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Research Article

Perceptions and Lived Realities of Women's Engagement in Environmental Conservation in Patriarchal Communities of Northern Uganda: A Qualitative Inquiry

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Abstract

Background: Women's participation in environmental conservation within patriarchal societies is a critical factor for achieving sustainable development and improved community outcomes. Despite this importance, limited research has examined women's perceptions of their roles and contributions to environmental conservation. The current study aimed to (1) explore women's perceptions of their roles in environmental conservation within patriarchal structures, and (2) to document the effectiveness of strategies enhancing their participation.

Methods: This study followed a phenomenological design, using thematic data analysis. Information was gathered through semi-structured interviews, focus group discussions (FGDs), and key informant interviews with technocrats, civil servants, local leaders, and NGO staff. The sample size of the study was 30 participants, obtained using the point of saturation principle. The focus group consisted of 24 participants and 06 Key Informants. The study tools were pretested with a small group before the main fieldwork. Participants were selected using purposive sampling. The size of the sample was guided by data saturation.

Results: The findings show that although women's representation in local councils and environmental committees has grown due to the 30% quota requirement, their influence remains constrained by systemic barriers. Political interference undermines technical teams' conservation efforts, while widespread community ignorance of environmental laws limits compliance. Weak enforcement and corruption, with leaders themselves implicated in destructive practices, further erode progress. Critically, inadequate financing such as sub-counties allocating only 600,000 shillings for sensitization, leaves many activities unimplemented, forcing reliance on development partners.

Conclusion: The study concludes that sustainable environmental stewardship requires not only legal reforms and institutional accountability but also adequate financing and community-driven strategies that amplify women's voices and foster collective responsibility.

Keywords:
women's participation; environmental conservation; patriarchy; political interference; legal enforcement; inadequate financing; community sensitization; Gulu District

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Introduction

The organization of society often stratifies individuals based on gender, with patriarchal structures perpetuating the marginalization of women from full participation in socio-economic and political spheres. This marginalization stems from societal undervaluation of attributes traditionally categorized as feminine [1]. Patriarchal societies are typified by entrenched gender hierarchies, where men possess dominant access to resources and are socially constructed as inherently superior, more competent, and exclusively capable [2]. These patriarchal norms significantly shape the dynamics of environmental governance, often marginalizing women's voices and participation, even in the face of escalating environmental degradation that poses grave threats to both human and ecological survival [3, 4]. According to Kiørboe et al. (2005), there are three compelling reasons for integrating gender considerations into natural resource management in indigenous communities. Firstly, both indigenous women and men possess valuable knowledge of natural resources and their management, making their involvement indispensable for sustainable development. Secondly, sustainable resource management necessitates the active participation of both genders as partners and agents. Lastly, indigenous families traditionally rely on the integrated efforts of women and men in daily life, highlighting the interconnectedness of their roles.

Gulu District was purposively selected for this study due to its deeply rooted patriarchal social order [5]. The community is characterized by pronounced male dominance, not only in resource control but also in the governance of familial and communal affairs, to the exclusion of women and children. Simultaneously, the region is facing acute environmental degradation. Between 2010 and 2021, Gulu District experienced a loss of approximately 38,700 hectares of forest cover, reflecting a 6.2% decline in forested land [6]. These developments underscore the urgency of examining the effectiveness of strategic interventions used by stakeholders to facilitate inclusive and sustainable environmental stewardship. The Office of the High Commissioner for Human Rights [7], notes that men and women play distinct roles in the management and utilization of natural environments. Therefore, challenging the structural and cultural impediments posed by patriarchal systems requires the collaborative involvement of all stakeholders. Sustainable environmental management is not merely a technical endeavor but a

deeply social process that necessitates the active and equitable participation of both genders as partners and agents of change [8]. Women's engagement in conservation initiatives is thus not optional; it is a prerequisite for ecological resilience and sustainability [9].

Consequently, this study through it's objectives deemed it imperative to (1) explore women's perceptions of their roles in environmental conservation within patriarchal structures, and (2) to document the effectiveness of strategies enhancing their participation. The research interrogates the extent to which these strategies are not only operationally sound but also contextually responsive to the lived realities of women navigating patriarchal constraints in Gulu District.

Theoretical framework

The study was guided by Feminist Political Ecology (FPE), a framework that illuminates how women's everyday experiences are shaped by broader systems of power, culture, and politics. FPE reminds us that environmental conservation is not only about policies or technical solutions, it is deeply about people's lives, their struggles, and their voices. In Gulu District, the stories of women reveal how patriarchal norms, political interference, and limited resources restrict their ability to participate fully in conservation, even when laws promise them representation. Yet, these same narratives also highlight remarkable resilience: women organize at the grassroots, lead sensitization efforts, and actively seek to include men as allies in dismantling barriers. By situating these lived experiences within FPE, the study underscores both the constraints imposed by structural inequalities and the agency women exercise in negotiating them, offering a richer understanding of the human dimensions of environmental governance.

LITERATURE REVIEW

Worldwide, women actively contribute to environmental management activities in diverse sectors, such as agriculture, fisheries, and forestry, while also playing a vital role in initiatives aimed at conservation and protection of the environment [10]. In Africa women are engaged in conservation activities and the management of the environment. However, they are ignored as environmental partners and are not given the attention they deserve as part of the stakeholders (ibid). Yet as essential contributors to social systems, they play a pivotal role in development, particularly in environmental conservation efforts [1]. Consequently, stakeholders have implemented various strategies to enhance women's engagement in environmental conservation activities, including:

Enacting and adoption of legal instruments to promote equal participation

Women are the primary users and managers of environmental resources, a fact that underscores the importance of considering gender dynamics in any policy intervention related to environmental conservation [11]. Many countries, including Uganda, have implemented various international and national strategies to address environmental issues and have enacted laws pertaining to environmental protection (Reena, 2016). Notably, initiatives such as the Beijing Declaration and Platform for Action have recognized gender inequalities in natural resource management and environmental safeguarding as critical areas requiring strategic action by governments, civil society, and other stakeholders [12]. Moreover, the 4th UN Environmental Assembly in 2019 adopted a resolution aimed at promoting gender equality, human rights, and the empowerment of women and girls in environmental governance (UNEP/EA.4/RES.17, 2019). This reflects a global acknowledgment of the importance of a gender-sensitive approach in addressing environmental challenges, leading to its integration into national plans and international agreements (UN-Environment, 2019). Gender equality has become a mainstream concept in Multilateral Environmental Agreements (MEAs), including prominent conventions such as the Rio Conventions (CBD, UNFCCC, UNCCD) and the Basel, Rotterdam, and Stockholm Conventions, as well as major environmental financial mechanisms like the Global Environment Facility (GEF) and the Green Climate Fund (GCF) (ibid).

Despite these advancements, the effectiveness of gender-sensitive policies in promoting women's participation in environmental conservation remains questionable in Uganda. While the country has comprehensive gender policies and legal provisions, their implementation on the ground often falls short [13]. For instance, although the Environment Act of 1995 aims to ensure sustainable management of the environment and includes provisions for equitable and gender-responsive use of natural resources,

it lacks specific measures addressing gender dynamics and social contexts [14]. Furthermore, implementation challenges such as inadequate funding and staffing hinder the enforcement of environmental laws in Uganda [15]. Consequently, there is a need to assess the extent to which existing legal instruments effectively enhance women's engagement in environmental conservation by challenging and transforming patriarchal values. Such an investigation can shed light on areas where policy interventions can be strengthened to promote gender equality and empower women in environmental governance.

Bottom-up approach

There is a growing recognition of the valuable knowledge held by local community members, whose expertise in local resources often surpasses that of academic experts [16]. Consequently, many global conservation efforts have shifted towards community-based approaches to achieve their objectives. Unlike traditional top-down approaches, which impose pre-defined policies, the bottom-up approach begins by identifying underlying societal problems that require addressing [17]. By leveraging local insights, this approach evaluates strategies that are more likely to be accepted by the community and better adapted to local conditions. Participation of local stakeholders fosters trust, increases understanding, and promotes acceptance of projects and decisions [17, 18]. This participatory process enhances transparency and inclusivity, facilitating the development of decision-support tools for environmental management. However, traditional top-down approaches to environmental protection have proven ineffective, as they often exclude local perspectives and fail to account for community needs and preferences [19].

For example, improved stoves, promoted as part of the appropriate technology movement, have seen limited adoption in Africa due to their lack of suitability for local cooking practices and cookware (International Development Research Centre-IDRC, 1989). In contrast, the bottom-up approach allows local stakeholders to contribute their knowledge, views, preferences, and perceptions, enabling them to suggest problem-solving strategies that are contextually relevant and culturally appropriate [17]. While existing literature supports the effectiveness of the bottom-up approach in environmental management and conservation, it’s potential to enhance women's engagement in conservation initiatives remains underexplored. Therefore, the current study seeks to analyze the effectiveness of the bottom-up approach specifically in promoting women's participation in environmental conservation initiatives within communities. By examining how the bottom-up approach can empower women and facilitate their meaningful involvement in conservation efforts, the study aimed to contribute insights into more inclusive and effective conservation practices.

Observing gender responsive approach in decision-making and implementation

A gender-responsive approach is imperative for amplifying the voices of both women and men as active participants and leaders in conservation efforts, thereby enhancing resource productivity and promoting sustainable ecosystem management [20]. Recognizing that women and men fulfill distinct roles in managing and utilizing natural environments, collaborative efforts among individuals of all genders are essential for challenging patriarchal systems that perpetuate inequitable conservation practices [7]. By fostering inclusive solutions, we can strive towards a more just society that upholds environmental integrity for future generations. For instance, in Thailand, a community forestry project initially consulted only with village men, resulting in a misstep when seedlings provided did not meet the needs of the entire community. Upon realizing the oversight, forestry officials engaged women in subsequent consultations, leading to the provision of seedlings that catered to both men's and women's needs, thus ensuring the project's success [8, 20]. This example underscores the importance of considering diverse perspectives and involving all stakeholders in conservation initiatives. The author is right on adopting a gender-responsive approach to environmental conservation, as it is crucial for achieving equitable and sustainable outcomes. However, implementing such initiatives in communities where societal roles are deeply entrenched in gender norms poses a significant challenge. This aspect warrants thorough investigation by the researcher to identify strategies for overcoming gender biases and fostering inclusive conservation practices.

Creating awareness and environmental education

The lack of awareness among women often hinders their ability to demand and exercise their rights and responsibilities, even when there exists an enabling legal and policy framework [21]. To address this issue, empowerment interventions are crucial, such as environmental education programs tailored specifically for women to deepen their understanding of the natural environment [20]. While the primary objective should be to enhance women's awareness of environmental issues, it is essential to complement this strategy with others for maximum effectiveness. In raising awareness, emphasis should be placed on the urgency of environmental conservation [22]. Leveraging women's empathy and altruism, especially towards vulnerable populations, can be particularly impactful by linking environmentalism to basic human needs (ibid). However, the effectiveness of awareness and environmental education programs depends greatly on the receptiveness of the targeted audience. Therefore, it is crucial to consider the attitudes of individuals within a specific context towards the message being conveyed. In the current study, an analysis of awareness programs and environmental education initiatives implemented by various stakeholders in the intended area of study was conducted to evaluate their effectiveness in enhancing women's engagement in environmental protection. This analysis aims to assess the achievements and shortcomings of these programs in empowering women and fostering their active participation in environmental conservation efforts.

Methodology

Research Design and Methodology

This study followed a phenomenological design, chosen because it allows us to listen closely to the voices of women and understand their lived realities of engaging in environmental conservation within patriarchal communities of Northern Uganda. The focus was not on numbers or statistics, but on the meanings, perceptions, and everyday experiences that women and stakeholders shared.

Data Collection

Information was gathered through semi-structured interviews, focus group discussions (FGDs), and key informant interviews with technocrats, civil servants, local leaders, and NGO staff. These tools gave participants the freedom to speak openly about their frustrations, hopes, and struggles, while also allowing the researcher to ask follow-up questions when deeper insights were needed. To ensure clarity and reliability, the interview guides and schedules were pretested with a small group before the main fieldwork. This helped refine the wording of questions and confirm that they were easy to understand and culturally appropriate.

Sampling

Participants were selected using purposive sampling, focusing on those with direct experience in environmental governance and conservation. Women serving in local councils, environmental committees, and grassroots initiatives were prioritized, alongside technocrats and political leaders whose decisions affect conservation. For key informants, an expert purposive sampling technique was applied, meaning individuals were chosen because of their positions and knowledge. The size of the sample was guided by data saturation, the point at which new interviews no longer added fresh insights. Two FGDs were conducted, each with twelve participants, striking a balance between diversity of perspectives and ensuring everyone had space to contribute.

Data Processing and Analysis

Analysis followed a thematic approach. Codes were developed inductively, emerging from the data rather than being imposed a priori. Coding was conducted using NVivo software, which facilitated systematic organization of transcripts. To enhance reliability, two coders independently analyzed the data, with discrepancies resolved through discussion until consensus was reached. Data analysis began immediately in the field. Notes and recordings were transcribed, cleaned, and coded to highlight recurring ideas. The researcher used thematic analysis, grouping responses into themes that reflected the research questions. This process involved reducing raw data to its most meaningful parts, identifying patterns, and revisiting the material several times to confirm consistency.

While key informants, were drawn from the six (6) selected sub-counties in Gulu district. It was composed of civil servants, local leaders and NGO's project staffs. For the selection of key informants specifically purposive expert sampling technique was applied. Samples were selected based on one or more pre-determined characteristics. And sample sizes were mostly determined by judgment and experience [23]. This involves searching and including only individuals occupying a scope of position and perspectives in relation to the phenomenon under investigation which in this case is patriarchy and women engagement in environmental conservation [24]. And data was collected using interview schedules. Notably purposive sample sizes are typically determined based on theoretical saturation, which refers to the point in data collection when new data no longer provide additional insights into the research questions. Therefore, the concept of saturation guided the determination of sample sizes [25]. Data saturation serves as a criterion for establishing the validity of a dataset, signifying that no new information or themes are recorded beyond a certain point [26]. Also at least two (2) Focus group discussions (FGD) were conducted using interview guide. The community members constituted the FGD. This method allowed researcher to delve into topics in greater detailed. The group size for the FGD constituted of twelve (12) participants in each group. Thus, ensuring that the group was small enough for all members to actively participate and share in their thoughts, yet large enough to foster diversity of perspectives [25].

Qualitative data processing commenced right from the field, with immediate editing of raw data to eliminate irrelevant responses and retained only those that aligned with the study's objective. The data was coded and organized according to the study's themes and content, which laid the groundwork for data analysis. This approach, systematically progresses through several steps to analyze data content (Taherdoost, 2020). The following steps were observed; 1) Data was processed and either transcribed or recorded immediately. 2) The researcher reviewed the data to identify emergent themes or patterns early, facilitating a focused analysis of recurring themes in the data to be collected. 3) Data reduction was performed to pinpoint and concentrate on meaningful aspects by reducing and transforming raw data. 4) Meaningful patterns and themes were identified in two primary ways: a) through content analysis, which involved coding the data for specific words or content, identifying patterns, and interpreting meanings; and b) through thematic analysis, which involved categorizing the data into themes that answer the research questions. 5) Data display followed, where the identified themes or content patterns were organized and condensed into a display that facilitated drawing of conclusions. This represents the final step in qualitative data analysis. To draw valid conclusions, the researcher interpreted the findings, assessed how they helped answer the research questions, and deduced implications. To verify these conclusions, the data were revisited multiple times to confirm the conclusions drawn [27] (Lopez, 2009).

• **Trustworthiness and Quality**:

To ensure the study was credible and dependable, several measures were taken:

• **Credibility**: Prolonged engagement with participants, triangulation of interviews and FGDs, and member checking (sharing interpretations back with participants for confirmation).

• **Transferability**: Providing detailed descriptions of the context so that readers can judge whether findings apply to similar settings.

• **Dependability**: Keeping clear records of procedures, including pretesting of tools and consistent use of interview protocols.

Confirmability: Maintaining an audit trail and bracketing researcher assumptions so that findings reflect participants' voices rather than researcher bias.

Results

Theme1: Women's Representation and Empowerment

The study revealed that women are increasingly represented in development and environmental conservation structures. At the village and sub-county levels, women occupy positions in LC1 executives, environmental committees, and physical planning committees. This representation is reinforced by Uganda's legal requirement that women hold at least 30% of leadership positions.

One key informant emphasized:

"Women are becoming increasingly empowered through this representation and participation in decision-making forums, such as those I have just mentioned" (KIIDEOGD, 2024).

Theme 2: Political Interference vs. Technical Implementation

A recurring theme was the tension between technical teams and political leadership. Technocrats reported difficulties in implementing government policies due to political actors prioritizing voter appeasement.

As one participant explained:

"There is always friction between the technical teams and the political leadership. While the technical wing attempts to implement government policies, such as the 'cut one tree, plant five' initiative, the political actors often interfere, asserting, 'Do not disturb the community; these are my voters, and those are their trees.' This greatly hampers our work" (KIISASPAT04, 2024).

Theme 3: Community Awareness and Ignorance of Legal Instruments

Participants highlighted widespread ignorance of environmental laws among community members. For example, despite the National Environmental Act requiring buffer zones around wetlands, many residents claimed ownership up to the water's edge.

One informant noted:

"There are so many instruments to be enforced, and the community is not even aware of them… When selling land, they sell right up to the water, or when fencing, they fence right up to the water. So, ignorance about these laws is still very high, which calls for more sensitization" (KIIDEOGD, 2024)

Theme 4: Weak Enforcement and Corruption

The enforcement of environmental laws was described as inadequate, with some leaders themselves implicated in environmentally destructive practices.

"If the legal instruments were being exercised as they should, there would not be massive environmental destruction… The people who should be enforcing the laws are often the major perpetrators of the problem" (KII AWRPS, 2024).

Another participant explained:

"For example, the Chairperson of LCIII of the sub-county is actively involved in the charcoal business, as is the sub-county chief. The former LCIII Chairperson accumulated his wealth from the sale of 'Beyo' timbers" (KII AWRPS, 2024).

Theme 5: Inadequate Financing

Financial constraints emerged as a critical barrier to effective environmental conservation. Sub-counties typically allocate only 600,000 shillings for community sensitization, an amount widely regarded as insufficient.

One participant explained:

"Like other sub-counties, we normally allocate six hundred thousand shillings (600,000/=) for community sensitization on environmental protection and conservation. As you can see, a budget of six hundred thousand shillings is not enough for effective sensitization" (KIISASUNY06, 2024).

Another informant added:

"In Unyama, we have a seven million shilling budget for the entire financial year… Sometimes, we even fail to raise the seven million shillings. For instance, last financial year (2023/2024), we only raised 1.5 million shillings. This means many activities were left pending without implementation" (KIISASUNY06, 2024).

Theme 6: Need for Sensitization and Cultural Engagement

Across narratives, participants stressed the importance of community sensitization and cultural engagement. Women emphasized that grassroots advocacy, environmental education, and involving men as allies are essential strategies for dismantling patriarchal barriers and fostering collective responsibility.

Discussion

The findings demonstrate both progress and persistent challenges in women's engagement with environmental conservation. Women's representation in local governance structures, such as LC1 executives, environmental committees, and physical planning committees, reflects Uganda's legal requirement that women hold at least 30% of leadership positions. While this resonates with global scholarship emphasizing women's vital contributions to environmental management across agriculture, fisheries, and forestry [10], the Ugandan case shows that representation is largely quota-driven. This explains why patriarchal norms remain intact: quotas ensure numerical inclusion but do not dismantle cultural barriers that restrict women's influence. Thus, the persistence of patriarchal structures highlights the limits of policy reforms that focus on numbers rather than transformation.

Tensions between technical teams and political leaders further illustrate governance gaps. Technocrats struggle to implement policies due to political interference, reflecting localized patronage politics where leaders prioritize voter appeasement. This contrasts with international frameworks such as the Beijing Declaration and UNEP resolutions, which emphasize accountability and depoliticized enforcement [12] (UNEP, 2019). The difference can be explained by Uganda's decentralized governance system, which allows local leaders to prioritize short-term political gains. This finding underscores the need for stronger accountability mechanisms that insulate technical teams from political pressures.

Community ignorance of environmental laws also emerged as a recurring issue. Residents often claimed ownership of wetlands up to the water's edge, despite legal restrictions. While global literature frames ignorance as a lack of access to information [20], in Gulu this is compounded by cultural beliefs about land ownership. These entrenched norms complicate sensitization efforts, suggesting that awareness campaigns must be culturally grounded rather than purely informational.

Weak enforcement and corruption further undermine conservation. Leaders implicated in destructive practices such as charcoal trading and timber sales reveal how enforcement failures are directly linked to corruption among local leaders. Unlike global discourses that emphasize structural gaps, Uganda's case highlights weak institutional checks and balances. This suggests that anti-corruption measures and stronger oversight are critical for effective conservation.

Financial constraints also emerged as a barrier, with sub-counties allocating as little as 600,000 shillings for sensitization. While global mechanisms such as the Global Environment Facility (GEF) and Green Climate Fund (GCF) integrate gender equality into financing strategies (UN-Environment, 2019), Uganda's reliance on limited local budgets explains the acute shortfalls. This highlights the need for gender-responsive financing at both national and local levels, supplemented by international donor support.

Finally, participants emphasized grassroots advocacy, cultural engagement, and involving men as allies as strategies for dismantling patriarchal barriers. This aligns with literature on bottom-up approaches [16, 17], but in Gulu these strategies are framed specifically around dismantling patriarchal norms. This reflects the particularly entrenched gender hierarchies in Ugandan communities, underscoring the importance of gender-specific sensitization that goes beyond general inclusivity.

The findings suggest several concrete recommendations. Policymakers should move beyond quota-driven inclusion by embedding gender-transformative approaches into conservation policies. Practitioners should prioritize culturally grounded sensitization campaigns that address land ownership beliefs and patriarchal norms. Strengthening accountability mechanisms to shield technocrats from political interference, enhancing anti-corruption oversight, and increasing gender-responsive financing at local levels are critical steps. Community stakeholders should be supported in grassroots advocacy and encouraged to build alliances that include men as partners in dismantling barriers. Together, these measures can transform women's representation into meaningful influence, advancing both gender equality and sustainable environmental stewardship.

Conclusion

This study shows that while Uganda's quota system has increased women's representation in environmental governance, patriarchal norms, political interference, corruption, and limited financing continue to restrict their influence. These challenges reflect the localized realities of decentralized governance and entrenched cultural beliefs. To strengthen women's participation, policymakers should embed gender-transformative approaches beyond quotas, practitioners should design culturally grounded sensitization campaigns, and local governments must prioritize gender-responsive financing and accountability mechanisms. Supporting grassroots advocacy and engaging men as allies are also essential for dismantling barriers. By combining global frameworks with locally tailored interventions, women's representation can be translated into genuine empowerment, advancing inclusive and sustainable environmental stewardship.

Competing Interests

The authors do not have any competing interests.

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Author's contribution

Conceptualized and designed the study, CRP, participated in data analysis and methodology alignment: AA, and AB. All authors contributed to the manuscript's final review, editing, and approval.

Consent for Publication

All participants involved in the study provided informed consent for participation and for publication. The consent statement was documented within the informed consent form, and it included explicit agreement that anonymized data and results will be published and disseminated among key stakeholders.

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