

TRADITIONAL GOVERNANCE AND THE CONSERVATION OF FORESTED WETLANDS IN THE BOYO HIGHLANDS, CAMEROON

Nfor Emmanuel Che and Tanyi Judith Bessem

Department of Forestry and Wildlife Technology, College of Technology, University of Bamenda, P.O. Box 39, Bambili, Cameroon

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Abstract: Forested wetlands in the Boyo Highlands of Cameroon, particularly in Fundong Subdivision, are vital ecological systems traditionally governed through customary laws. With increasing anthropogenic pressures, especially in highly disturbed areas like Fujua compared to relatively undisturbed zones such as Ijim, there is a need to critically assess the effectiveness and future prospects of these indigenous regulatory frameworks in forest wetland management. This study adopted a mixed-methods approach combining qualitative and quantitative data collection through interviews, and document reviews conducted in March 2024. Forty (40) key informants including elders, traditional leaders, and council authorities interviewed. SWOT analysis was used to assess the strengths, weaknesses, opportunities, and threats of customary laws in wetland governance. Findings indicate that customary laws in Fundong are deeply embedded in spiritual, socio-cultural, and ecological traditions. Notable practices include the regulation of sacred springs, forest taboos, seasonal hunting bans, and protected ceremonial sites like Nga'ang and Ndo-awoi. These practices have historically ensured sustainable resource use, preserved biodiversity, and mediated conflict. However, challenges such as lack of formal legal recognition, inadequate enforcement, and vulnerability to external pressures, including environmental degradation and demographic shifts – threaten their continued efficacy. Gender-based exclusion and oral transmission of knowledge further compound these limitations. Customary laws remain a resilient framework for managing forested wetlands in Fundong, providing ecological, spiritual, and social benefits. However, for long-term sustainability, it is essential to formally integrate these indigenous systems into state policies and legal frameworks. Strengthening local enforcement mechanisms, ensuring inclusive participation (especially of women), and documenting traditional knowledge can bolster the role of customary governance in environmental conservation. Recognizing these laws not only safeguards ecological integrity but also promotes cultural heritage and community resilience in the face of climate and socio-political change.

Key words: Customary laws; forested wetlands; indigenous knowledge; Fundong Subdivision; sustainable resource management; SWOT analysis; Wetland governance.

1. Introduction

Wetlands are among the most productive ecosystems on Earth, playing critical roles in biodiversity conservation, water purification, carbon sequestration, flood regulation, and supporting the livelihoods of millions of people globally (MEA, 2005; Sharma and Naik, 2024). In Africa, these ecosystems are deeply embedded in the social, economic, and cultural fabric of rural communities, particularly through systems of customary laws that have evolved over centuries to manage and protect them sustainably (Adupong et al., 2013; Metwane, 2023).

Customary laws, rooted in indigenous knowledge systems and cultural practices, remain central to natural resource management in many African societies, especially where state mechanisms are weak or absent. They serve not only to conserve ecosystems but also to mediate access, resolve conflicts, and preserve the spiritual and cultural heritage of communities (Papayannis and Pritchard, 2012). Across the continent, traditional governance systems have demonstrated resilience and adaptability in the face of changing environmental and socio-political conditions. However, increasing population pressure, land use change, urbanization, and climate variability are rapidly altering wetland ecosystems, leading to a decline in their ecological integrity (Mitchell, 2013). In many cases, customary laws are being undermined by formal legal systems that fail to recognize or integrate traditional institutions into national environmental governance frameworks (Etemire and Uwoh Sobere, 2020). As a result, there is growing interest in reconciling traditional and modern approaches to resource management, particularly in wetland ecosystems where the stakes are high due to their ecological importance and socio-cultural significance.

In Cameroon, wetlands cover an estimated 21,000 square kilometers, encompassing a diverse range of ecosystems including mangroves, floodplains, swamps, and highland wetlands (Awazi et al., 2024; Ajonina et al., 2025). These systems provide critical services such as water supply, soil fertility, and climate regulation, while also supporting agriculture, fishing, and cultural practices. The country's legal framework for wetlands management remains fragmented, with overlapping mandates among institutions and limited enforcement capacity (Mbozo and Ekollo, 2024). While Cameroon has made strides in integrating environmental protection into its legal architecture, including ratifying the Ramsar Convention on Wetlands, implementation remains limited, particularly in rural and hard-to-reach areas where customary governance remains the primary mode of environmental regulation. Customary institutions in Cameroon, particularly in rural areas, continue to play an essential role in governing land and natural resources. These systems, which vary by ethnic group and ecological context, often include taboos, seasonal restrictions, sacred sites, and ritual practices that contribute to the conservation of biodiversity and ecosystem services. In the forest-savannah transition zones, for instance, customary rules have been instrumental in regulating hunting, fishing, and forest use. However, these systems face mounting pressure from external forces such as commercialization, formal land tenure systems, political marginalization, and armed conflict, which threaten their legitimacy and continuity (Laird et al., 2010; Lambi et al., 2012). Furthermore, the lack of documentation and

codification of customary laws poses challenges for their integration into formal governance structures, leading to legal pluralism and conflicts over resource access and control.

The Boyo Highlands, located in the North West region of Cameroon, exemplify the intersection of ecological richness and strong customary governance. This mountainous region is home to the Kom people, an ethnic group with a well-established traditional leadership structure centered around the Fon (chief), the Kwifon (council of elders), and a set of religious and spiritual leaders. The area's forested wetlands, particularly in Fundong Subdivision, are critical for both ecological stability and community livelihoods. These ecosystems are sustained by a unique blend of volcanic soils, abundant rainfall (averaging 2400mm annually), and a hydrological network of rivers, springs, and swamps that originate from the Ijim forest and drain through deep valleys and undulating landscapes. The Kom people have long relied on a set of customary laws to manage their natural environment, particularly forested wetlands. These laws include sacred restrictions on access to particular water sources, forest zones reserved for ritual purposes, seasonal hunting bans, and gender-based taboos rooted in spiritual beliefs. Sites such as Nga'ang and Ndo-awoi are not only ecologically significant but are also culturally revered, hosting ceremonies that regulate the spiritual and social wellbeing of the community. Practices such as Tiifam – landmarks with *Dracaena* spp (peace plant) to denote sacred zones – and rituals conducted by the Laikom palace illustrate a deeply embedded environmental ethic that emphasizes protection, restraint, and sustainability.

Despite their continued relevance, these customary laws face numerous challenges. The expansion of agricultural land, increased demand for firewood, and unsanctioned grazing have contributed to the degradation of forested wetlands in high-disturbance areas like Fujua. Meanwhile, relatively undisturbed sites such as Ijim have remained ecologically intact due to the low level of human interference and stronger enforcement of traditional taboos. The encroachment of state regulations without adequate consultation with traditional authorities has created tension and eroded the community's sense of ownership. Moreover, the ongoing sociopolitical crisis in Cameroon's Anglophone regions has further strained local institutions, making effective governance of natural resources increasingly difficult. In light of these challenges, it becomes imperative to document, analyze, and evaluate the role of customary laws in the management of forested wetlands in the Boyo Highlands. This study, therefore, seeks to provide a state-of-the-art assessment of the customary practices governing wetland ecosystems in Fundong Subdivision, highlighting their strengths, weaknesses, and potential for integration into broader environmental management frameworks.

2. Materials and methods

2.1 Location of the Study Area

Fundong Subdivision is the capital of Boyo Division in the North West region of Cameroon (Figure 1), with a population of about 20,000 inhabitants. It is located within the grassland savannah area of the mountainous western highland region of Cameroon. It is surrounded by Wum sub divisions to the west and to the east by Noni sub divisions while to the north it is bounded by Fungom sub division and to

the south by Njinikom sub division. It is situated about 80km from Bamenda and covers a land surface area of about 519 square kilometers with 34 villages and numerous quarters. The population of Fundong is mostly rural with farming as primary occupation, Fundong is mainly populated by Kom people.

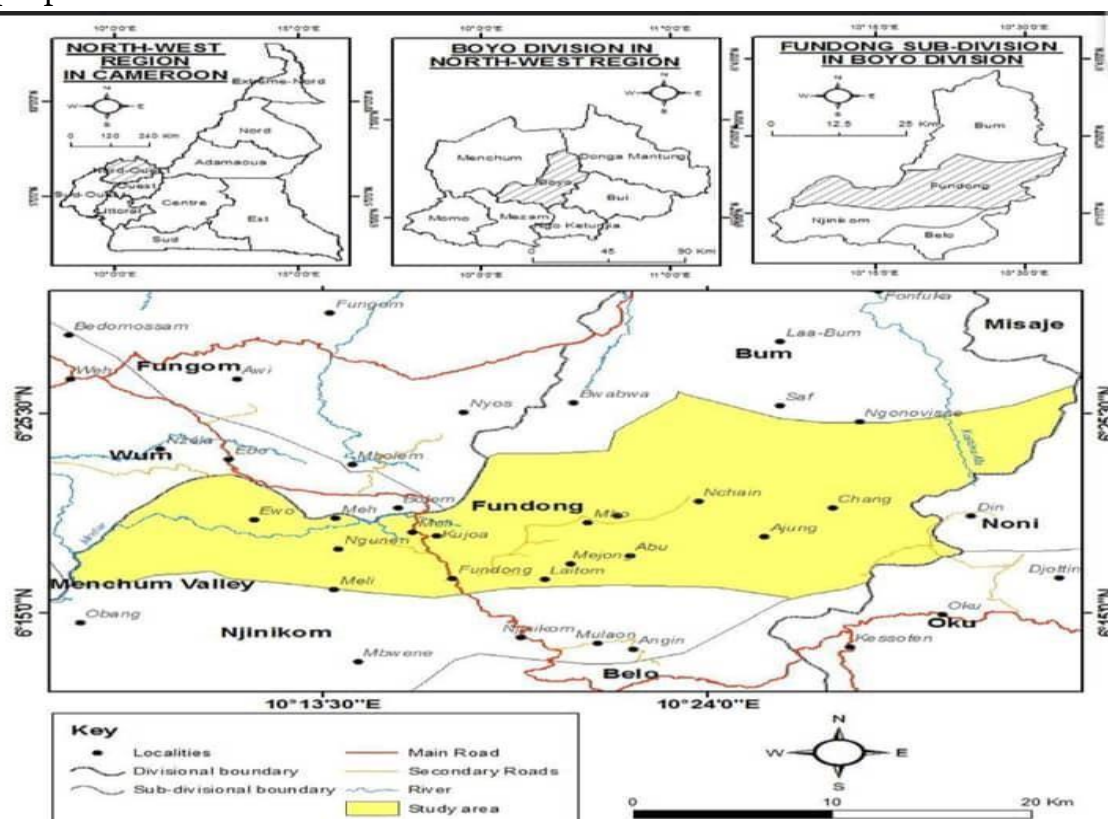


Figure 1: Map showing the study area

Fundong experiences generally cold, windy, and wet weather, although it can be warm, dry, and sunny during dry spells. Temperatures typically range from 15°C to 38°C, with an average temperature between 24.5°C and 29.7°C. The area receives an average annual rainfall of 2400mm and has a humidity of 82%. There are two seasons: a rainy season from mid-March to mid-October and a dry season from mid-October to March. The Fundong Municipality is located in the mountainous region of the western highlands and is characterized by the agroecological zone of Cameroon. The topography includes slopes ranging from 40% to 70%, with undulating hills and deep valleys. The landscape is hilly, and steep slopes increase the rate of erosion. Deep valleys and flat, plain-like features are found in depressions like Baiso. The name of the division is derived from Boyo Hill, located at 2220 meters above sea level in Njinikom. The region also has a warm tropical swamp. The soils in Fundong are primarily volcanic, with laterites, sands, and loams found in depressions. In low-lying areas, the soils are thick, humusrich, and fertile, such as the sedimentary warm humus-rich soils. Lateritic and ferralitic soils dominate the region. Fundong is home to several major rivers, including Nkoini, which forms the

natural boundary between Fundong and Njinikom subdivisions. The Jviaffief River flows from the Ijim forest, passing through Fundong town and continuing west to Menchum. The Jvia Ngwa River runs from Ijim through Muteff, Abuh, Ngwa, and Meli, serving as the boundary between Fundong Municipality and the ZOA Council. The Jvia Ngunabum River flows from Ijim through Ilung and Ngunabum, eventually joining the River Kimbi. Other important streams include Jvia Ibolem and Jvia Mboh, both of which flow from the Ijim Forest and feed into Jvia Ngwa. Prominent springs and waterfalls include Tchimni in Fundong Centre, as well as Laikom, Akeh, and Ajung waterfalls. Fundong is typically classified as tropical grasslands or humid savannah, with dominant forest woodlands and re-growth savannah areas containing grasses and shrubs. There is also a gallery forest in Mbam and a re-growth savannah near Mentang village. Common plant species in the area include *Carica papaya*, *Prunus africana*, *Kigelia africana*, *Eucalyptus globulus*, and *Psidium guajava*. *Prunus africana* is the most threatened medicinal plant in the region.

2.2 Research design and data collection

The research for this study was conducted in two areas with different levels of anthropogenic disturbance: Fujua, a highly disturbed area, and Ijim, a less disturbed area of forest wetlands in Fundong. Fujua's high level of disturbance is due to human activities such as farming, gardening, fishing, logging, and cattle grazing. In contrast, Ijim has lower levels of disturbance, mainly due to minimal human interference, such as the transhumance of cattle and the collection of non-timber forest products by local riparian communities. A mixed-methods approach was used for this study, combining both quantitative and qualitative data collection and analysis. This approach allowed the researcher to gather comprehensive information for the analysis and discussions, ultimately leading to meaningful conclusions. Quantitative data was collected by identifying and cataloging species in all quadrats, while qualitative data was gathered through interviews of key informants.

The study utilized both primary and secondary data collection methods, with data being gathered in March 2024. For primary data collection, data generated directly by the researcher through surveys, interviews, and experiments designed to understand and address the research problem was used. Key informant interviews were conducted to meet the objectives of the study. Open-ended questions were employed during the interviews to cover all three objectives. The key informants included quarter heads, traditional practitioners, diviners, farmers, the oldest elders in the communities, and the kwifon from Laikom palace. These individuals were chosen because of their deep knowledge of traditional practices and customs, which stemmed from their long-standing roles within the clan. Additionally, informants from stakeholder institutions such as the Fundong Municipal Council were interviewed for their administrative insights and experiences regarding the communities' customary practices and wetlands management laws in Fundong. Some questions focused on identifying forested wetland areas, local names of woody species, and their uses. Other questions explored the strengths and weaknesses of customary laws in managing forest wetlands, based on local perceptions, and how these laws have

either succeeded or failed in managing forest resources. The final part of the interview addressed perceptions of biodiversity changes and the activities carried out in the forest wetlands.

A purposive sampling technique was employed to select key informants. Two communities were purposefully chosen for the study, and 20 key informants from the categories mentioned earlier were selected from each community, totaling 40 key informants. The selection of these communities was based on the idea, as noted by Cinner and Aswani (2007), that communities near natural resources are better able to manage their resources sustainably. The sample size was chosen to facilitate data management and maintain the quality of the information, as larger sample sizes may distort the data, according to Francis et al. (2010). Additionally, the study was conducted during a period of crisis and insecurity in the region, which made access to certain areas of the subdivision difficult.

For secondary data, documentary reviews were conducted using various sources, including journals, articles, books, reports from government offices such as the Fundong Council, libraries, and electronic sources from the Internet. Both published and unpublished documents were used to gather background information relevant to the study.

2.3 Data analysis

To analyze data that were collected from all the sources outlined above for this study, statistical techniques were applied which were both descriptive and inferential. For data collected through interview guides, the results were presented in the form of tables, charts, graphs, plates and figures. All the data analysis were performed using MS Excel 2016.

3. Results

3.1 Demographic information of key informants

3.1.1 Age group of key informants in the study area

The least 3 (7%) of interviewers were of the age group (30-35yrs), followed by 7 (18%) of age group (36-40yrs), second highest had 12 (30%) from age group (41-45yrs) and the majority 18 (45%) were of age group (46 and above) (Figure 2).

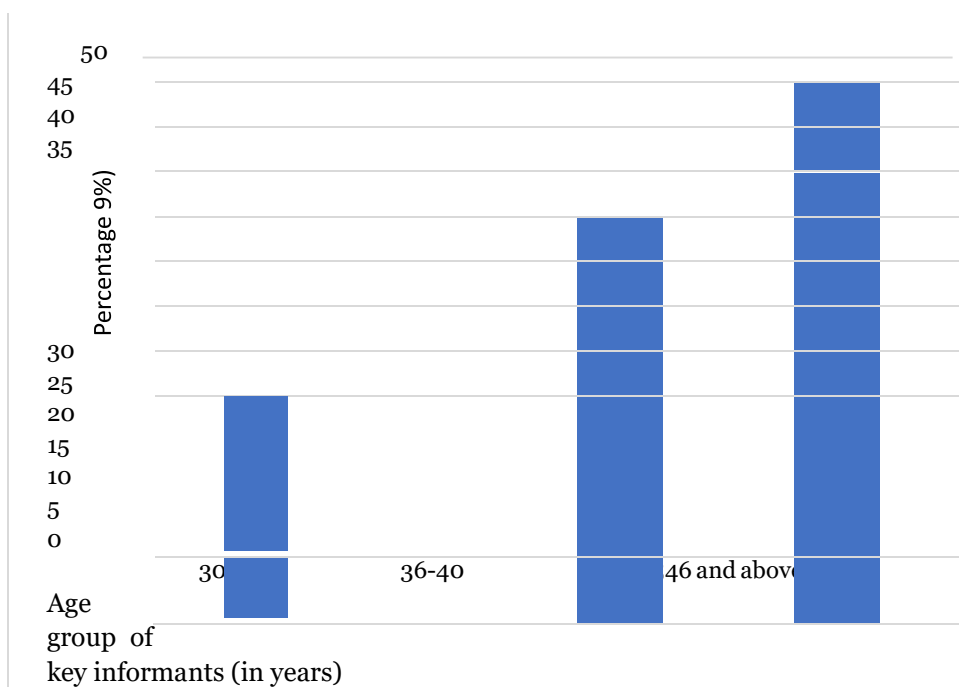


Figure 2: Age group of key informants interviewed

3.1.2 Gender of the key informants

Figure 3 reveals that a majority (67%) of the key informants were males, while (33%) were females who responded to the interview questions asked concerning wetlands in Fundong. This disparity between them indicates that, the men are the ones with the authority to enter into forests freely as compared to the women who are being restricted from entering into some forests for traditional reasons.

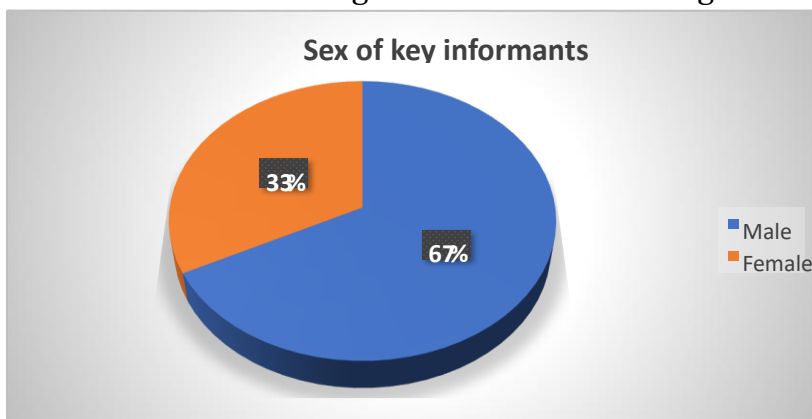


Figure 3: Gender representation of key informants

3.2 Customary laws and taboos in forest wetlands management in Fundong

3.2.1 Customary laws identified in the management of forested wetlands

Traditional resource management practices are community based and serve as the main means by which local communities manage their resources. Traditional beliefs and taboos play a crucial role in resource conservation. In all the two communities visited, key informants had something to say on the role traditional beliefs and taboos play in conserving the wetlands. From the findings, it was made clear that the traditional council with the chief as the head play a crucial role in the management of the forest and its resources. By preserving forests, local people derive multiple benefits amongst which are socio-cultural, spiritual and economic benefits in addition to practicing their faiths and upholding their traditional customs. The Laikom sacred forest and many other forests in Fundong, which serve for rituals, ceremonies, worship that helps in the preservation of the forest and its biodiversity. The customary laws that govern forest wetlands in Fundong includes;

i. Sacred springs

These are springs of water found within the forests that have served as drinking sources to the kom people. As a means of keeping these springs protected, sacrifices are made every year to appease the god of water to continue to protect and give the people quality drinking water. For no reason, villagers are not supposed to fetch water or be at forest wetlands as from 7pm, if anyone dares to disobey would be punished by the spirits of the land.

ii. Hunting

Hunting is a customary activity in the Kom fondom, yet it is strictly prohibited within the sacred forest. Despite this restriction, the kom people still engage in hunting year round to procure animal proteins and raise income from sales. This is accomplished through the use of various tools such as spears, dogs, catapults, nets, traps and machetes. On some occasion, collective hunting is preceded by traditional rituals. The captured animals are distributed equitably among the hunters in adherence to established customs and traditions. At the fondom level, an annual royal hunt is conducted by able-bodied men in the month of April, spanning an eight-day Kom week. The proceeds from this hunt are then presented at the palace.

iii. Nga'ang

This is a special spot found at the apex of the knoll within the Abeighe compartment of the forest. It is reversed for a special ceremony where key kwifon members, esteemed herbalists and soothsayers assemble once every year for a period of one kom week of eight days to reflect, forecast and focus on how to best manage the defense, welfare and fecundity of the Kom land. This site is also the special spot from where the person destined to be made Fon of kom fetches his last fuelwood before he is being enthroned. This site is out of bounds to every person and is a taboo for women or children especially to even go close to that forest. Again, there are some areas within the forests which can't be tempered with by anyone not even the state in general.

iv. Ndo-awoi

It is a shrine found to the Eastern end of the Abeghei compartment of the forest with a wooden hut erected over the site. It is in this shrine that rites in connection with controlling adverse weather and regulating thunderstorms, wind disasters and hailstones is performed. Its chief priests are usually drawn from the Ikui matriclan and regulate as well as control access to these sites. It is a taboo for community members with bad or evil intentions to enter the forests for any reasons, if that happens he/she will die or be severely punished.

v. Tiifam

These are traditional injunctions or special land marks found throughout the forest planted with *Dracaena* spp (peace plant) and decorated with palm fronds where concoctions of herbs, kaolin and other ingredients are always deposited for protection and to bar access to some parts of the forest. Here, there is no permission to farm around these sacred sites. Any defaulters would be severely punished by the Laikom palace.

vi. Avii-a-Chong

This is a spot in Aku-a-Chong where symbolic rites are performed prior to authorizing anyone in the Fondom to create and own a chong dance. It is a shrine covered by a hut. The chief priests are usually drawn from amongst princes who must not be of the Ikui matriclan. The forest has remained intact and only disturbed along the tract once in a while when there is a potential person who wants to be initiated into the noble Chong society.

vii. Purity of Self

Lastly, no one is supposed to enter the forest haven poisoned someone or had sex with someone before going into the forest, also women when on their monthly flow are forbidden from entering into the sacred forests since during that period, they are considered unclean.

3.3 The SWOT analysis of Forested wetlands management in Fundong

The SWOT analysis was used to analyze the strengths, weaknesses, opportunities and threats affecting the forested wetlands in Fundong (Table 1). This was done by clearly defining the objective, through the use of open-ended interview questions.

Table 1: SWOT analysis for forested wetlands management in Fundong

Strengths	Weaknesses	Opportunities	Threats
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✦ Customary laws have succeeded in the management of forested wetlands in the entire Fundong in that they often include mechanisms for conserving biodiversity, protecting endangered species, and preserving ecological balance within forested wetlands. ✦ Customary laws often emphasize sustainable resource management practices, ensuring the longterm health and productivity of forested wetlands. ✦ Customary law promotes community involvement and decision-making processes, fostering a sense of ownership and responsibility among local populations for managing forested wetlands. ✦ Some customary laws in the past have been changed in favour	✦ Customary laws may not be formally recognized by official legal systems, leading to uncertainty and conflicts with statutory laws. ✦ Customary laws in may lack adequate enforcement mechanisms, making it challenging to ensure compliance with conservation measures. ✦ Lack of documentation of customary laws, they are often passed down orally, leading to potential misunderstandings or misinterpretations, and making it difficult to ensure consistency and continuity in wetlands management. ✦ Customary laws may not always be able to adapt quickly to changing environmental conditions or emerging conservation challenges. ✦ Customary laws in Fundong reflects existing gender or social inequalities, potentially hindering inclusive and sustainable forest management practices. ✦ Customary laws are often vulnerable to external pressures, such as commercial interests or	✦ Customary law provides mechanisms for resolving disputes within communities, which can be crucial in addressing conflicts over resource use in forested wetlands. By incorporating these mechanisms, stakeholders can work together more effectively towards sustainable management. ✦ Cleansing of sicknesses, blessing and preservation of the land. ✦ Sacrifices are being made twice a year in the forested wetlands to preserve the waters. ✦ Integrating customary law into forested wetland management ensures the preservation of cultural traditions and practices related to the environment. ✦ Customary law can complement	✦ At first, they used to be some threats affecting forested wetlands through the farmer-grazers conflicts between the Muslims and Kom people. ✦ But today, there are little or no conflicts of customary laws affecting the lands. ✦ There are acquisition of witchcraft on forested wetlands where animals and children can sink in the wetlands or get lost, as result of floods. ✦ Some of the threats on forested wetlands can include deforestation, pollution, wild fires, and climate change. ✦ Encroachment and illegal activities: With increasing population pressure and growing demands for resources, there may be encroachment into Ijim wetlands for agricultural, logging, or other illegal activities, undermining the authority of customary laws in protecting these areas. ✦ Customary laws in Fundong depend on effective
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of the government policies, community and which can undermine the state in their effectiveness in management of forested wetlands forest management. resources. In some cases, customary laws are recognized and integrated into formal legal frameworks, providing a basis for collaboration between traditional and modern governance systems in managing forested wetlands in Fundong.	existing legal frameworks by providing additional rules and norms that laws will not be govern resource use and conservation. This can help fill gaps in formal regulations and enhance enforcement mechanisms. Customary law in Fundong provides mechanisms for resolving disputes within communities, which can be crucial in addressing conflicts over resource use in forested wetlands.	enforcement mechanisms within the community. If these mechanisms are weak or ineffective, there is a risk that the customary laws will not be respected, leading to overexploitation or degradation of forested wetlands.
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4. Discussion

The high percentage registered in the age group (50 and above) from the study indicates that a majority of the key informants were of the elderly and old aged men, who had the knowledge and were versed with the communities and customs of forested areas in particular. The low percentage of women involved in the study could be attributed to the fact that in most cases women are not allowed to enter some forests for cultural reasons. While some other women farm on these forested wetlands. As was the case of Fujua forest wetlands where a lot of anthropogenic activities were being carried out there. The results from the study indicated that, (95%) of the key informants supports the role played by customary rights such as taboos, norms and restrictions. The efforts to conserve forests are regarded as

an obligation to create a harmonious relationship between humans and nature. Forests are regarded by indigenous people as sacred areas that must be preserved.

The indigenous people of Fundong, take care of their forests by involving the gods of the land (Commander of the Forest). In which they believe all blessings and protection of the clan comes from them. With such a belief system they have for sacred forest, respect is given to them such as some special days are reserved that no one should farm or go anywhere close to the forest areas because they consider that those special days are the days in which the spirits of the land come out to bless and protect the community from any calamities be falling the land. The communities play a role in reporting illegal logging practices, forest fires, wood theft that occurs in pockets of river basins (Azwir et. al., 2017). Indigenous peoples of Fundong share responsibility for forest preservation. The Laikom communities treats the forest as a source of life, so as a consequence, they have a moral obligation to preserve the forest. The effort to preserve the forest is believed by the community as the mandate of the ancestors that must be carried out by the next generation. The Integration of Traditional Ecological Knowledge (TEK) or customary practices, and beliefs in conservation projects has emerged as a significant determinant of conservation success (Brooks et al. 2012). In order to ensure the sustainability of these resources, there is the need to ensure their conservation.

In Hindu philosophy, the principle of forest protection can be identified in a number of scriptures. One of them is in the Holy Bible which mentions: “Indraa ya dyaava osadhir uta aapah. Rayim raksanti jiyaro vanani” which means that without being protected by natural resources, human beings will never get a safe and peaceful life (Lestawi and Bunga, 2020). One strategy for protecting forests from deforestation is to develop local wisdom owned by indigenous peoples. This strategy is not only owned by indigenous peoples in Fundong, but also indigenous peoples in various places, even in several countries. Efforts to protect forests carried out by indigenous peoples are influenced by culture, belief systems, and values adopted by local communities. Indigenous peoples protect forests because they feel that forests are part of their lives. Wetlands which were once thought to be a wasteland, have recently come to be recognized as essential landscape elements that provide a variety of benefits to people, fish, and animals in Fundong. The intrinsic and distinctive natural qualities of forest wetlands are responsible for the valuable benefits they provide to societies around the world. Today, customary laws have been verified to be valuable in forest resources management and their sustainability in conservation practices.

This study has identified existing customary laws which are used to preserve forest resources including wetlands through their norms and taboos guiding these communities of Fundong. The study also, has analyzed the strengths, weaknesses, opportunities and threats of these customary laws on how they affect the management of forests resources including wetlands in Fundong, be it positively or negatively for better management. Studies all over the world have shown the significance of customary practices in resource management and conservation. According to the study of Dunee et al. (2022) in Ghana,

where most wetlands and their resources have been managed and regulated in the past through varied traditional practices, depending on the beliefs of the traditional area that claims ownership.

These traditional practices involve customary laws or taboos, which determine rights to land and resource use. The SWOT analysis method has been used in some studies to show its effectiveness in the management of forest resources, which can be seen according to (Ganjali et al., 2014) in a study carried out on the environmental and strategic assessment of ecotourism potential in Anzali wetlands using SWOT analysis. This study showed that SWOT analysis is an effective way to identify strengths, weaknesses, opportunities and threats and that the model can be applied systematically to environmental planning and tourism development. More so, Hong and Chan (2010), used the SWOT analysis method for a fast and simple analysis of Penang National Park for strategic ecotourism management and planning in Malaysia and it was successful.

5. Conclusion and policy implications

5.1 Conclusion

The study reveals that traditional governance systems remain vital for the conservation and sustainable use of ecologically sensitive areas, particularly forested wetlands. In Fundong Subdivision, the Kom people have maintained a complex and spiritually grounded set of customary laws, taboos, and rituals that have historically regulated access to and use of wetland resources. These practices include the designation of sacred springs, hunting prohibitions in ritual forests, seasonal access to wetlands, and gender-based taboos—all of which contribute significantly to biodiversity protection, water source preservation, and social cohesion. However, the study also highlights the limitations and challenges confronting these customary systems. These include lack of formal legal recognition, weak enforcement, oral transmission without documentation, and growing pressure from agricultural expansion, illegal logging, climate variability, and socio-political instability. In high-disturbance zones like Fujua, the erosion of traditional norms and the weakening of institutions like the Kwifon have led to increased environmental degradation. In contrast, in less disturbed areas such as Ijim, where traditional norms are still respected, ecological integrity remains relatively intact. Overall, customary laws have proven resilient and adaptable, but their sustainability is increasingly threatened. The findings underscore the urgent need to strengthen and integrate these indigenous systems into modern environmental governance frameworks to ensure long-term conservation of forested wetlands in Cameroon.

5.2 Policy implications

On the basis of the findings of the study, some major policy implications emerge including recognition and legal integration, documentation and knowledge preservation, inclusive governance, capacity building and support for traditional institutions, environmental education and awareness, as well as conflict sensitive resource management.

- There is a pressing need for national and regional environmental policies to formally recognize customary laws and integrate them into statutory legal frameworks. This could involve co-management

agreements between traditional councils and state institutions, with clear delineation of roles, responsibilities, and enforcement mechanisms.

- Given that most customary laws are orally transmitted, initiatives should be taken to document these practices for preservation, dissemination, and education. This can help reduce misunderstandings and support intergenerational transfer of environmental knowledge.
- Customary laws must evolve to address existing social inequalities, particularly the exclusion of women and youth from decision-making. Policy frameworks should promote inclusive governance by encouraging broader community participation while respecting cultural sensitivities.
- Traditional authorities and local councils should be empowered through training, logistical support, and inclusion in national conservation programs. Strengthening the institutional capacity of the Kwifon and related councils will enhance enforcement and conflict resolution around wetland use.
- Integrating environmental education programs that emphasize both scientific and indigenous knowledge systems will promote community awareness and ownership of forested wetland conservation.
- Given the ongoing socio-political crisis in the North West region, wetland management strategies must be sensitive to local conflict dynamics. Efforts should aim at promoting peacebuilding through collaborative natural resource management and respect for customary norms.

References

- Adupong, R., Nortey, D. D. N., & Asiedu, J. (2013). Compilation of customary laws and practices in the Greater Amanzule wetland areas. USAID Integrated Coastal and Fisheries Governance Initiative for the Western Region, Ghana.
- Ajonina, G. N., Efole, T. E., Ndongo, B., & Tomedi-Tabi, M. E. (2025). Wetlands of Cameroon: Biodiversity, Livelihoods, and Conservation. *Wetlands of Tropical and Subtropical Asia and Africa: Biodiversity, Livelihoods and Conservation*, 207-239.
- Awazi, N. P., Quandt, A., & Ambebe, T. F. (2024). Climate Change and Anthropogenic Pressures on Forested Wetlands and Wetland Ecosystems in Cameroon: Sustainability and Policy Implications. *Forestist*, 74(3).
- Azwir, A., Jalaluddin, J., & Ibrahim, I. (2017). Peranan Masyarakat Dalam Menjaga Kelestarian Hutan Sebagai Sumber Kehidupan. *JEMSI (Jurnal Ekonomi, Manajemen, dan Akuntansi)*, 3(1), 44-50.
- Brooks, J. S., Waylen, K. A., & Borgerhoff Mulder, M. (2012). How national context, project design, and local community characteristics influence success in community-based conservation projects. *Proceedings of the National Academy of Sciences*, 109(52), 21265-21270.

- Cinner, J. E., & Aswani, S. (2007). Integrating customary management into marine conservation. *Biological Conservation*, 140(3-4), 201-216.
- Donatus, D., Idrees, M., Saleem, N., Mwinboubu, G., & Sattar, A. (2022). The Management of Wetlands in Ghana as a Compliance to the Ramsar Convention. *J Marin Biol Aqua Res*, 2(1), 103.
- Etemire, U., & Uwoh Sobere, N. (2020). Improving public compliance with modern environmental laws in Nigeria: looking to traditional African norms and practices. *Journal of Energy & Natural Resources Law*, 38(3), 305-327.
- Francis, J. J., Johnston, M., Robertson, C., Glidewell, L., Entwistle, V., Eccles, M. P., & Grimshaw, J. M. (2010). What is an adequate sample size? Operationalising data saturation for theory-based interview studies. *Psychology and health*, 25(10), 1229-1245.
- Ganjali, S., Shayesteh, K., Ghasemi, A., & Mohammadi, H. (2014). Environmental and strategic assessment of ecotourism potential in Anzali Wetland using SWOT analysis. *Caspian Journal of Environmental Sciences*, 12(1), 155.
- Hong, C. W., & Chan, N. W. (2010). Strength-weakness-opportunities-threats analysis of Penang National Park for strategic ecotourism management. *World Applied Sciences Journal*, 10(1), 136-145.
- Laird, S. A., Ingram, V., Awono, A., Ndoeye, O., Sunderland, T., Fotabong, E. L., & Nkuinkeu, R. (2010). Integrating customary and statutory systems: the struggle to develop a legal and policy framework for NTFPs in Cameroon. In *Wild Product Governance* (pp. 5370). Routledge.
- Lambi, C. M., Kimengsi, J. N., Kometa, C. G., & Tata, E. S. (2012). The management and challenges of protected areas and the sustenance of local livelihoods in Cameroon. *Environment and Natural Resources Research*, 2(3), 10.
- Lestawi, I. N., & Bunga, D. (2020). The Role of customary law in the forest preservation in Bali. *Journal of Landscape Ecology*, 13(1), 25-41.
- Mbozo, E. N., & Ekollo, S. N. (2024). Towards Sustainable Wetlands Management: Stakeholder Perceptions in Cameroon. *American Journal of Agriculture and Environmental Sciences*, 12(1), 1-19.
- MEA (2005). *Ecosystems and human well-being: wetlands and water*. World resources institute. Available from: <https://biblioteca.cehum.org/bitstream/123456789/143/1/Millennium%20Ecosystem%20Ass>

[essment.%20ECOSYSTEMS%20AND%20HUMAN%20WELL-
BEING%20WETLANDS%20AND%20WATER%20Synthesi.pdf](#)

- Metwane, B. C. (2023). Perspectives on Wetlands' Cultural Ecosystem Services and Indigenous Wetland Management Practices in the Limpopo Province, South Africa (Doctoral dissertation).
- Mitchell, S. A. (2013). The status of wetlands, threats and the predicted effect of global climate change: the situation in Sub-Saharan Africa. *Aquatic sciences*, 75(1), 95-112.
- Papayannis, T., & Pritchard, D. (2012). Wetland cultural and spiritual values, and the Ramsar Convention. In *Sacred Natural Sites* (pp. 180-187). Routledge.
- Sharma, L. K., & Naik, R. (2024). Wetland Ecosystems. In *Conservation of Saline Wetland Ecosystems: An Initiative towards UN Decade of Ecological Restoration* (pp. 3-32). Singapore: Springer Nature Singapore.