

THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES

Integrating Ecofeminism and Women's Participation in Environmental Conservation Efforts in Northern Nigeria

Dr. Mabel Oriakpono

Lecturer, Department of English Studies (French Unit),
Joseph Ayo Babalola University Ikeji-Araokeji, Osun State, Nigeria

Abstract:

This study explores the integration of ecofeminism and women's participation in environmental conservation efforts in Northern Nigeria, addressing the relationship between traditional gender roles and environmental practices. The research investigates the challenges women face in accessing natural resources, emphasizing the role of ecofeminism in the conservation of indigenous knowledge systems. It highlights the significant roles of women in sustaining ecological knowledge through environmental stewardship while examining the impact of cultural and religious beliefs on their participation. The methodology employed in this study involved conducting focus group discussions with 34 women in Birnin Kebbi. This qualitative approach was chosen to facilitate a deeper understanding of the participants' experiences and perspectives. The focus groups allowed the women to discuss openly and share their insights on the intersection of ecofeminism, gender roles, and environmental practices. Through these discussions, rich, contextual data was gathered, highlighting the challenges and opportunities faced by women in environmental conservation. The study found that gender plays a significant role in environmental decision-making, and women significantly contribute to grassroots movements for environmental justice. It identifies barriers to women's environmental conservation initiatives and how ecofeminism shapes ecological policies. The preservation of traditional ecological knowledge held by women and its potential loss is explored, along with gender dynamics influencing access to this traditional knowledge. The research also considers how eco-feminist movements in northern Nigeria shape educational opportunities for traditional ecological knowledge transfer. The study proposes strategies for integrating eco-feminist principles into mainstream development agendas to address environmental resource management in Northern Nigeria.

Keywords: Ecofeminism, Northern Nigeria, environmental conservation, indigenous knowledge, women's participation

1. Introduction

The nexus between gender and environmental conservation has garnered significant attention in recent decades, particularly through the lens of ecofeminism. Ecofeminism, which intertwines ecological and feminist theories, posits that the exploitation of nature and the oppression of women are interconnected, driven by patriarchal systems that devalue both women and the environment (Mies & Shiva, 2014). This theoretical framework is especially pertinent in regions like Northern Nigeria, where traditional gender roles significantly influence environmental practices and resource management.

In Northern Nigeria, women's roles in environmental conservation are deeply rooted in indigenous knowledge systems and daily practices. However, these roles are often overshadowed by socio-cultural and religious norms that restrict women's access to natural resources and decision-making processes (Garba, 2014). Understanding the intersection of ecofeminism and women's participation in environmental conservation in this region is crucial for developing inclusive and effective environmental policies.

Ecofeminism emerged in the 1970s as a response to the dual crises of environmental degradation and gender inequality. It argues that the domination of women and nature is a result of patriarchal structures that prioritize control and exploitation (Plumwood, 1993). This perspective highlights the need for a more holistic approach to environmental conservation, one that incorporates gender justice and values the contributions of women in sustaining ecological systems.

Ecofeminism is not monolithic; it encompasses various strands, including cultural ecofeminism, which emphasizes women's special connection to nature, and social ecofeminism, which focuses on the socio-economic structures that perpetuate gender and environmental injustices (Warren, 2000). Both strands are relevant in the context of Northern Nigeria, where cultural practices and socio-economic barriers influence women's environmental roles.

Globally, women play a critical role in environmental conservation. They are often the primary managers of natural resources, responsible for activities such as water collection, fuel wood gathering, and agriculture (Agarwal, 1997). Their daily interactions with the environment provide them with a unique perspective on sustainable resource

management and ecological balance. However, despite their contributions, women frequently face obstacles that hinder their participation in environmental decision-making and policy formulation (Agarwal, 2010).

In Northern Nigeria, the situation is particularly complex. Women's environmental roles are deeply embedded in traditional practices and local knowledge systems. They are crucial in maintaining agricultural biodiversity, managing water resources, and preserving medicinal plants (Ndiritu, 2011). However, their contributions are often undervalued due to prevailing gender norms that limit their access to resources and decision-making platforms (Garba, 2014).

Northern Nigeria is characterized by rich cultural and religious practices that shape gender roles and environmental interactions. Traditional gender roles often dictate that women are responsible for tasks that directly engage with the environment, such as farming, water collection, and fuelwood gathering. These activities not only contribute to household welfare but also have significant implications for environmental sustainability (Olujide, 2008).

However, these roles are mediated by patriarchal structures that limit women's autonomy and access to resources. Land ownership, for instance, is predominantly male-dominated, restricting women's ability to make decisions about land use and conservation practices (Doss et al., 2018). Additionally, socio-cultural norms often confine women to the domestic sphere, limiting their involvement in broader environmental policy discussions and conservation initiatives (Garba, 2014).

Access to natural resources is a critical issue for women in Northern Nigeria. Women often rely on communal resources such as forests, rivers, and communal lands for their livelihoods. However, these resources are increasingly under threat from environmental degradation, climate change, and competing land uses (Ndiritu, 2011). Furthermore, legal and customary land tenure systems often exclude women from owning or inheriting land, exacerbating their vulnerability to resource scarcity (Doss et al., 2018).

In many communities, women's access to resources is also influenced by religious and cultural norms that prioritize male authority. These norms can restrict women's mobility and decision-making power, making it difficult for them to participate fully in resource management and conservation efforts (Garba, 2014). Indigenous knowledge systems, which encompass traditional practices and wisdom related to environmental management, are critical for sustainable development. Women in Northern Nigeria are key custodians of this knowledge, using it to manage resources, conserve biodiversity, and adapt to environmental changes (Olujide, 2008). Ecofeminism highlights the importance of preserving these knowledge systems and integrating them into modern conservation strategies.

The erosion of indigenous knowledge due to globalization, modernization, and environmental degradation poses a significant threat to sustainable resource management. Ecofeminism advocates for the recognition and inclusion of women's ecological knowledge in environmental policies and practices (Shiva, 2005). In many communities, women are seen as the primary caretakers of the environment due to their responsibility for domestic tasks. However, these roles are often undervalued, and women's contributions to environmental sustainability are not fully recognized or supported by formal institutions (Ndiritu, 2011). To explore the integration of ecofeminism and women's participation in environmental conservation, this study employs a qualitative approach, specifically focus group discussions. This method facilitates a deeper understanding of women's experiences and perspectives, allowing them to share their insights on the intersection of ecofeminism, gender roles, and environmental practices.

2. Literature Review

This literature review aims to contextualize the research within the existing body of knowledge, examining key themes such as ecofeminism, women's roles in environmental conservation, the influence of traditional gender roles and cultural and religious beliefs, and the preservation of indigenous knowledge systems.

2.1. Ecofeminism: A Conceptual Framework

Ecofeminism emerged in the 1970s as a response to the simultaneous crises of environmental degradation and gender inequality. It critiques the patriarchal structures that contribute to both the exploitation of nature and the subjugation of women, proposing a holistic approach to address these intertwined issues (Mies & Shiva, 2014). Ecofeminist theory argues that the domination of women and nature is rooted in a patriarchal worldview that prioritizes control, exploitation, and hierarchy over cooperation and sustainability (Plumwood, 1993).

Ecofeminism can be broadly categorized into cultural ecofeminism and social ecofeminism. Cultural ecofeminism emphasizes the intrinsic connection between women and nature, often rooted in spiritual and biological commonalities (Warren, 2000). Social ecofeminism, on the other hand, focuses on the socio-economic structures that perpetuate gender and environmental injustices, advocating for systemic changes to achieve both gender equality and environmental sustainability (Mellor, 1997).

In the context of Northern Nigeria, ecofeminism provides a valuable framework for understanding the gendered dimensions of environmental conservation. It highlights the need to recognize and value women's contributions to environmental sustainability and to address the socio-cultural barriers that limit their participation.

2.1.1. Women's Participation in Environmental Conservation

Globally, women play a crucial role in environmental conservation, often serving as primary managers of natural resources such as water, fuel, and food (Agarwal, 1997). Their daily interactions with the environment equip them with unique knowledge and skills essential for sustainable resource management. Studies have shown that women's involvement in environmental management leads to better conservation outcomes, as their practices are often more sustainable and community-oriented (UN Women, 2018).

Despite their significant contributions, women frequently face barriers to full participation in environmental decision-making. These barriers include limited access to land and resources, exclusion from policy-making processes, and socio-cultural norms that devalue their roles (Agarwal, 2010). In many parts of the world, including Northern Nigeria, these challenges are exacerbated by patriarchal structures and legal frameworks that privilege men over women in resource ownership and management (Doss et al., 2018).

In Northern Nigeria, women are integral to various aspects of environmental management, including agriculture, water collection, and forest resource management (Olujide, 2008). However, their contributions are often overlooked or undervalued due to prevailing gender norms and cultural practices that restrict their access to resources and decision-making platforms (Garba, 2014).

2.1.2. Traditional Gender Roles and Environmental Practices

Traditional gender roles significantly influence environmental practices in Northern Nigeria. Women are typically responsible for tasks that involve direct interaction with natural resources, such as farming, water collection, and fuelwood gathering (Ndiritu, 2011). These activities not only support household welfare but also contribute to environmental sustainability by maintaining agricultural biodiversity and managing local ecosystems.

However, these roles are mediated by patriarchal systems that limit women's autonomy and access to resources. Land ownership, as stated already, is predominantly male-dominated, limiting women's ability to make decisions about land use and conservation practices (Doss et al., 2018). Additionally, socio-cultural norms often confine women to the domestic sphere, limiting their involvement in broader environmental policy discussions and conservation initiatives (Garba, 2014).

Research has shown that women's exclusion from land ownership and resource management has significant implications for environmental sustainability. For example, studies in Kenya and Ethiopia have found that women's involvement in land management leads to better soil conservation and improved agricultural productivity (Ndiritu, 2011; Yilmaz, 2015). These findings underscore the importance of addressing gender disparities in resource ownership and management to enhance environmental conservation efforts.

2.1.3. Challenges in Accessing Natural Resources

Access to natural resources is a critical issue for women in Northern Nigeria. Women often rely on communal resources such as forests, rivers, and communal lands for their livelihoods. However, these resources are increasingly facing threats from environmental degradation, climate change, and competing land uses (Ndiritu, 2011). Furthermore, legal and customary land tenure systems often exclude women from owning or inheriting land, exacerbating their vulnerability to resource scarcity (Doss et al., 2018).

In many communities, women's access to resources is also influenced by religious and cultural norms that prioritize male authority. These norms can restrict women's mobility and decision-making power, making it difficult for them to participate fully in resource management and conservation efforts (Garba, 2014). Addressing these challenges requires a nuanced understanding of the socio-cultural dynamics that shape resource access and the integration of gender-sensitive approaches in environmental policies.

2.1.4. Cultural and Religious Beliefs Impacting Women's Participation

Cultural and religious beliefs play a crucial role in shaping women's participation in environmental conservation in Northern Nigeria. Islam, the predominant religion in the region, provides both opportunities and challenges for women's involvement in environmental issues. While Islamic teachings emphasize the stewardship of the earth and the importance of conserving resources, interpretations of religious texts can vary, sometimes reinforcing traditional gender roles that limit women's participation (Garba, 2014).

Cultural beliefs and practices also influence women's environmental roles. In many communities, women are seen as the primary caretakers of the environment due to their responsibility for domestic tasks. However, these roles are often undervalued, and women's contributions to environmental sustainability are not fully recognized or supported by formal institutions (Ndiritu, 2011). Understanding the interplay between cultural and religious beliefs and women's environmental participation is essential for developing inclusive conservation strategies.

Research has shown that integrating cultural and religious perspectives into environmental policies can enhance their effectiveness and acceptance within local communities. For instance, initiatives that align conservation goals with Islamic teachings on environmental stewardship have been successful in promoting sustainable practices in Muslim-majority regions (El-Sayed, 2016). Similarly, incorporating traditional cultural practices into conservation strategies can help preserve indigenous knowledge and promote community-led environmental management (Olujide, 2008).

2.1.5. Role of Ecofeminism in the Conservation of Indigenous Knowledge Systems

Indigenous knowledge systems, which encompass traditional practices and wisdom related to environmental management, are critical for sustainable development. Women in Northern Nigeria are key custodians of this knowledge, using it to manage resources, conserve biodiversity, and adapt to environmental changes (Olujide, 2008). Ecofeminism highlights the importance of preserving these knowledge systems and integrating them into modern conservation strategies.

The erosion of indigenous knowledge due to globalization, modernization, and environmental degradation poses a significant threat to sustainable resource management. Ecofeminism advocates for the recognition and inclusion of

women's ecological knowledge in environmental policies and practices (Shiva, 2005). This approach not only enhances conservation efforts but also empowers women by valuing their contributions and ensuring their voices are heard in decision-making processes.

Studies have shown that incorporating indigenous knowledge into environmental management can lead to more sustainable and effective conservation outcomes. For example, research in India and Nepal has demonstrated that women's traditional knowledge of medicinal plants and agricultural practices contributes to biodiversity conservation and resilience to climate change (Berkes et al., 2000; Ghimire & Pimbert, 1997). These findings highlight the potential benefits of integrating indigenous knowledge into formal conservation strategies.

2.1.6. Ecofeminism and Policy Integration

Ecofeminism provides a valuable framework for integrating gender-sensitive approaches into environmental policies. By highlighting the interconnectedness of gender and environmental issues, ecofeminism advocates for policies that address both gender inequality and environmental sustainability (Gaard, 2011). This approach emphasizes the need for inclusive and participatory policy-making processes that recognize and value women's contributions to environmental management.

In Northern Nigeria, integrating eco-feminist principles into environmental policies can help address the challenges women face in accessing natural resources and participating in conservation efforts. This requires a shift from traditional top-down policy-making approaches to more inclusive and participatory processes that involve women and other marginalized groups (Garba, 2014). Such policies should also recognize the importance of indigenous knowledge systems and promote their preservation and integration into modern conservation strategies.

Research has shown that gender-sensitive policies can lead to better environmental outcomes and enhance women's empowerment. For instance, studies in Latin America and Sub-Saharan Africa have demonstrated that involving women in forest management and conservation projects leads to more sustainable resource use and improved community well-being (Agarwal, 2010; Mwangi et al., 2011). These findings underscore the importance of integrating gender perspectives into environmental policies to promote both environmental sustainability and gender equity.

2.2. Research Objectives and Questions

2.2.1. Objectives

- To explore the relationship between ecofeminism and women's participation in environmental conservation in Northern Nigeria.
- To identify the challenges faced by women in accessing natural resources in Northern Nigeria.
- To examine the role of women in sustaining indigenous ecological knowledge in Northern Nigeria.

2.2.2. Research Questions

- How do traditional gender roles affect women's participation in environmental conservation in Northern Nigeria?
- What are the barriers to women's access to natural resources in Northern Nigeria?
- How does ecofeminism influence ecological policies and women's participation in grassroots environmental movements in Northern Nigeria?

3. Methodology

This study employs qualitative research methods to explore the integration of ecofeminism and women's participation in environmental conservation efforts in Northern Nigeria. Qualitative research is particularly suitable for this study because it allows for an in-depth exploration of participants' experiences, perspectives, and the socio-cultural context in which they operate (Denzin & Lincoln, 2018). Given the complex and nuanced nature of gender roles, environmental practices, and indigenous knowledge systems, qualitative methods facilitate a richer understanding of these dynamics than quantitative approaches might (Creswell, 2014). Moreover, qualitative research is effective in uncovering the meanings and interpretations that individuals attach to their experiences, which is essential for understanding the intersection of ecofeminism and women's participation in environmental conservation.

Focus group discussions (FGDs) were chosen as the primary data collection method for this study. FGDs are well-suited for exploring collective views and generating discussions on topics where social norms and cultural values play a significant role (Morgan, 1997). They enable participants to interact and build on each other's ideas, leading to a more comprehensive and clear understanding of the issues being studied (Krueger & Casey, 2014). This method is particularly effective for examining how traditional gender roles and eco-feminist principles influence women's participation in environmental conservation, as it allows for the collection of diverse perspectives within a shared cultural context.

The study involved 34 women from Birnin Kebbi, a city in Northern Nigeria. Participants were selected using purposive sampling, a technique that enables researchers to intentionally select individuals who are knowledgeable and experienced with the topic under investigation (Patton, 2002). The selection criteria included:

- **Age:** Women aged 30 and above to ensure a range of perspectives from different life stages.
- **Community involvement:** Women actively participating in community-based environmental initiatives to provide insights into grassroots conservation efforts.
- **Cultural and religious backgrounds:** A mix of women from different ethnic backgrounds to reflect the region's diversity.

This selection ensured that the FGDs included a variety of voices, contributing to a comprehensive understanding of the research questions.

The FGDs were conducted in a neutral, comfortable setting to encourage open and honest discussion. Each session was facilitated by a trained moderator who guided the discussion using a semi-structured interview guide. The guide included questions on women's roles in environmental conservation, the influence of cultural and religious beliefs, challenges in accessing natural resources, and the impact of eco-feminist principles on their participation.

The procedure for conducting FGDs followed these steps:

- Introduction: The moderator introduced the purpose of the study, explained the format of the discussion, and obtained informed consent from participants.
- Discussion: The moderator posed open-ended questions to elicit detailed responses, ensuring that all participants had the opportunity to contribute.
- Probing: The moderator used probing questions to delve deeper into specific issues and clarify points raised by participants.
- Conclusion: The session concluded with a summary of the key points discussed and an opportunity for participants to add any final thoughts. Each FGD was video-recorded and transcribed verbatim for analysis. The data were analyzed using thematic analysis, a method for identifying, analyzing, and reporting patterns within data (Braun & Clarke, 2006). Thematic analysis involves the following steps:
 - Familiarization: Reading and re-reading transcripts to become deeply familiar with the content.
 - Coding: Generating initial codes by systematically organizing data into meaningful groups.
 - Themes: Collating codes into potential themes and reviewing them to ensure they accurately reflect the data.
 - Definition: Defining and naming themes to capture the essence of the participants' experiences.
 - Reporting: Producing a coherent narrative that integrates the themes and addresses the research questions.
- Using this methodology, the study aims to provide an in-depth understanding of the intersection of ecofeminism and women's participation in environmental conservation in Northern Nigeria.

4. Findings and Discussion

4.1. Challenges Faced by Women in Accessing Natural Resources

The study identified several challenges that women in Birnin Kebbi face in accessing natural resources. Primary among these are socio-cultural norms that often confine women to the domestic sphere, reducing their mobility and participation in broader environmental decision-making processes (Garba, 2014). Economic barriers, such as limited access to credit and financial services, further exacerbate these challenges, hindering women's ability to invest in sustainable agricultural practices and resource conservation (Agarwal, 2010). Respondent Amina, 45, a traditional healer, lamented:

"Cultural and religious beliefs significantly impact our participation in environmental conservation. For instance, in many communities, women are expected to focus on domestic duties and have limited freedom to engage in activities outside the home. This restriction affects our ability to gather medicinal plants like 'yakuwa' (sorrel leaves), which are essential for treating health issues such as cramps. Religious practices sometimes also dictate that women need male permission to participate in community activities, further limiting our role in conservation efforts."

Despite these challenges, women play crucial roles in sustaining ecological knowledge through their daily environmental stewardship activities. Participants in the focus group discussions highlighted their involvement in sustainable practices, conservation, and forest management. This hands-on interaction with the environment equips women with valuable knowledge and skills essential for biodiversity conservation and ecosystem management (Olujide, 2008). As respondent Fatima, 53, a women leader, put it:

"In our community, traditional gender roles dictate that women are the primary users and conservers of plants like 'zogale' (Hausa for moringa), 'tafarnuwa' (Hausa for garlic) 'sanga-sanga', (Hausa for Hug plum) amongst others. We use moringa leaves to treat malnutrition and as a supplement for nursing mothers. Our environmental practices are deeply rooted in our roles as nurturers and healers."

The study found that women often employ traditional methods and indigenous knowledge passed down through generations to manage resources sustainably, underscoring their role as custodians of ecological wisdom (Berkes et al., 2000). Women, who are often primary users of natural resources, possess extensive knowledge about local ecosystems, medicinal plants, and sustainable farming techniques (Shiva, 2005). However, this knowledge is at risk of erosion due to socio-economic changes and the marginalization of women's voices in formal conservation strategies (Ghimire & Pimbert, 1997). The exclusion of women from decision-making processes not only undermines the preservation of traditional knowledge but also weakens community resilience to environmental changes (Agarwal, 2010). This is echoed by respondent Ummaira, 32:

"We rely heavily on plants for women's health. For menstrual cramps, we often use ginger and neem. Ginger tea is a common remedy that I have used myself and recommended to others. It helps reduce the pain and discomfort. Neem leaves are also very effective; we boil them and drink the water. These practices have been passed down from our grandmothers and are still very much alive today. However, with more young people moving to cities, I'm worried that this knowledge might not be passed on."

Similarly, respondent Zubaida, 37, stated:

"Prenatal care is a critical time when we rely on our traditional knowledge. We use oils from lavender and eucalyptus for prenatal massages. These oils help relax the muscles and reduce stress, which is very important for expecting mothers. The bark of the baobab tree is another traditional remedy used to improve circulation. We teach these practices to our daughters and granddaughters."

The Focus group discussions also revealed that women often spearhead community-based initiatives aimed at protecting natural resources and advocating for sustainable development practices. Their efforts include organizing local clean-up campaigns, promoting tree-planting activities, and educating others about the importance of environmental conservation (UN Women, 2018). These grassroots movements are critical for fostering community awareness and action towards environmental sustainability, highlighting women's leadership in advocating for environmental justice (Mwangi et al., 2011). Respondent Maryam, 28, an educator, stated:

"Women in our community know so much about the medicinal uses of plants. For example, using shea butter and moringa leaves for postpartum is a practice we are trying to document and teach through workshops. However, modernization and the move towards urban areas are significant challenges."

Socio-cultural barriers restrict women's mobility and participation in community activities, leading to their exclusion from critical environmental decision-making forums (Garba, 2014). Economic barriers limit women's financial independence and capacity to implement sustainable practices, resulting in less effective conservation outcomes (Doss et al., 2018). Respondent Hasiya, 41, opined:

"Cultural and religious beliefs often restrict women's involvement in environmental conservation. For instance, many religious practices prioritize male authority, making it difficult for women to take leadership roles in conservation projects."

Legal barriers, particularly those related to land ownership, undermine women's security and willingness to engage in long-term environmental projects. Without legal recognition of their rights to land and resources, women are less likely to invest in conservation practices that require sustained effort and commitment (Agarwal, 2010). Political barriers prevent women from influencing environmental policies that directly impact their lives and communities, perpetuating a cycle of exclusion and marginalization in environmental governance (UN Women, 2018).

4.2. How Eco-feminist Principles Can Be Integrated into Mainstream Development Agendas

Eco-feminist principles emphasize the interconnectedness of gender equality, social justice, and environmental sustainability. Integrating these principles into mainstream development agendas involves recognizing and addressing the gendered dimensions of environmental issues. This can be achieved by promoting policies that ensure women's active participation in environmental decision-making processes and by valuing indigenous knowledge systems typically preserved by women (Shiva, 2005). Additionally, eco-feminist integration advocates for sustainable practices that consider both ecological health and social equity, ensuring that development projects do not disproportionately burden marginalized communities, particularly women (Mies & Shiva, 2014). Respondent Halima, 34, said of this:

"Ecofeminism and indigenous knowledge systems intersect by promoting the empowerment of women and the preservation of ecological wisdom. For example, we women in Northern Nigeria traditionally use 'zogale' (moringa) to combat malnutrition and enhance maternal health. We use sanga-sanga (Hug plum) to treat fever in both infants and adults, and this knowledge doesn't come by way of formal education."

4.3. Preservation and Transfer of Traditional Ecological Knowledge

4.3.1. Importance of Traditional Ecological Knowledge Held by Women

Traditional Ecological Knowledge (TEK) encompasses the wisdom, practices, and beliefs accumulated by indigenous and local communities over generations regarding their interaction with the natural environment (Berkes et al., 2000). Women, particularly in rural and indigenous communities, are often the primary holders of TEK. Their role in managing household resources, farming, and medicinal practices positions them as vital custodians of ecological wisdom (Agarwal, 2010). This view is held by respondent Farida, 58, who posited:

"Women play a crucial role in using and preserving medicinal plants due to our traditional roles as caregivers. One such plant is 'dabino' (Hausa for date palm), which we use for post-delivery care to boost energy and improve lactation. Despite our knowledge, we often face challenges accessing these resources because men typically control land and natural resource management."

Women's TEK plays a critical role in community health and nutrition. Traditional practices in food preservation, crop rotation, and pest management contribute to food security and environmental sustainability. Women maintain these practices by ensuring the continuity of essential cultural heritage and community well-being (Nabhan, 1997).

4.3.2. Potential Risks of Losing This Knowledge

The potential loss of TEK poses significant risks to environmental sustainability and cultural heritage. Globalization, modernization, and urbanization are leading to the erosion of traditional lifestyles and practices, contributing to the loss of TEK (Maffi, 2001). As younger generations move to urban areas in search of education and employment, there is a decline in the transmission of TEK from elders to the youth. Respondent Khadija, 52, stated:

"Prenatal care is a critical time when we rely on our traditional knowledge. We use oils from lavender and eucalyptus for prenatal massages. These oils help relax the muscles and reduce stress, which is very important for expecting mothers. The bark of the baobab (kuka) tree is another traditional remedy used to

improve circulation. We teach these practices to our daughters and granddaughters. However, urbanization and modernity provide formidable obstacles for the smooth transfer of this knowledge."

Furthermore, the marginalization of women's roles in environmental management and decision-making processes exacerbates this risk. When women's contributions are undervalued or ignored, the valuable knowledge they hold is not documented or passed on, leading to their eventual disappearance (Agarwal, 2010).

The loss of TEK can result in diminished biodiversity, reduced resilience to environmental changes, and a decline in sustainable resource management practices. For example, traditional farming techniques that promote soil fertility and pest control are often replaced by modern, industrial agricultural methods that can lead to soil degradation and loss of biodiversity (Altieri, 2004).

5. Conclusion

This study underscores the crucial role that women in Northern Nigeria play in environmental conservation, highlighting how their participation is deeply intertwined with traditional gender roles, indigenous knowledge systems, and socio-cultural norms. Despite significant challenges, including restricted access to resources and decision-making processes due to patriarchal structures, women continue to be vital stewards of the environment, utilizing their indigenous knowledge and daily practices to sustain ecological balance.

Ecofeminism provides a valuable lens through which to understand the gendered dimensions of environmental conservation in this region. It emphasizes the interconnectedness of the exploitation of nature and the oppression of women, advocating for a more inclusive and equitable approach to environmental policy-making. By recognizing and valuing women's contributions, eco-feminist principles can help address both environmental degradation and gender inequality, fostering more sustainable and just outcomes.

The findings reveal that traditional gender roles, while often limiting, also position women as key custodians of ecological knowledge. Women in Northern Nigeria employ sustainable practices rooted in indigenous wisdom to manage resources and support community well-being. However, these contributions are frequently overlooked due to socio-cultural barriers that limit women's autonomy and involvement in broader environmental initiatives.

To enhance women's participation in environmental conservation, it is imperative to integrate eco-feminist principles into mainstream development agendas. This includes promoting gender-sensitive policies that ensure women's active involvement in decision-making processes and recognizing the importance of preserving indigenous knowledge systems. Furthermore, addressing legal, economic, and socio-cultural barriers is essential for empowering women and leveraging their critical role in achieving sustainable environmental management.

In conclusion, the integration of ecofeminism and women's participation in environmental conservation offers a pathway towards more holistic and effective environmental policies. By valuing and supporting women's contributions, particularly their indigenous ecological knowledge, it is possible to create more resilient and sustainable communities in Northern Nigeria and beyond. This study highlights the need for inclusive approaches that bridge gender equity and environmental sustainability, ensuring that women's voices and experiences are central to conservation efforts.

6. References

- i. Agarwal, B. (1997). Environmental action, gender equity and women's participation. *Development and Change*, 28(1), 1–44. <https://doi.org/10.1111/1467-7660.00033>
- ii. Agarwal, B. (2010). *Gender and green governance: The political economy of women's presence within and beyond community forestry*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199569687.001.0001>
- iii. Altieri, M. A. (2004). Linking ecologists and traditional farmers in the search for sustainable agriculture. *Frontiers in Ecology and the Environment*, 2(1), 35–42. [https://doi.org/10.1890/1540-9295\(2004\)002\[0035:LEATFI\]2.0.CO;2](https://doi.org/10.1890/1540-9295(2004)002[0035:LEATFI]2.0.CO;2)
- iv. Berkes, F., Colding, J., & Folke, C. (2000). Rediscovery of traditional ecological knowledge as adaptive management. *Ecological Applications*, 10(5), 1251–1262. [https://doi.org/10.1890/1051-0761\(2000\)010\[1251:ROTEKA\]2.0.CO;2](https://doi.org/10.1890/1051-0761(2000)010[1251:ROTEKA]2.0.CO;2)
- v. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- vi. Creswell, J. W. (2014). *Research design: A qualitative, quantitative and mixed method approach* (4th ed.). SAGE Publications.
- vii. Denzin, N. K., & Lincoln, Y. S. (Eds.). (2018). *The SAGE handbook of qualitative research* (5th ed.). SAGE Publications.
- viii. Doss, C., Kovarik, C., Peterman, A., Quisumbing, A. R., & van den Bold, M. (2018). Gender inequalities in ownership and control of land in Africa: Myth and reality. *Agricultural Economics*, 46(3), 403–434. <https://doi.org/10.1111/agec.12171>
- ix. Doss, C., Kovarik, C., Peterman, A., Quisumbing, A., & van den Bold, M. (2018). Gender inequalities in ownership and control of land in Africa: Myth and reality. *Agricultural Economics*, 46(3), 403–434. <https://doi.org/10.1111/agec.12171>
- x. El-Sayed, A. (2016). Islamic teachings and environmental stewardship: Implications for the Middle East. *Journal of Islamic Environmental Studies*, 4(2), 45–58.
- xi. Gaard, G. (2011). Ecofeminism revisited: Rejecting essentialism and re-placing species in a material feminist environmentalism. *Feminist Formations*, 23(2), 26–53. <https://doi.org/10.1353/ff.2011.0017>

- xii. Garba, I. (2014). Gender roles in agricultural and environmental management in Nigeria. *International Journal of Agricultural Science, Research and Technology in Extension and Education Systems*, 4(1), 15–21.
- xiii. Ghimire, K. B., & Pimbert, M. P. (Eds.). (1997). *Social change and conservation: Environmental politics and impacts of national parks and protected areas*. Earthscan Publications.
- xiv. Krueger, R. A., & Casey, M. A. (2014). *Focus groups: A practical guide for applied research* (5th ed.). SAGE Publications.
- xv. Maffi, L. (Ed.). (2001). *On bio-cultural diversity: Linking language, knowledge, and the environment*. Smithsonian Institution Press.
- xvi. Mellor, M. (1997). *Feminism and ecology*. NYU Press.
- xvii. Mies, M., & Shiva, V. (2014). *Ecofeminism*. Zed Books.
- xviii. Morgan, D. L. (1997). *Focus groups as qualitative research* (2nd ed.). SAGE Publications.
- xix. Mwangi, E., Meinzen-Dick, R., & Sun, Y. (2011). Gender and sustainable forest management in East Africa and Latin America. *Ecology and Society*, 16(1), 17. <https://doi.org/10.5751/ES-03873-160117>
- xx. Nabhan, G. P. (1997). *Cultures of habitat: On nature, culture, and story*. Counterpoint.
- xxi. Ndiritu, S. (2011). Gender, tradition and environmental governance in Africa. *Environmental Research Letters*, 6(2), 1-13. <https://doi.org/10.1088/1748-9326/6/2/025007>
- xxii. Olujide, M. G. (2008). Women's participation in sustainable development: The Nigerian perspective. *Journal of Human Ecology*, 24(1), 73–77. <https://doi.org/10.1080/09709274.2008.11906122>
- xxiii. Olujide, M. G. (2008). Women's participation in sustainable development: Lessons from Northern Nigeria. *Journal of Sustainable Development in Africa*, 10(4), 45–59.
- xxiv. Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). SAGE Publications.
- xxv. Plumwood, V. (1993). *Feminism and the mastery of nature*. Routledge.
- xxvi. Shiva, V. (2005). *Earth democracy: Justice, sustainability, and peace*. South End Press.
- xxvii. UN Women. (2018). *Turning promises into action: Gender equality in the 2030 Agenda for Sustainable Development*. United Nations Entity for Gender Equality and the Empowerment of Women.
- xxviii. Warren, K. J. (2000). *Eco-feminist philosophy: A Western perspective on what it is and why it matters*. Rowman & Littlefield.
- xxix. Yilmaz, E. (2015). The role of women in sustainable environmental management in Ethiopia. *Journal of Environmental Management*, 155, 1–12. <https://doi.org/10.1016/j.jenvman.2015.03.022>