



Beyond the traditional role of women: an experience of women in the district of Mogincual in the protection of coastal biodiversity

Para além do papel tradicional das mulheres: uma experiência das mulheres do distrito de Mogincual na protecção da biodiversidade costeira

Más allá del papel tradicional de la mujer: una experiencia de las mujeres del distrito de Mogincual en la protección de la biodiversidad costera

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ABSTRACT

Resentment at the predominance of a well-established pattern of sexual division of labor in traditional African communities, according to which men perform jobs such as fishing, masonry, carpentry, agriculture, etc., and women play roles related to the domestic maintenance of families. These resentments have led to the exclusion of women in the development of their communities and even in their individual and professional development. This exclusion tends to worsen in the area of biodiversity protection. This article seeks precisely to unveil the other "feminine side", analyzing the presence of women in the protection of biodiversity, directly or indirectly, taking as a case the district of Mogincual, on the coast of Nampula province, in northern Mozambique. Methodologically, the study is based on a qualitative approach. The results of the study show how the women capitalized on the local culture (local knowledge) as a methodology to sensitize and engage other community members to be more aware of the mangroves and the massive planting of mangrove seedlings in that region. The study also reveals that, despite the great work done by women to protect coastal biodiversity, the district government still does not recognize women's abilities and exclude them from decision-making on environmental issues.

Keywords: Biodiversity. Women. Traditional Knowledge. Mogincual.

RESUMO

O ressentimento pela predominância de um padrão bem estabelecido de divisão sexual do trabalho nas comunidades tradicionais africanas, segundo o qual os



homens realizam trabalhos como pesca, alvenaria, carpintaria, agricultura, etc., e as mulheres desempenham papéis ligados à manutenção doméstica das famílias. Estes ressentimentos levaram à exclusão das mulheres no desenvolvimento das suas comunidades e mesmo no seu desenvolvimento individual e profissional. Esta exclusão tende a agravar-se no domínio da proteção da biodiversidade. Este artigo procura precisamente desvendar o outro "lado feminino", analisando a presença das mulheres na proteção da biodiversidade, direta ou indiretamente, tomando como caso o distrito de Mogincual, na costa da província de Nampula, no norte de Moçambique. Metodologicamente, o estudo baseia-se numa abordagem qualitativa. Os resultados do estudo mostram como as mulheres capitalizaram a cultura local (conhecimento local) como metodologia para sensibilizar e engajar outros membros da comunidade a serem mais conscientes sobre os manguezais e o plantio maciço de mudas de mangue naquela região. O estudo revela ainda que, apesar do grande trabalho realizado pelas mulheres para proteger a biodiversidade costeira, o governo distrital ainda não reconhece as capacidades das mulheres e exclui-as da tomada de decisões sobre questões ambientais.

Palavras chaves: Biodiversidade. Mulheres. Conhecimento Tradicional. Mogincual.

RESUMEN

Resentimiento por el predominio de un patrón bien establecido de división sexual del trabajo en las comunidades tradicionales africanas, según el cual los hombres realizan trabajos como la pesca, la albañilería, la carpintería, la agricultura, etc., y las mujeres desempeñan roles relacionados con el mantenimiento doméstico de las familias. Estos resentimientos han llevado a la exclusión de las mujeres en el desarrollo de sus comunidades e incluso en su desarrollo individual y profesional. Esta exclusión tiende a empeorar en el ámbito de la protección de la biodiversidad. Este artículo busca precisamente develar el otro "lado femenino", analizando la presencia de las mujeres en la protección de la biodiversidad, directa o indirectamente, tomando como caso el distrito de Mogincual, en la costa de la provincia de Nampula, en el norte de Mozambique. Metodológicamente, el estudio se basa en un enfoque cualitativo. Los resultados del estudio muestran cómo las mujeres capitalizaron la cultura local (conocimiento local) como una metodología para sensibilizar e involucrar a otros miembros de la comunidad para que sean más conscientes de los manglares y la plantación masiva de plántulas de manglares en esa región. El estudio también revela que, a pesar del gran trabajo realizado por las mujeres para proteger la biodiversidad costera, el gobierno del distrito aún no reconoce las habilidades de las mujeres y las excluye de la toma de decisiones sobre temas ambientales.

Palabras clave: Biodiversidad. Mujeres. Conocimientos Tradicionales. Mogincual.



1 INTRODUCTION

Analysis of women's role in promoting biodiversity reveals a rich intersection between gender, environment and sustainable practices. Environmental education as an essential tool for raising awareness of biodiversity, underlining the need for an interdisciplinary approach that takes into account the characteristics of modern society. This initial perspective forms an important backdrop for the subsequent discussion on the role of women in environmental sustainability.

Women have a unique and transformative vision of sustainability, with qualities such as care and empathy. These characteristics are key to promoting more inclusive and supportive development, accentuating the interdependence between humans and natural resources. It is suggested that female participation not only enriches conservation practices, but also proposes a paradigm shift in economic and social development (Litre and Drummond, 2014),

This discussion also reveals that traditional societies, especially women, develop knowledge and technologies adapted to the sustainable use of natural resources, promoting a balance between use and conservation. This intrinsic relationship between gender and the environment highlights the importance of valuing traditional knowledge and sustainable practices.

On the other hand, Tavares and Miranda (2017) introduce ecofeminism as an approach that connects the oppression of women to the destruction of nature. Ecofeminism proposes that the struggle for gender equality and environmental conservation are interconnected issues, suggesting that women's empowerment can lead to the protection of ecosystems. This perspective broadens the understanding of the need to integrate women's voices in biodiversity discussions.

The systematic review of biodiversity conservation in the African social sciences, particularly in Mozambique, reveals gaps in knowledge, especially in relation to the gender perspective. It therefore highlights the importance of including women's experiences and contributions in biodiversity research, suggesting that such inclusion can enrich conservation practices.

Today, women are breaking free from traditional roles and gaining ground in the fight for sustainability. This resistance to patriarchal domination presents itself as a crucial factor in the construction of a more balanced and sustainable society.



Women have faced major challenges due to entrenched gender inequalities at the community level, especially in African contexts, where narratives point to a domestic role, taking responsibility for the home, such as childcare, feeding, etc. However, today we see other narratives that argue that women are the custodians of ecological wisdom, contributing significantly to the preservation of biodiversity through grassroots initiatives and sustainable practices.

The interest of this study is precisely to unveil the "feminine side" of this activity, analyzing the presence of women in the protection of biodiversity, directly or indirectly, taking as a case, the district of Mogincual, on the coast of Nampula province, in northern Mozambique. The objective is to demonstrate the contribution of women to the protection of biodiversity through PROBICO-Coastal Biodiversity Protection Project in Mogincual (Nampula province) implemented by ASEJANA - Youth and Adult Education Association of Nampula - Mozambique, in 2023.

2 THEORETICAL FRAMEWORK

2.1 WOMEN AND ENVIRONMENTAL EDUCATION

De Araújo, Bohner, Barros and Cezimbra, at al, (2012), address the importance of environmental education as a crucial tool for raising awareness about biodiversity conservation. The authors argue that environmental education should be understood within an interdisciplinary context, reflecting the complexities of modern and postmodern society.

This logic emphasizes the need for a transformative approach to environmental education. It is argued that in order to promote biodiversity conservation, it is essential that education not only informs but also inspires changes in behaviour and attitudes towards the environment. This approach is particularly relevant when considering the role of women in promoting biodiversity, as they often play central roles in sustainable management practices and in the transmission of traditional knowledge on the use of natural resources.

It also underlines the importance of cooperation and the valorisation of different types of knowledge, which is key to including women in biodiversity debates. By integrating women's perspectives and their experiences,



environmental education can become more comprehensive and effective. This suggests that the active participation of women is not only beneficial, but necessary for a full understanding of the challenges faced in biodiversity conservation.

In addition, it is necessary to take a critical look at the social and cultural specificities that influence the relationship between communities and biodiversity. De Araújo, *et al* (2012) stress that it is vital to recognise how gender inequalities can impact women's ability to contribute to the conservation and promotion of biodiversity. Therefore, they propose that environmental education be a space for dialogue and reflection, where women's voices are heard and valued.

The inclusion of a gender perspective is essential to rethink economic, social and environmental development practices. This approach is particularly relevant since the qualities associated with the feminine, such as care and awareness of interdependence, are intrinsically linked to the principles of sustainability, (Litro & Drummond, 2014). This approach explores the crucial role that women can play in promoting sustainability and conserving biodiversity.

Their role as caregivers provides women with a special connection with natural resources, recognising their importance for health and life. This intimate relationship translates into everyday practices that promote environmental education, such as encouraging the responsible use of water and reducing waste (Litro & Drummond, 2014). This ability to educate and mobilize the community is a key aspect that highlights the transformative potential of women in their communities and for the environmental issue.

In addition, the importance of networking among women is highlighted, which results in more effective communication and the building of a culture of collaboration. This horizontality in leadership relationships is an aspect that can be decisive for the implementation of sustainable practices, as it promotes an environment where the exchange of information and experiences is valued (Litro & Drummond, 2014).

The visibility of life cycles in the female body offers a unique perspective on the regeneration of natural resources. By promoting changes in consumption patterns, women contribute to the creation of lifestyles that respect and preserve these cycles, which are fundamental for biodiversity (Litro and Augusto Drummond, 2014).



In turn, (Sadala & Brasileiro, 2017) offers a comprehensive analysis of the intersection between gender and the environment in riverine communities in the Amazon. They point out that, since the 1970s, environmental issues have been inseparable from gender issues, revealing distinct and complex paths that deserve attention.

The research emphasizes the importance of practical knowledge and socio-cultural mechanisms of caboclo-riverine societies, which can provide more appropriate directions for the sustainable use of natural resources. This approach is particularly relevant because the adaptive strategies developed by these communities are a rich source of knowledge that can contribute significantly to biodiversity conservation. The authors argue that the dynamics of nature are crucial for the way of life of these communities, which acquire knowledge about biological cycles and develop simple technologies adapted to their realities.

The concerns of riverside populations in relation to cultural and gender issues, linked to knowledge and practices of care for the environment, open space for new research perspectives. This suggests that women, in particular, play a vital role in promoting biodiversity by integrating their knowledge and practices into natural resource management.

An in-depth analysis by (Tavares & Miranda, 2017) on the intersection between gender and ecology, emphasizing the role of women in promoting biodiversity through the lens of ecofeminism, argues that women have a historical and cultural connection to nature, which positions them as crucial agents in the fight for environmental preservation.

The authors refer to the work of Carolyn Merchant, who in 1992 highlighted how ecofeminism can serve as a vehicle for women's and nature's liberation through environmental activism. This perspective is vital to understanding how women's oppression and the destruction of the environment are intertwined, an idea that the ecofeminist movement seeks to highlight. (Tavares & Miranda, 2017), criticize ecological science for neglecting the similarities between feminism and ecology, suggesting that this omission has significant implications for the effectiveness of environmental policies.

They also discuss the impacts of environmental destruction on women, especially those who already face socioeconomic disadvantages. The lack of



material and symbolic capital accentuates the vulnerability of these women, making them even more dependent on natural resources that are being degraded. This analysis is crucial to understand how the promotion of biodiversity cannot be dissociated from gender issues.

The proposal of ecofeminism, as presented in the article, is not only a call to action, but also a reassessment of dominant narratives that often ignore the voice of women in science and conservation. The authors argue that including women's perspectives in discussions about ecology can enrich approaches and solutions to contemporary environmental problems.

Sandroni and Carneiro (2017) carry out a comprehensive analysis of academic production in social sciences in relation to biodiversity conservation in Brazil. The research highlights the importance of understanding how social, cultural, and political issues intertwine with environmental conservation, revealing a field of study that still has significant gaps.

The authors conducted a systematic review covering publications in sociology, anthropology, and political science journals, allowing them to identify central themes and trends in the academic discourse on biodiversity conservation. One of the strengths of the paper is its ability to map the key issues that have been addressed by researchers, providing a clear picture of the current state of knowledge in this area.

The same study highlights the need for a more inclusive approach that considers women's voices and experiences in biodiversity conservation. Although the article does not focus exclusively on this aspect, the mention of knowledge gaps suggests that women's participation and contributions to conservation have not yet been sufficiently explored in the reviewed literature. This observation is crucial, as women play significant roles in sustainable management practices and the promotion of biodiversity, often in local contexts where their traditions and knowledge are key.

The need for more research that connects biodiversity conservation with social and gender issues is pointed out. This connection is vital to understanding how social dynamics affect the effectiveness of conservation practices and how policies can be better structured to include women's perspectives.

Despite the historical patriarchal domination, women have freed themselves



and conquered significant spaces, contributing to the transformation of concepts and cultures that directly impact environmental sustainability. Throughout history, women have not only faced social challenges, but have also become agents of change in environmental issues. Through their experiences and voices, they bring to light the importance of biological diversity and the need for its preservation. It is therefore suggested that the inclusion of women's perspectives in discussions about the environment is crucial for the development of effective and sustainable solutions (Pinto and Silveira, 2018).

It is perceived that the relationship between women's voice and silence is often underestimated or ignored. This dynamic is relevant to understanding how women can be seen as catalysts in the struggle for a fairer and more sustainable society. The female voice, when heard and valued, has the potential to transform paradigms and promote greater awareness of biodiversity and its threats.

The empowerment of women and their increasing participation in decision-making spheres have direct implications for the promotion of biodiversity. By challenging social and cultural norms, women not only claim their rights but also become defenders of nature, promoting practices that respect and preserve the environment.

2.2 GENDER, MANGROVES AND LOCAL KNOWLEDGE

Hamilton, (2013) presents a comprehensive analysis of the intricate relationship between mangrove ecosystems and local livelihoods in Ecuador. The author highlights the pressing issue of mangrove deforestation, which poses a significant threat not only to biodiversity but also to the socio-economic fabric of coastal communities that depend on these ecosystems for their survival.

Ecosystems serve as critical resources for fishing, agriculture, and other economic activities, as well as their importance in maintaining the livelihoods of local populations. This is particularly relevant when considering the role of women, who often engage in subsistence activities linked to mangrove resources, such as collecting shellfish and other marine products.

Hamilton's (2013) analysis reveals that mangrove loss not only threatens biodiversity but also exacerbates socio-economic challenges, particularly for women, who may face greater burdens in the absence of these vital resources.



This link between environmental degradation and gendered impacts is a critical consideration when assessing the overall role of women in protecting mangrove biodiversity.

In addition, Hamilton's (2013) ethnographic approach sheds light on the adaptation strategies employed by communities in response to mangrove loss. This insight is crucial to understanding how women, often the primary caregivers and breadwinners of their families, face the challenges posed by deforestation.

Therefore, the author suggests that empowering women through education and involvement in conservation efforts can increase their capacity to advocate for sustainable practices that protect mangrove biodiversity.

In the same vein, (Eddy *et al.*, 2016), the relationship between mangrove ecosystems and sustainable fisheries, particularly emphasizing the role of local communities in conservation efforts, while vital to biodiversity and local economies, faces significant threats, mainly due to anthropogenic activities such as agricultural expansion, shrimp farming, and urban development.

The authors effectively highlight the instability of mangrove ecosystems, which are inherently complex and dynamic, but vulnerable to degradation. The article emphasizes the need for conservation initiatives that prioritize the involvement of local communities, who have valuable indigenous knowledge and practices that can be key to the sustainable management of these ecosystems.

This community-based approach not only helps preserve mangroves but also increases fisheries productivity, thereby supporting local economies.

In turn, Lefèvre (2018), on the dynamics of gender and ethnicity in mangrove conservation in Madagascar, demonstrated how reforestation projects can impact women in different ways, revealing an ethnic hierarchy that affects women's inclusion in conservation activities. The author goes further to argue that the narrative of blaming certain women, such as the *Vahiny*, for environmental degradation ignores their experiences and voices. This critical analysis aligns with feminist political ecology, which proposes an intersectional approach to understanding the power relations that shape women's participation in conservation.

In the same vein (Pratisti *et al.*, 2012), female participation is extremely important in the conservation of mangroves, particularly in the nursery phase.



While women play a crucial role, their absence in management decisions highlights a significant gap that perpetuates gender inequalities. Therefore, despite women's active participation in natural resource management, their contribution is often not adequately addressed, resulting in a bias that marginalises their voices and experiences.

In his study, De la Torre-Castro (2019) expands this discussion by addressing inclusive management through the consideration of gender in small-scale fishing. It underlines that the lack of recognition of women's potential in development represents a significant loss. It criticises gender-insensitive policies that do not integrate the activities of women fishers, which are essential for adaptive management and learning. It is suggested that women's connection to nature, often derived from their experiences as caregivers, may be a motivating factor for their leadership in conservation initiatives. In addition, gender mainstreaming in ecological restoration efforts is presented as a strategy that can increase the efficiency and effectiveness of conservation practices.

At the end of her study, De la Torres-Castro (2019) demonstrates the significant gap in the literature on the real impacts of women's actions on biodiversity conservation. The lack of evidence on these effects limits the ability to argue vigorously for the inclusion of women in environmental management policies.

Returning to Lefèvre (2018), his narrative addresses the intersectionality of gender and ethnicity in mangrove conservation efforts in Madagascar. The author critically analyzes the power dynamics among women involved in reforestation projects, revealing how historical and social contexts shape their roles and experiences. From this perspective, she challenges the homogenization of women's contributions, advocating a nuanced understanding of the different impacts of conservation policies on different ethnic groups. This cross-sectoral approach highlights the need for inclusive conservation practices that recognize and address disparities among women, particularly in terms of access to resources and decision-making power.



3 METHODOLOGY

It is a study with the objective of exploring, describing or providing a deeper understanding of the situation in which it was intended to be studied. The study for this purpose Yin (2015) calls a case study that "is an empirical investigation that investigates a contemporary phenomenon ("the case") in depth and within its real-world context" (p.17). In terms of approach, this research is called qualitative. Qualitative studies are presented in a descriptive way that includes the collection of data on people, places, and interactive processes, which are considered direct sources of data. Thus, the main concern of qualitative studies is to understand the object studied in a unique way that represents its particular and collective complexity (Silveiro or Patrício, 2007).

For data collection, semi-structured interviews were used for focus groups and content analysis as a data analysis technique, which according to Moraes (1999), content analysis is a research methodology used to describe and interpret the content of all data obtained. The participants in this study were a group of women living in Mogincual and involved in PROBICO. Four groups were selected.

4 RESULTS AND DISCUSSIONS

The questions posed to the women aimed to analyze their level of involvement and participation in PROBICO, in order to understand their contribution. This topic aims to demonstrate the level of women's involvement and participation in the Protection of Coastal Biodiversity, specifically the need to restore and preserve mangroves in the district of Mogincual.

4.1 ACTIVITIES TO PROMOTE BIODIVERSITY

M1: "In the traditional events we participate in, we sing songs appropriate to the event and then put some messages about mangroves."

M2: "We have our parampara groups, where we performed here in our district, but also outside the district, here we introduce in our songs and dances issues about the degradation of mangroves, their importance for communities and the call to the cause, and many groups are also starting to adhere to these issues in their songs"



The above statement indicates a moderate level of sensitivity. Women are involved in awareness-raising activities, using songs as a way to draw attention to the cause. The inclusion of messages about mangroves shows a concern to raise awareness among other groups about the role of mangroves for biodiversity. Because these are groups with a high reputation and acceptance in the cultural sphere of their district, the adhesion of community members has been massive, which means that their messages about the protection of mangroves end up having a high reach, which is good in terms of coverage. Remember that these events are some of the most popular in coastal areas.

A very important fact that cannot be ignored about these events is that under cultural auspices, women play a very important role in female initiation rites¹, by using these spaces to sensitize girls to the issue of mangroves and biodiversity, women are passing on information and responsibilities to a generation of adolescent women who participate in these rites.

Women have also been involved in traditional marriages and are also doing this awareness-raising work, as can be seen in the following reports:

Group 4: "We have already sung in five PROBICO visits, in some weddings and women's ceremonies in weddings and initiation rites."

This can be seen as one of the highest levels of women's awareness and sensitization work, as they have begun to include the issue of biodiversity (mangroves) in this transmission of civic values. This shows that women deeply recognize that the issue of mangroves (biodiversity) is an issue that should be part of our traditional spaces or not, and that we must start instilling in future generations this responsibility to care for mangroves due to the role they play in society.

Women are not only involved in awareness-raising events, but also actively participate in PROBICO visits for continuous and in-depth interaction, indicating a deeper commitment to biodiversity protection. In addition, the fact that he

¹ In most regions, girl initiation rites usually take place when she reaches puberty. Depending on the community or culture, the girl may spend a month or two in the bush with adult women who may be healers or holders of traditional knowledge. This is the main vehicle for the transmission of moral, civic and cultural values to each new generation (Martinez, 2009) and Osório and Macuácuá (2013).



participated in weddings and ceremonies demonstrates an effort to spread the message in different social contexts. Looking deeper, it is clear here how the cultural issue ends up being fundamental for the protection of biodiversity.

Looking at these practices developed by the women of Mugicual, it is an authentic example of what Sadala and Brasileiro (2017) say about the relationship between gender and local knowledge as one of the greatest exponents of environmental education and the promotion of biodiversity based on women's local knowledge.

4.2 MANGROVE FELLING MONITORING MEASURES

M5: "The times I came across someone cutting down mangroves, I asked why you are cutting down mangroves if it is prohibited, after that I told him to go and find another type of material to replace the mangroves."

M3: "Some people who are sensitized ask if they carry out the planting activity, will they receive refreshments (will they be paid)? but as we know the advantages of the mangrove, we continue to explain them..."

M4: "We, like other women's groups, have been doing inspections in each neighborhood to control those who kill mangroves, and when we catch them, first we explain the importance of mangroves, and secondly, we show them that this practice can be a crime..."

The testimonies also reveal a higher level of sensitivity, involvement and praxis (direct action). They not only question the actions that are harmful to the mangrove, but also offer a suggestion of a sustainable alternative, as a way to avoid cutting down the mangroves. This indicates an active commitment to the protection of biodiversity and a willingness to intervene and positively influence the actions of others.

This role played by the women of Mogincual is shared by Mahour (2016), who makes an in-depth analysis of environmental education, emphasizing the role of women as an educational practice that not only informs, but also transforms values and attitudes towards the environment. It also argues that environmental education should be critical and emancipatory, promoting a broader understanding of the social and natural relations that shape contemporary reality

In the same perspective, Bhal, (2019) highlights how women have an educational role for ecological awareness, emphasizing how this training can shape community members' perception of the sustainability of their natural



environments for future generations, although this role may not be formally recognized.

Therefore, women's concern with clarifying doubts and maintaining dialogue with community members suggests an educational and inclusive approach, seeking to engage people continuously in the protection of biodiversity. Demonstrate that the gains to society are not about material benefits as such.

4.3 MANGROVE GENUS AND REFORESTATION

Women's involvement goes beyond raising awareness and awareness; They developed practical activities to restore mangroves, as can be seen in the following reports,

M13: "We are a new group, motivated by PROBICO and we have been planting mangrove seedlings, we started planting in April 2023. When we do these activities, we take our children to plant the seedlings."

M8: "I participated in the training on Coastal Biodiversity Protection and learned that we cannot cut down mangroves, because it defends erosion and cyclones... After the training, I have sensitized other people and made them plant mangroves as well."

M14: "There are 22 of us in my group, we have an area of 50 hectares and we have already planted mangroves everywhere."

M12: "We had our planting campaigns, so on those days we planted between 300 and 400 mangrove seedlings in one day."

The above accounts reveal a reality in which the women of Mogincual are making a significant contribution to the protection and preservation of coastal biodiversity in that district, since there is a huge movement to plant mangrove seedlings as a way to recover devastated areas, but also to create new areas as a way to expand mangroves at the district level.

An important aspect of this activity is the transmission of these activities to your children from the moment they are involved in these activities. This means that by including their children in these plantations, they are working for a future generation that is more aware of the need and importance of mangroves for biodiversity. In this way, we can have a future with less mangrove cutting and more mangrove forests.



These accounts also highlight a collective and collaborative effort to protect biodiversity by women. The group of 22 women is working together to plant mangroves in a significant area of 50 hectares. This demonstrates a collective commitment to contributing to the preservation and protection of coastal biodiversity through the reforestation of mangroves in areas where they have been cut down. From this experience, women show that they make a decisive contribution to the protection of biodiversity. They are also breaking the narrative of women's domestic role, causing a paradigm shift in the role of women in the family, that is, with women included in biodiversity protection projects, there is more to gain.

Maneschy, (1995), in his study on women in the fishing community, showed that women began to engage in fishing activities that were traditionally attributed to men. In his study, he showed how this experience brought gains to the fishing and tourism sectors in the region.

Figure 1. Women planting mangroves in Mogenicual district.



Source: PROBICO (2023).

4.4 WOMEN'S PARTICIPATION IN BIODIVERSITY DECISION-MAKING

In this section, we asked whether women participated in meetings on the environment, whether governmental, civil society or environmental projects.



M13 "We here only participate in these ways that we talked about before... not being invited to meetings or project drawings, I can't lie, only PROBICO calls us for meetings, but it's to give us training on the importance of the mangrove"

M112 "Here in our neighborhood, even before PROBICO, we always tried to plant mangroves, because we knew that, although we needed stakes for the house and firewood for cooking, we were aware that if we didn't plant them, one day they would run out and we would run out of this material of ours... now with PROBICO it has strengthened our practices, at least we women used to do it. They were the men who didn't want to know about replanting"

M14 "Participating in meetings to make decisions, no, neither governments nor other projects, but the government, together with PROBICO, called us to inform us that we were going to start a new mangrove project"

M112 "We may not know from the other things we learned at PROBICO, such as protection against cyclones, that mangroves are important for other marine species, but I was always born and raised with my mother and grandmother teaching me that we must plant so that tomorrow we can harvest more."

The above statements illustrate that women are not included in decision-making on environmental policies, or even in the design of environmental intervention projects. On the other hand, they say they have participated in some meetings simply to inform people about something. Therefore, while both the district government and PROBICO recognize the enormous work that women have done in the field of biodiversity protection in that district, they still do not include women in these decision-making spaces.

This is one of the issues addressed by Joekes, Green and Leach, (1996) when critically analyzing the intersection between gender issues and environmental policies. They argue that assumptions about gender issues in previous environmental policy approaches and programmes reveal that conventional environmental policies often neglect the social and gender dimensions.

Women need to be involved in these decision-making spaces on environmental policies, even if they are at local or even district level. Since they are directly involved in environmental sustainability activities, they must be involved in decision-making. In fact, Noguchi and Ali (2011) have already emphasized that international conventions have reaffirmed the importance of women's inclusion at all levels of decision-making, which is crucial for the protection and management of community resources



Therefore, there is a need to empower women, suggesting that their active participation can lead to better outcomes in environmental conservation and sustainable management of natural resources. On the other hand, the inclusion of women in environmental management policies and practices is not only a matter of gender equity, but also an essential strategy to promote biodiversity conservation and sustainable development

5 CONCLUSÃO

The study concludes that women play a key role in preserving the biodiversity of mangroves in Mogincual district, through their sustainable practices and traditional knowledge. Despite existing challenges, such as women's illiteracy, lack of access to resources, and the impact of climate change, the study showed that women's empowerment and women's active participation can result in more significant benefits for environmental conservation than previously thought.

The study also reveals that, although the district government recognizes the role of women in protecting biodiversity, it does not recognize the potential of women, which is why it continues to exclude women from key decision-making spaces on environmental policies. It is therefore urgent that future public policies and actions consider the crucial role of women and encourage their participation through training, access to resources and recognition of their ancestral knowledge.

The study showed how the woman took advantage of the local culture as a methodology to sensitize and engage other community members to be more aware of mangroves. Thus showing how we can make a connection between culture and biodiversity.

Based on the importance of women in preserving mangrove biodiversity in Africa, it is crucial that public policies consider the active inclusion of women in all stages of planning, implementing and evaluating conservation projects. In addition, the promotion of training and environmental education programs aimed specifically at women is essential to strengthen their role in mangrove conservation.



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