolically related to one another.

Ecofeminism specifically related the marginalisation of women to the oppressive relationship between humans and nature. It was employed as a theoretical framework to understand better the gendered impact of humanity's dominating role in its relationship with the environment, which can result in detrimental changes in climate conditions (Tristan, 2021) and how women's assumed closeness informs this to nature. The theory emphasises that women are disproportionately affected by environmental issues (Swati, 2022) because they have a higher degree of vulnerability. Likewise, environmental conditions impact the lives of women and men in different ways as a result of existing inequalities between them (Regan, 2020).



Ecofeminism was first used by a French author – Françoise d'Eaubonne, in her book "Le Féminisme ou la Mort" published in 1974. Françoise d'Eaubonne explained that "the marginalisation and oppression of women, people of colour, and the poor are intrinsically linked to the degradation of the natural world, as both arose as a result of patriarchal system" (Regan, 2020). Ecofeminist theory, therefore, emphasises a feminist perspective of the environment that issues a call-out for an egalitarian and collaborative society in which no dominant group will exist. However, the theory focused exclusively on the relationship between gender and nature without consideration for other important factors like race or class (Swati, 2022).

Ecofeminism advocated for a paradigm shift in the world's view of women and the environment from a point-view of domination and power hierarchies to embracing equality between women and men while creating an environment where everyone can interact on a levelled playing ground (Thorpe, 2016). Furthermore, it explains the impact of women's empowerment on achieving an equitable and sustainable environment while mitigating the impact of climate change (Tristan, 2021).

According to Regan (2020), ecofeminism has five basic principles:

- i. First, the oppression of marginalised groups and the oppression of nature are connected by cause.
- ii. We must replace our culture of domination with an ethic of care.
- iii. All forms of oppression are unacceptable and interconnected
- iv. Understanding these connections is necessary for equitable change.
- v. The people most affected by environmental degradation must be the ones to lead the movement.

Ecofeminism has, however, been criticised majorly for emphasising women's biological makeup as having an influence on environmental and climate-related issues rather than channeling efforts towards improving the status of women in society (Regan, 2020). Similarly, it was criticised that its claim that women are biologically closer to nature further strengthens the patriarchal system which places men as superior to women (Rocheleau, Thomas-Slayter, & Wangari, 1996). It has also been criticised for limiting itself to focusing only on gender and the environment and neglecting to take an intersectional approach.

Despite these limitations, ecofeminist theory is relevant to this study as it recognises the interconnectivity between the environment and social issues. It therefore aimed at empowering the previously

disadvantaged group (mostly women) while restoring the environment's vigour to mitigate and adapt to climate changes.

CONCEPTUAL DISCOURSE GENDER AND CLIMATE CHANGE

Gender

Gender issues and their upshots have become common issues of discourse among activists both in publications and even informal discussions. Everyone seems to have a unique response, and every answer carries enormous emotional or political connotations. For many, both within or outside academic institutions, the term "gender" have continued to spark controversy and elicit a strong reaction (Arteaga, Mayo, & Nieto, 2017). These reactions and controversies have resulted in the formation of new ideas and classifications, often swiftly disseminated by the mass media and eventually regarded as standard practice. This leads to alterations in the original contents and loss of meaning and values.

The term "gender", on the one hand, alludes to a population that is distinguished by sex, that is to say, men and women, and on the other hand, the presumption that men and women are not the same and cannot be substituted for one another (Arteaga, Mayo, & Nieto, 2017). However, these biological connotations of gender and the corporeal idea of sex or sexual difference are differentiated from the third connotation of gender, which speaks in connection to the social nature of the term (Lamas, 2000).

Therefore, gender is nothing more than a result of human activity that turns natural sexuality into the by-product of social interaction (Ayus & Eroza, 2007). The organisation of these human activities usually begins with the definition given by society through the organisation of kinship, which, when separating men and women into marriable and non-marriable categories, generates objective and subjective heterogeneities according to the necessities of society. Men are seen as creatures with strong personalities having the ability to wish, while women are seen as "weak entities" with the aspiration to have the men's wishes granted.

Based on the foregoing misunderstandings, Ayus & Eroza (2007) thoroughly examined the conceptualisations that form the basis of the gender category. As a result, Ayus and Eroza (2007) posited that there are two distinct points of view: the belief that gender refers to the characteristic of people, as opposed to the belief that gender is based on social organization and communal construction. Gender is, therefore, an attribute or characteristic that allows for the



classification of individuals into feminine and masculine (Ayus & Eroza, 2007).

Similarly, Carrington and Bennett (1999) stated that gender is a social construction in which subjects participate as agents of their socializing practices. It is constitutive of fragmented identities and diverse practices that may be defined as routine pedagogies, regardless of whether or not they are institutionalised. Carrington & Bennett (1999) explained that gender is a collection of ideas, beliefs, representations, and social obligations built by each society using sexual difference as its foundation. These features have led to inequities and marginalisation for the vast majority of women, as well as the subjugation of their own interests to the interests of others. The idea of gender has been narrowed down to the study of women's issues due to the misuse of the word "gender" and its reduction to a concept with this association (Arteaga, Mayo, & Nieto, 2017).

Gender Equality

Women and those considered "feminine" are often discounted, whilst males and characteristics associated with masculinity are prized in several cultures around the globe. This is due to the existence of a phenomenon known as gender inequality (Rolleri, 2013). In many instances, males have greater authority to govern decision-making in personal, communal, and political spheres, and women's demands and interests are either inadequately recognised or not effectively handled. In certain communities, the widely held cultural notion that men should always exert authority over their female counterparts' places women in precarious positions that endanger their physical and mental health. Men put themselves at increased risk for many adverse health effects when they are taught to feel the need to exert their dominance over other people (Courtenay, 2000).

Compared to society's massive gender gap, societies that have narrowed the gap in power relations between men and women have much improved social, health, and economic results (United Nations, 1995). Nevertheless, what is gender equality? Rolleri (2012a) defines the term in the following way:

"Gender equality is a social condition whereby women and men share equal rights and a balance of power, status, opportunities, and rewards. Gender equality can be broadly operationalised by men and women having, 1) equitable access and use of resources, 2) equitable participation in relationships, the household, the community, and political arenas, and 3) safety or freedom from violence".



In conceptualising gender equality, it is essential to note that the achievement of gender requires the existence of gender-fair behaviours. Gender equality is the “process of being fair” to individuals of different genders (Interagency Gender Working Group (n.d), 2022). There is no equitable access to resources and opportunities that would enable women and men to function in society as equals if there is no equity in the system. The Interagency Gender Working Group (n.d) posited that achieving gender equity which is the major step towards gender equality, requires taking steps that will compensate the previously disadvantaged groups in a way that both women and men would be placed on a leveled playing field.

Therefore, equality between the sexes is the path that must be taken to realise the aim of equal treatment of the sexes. The concept, as used by feminist scholars and political advocates, however, does not imply that women and men should become the same; instead, it means that women's and men's rights, duties, and opportunities will not rely on whether or not they are born male or female. On the contrary, their rights, duties, and opportunities should rely on their ability (physical and intellectual) to get the job done. In this lies the essence of the concept. When there is gender equality in a culture, both the similarities and the distinctions between men and women are valued in the same way (Rolleri, 2013).

Climate Change

Defining climate and climate change is a complex and controversial thing to do. Supporting this statement, Todorov (1986) opined that:

“The question of climatic change is perhaps the most complex and controversial in the entire science of meteorology. No strict criteria exist on how many dry years should occur to justify the use of the words “climatic change”. There is no unanimous opinion and agreement among climatologists on the definition of the term climate, let alone climatic change, climatic trend or fluctuation.”

The concepts of climate and climate change are often used vaguely, both in general conversation and scientific discourse. This lack of clarity in its definition is significant because it may lead to a substantial amount of doubt about, for example, the reality of global warming and the degree to which it is occurring (Werndl, 2015). There is much conceptual interest in how to describe climate and climate change; nevertheless, selecting accurate definitions is equally crucial to make accurate assertions about our climate system.



The Intergovernmental Panel on Climate Change (IPCC) conceptualised climate change as “any change in climate over time,” regardless of whether the change was caused by natural variation or by human action (United Nations Framework Convention on Climate Change, 2011). Contrarily, United Nations Framework Convention on Climate Change (UNFCCC) offered a slightly different view and described climate change as a change in climate that can be attributed directly or indirectly to human activities into a change in the composition of the global atmosphere over comparable periods (UNDP, 2009)

Although climate change is a natural occurrence, it attracts a growing concern due to the exponential growth of industrial and development activities since the mid-1980s. These activities have resulted in irreversible changes significantly higher than the natural variation (United Nations Economic Commission for Africa, 2020). The rise in sea level, changes in the intensity, timing, and spatial distribution of precipitation, changes in temperature, and increases in the frequency, intensity, and duration of extreme weather events such as droughts, floods, and tropical storms are all effects that can be attributed to the changes in climate conditions (Babugura, Mtshali, & Mtshali, 2010).

Although climate change affects the entire planet, its effects are not distributed evenly because social and development processes frequently produce multidimensional inequalities among people. These inequalities, in turn, result in differences in the degree to which people are vulnerable to climate change and how exposed they are to its effects (Larsson, 2017).

Gendered Impact of Climate Change.

The effects of climate change are not uniform, the same way climate change is not gender neutral. Low-income women and men, particularly in developing nations, bear a disproportionate amount of the brunt of the effects of climate change (Commission on the Status of Women, 2008). The findings of the research conducted by the Commission on the Status of Women (2008) revealed a relationship between gender and climate change while explaining the necessity for putting gender into consideration while planning for climate change policies.

Given the diversity of gender and climate change as concepts, drawing a connection between the two leads to an analysis that is more complicated than it would otherwise be. Furthermore, since climate change adaptation and mitigation strategies cannot be gender-neutral, it is imperative that gender perspectives be employed



and that women be included in the process of tackling climate change (Babugura, Mtshali, & Mtshali, 2010). Therefore, there is a need to understand the relationship between gender and climate change and prepare for the gendered impact of climate change.

Gender disparities in the severity of consequences of climate change are attributable to differences in their levels of vulnerability (Babugura, Mtshali, & Mtshali, 2010). IPCC (2001) defines vulnerability in this regard as the degree to which a system is sensitive to, or unable to deal with, detrimental consequences of climatic change, including climate variability and extremes. It has been established that women are more vulnerable to changes in climatic conditions as compared with men. Therefore, with a varying degree of gender-specific vulnerability impacts, climate experts are more open to observing the gendered impacts of the phenomenon.

GENDERED IMPACTS OF CLIMATE CHANGE: ROLES AND PROSPECTS

Impacts

Impacts of Climate Change on Sustainable Human Development

Since the IPCC's Fifth Assessment Report (AR5), the knowledge base on observed and projected impacts and risks generated by climate hazards, exposure and vulnerability have increased. These effects and dangers are often discussed in terms of the economic and non-economic losses they cause and the damages and harms they cause. The simultaneous occurrence of climatic hazards may create complex risks. For instance, the IPCC report (2022) stated that the climate change caused by human activity has resulted in widespread negative impacts and losses and damages related to those impacts for both humans and nature.

The increase in weather and climate extremes has also resulted in irreversible repercussions, as natural and human systems are being pushed beyond their capacity to adapt to changing conditions. Increases in the frequency and intensity of climate and weather extremes, such as hot extremes on land and in the ocean, heavy precipitation events, drought, and fire weather, have been observed. These changes have resulted in widespread and pervasive impacts on ecosystems, people, settlements, and infrastructure (Intergovernmental Panel on Climate Change (IPCC), 2022).

The AR5 report brought about greater awareness about the observed consequences of human-induced climate change. (Intergovernmental Panel on Climate Change (IPCC), 2022). Likewise, the degree to which ecosystems and people are susceptible to the effects of climate change varies significantly from one region to



another and even within a single region. These variations are caused by overlapping patterns of socio-economic development, unsustainable ocean and land use, inequity, marginalisation, and historical and ongoing patterns of inequality such as colonialism and governance. It is estimated that between 3.3 and 3.6 billion people are now living in environments that are very susceptible to the effects of climate change (Intergovernmental Panel on Climate Change (IPCC), 2022). A significant fraction of the world's animal and plant populations are at risk because of changing climate.

Furthermore, it has been established that human vulnerability and ecological vulnerability are interrelated. Patterns of development that are not sustainable as they are now practised are increasing the vulnerability of ecosystems and people to the effects of climate change. Since AR5, there has been a steady accumulation of information suggesting that the degrading and destruction of ecosystems by humans makes people more susceptible to danger (Intergovernmental Panel on Climate Change (IPCC), 2022).

The report also states that the inability of ecosystems, societies, communities, and individuals to adapt to climate change is negatively impacted by unsustainable land use and land cover change, as well as by the inability to sustainably use natural resources, deforestation, loss of biodiversity, pollution, and the interactions between these factors. The loss of ecosystems and the services they provide has repercussions that are both immediate and long-term for people all over the world, but particularly for indigenous peoples and small communities that are directly reliant on ecosystems for meeting their fundamental requirements (Intergovernmental Panel on Climate Change (IPCC), 2022). This inequality is even more amplified when the gender spectrum is effectively analysed.

Gendered Impacts of Climate Change

It has become clear that women and the socially excluded experience a greater degree of damage as a result of climate change. Notably, countries with a vast gender gap in income, education, and leadership tend to have lower environmental performance, including persistent carbon dioxide emissions increase (Baxter, Dennings, & Baillie, 2022). This is because countries with greater gender inequality in these areas tend to have fewer women in leadership positions.

Additionally, pregnant women and their unborn children are exposed to additional health dangers as a result of climate change (Austin & Banashek, 2018). Austin & Banashek (2018) posited a correlation between preterm labour, stillbirth births, low birth weight, infant



mortality, and developmental problems when exposed to very high temperatures. The economic and health repercussions of climate change, such as the loss of jobs and the increasing prevalence of water and vector-borne diseases, are more severe for women than for males of the same age and gender.

Research reports revealed that women are more likely to become unemployed in the aftermath of natural catastrophes than men are. This can be mainly attributed to the fact that women averagely make less money than men and have fewer resources to fall back on in the event of a crisis caused by climate change. Furthermore, women are also more likely to be caregivers affording them less freedom to react to catastrophic weather occurrences freely and less able to defend themselves from these catastrophes (Austin & Banashek, 2018).

In African societies, an increase in the unpredictability of the weather has resulted in a decrease in agricultural output with uneven effects on human, natural, physical, social, and financial assets of men and women. Supporting this view, Goh (2012) reported that women in the Sahel raised concerns about reducing their access to rangeland and other resources necessary for livestock production due to greater climatic unpredictability.

Particularly in East Africa, commercialisation, one of the farmer's coping strategies in assisting farmers in adapting to climate change, tends to weaken women's control by focusing on sales rather than consumption decisions. This is because women tend to be the primary decision-makers regarding food purchases (Tavener, et al., 2019). According to Walker et al. (2022), a change in herd composition in response to drought is characterised by a shift from cattle or camel to sheep and goats for which women are responsible, resulting in an increase in women's labour and responsibility compared to men. Cattle and camels are responsible for the diet of the herd.

In southern Tanzania, farmers were forced to cultivate additional land, which requires increased labour house due to unpredictable rainfall, deteriorating soil fertility, yield variability, and falling crop yields (Awiti, 2022). In addition, women are under additional stress because they are expected to carry out more domestic responsibilities in the absence of male family members who have engaged in non-agricultural economic pursuits during the agricultural offseason.

Women are often afforded limited access to the requisite education, extension services, and technology needed for effective adaptation to the effects of climate change (Witinok-Huber, Radil, Sarathchandra, & Nyaplue-Daywhea, 2021). In addition, the production of food, its availability and access, the quality of diets, and nutritional status are



all concurrently impacted by climate change at the household level(Awiti, 2022).

Contrarily, the negative consequences of climate change on food and nutrition security are not equally felt by men and women in the same proportions. Climate-induced food and nutritional insecurity will disproportionately affect women in areas with high levels of food insecurity, such as sub-Saharan Africa. This can be attributed to women's inherent vulnerability resulting from their socially defined gender roles and their limited access to resources in comparison to men(Botreau & Cohen, 2020).

According to research carried out by Awiti (2022), existing societal prejudices and restrictions, as well as institutional and structural ones, make the detrimental effects of climate change on women's and female-headed households' ability to provide enough food and nutrition. The increased disaster risk caused by climate change will inevitably magnify the gender-specific impacts of climate-induced hazards (Awiti, 2022). Extreme weather events reduce crop yields, which in turn reduces the availability of essential nutrients such as calcium, folate, thiamine, and pyridoxine, all of which are essential during pregnancy.

Similarly, the sustainability of smallholder subsistence livelihoods is threatened by the projection of a loss in soil fertility, agricultural yields, energy resources, and water resources. While decreases in livelihoods depending on natural resources lead men to travel to cities and other rural regions in search of off-farm jobs, studies have shown that such adaptive mechanisms used by males increase the level of vulnerability experienced by women (Botreau & Cohen, 2020). In addition, gendered migration often increases the burden for the women who are left behind. This is because women typically have fewer non-farming choices than men do.

Consequently, men decide the timing of the sale or transfer of fungible assets to reduce the risk of drought without consulting women. Disasters caused by climate change, such as droughts, famines, floods, or disease outbreaks, together with the mass human displacement that follows in their wake, raise the likelihood of gender-based violence and other harmful practices, such as child marriage. Moreover, during climate-induced natural disasters and wars, sexual and reproductive health requirements are ignored, which often results in negative consequences such as an increased risk of maternal mortality, child marriage, and unwanted births(Babugura, Mtshali, & Mtshali, 2010). These patterns of exclusion or disenfranchisement further propagate and reinforce existing inequalities among women



with regard to income, health, educational achievement, and the ability to participate in the labour force.

Gendered Roles in Climate Change

There is a significant threat to all forms of life on land and in the sea. The cause of the problem, as already established earlier in this paper, is unsustainable human activities on the planet. Unsustainable levels of production and consumption are depleting the natural resources of the globe, increasing pollution, especially that of the world's seas, and releasing an alarming quantity of carbon dioxide and other damaging greenhouse gases into the atmosphere of the earth (UN Women and UN DESA Statistics Division, 2021). If prompt action to reduce emissions is not taken, the global average temperature will rise by more than 1.5 degrees Celsius by 2040. This would mark crossing a threshold beyond which the effects will be catastrophic.

Female activists, scientists, and researchers are working hard to solve these problems; yet, they often do not have access to the same platforms that males have to share their knowledge and expertise. For example, women only constitute 39% of the world's ocean scientists (UN Women and UN DESA Statistics Division, 2021). From 2011 to 2018, just 29% of notable presenters at international ocean scientific conferences were female. In addition, the voices of women members of disadvantaged communities, such as young women and indigenous women, are mostly missing. However, these groups have contributed very little to the climate disaster and are particularly susceptible to its repercussions. Women need to participate in the planning of climate change and international development on all levels if climate justice and environmental sustainability are to be achieved.

More so, because they rely on natural resources and proximity to them, women at the local level are "not only well prepared to identify solutions to avoid environmental degradation and adapt to a changing climate, but they also have a vested interest in doing so" (Smith, Olosky, & Fernandez, 2021). When mobilising local communities to adapt to the effects of climate change and protect natural resources, women play an essential role in such areas. There is much data to demonstrate that this leads to greater results in terms of conservation and sustainability. Women's participation in community forest management in countries like India and Nepal, for instance, results in "significantly greater improvements" in terms of forest regeneration and species conservation because of the women's extensive knowledge of forest flora and fauna and their ability to apply this knowledge (Agarwal, 2009).



This is particularly true for women who come from indigenous cultures. Presently, indigenous peoples and other local groups are responsible for conserving close to 80 percent of the world's total biodiversity. It is becoming more widely acknowledged that indigenous women are the keepers of profound ancestral knowledge regarding the land and the resources it contains, as well as the fact that "traditional knowledge, innovations, and practises of Indigenous peoples and local communities make an important contribution to the conservation and sustainable use of biodiversity" (Smith, Olosky, & Fernandez, 2021). However, indigenous peoples' and traditionally held ecological knowledge is consistently devalued, and the responsibilities and contributions made by indigenous women have been ignored and made invisible.

For instance, under the United Nations Framework Convention on Climate Change (UNFCCC), the views of indigenous women continue to be mostly muted, and they are "mainly viewed as stakeholders, not rights holders." At the nexus of natural resources, climate change, and conflict, the role of women, especially that of Indigenous women, is further curtailed. When it comes to reducing the risk of conflict associated with using natural resources, long-standing structural restrictions limit women's roles and prevent them from being represented (Smith, Olosky, & Fernandez, 2021). On many occasions, the United Nations Forum on Indigenous Peoples has urged the Member States to take actionable efforts to eliminate impediments to the meaningful participation of Indigenous women in decision-making processes and to increase the role of Indigenous women in decision-making processes (United Nations Economic Commission for Africa, 2020).

Women have played and are still playing significant roles in mitigating the impacts of climate change. Notably among such women is Sophia Kianni, who is presently the youngest advisor on climate change to the UN Secretary-General. She is also the creator of Climate Cardinals, a worldwide youth-led non-profit organisation that works to make the climate movement more accessible to audiences who do not know English (UN Women and UN DESA Statistics Division, 2021).

Likewise, being a marine scientist, an ocean educator, and a pioneer in the long-term study of blue whales in the Northern Indian Ocean are among many of Asha de Vos's accomplishments. In addition, Vos established Oceanswell, a non-profit organisation in Sri Lanka that works to alter the course of the world's oceans by training the next generation of diverse ocean heroes, empowering students from underrepresented nations to conduct marine conservation research,



and conscientizing the world about the enchantment of our oceans (UN Women and UN DESA Statistics Division, 2021).

Similarly, Kristal Ambrose has also made a mark as a youth educator cum researcher on the effects of plastic pollution on marine ecosystems. Ambrose also created the Bahamas Plastic Movement, a youth-led movement to educate the younger generation about the dangers of plastic pollution to marine ecosystems. The outcome of her study led the Bahamas government to policy formulation, which prohibits the use of plastics only intended for single use (UN Women and UN DESA Statistics Division, 2021).

Prospects on Engendering Climate Change Policies and Action

This study has revealed that climate change causes vulnerabilities and their implications on livelihoods and decision-making authority, knowledge, skills, assets, and networks (Nelson & Stathers, 2009) translates into gender differential exposure and sensitivity. Climate change is likely to worsen gendered vulnerabilities and multiply overlapping kinds of discrimination against women. However, initiatives that try to build adaptive ability at the community level, particularly among agricultural and pastoral groups, sometimes fail to identify and react to the gendered dimension of women's experiences.

As a result, activities taken in response to climate change need to be gender-sensitive or responsive. However, there is no consensus among policymakers or climate experts over what constitutes gender-responsive solutions to climate vulnerability and risk (Awiti, 2022). Moreover, even among major players, awareness and comprehension of the connection between the economic and political aspects of gender and climate change are weak and unequal. As a result, the implementation of decisions with gender-specific requirements has been inconsistent. In cases when there has been an effort, gender dimensions have been implemented superficially or as an add-on activity (Glemarec et al., 2016). In addition, classifying women as a vulnerable group serves the purpose of bringing attention to the issues women face, despite their leadership and active engagement not being recognised or measured.

It is essential while working to promote climate resilience at the household and community level, to systematically identify and resolve gender disparities in policy and action in reacting to the consequences of climate change. In this section of the paper, we will discuss key areas for action that may be taken to lessen the impact of climate change on women and to increase their capacity for

resilience and adaptation (Awiti, 2022). These priorities include gender-sensitive adaptation and mitigation technologies, women's representation and involvement in decision-making processes, and gender-sensitive legal and institutional frameworks sensitive to gender issues.

Gender-sensitive Legal and Institutional Frameworks

To combat gender inequality, it is essential to tackle the systemic issues that contribute to it and take proactive steps to advance gender parity and women's empowerment. These include women's rights to participate equally in law-making and governance and equality in access to land and other productive resources, which all contribute to women's ability to adapt to and deal with climate-induced shocks (United Nations Economic Commission for Africa, 2020).

One of the avenues for strengthening women's ability to adapt to climate change is giving them access to and control over land and the power to make choices over productive resources (Monterroso, et al., 2021). For instance, the 2010 Constitution of Kenya mandated the eradication of all discriminatory laws, conventions, or practices prohibiting equitable ownership of landed properties. In a similar vein, under the Village Act of 1999 in Tanzania, the rights of any woman to purchase, keep and utilise land to the same degree as any male is guaranteed. In addition, the Inheritance Law of Rwanda was passed in 1999, and it preserves the property rights of lawfully married women while also granting equal rights to sons and daughters (Awiti, 2022).

However, despite the existence of formal rules and regulations, there are still hurdles that prevent women from gaining access to, exercising control over, and making use of land and other productive assets. The obstacles are caused by execution gaps resulting from poor legal frameworks and inefficient policies at the national and local sub-national levels. In addition, roadblocks are created when official legal and policy structures confer and protect women's rights conflict with established customary norms.

Additionally, a high rate of illiteracy, intrinsic cultural disempowerment, and poverty limits women's - particularly rural dwellers - access to information. In addition, traditional social norms and customs discourage women from speaking up, which in turn limits their capacity to fight for their rights even when they do so. But there are encouraging efforts coming from the grassroots level.

Citing examples from Kenya, where a countrywide movement of grassroots women-led community-based and self-help organisations

called GROOTS offered alternative conflict resolution, legal assistance, and mediation on matters involving inheritance rights (Awiti (2022)). In situations where formal constitutional and legal systems come into contact with customary immovable norms, grassroots efforts of this sort that are agile and build on consensus have the greatest chance of success.

Women's Representation and Involvement in Decision-making Processes on Climate Change Issues

The lack of information and data unavailability to measure women's engagement in environmental decision-making has remained a fundamental barrier to achieving equitable and meaningful participation of women in the environment and policy arena (United Nations Economic Commission for Africa, 2020). Additionally, women face challenges in participating in political life due to the underlying patriarchal framework that exists at the national and local levels. This is the case even in countries that have developed effective national gender policies.

For instance, the Constitution of Kenya mandates that the state enact laws and implement policies to guarantee that no more than two-thirds of members of elected bodies are of the same gender. However, the implementation of such progressive constitutional provisions has been relatively gradual due to male dominance in institutions, traditional beliefs, and attitudes surrounding women's duties and status being substantially intact, particularly in rural portions of sub-Saharan Africa (Sadie, 2005).

A variety of supportive actions, such as adopting flexible meeting timings that do not conflict with women's domestic obligations and recognising the possibility of safety concerns when determining meeting venues, mobility, and the length of meetings, can help increase the number of women who participate in decision-making (Awiti, 2022). This can be accomplished by adopting a range of supporting actions. Capacity-building programmes at different levels might be a feasible technique for overcoming entrance barriers to representation and involvement for women in policy and decision-making.

Additionally, capacity-building on gender should be an intrinsic aspect of any climate response initiatives or programmes. According to O'Neil and Domingo (2016), only legal rights and formal rules adapted to the circumstances and anticipate how they interact with existing laws and social norms are likely to be successful in applying informal rules. In addition, the economic predicament of women is intimately linked to the representation and involvement of women in



that predicament. As a result, interventions from multiple sectors are required to create opportunities for women to engage in an enterprise by providing them access to assets and credit at affordable rates. These opportunities, in turn, confer a voice and the ability to make decisions even at the household level.

O'Neil and Domingo (2016) further suggest that there needs to be a deep and long-term commitment to the economic power of women. They recommend investing in training and capacity development to increase labour participation and provide institutional support to organisations that are focused on women and are led by women. They say that separate gender programmes cannot boost women's power.

Gender-sensitive Adaptation and Mitigation Technologies

Throughout the last decade, tremendous progress has been achieved in the areas of international, regional, and national regulatory frameworks, as well as in the expansion of knowledge about gender equality and climate change. However, funding is now primarily targeted towards policies, programmes and actions that incorporate recommendations for the creation of gender-responsive initiatives. There is, therefore, a need for the integration of gender, intersectionality, inter-culturality, and rights into climate change adaptation and mitigation programmes and projects by transiting from commitments and words to actions (Revelo, 2021).

Historically, women have faced discrimination on the basis of gender and several barriers to fully exercising their human rights, thereby making them more vulnerable to the consequences of climate change. However, the UNFCCC has showcased women as essential leaders in the fight against climate change because they are change agents who possess vital information and abilities.

To promote gender-sensitive adaptation and mitigation techniques, which are mindful of gendered implications and results, and to strive towards gender equality and beneficial effects on women's lives by enhancing livelihoods and health and giving time to pursue new possibilities (Revelo, 2021). Although there are obstacles associated with income diversification, it is still a highly recommended strategy for adapting to and mitigating the effects of climate change. Furthermore, transitioning away from economies dependent on agriculture might give local communities the buffer they need to handle better the effects of climate change (Dube, Moyo, Ncube, & Nyathi, 2016).



It is crucial that both men and women be active in the institutions that surround alternate techniques for sustaining one's livelihood. Even in contexts where women can diversify their livelihoods and earnings, they often continue to play strongly gendered roles, as evidenced by Scott's (1995) use of the Zimbabwean example. More sustainable lives should also allow men and women to take on economic positions in the formal sector, where earnings are higher, and there is more possibility for engagement in a wider economy.

The relational nature of livelihood access is more complex than captured in quantitative surveys. These surveys do not take into consideration underlying micro-social variables such as household and gender variables to obtain more reliable data on the socio-economic status of women and men's livelihoods and, consequently, their capacity for adaptation. Agriculture is the most often mentioned industry in the Nationally Determined Contribution (NDC) of the nation in terms of adaption strategies (at seventy-eight per cent) (United Nations Economic Commission for Africa, 2020).

Countries have also cited the need for international financial assistance and the transfer of technology in order to embrace sustainable agriculture as a possible barrier to adoption. However, in spite of the fact that financial assistance from international sources is very much required to get these shifts started, countries also need to begin thinking about the long-term financial support that is not dependent on assistance from international sources (United Nations Economic Commission for Africa, 2020). Furthermore, these countries need to consider how their national economies can place a greater emphasis on increasing their adaptive capacity in order to improve their food security.

The African Climate Policy Centre (ACPC) is in an excellent position to provide technical assistance in this area, particularly with regard to ensuring that adaptive economies are sensitive to the needs and contributions of women in a manner that will not place even greater burdens on women, who already bear the brunt of many of the repercussions of climate change as they relate to agriculture and the care of the land. So again, this is a space where the ACPC is well-positioned to provide assistance, and this must be the case.

This will provide a substantial challenge to ACPC's ability to provide technical help to various African nations at their separate stages of NDC development in a manner that is in keeping with those nations' objectives and capabilities. Furthermore, the fact that the United Nations Framework Convention on Climate Change (UNFCCC) framework, often known as the "Rulebook," is not yet finished presents an additional obstacle for the ACPC to overcome. This framework for



providing advice will define norms and procedures for how nations will publicise their climate action efforts and how they will be held responsible for those efforts (United Nations Economic Commission for Africa, 2020). The problem that lies ahead for the ACPC in the not-too-distant future is to designate priority areas for their NDC growth. In the future, when the Rulebook is available, the difficulty lies in aligning stated priorities with its guidelines.

To this day, adaptability continues to be a component of the NDCs that is entirely voluntary. In addition, the UNFCCC states that adaptation measures included in NDCs are diverse, sometimes including both planned and existing actions (Awiti, 2022). Such methodological issues make it difficult for governments to select which adaptation commitments to include in their NDCs; nevertheless, quantifying policies, programmes, and plans that incorporate adaptation commitments is one potential answer to this problem. Similarly, measuring gender-sensitive direct references and results may be a useful tool for ensuring gender equality in creating and implementing NDCs.

Conclusion

This paper, therefore, concludes that climate change has a different impact on women and men. Hence, women are disproportionately affected by climate change and its impact. This has been because women's subordination was birthed from the existing gender power relations which have relegated them to the background in planning for climate change particularly mitigation and adaptations strategies. Likewise, women were discovered to contribute less to environmental degradation activities due to their low access to and control over resources despite being mostly affected.

Recommendations

In line with the issues discussed in this paper, this paper, therefore, recommends the following:

- Policymakers should be more invested in collecting relevant gender, race and climate crisis data.
- Government and non-governmental organisations concerned with climate change should educate the public on the importance of inclusion in combating climate change through gender mainstreaming in the environmental sector.
- There should be an inclusive Gender Empowerment Program that integrates the efforts of women across the formal and

informal sectors to ensure inclusivity and diversity of voices and efforts.

- There should be an increase in women's participation in mitigation and adaptation strategies.

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