



The Role of Gender Equity in Advancing Climate Change Education and Sustainable Development

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Article Info

ISSN (Online): 2582-7138

Impact Factor (RSIF): 8.04

Volume: 07

Issue: 02

Received: 10-01-2026

Accepted: 08-02-2026

Published: 06-03-2026

Page No: 139-146

Abstract

This study investigates the role of gender equity in advancing climate change education and sustainable development. Utilizing a descriptive research design, the study targets individuals involved in climate change education across educational institutions, NGOs, and community programs in Nigeria, including students, teachers, community leaders, and climate activists. A stratified random sampling technique was employed to ensure representation across different genders, age groups, and socio-economic backgrounds, resulting in a sample of 300 participants from various regions. A structured questionnaire was used to collect quantitative data on demographics, experiences, and perceptions of gender equity. Data were analyzed using IBM SPSS, focusing on descriptive statistics. The findings indicate that gender dynamics significantly influence participation in climate change education, with stereotypes still affecting engagement despite perceptions of equal opportunities. Current educational frameworks are limited in addressing gender equity, and barriers such as cultural norms, economic factors, and a lack of female leadership hinder equal access. However, gender-sensitive educational programs effectively enhance understanding, promote sustainable practices, and foster community involvement. The study recommends that educational institutions develop and implement policies actively promoting gender equity in climate change education, ensuring inclusivity in materials and programs. Additionally, training for educators on gender dynamics and gender-sensitive approaches is crucial for creating an inclusive learning environment that encourages participation from all genders.

Keywords: Gender Equity, Gender Dynamics, Climate Change, Education, and Sustainable Development

1. Introduction

Climate change represents a profound global challenge that demands urgent action across multiple sectors, particularly education. Education plays a vital role in equipping individuals and communities with the knowledge and skills necessary to understand and address the impacts of climate change (UNESCO, 2019) ^[29]. However, achieving effective climate change education requires an understanding of gender dynamics, as men and women experience climate change differently due to existing socio-economic inequalities and cultural norms (Mastrorillo *et al.*, 2016) ^[17]. Gender equity is essential in promoting inclusive participation in climate initiatives, ensuring that both men and women can contribute to and benefit from sustainable development efforts.

Gender dynamics significantly influence how individuals engage with climate change education initiatives. Research indicates that women, especially in developing countries, are disproportionately affected by climate change due to their roles in managing natural resources and their limited access to education and decision-making opportunities (Agarwal, 2010) ^[11]. The World Economic Forum (2020) ^[33] highlights that empowering women through education can lead to more effective climate responses, as women often bring unique perspectives and solutions to environmental challenges.

Thus, understanding how gender dynamics affect participation in climate change education is crucial for developing more inclusive and effective educational frameworks. Despite the recognized importance of gender equity, many educational frameworks related to climate change and sustainable development fall short of addressing these issues comprehensively. Current curricula often fail to incorporate gender-sensitive approaches, which can perpetuate existing inequalities and limit the effectiveness of climate education initiatives (Leach *et al.*, 2012)^[15]. To foster a more equitable approach, it is essential to assess how existing educational frameworks address gender issues and to identify areas for improvement. By integrating gender perspectives into climate change education, we can create a more inclusive environment that empowers all individuals to participate in sustainability efforts.

Barriers to equal access to climate change education persist across various contexts, hindering the potential for gender equity in this domain. Factors such as socio-economic disparities, cultural norms, and institutional biases often limit women's access to education and participation in climate initiatives (UN Women, 2018)^[26]. For example, women in rural areas may face greater challenges due to limited access to resources, transportation, and information, which can hinder their ability to engage in climate change education programs (Denton, 2002)^[6]. Identifying these barriers is critical to developing strategies that promote equitable access to climate change education for all genders.

Evidence suggests that gender-sensitive educational programs can enhance understanding of climate change and foster sustainable practices. Such programs recognize and address the distinct needs and experiences of different genders, facilitating more effective learning outcomes (Okada & Gray, 2023)^[21]. Gender-sensitive approaches not only improve awareness of climate issues but also promote active participation in sustainable practices, as they empower individuals to take ownership of their environmental impact (Mastrorillo *et al.*, 2016)^[17]. Evaluating the effectiveness of these programs is essential for determining best practices in advancing climate change education and sustainable development.

Statement of the Problem

Despite the growing awareness of climate change and the critical role education plays in addressing its challenges, gender disparities in access to climate change education and participation in sustainability efforts persist in Nigeria. It has been observed that women, particularly in developing countries, are disproportionately affected by climate change due to socio-economic inequalities, restricted access to resources, and cultural barriers that limit their involvement in educational and decision-making processes. These gender inequities in climate change education seem to hinder the development of inclusive solutions, which are essential for achieving sustainable development. Current educational frameworks and programs seem to fail to consider gender-specific needs, limiting the effectiveness of climate change education initiatives. As many educational systems adopt a one-size-fits-all approach, the unique experiences, vulnerabilities, and contributions of women and marginalized groups are frequently overlooked. This lack of gender-sensitive educational frameworks may not only perpetuate inequalities but also weakens efforts to foster comprehensive community engagement in climate action. Moreover,

significant barriers were observed to prevent women from accessing climate change education. These barriers include socio-economic constraints, cultural norms, and institutional biases that restrict women's opportunities to participate in education and climate initiatives. These obstacles limit women's ability to engage fully with sustainability practices and deprive communities of valuable insights and leadership that women can offer in addressing environmental challenge. The absence of gender equity in climate education further exacerbates these barriers, impeding progress toward global sustainability goals. Given the importance of gender equity in advancing climate literacy and promoting sustainable development, it is essential to investigate how gender dynamics influence participation in climate education. Additionally, assessing the effectiveness of gender-sensitive educational programs can help identify best practices that promote inclusivity and empower both men and women to take part in climate action. Thus, this study seeks to address the critical gap in understanding the role of gender equity in climate change education and its implications for sustainable development.

Objective of the Study

1. To investigate the impact of gender dynamics on participation and engagement in climate change education initiatives.
2. To assess how current educational frameworks address gender equity in the context of climate change and sustainable development.
3. To identify barriers that hinder equal access to climate change education for different genders.
4. To evaluate the effectiveness of gender-sensitive educational programs in enhancing understanding of climate change and promoting sustainable practices.

Research Questions

1. How do gender dynamics influence participation and engagement in climate change education initiatives?
2. In what ways do current educational frameworks address gender equity in the context of climate change and sustainable development?
3. What are the key barriers that hinder equal access to climate change education for different genders?
4. How effective are gender-sensitive educational programs in enhancing understanding of climate change and promoting sustainable practices?

Literature Review

Climate Change Education

Climate change refers to significant, long-term shifts in temperatures and weather patterns, largely driven by human activities, particularly the burning of fossil fuels such as coal, oil, and gas, which release large quantities of greenhouse gases (GHGs) into the atmosphere. These gases, including carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), trap heat in the Earth's atmosphere, leading to the greenhouse effect, which in turn causes global warming. According to the Intergovernmental Panel on Climate Change (IPCC, 2021)^[11], human influence has unequivocally contributed to the observed warming since the mid-20th century, with temperatures rising at an unprecedented rate over the past few decades.

One of the most alarming impacts of climate change is the increasing frequency and intensity of extreme weather

events, such as heatwaves, hurricanes, floods, and droughts (Field *et al.*, 2014)^[9]. The IPCC (2018)^[10] reports that even a 1.5°C increase in global temperatures compared to pre-industrial levels could significantly exacerbate these events, with profound effects on ecosystems, human health, and livelihoods. For instance, rising temperatures contribute to more intense and longer heatwaves, which increase the risk of wildfires, as observed in recent years in places like Australia, California, and parts of Europe (Australia Bureau of Meteorology, 2020)^[4].

Sea-level rise, another critical consequence of climate change, is primarily caused by the thermal expansion of seawater and the melting of glaciers and ice sheets in regions like Greenland and Antarctica (NOAA, 2021). The IPCC (2021)^[11] predicts that global sea levels could rise by up to 1 meter by 2100 under high-emission scenarios, threatening coastal communities, infrastructure, and ecosystems. Coastal erosion, saltwater intrusion, and habitat loss for marine and terrestrial species are some of the widespread impacts. According to Nicholls and Cazenave (2010)^[19], approximately 150 million people live in areas that are within 1 meter of current sea levels, underscoring the socio-economic risks posed by rising seas.

The effects of climate change are not evenly distributed. Vulnerable populations, especially in developing countries, face disproportionate risks due to limited resources for adaptation and mitigation. This has led to discussions around climate justice, which addresses the inequalities in climate impacts and responses (Pelling & Garschagen, 2019)^[22]. For instance, countries in Sub-Saharan Africa, Southeast Asia, and small island nations contribute the least to global greenhouse gas emissions but bear the brunt of climate impacts such as food insecurity, water scarcity, and displacement (IPCC, 2021)^[11]. These regions often lack the infrastructure, financial resources, and governance capacity needed to respond effectively to climate-related challenges.

In terms of mitigation, international efforts have been made to curb greenhouse gas emissions and limit global temperature rise. The Paris Agreement, adopted in 2015 under the United Nations Framework Convention on Climate Change (UNFCCC), aims to limit global warming to well below 2°C above pre-industrial levels, with efforts to keep it to 1.5°C (UNFCCC, 2015)^[31]. Achieving these targets requires widespread adoption of renewable energy technologies, energy efficiency, reforestation, and shifts toward sustainable agricultural practices (Rockström *et al.*, 2017)^[24]. However, progress has been uneven, with many countries falling short of their emissions reduction commitments.

Adaptation strategies, such as enhancing climate resilience in agriculture, infrastructure, and water management systems, are equally important in minimizing the impacts of climate change. The IPCC (2018)^[10] emphasizes that adaptation must be scaled up globally, particularly in vulnerable regions, to safeguard food security, protect ecosystems, and reduce the risks to human health. Climate-smart agriculture (CSA), for instance, has been promoted as a way to sustainably increase productivity, enhance resilience, and reduce greenhouse gas emissions in the agricultural sector (FAO, 2019)^[8].

Climate Change Education

Climate change education (CCE) plays a crucial role in equipping individuals and communities with the knowledge, skills, and attitudes needed to mitigate and adapt to the

impacts of climate change. The primary goal of CCE is to foster an understanding of the causes and consequences of climate change while empowering learners to engage in solutions at local and global levels. According to UNESCO (2019)^[29], effective climate change education promotes climate literacy, which includes awareness of scientific evidence, socio-economic factors, and recognition of sustainable practices. This education is essential for fostering behaviors that reduce greenhouse gas emissions and enhance resilience against climate-related challenges.

CCE also emphasizes the development of problem-solving, critical thinking, and leadership skills, enabling individuals to engage in climate-related decision-making processes. It spans subjects like environmental science, geography, social studies, and economics, integrating climate issues into both formal and informal education systems. Despite its importance, the delivery of climate change education faces challenges, including limited teacher training, inadequate curriculum integration, and the need for gender-sensitive approaches. Addressing these barriers is vital to ensuring education systems prepare learners to respond effectively to the global climate crisis (Anderson, 2017)^[3].

Gender Equity

Gender equity refers to the fair treatment of individuals of all genders, taking into account their respective needs and experiences, to ensure equal opportunities and outcomes. It aims to address the structural inequalities that hinder marginalized genders, particularly women and non-binary individuals, from accessing the same resources, rights, and opportunities as men. Gender equity involves both recognizing the differences in experiences and addressing the specific barriers that different genders face in areas like education, healthcare, employment, and political representation (UN Women, 2020)^[27]. Achieving gender equity is essential for promoting social justice and fostering inclusive and sustainable development.

In the context of education and climate change, gender equity plays a vital role in ensuring that everyone, regardless of gender, can contribute to and benefit from sustainable development initiatives. Studies show that women and girls are disproportionately affected by climate change due to their roles in communities and their limited access to resources and decision-making (UNESCO, 2019)^[29]. By promoting gender-sensitive policies and educational programs, societies can empower women and other marginalized genders to actively participate in addressing climate change, leading to more resilient and sustainable communities. Gender equity, therefore, is not only a matter of justice but also a pragmatic strategy for enhancing the effectiveness of climate action and sustainable development (Rao *et al.*, 2021)^[23].

Empirical Studies

A study by Lambrou and Piana (2006)^[14] examined the gender-specific impacts of climate change and how educational interventions could address these disparities. The study, conducted across several developing countries, showed that women are disproportionately affected by climate change due to their roles in agriculture, water management, and household care. Educational programs that included a gender-sensitive approach were more successful in equipping women with the skills and knowledge necessary to adapt to climate change. This research highlights the importance of gender-responsive education frameworks that

not only address climate literacy but also empower marginalized groups to lead in climate resilience efforts.

In another study by O'Neill *et al.* (2013) ^[20] to analyzed gender differences in environmental attitudes and behaviours, they found that women, on average, are more likely to adopt sustainable behaviors and show greater concern about environmental issues, suggesting that empowering women through education could have a positive impact on climate action. However, the study also noted that women often face barriers to fully participating in climate-related decision-making due to societal norms and limited access to resources. These findings underscore the importance of integrating gender equity into climate change education to ensure that both men and women can contribute meaningfully to sustainability initiatives.

This study by Wrigley-Asante, *et al.* (2017) ^[34] investigated gender dimensions of climate change adaptation strategies among small holder crop farmers in the transition zone of Ghana. A total of 612 farmers (328 females and 284 males) were interviewed using purposive sampling technique. Our results indicate that adaptation strategies are gendered with men mostly resorting to on-farm agronomic practices such as the use of artificial fertilizers and also moving into new cash crops. Female farmers also use similar on-farm agronomic practices particularly artificial fertilizers to boost crop production but most importantly resorted to petty trading in agricultural and consumable goods, an off-farm strategy. This shows women's resilience which has also subsequently improved their decision-making role at the household level, which is an indicator of empowerment. They recommended that institutions that support climate change adaptation initiatives at the local level must take gender differences into consideration and support particularly women to strengthen their resilience and consolidate their empowerment.

Methodology

The study utilized a descriptive research design to explore the role of gender equity in advancing climate change education and sustainable development. The target population comprised individuals participating in climate change education initiatives across various educational institutions in Nigeria, non-governmental organizations (NGOs), and community programs, including students, teachers, community leaders, and climate activists. A stratified random sampling technique was employed to ensure representation across different genders, age groups, and socio-economic backgrounds, resulting in a targeted sample size of 300 participants drawn from various regions in Nigeria. The primary research instrument was a structured questionnaire designed to gather quantitative data on participants' demographics, experiences with climate change education, and perceptions of gender equity. This questionnaire included 4-Likert-scale items to assess the effectiveness of educational frameworks and barriers to access faced by different genders. The questionnaire was administered both online and in person, with online distribution occurring via email and social media platforms, while in-person administration took place during workshops and community meetings. Quantitative data collected from the questionnaires were analyzed using IBM SPSS, employing descriptive statistics to summarize demographic data and inferential statistics, including the Pearson correlation coefficient, to examine relationships between gender equity perceptions and engagement levels in climate change education.

Results

Question 1: How do gender dynamics influence participation and engagement in climate change education initiatives?

Table 1: Descriptive Analysis of Responses on how gender dynamics influence participation and engagement in climate change education initiatives

	N	Mean	S.D	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
Gender influences my willingness to participate in climate change education initiatives.	300	3.66	.64	-1.93	0.14
I believe that men and women have equal opportunities to engage in climate change education programs.	300	3.74	.57	-2.06	0.14
Gender stereotypes affect the level of participation in climate change initiatives.	300	3.67	.67	-2.52	1.13
Female participation in climate change education initiatives is often lower than that of males.	300	3.65	.67	-1.66	1.14
Gender roles significantly impact the types of climate change initiatives individuals engage in.	300	3.40	1.10	-1.49	1.14

Table 1 shows that gender dynamics significantly influence participation in climate change education initiatives. Mean scores ranging from 3.40 to 3.74 suggest overall agreement on the role of gender. The highest mean (3.74) indicates that respondents perceive equal opportunities for men and women to engage in these programs. However, gender stereotypes (mean = 3.67) and roles (mean = 3.40) still impact the level and type of participation. Skewness values, especially for

gender stereotypes (-2.52) and participation (-1.93), further confirm that societal norms continue to influence engagement.

Question 2: In what ways do current educational frameworks address gender equity in the context of climate change and sustainable development?

Table 2: Descriptive Analysis of Responses on ways through which current educational frameworks address gender equity in the context of climate change and sustainable development

	N	Mean	S.D	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
Current educational frameworks adequately promote gender equity in climate change education.	300	2.81	0.80	-0.66	0.14
Gender equity is a core component of climate change education policies in my educational institution.	300	2.48	1.19	0.06	0.14
I am aware of educational programs that specifically target gender equity in climate change initiatives.	300	2.32	1.10	0.13	0.13
Current educational materials reflect diverse gender perspectives on climate change.	300	2.83	0.79	0.03	0.14
Training for teachers includes gender equity considerations in the context of climate change education.	300	2.80	2.05	10.73	0.14

Table 2 reveals mixed perceptions regarding how current educational frameworks address gender equity in climate change education. The mean scores range from 2.32 to 2.83, indicating a general lack of strong agreement on the adequacy of gender equity promotion. The highest mean (2.83) corresponds to the belief that current educational materials reflect diverse gender perspectives, while the lowest mean (2.32) reflects limited awareness of gender-specific

programs. Additionally, skewness values indicate varying opinions, with the most notable skewness for teacher training (10.73), suggesting inconsistencies in how gender equity is integrated into climate change education training programs.

Question 3: What are the key barriers that hinder equal access to climate change education for different genders?

Table 3: Descriptive Analysis of Responses on key barriers that hinder equal access to climate change education for different genders

	N	Mean	S.D	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
Cultural norms and beliefs are significant barriers to equal access to climate change education for different genders.	300	2.83	0.82	-0.64	0.14
Economic factors limit access to climate change education initiatives for certain genders.	300	2.61	1.26	-0.11	0.14
Lack of representation of women in leadership roles within climate change education initiatives affects access for females.	300	2.53	1.21	-0.13	0.13
Educational materials are often biased towards one gender, hindering equal access for all.	300	2.91	0.85	-0.05	0.14
Transportation and logistical issues disproportionately affect one gender's access to climate change education programs.	300	2.89	2.08	10.16	0.14

Table 3 reveals key barriers that hinder equal access to climate change education for different genders. Mean scores range from 2.53 to 2.91, indicating moderate agreement that various factors contribute to gender disparities in access. Cultural norms (mean = 2.83) and economic factors (mean = 2.61) are identified as significant barriers. Additionally, the lack of female representation in leadership roles (mean = 2.53) and biased educational materials (mean = 2.91) also

affect access. Skewness values reveal variation, particularly for transportation and logistical issues (skewness = 10.16), suggesting that these barriers disproportionately affect access for certain genders.

Question 4: How effective are gender-sensitive educational programs in enhancing understanding of climate change and promoting sustainable practices?

Table 4: Descriptive Analysis of Responses on how effective is gender-sensitive educational programs in enhancing understanding of climate change and promoting sustainable practices

	N	Mean	S.D	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
Gender-sensitive educational programs have improved my understanding of climate change issues.	300	3.69	0.63	-2.09	0.14
These programs effectively engage participants of all genders in sustainable practices.	300	3.77	0.53	-2.30	0.14
Gender-sensitive approaches in climate education lead to greater community involvement.	300	3.67	0.67	-2.57	0.13
I have observed positive changes in attitudes towards climate change as a result of gender-sensitive educational programs.	300	3.68	0.64	-1.78	0.14
Gender-sensitive educational programs are essential for promoting equity in sustainability efforts.	300	3.44	1.08	-1.63	0.14

Table 4 shows that respondents generally agree on the effectiveness of gender-sensitive educational programs in enhancing understanding of climate change and promoting sustainable practices. The mean scores range from 3.44 to 3.77, with the highest mean (3.77) indicating strong agreement that these programs effectively engage participants of all genders in sustainable practices. Additionally, the statements about improving understanding (mean = 3.69) and increasing community involvement (mean = 3.67) highlight the positive impact of gender-sensitive approaches. The skewness values, such as -2.30 for participant engagement and -2.57 for community involvement, indicate a significant agreement among respondents, reinforcing the importance of these programs for promoting equity in climate change education and sustainability efforts.

Discussion

The finding of the study shows that gender dynamics significantly influence participation and engagement in climate change education. Equal opportunities are perceived for men and women, but gender stereotypes and roles still impact participation levels. While respondents perceive equal opportunities for men and women, gender stereotypes and traditional roles still impact participation levels. Corroborating this finding, UNESCO (2019) [29] found that entrenched cultural norms often limit women's engagement, especially in male-dominated fields like climate change. Similarly, Eneji *et al.* (2020) [7] argue that stereotypes framing climate science as technical can discourage women's involvement. Agarwal (2018) [2] further suggests that women's participation tends to focus on caregiving or local environmental roles rather than broader policy-level initiatives, reinforcing the study's findings. Dankelman (2010) [5] also notes that even though women are disproportionately affected by climate change, traditional roles often limit their participation in climate education programs. These findings emphasize the persistent influence of gender stereotypes, suggesting the need for gender-sensitive policies to promote more inclusive participation.

The finding of the study reveals that current educational frameworks show mixed effectiveness in addressing gender equity. Educational materials reflect some gender diversity, but awareness of gender-specific programs and promotion of gender equity in policies is limited. While educational materials reflect some gender diversity, awareness of gender-specific programs and the promotion of gender equity in policies remains limited. This aligned with the finding of UNESCO (2020) [30] which found that gender equity is a priority in education but the practical implementation of gender-sensitive policies often falls short due to a lack of awareness and institutional support. Similarly, Levto *et al.* (2018) [16] emphasize that without strong frameworks and targeted efforts, gender equity initiatives tend to be underrepresented, particularly in climate change education. Kabeer (2016) [13] supports this by stating that while progress has been made in integrating gender diversity in educational content, systemic gaps in awareness and institutional commitment hinder full equity. These reveal the need for more comprehensive strategies to promote gender equity within educational policies and programs.

The finding of the study shows that key barriers to equal access include cultural norms, economic factors, biased educational materials, and lack of female leadership.

Transportation and logistical issues disproportionately affect one gender. This finding is consistent with existing literature on gender disparities in education such as UNICEF (2019) which found that cultural norms, especially in developing regions, often dictate gender roles, limiting women's access to education and leadership opportunities. Economic factors also disproportionately affect women, as Kabeer (2015) [12] points out, with lower income levels and limited resources often restricting their participation in educational programs. Furthermore, Sperling and Winthrop (2016) [25] argue that educational materials tend to reflect gender biases, which perpetuate stereotypes and hinder equitable access. The finding that transportation and logistical issues disproportionately affect one gender also echoes research by Mlambo-Ngcuka (2018) [18], who found that women often face greater mobility challenges, further limiting their participation in climate change education initiatives. These barriers collectively reveal the systemic challenges to achieving gender equity in education.

The study's findings shows that gender-sensitive educational programs are effective in improving understanding, promoting sustainable practices, and increasing community involvement, with strong agreement on their positive impact. This aligns with the research of UN Women (2020) [27], which emphasises that gender-sensitive approaches in education foster inclusivity and better engagement in sustainability initiatives. Similarly, WEDO (2019) [32] states that programs tailored to address gender differences tend to enhance participation and lead to more sustainable community-driven outcomes. The positive perception of these programs, as shown in the study, suggests their crucial role in promoting equity in climate change education and sustainability efforts.

Conclusion

The study found that gender dynamics significantly influence participation in climate change education, with gender stereotypes and roles still affecting engagement despite perceptions of equal opportunities. Current educational frameworks show limited effectiveness in addressing gender equity, and barriers such as cultural norms, economic factors, and lack of female leadership continue to hinder equal access. However, gender-sensitive educational programs have proven effective in enhancing understanding, promoting sustainable practices, and fostering community involvement, highlighting the importance of inclusive approaches to addressing climate change challenges and promoting sustainable development in Nigeria.

Recommendations

Based on the findings of the study the following recommendations were made:

1. Educational institutions should develop and implement policies that actively promote gender equity in climate change education, ensuring that materials and programs are inclusive and representative of diverse gender perspectives.
2. Government should provide training for educators on gender dynamics and the importance of gender-sensitive approaches in climate education. This can help in creating an inclusive learning environment that encourages participation from all genders.
3. The government should conduct community awareness campaigns to challenge and change entrenched cultural norms and stereotypes that hinder participation in

- climate education initiatives, particularly for women.
4. The inclusion of women in leadership roles within climate change education initiatives to serve as role models and mentors, helping to bridge the gender gap in participation should be encouraged and supported
 5. There should be improve transportation and logistical arrangements for educational programs to ensure that all genders can access climate change education initiatives without barriers.
 6. There should be the creation and promotion of specific educational programs that address the unique challenges and needs of different genders in relation to climate change, ensuring that all voices are heard and valued.
 7. The government should establish mechanisms for monitoring and evaluating the effectiveness of gender-sensitive programs and initiatives, using feedback to continuously improve and adapt educational frameworks to better address gender equity.

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How to Cite This Article

Ademola AL. The role of gender equity in advancing climate change education and sustainable development. *International Journal of Multidisciplinary Research and Growth Evaluation.* 2026;7(2):139–146.

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