

Exploring Knowledge and Conservation of Cultural Groves in Ibadan, Oyo State, Nigeria

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ABSTRACT

The study focused on the knowledge and conservation practices of cultural groves in Ibadan, and reported the spirituality, ecological value and management dynamics. The study utilised a qualitative descriptive-exploratory research design, where semi-structured face-to-face interviews and direct observations were employed. Twelve participants were purposively selected in two Local Government Areas of Ibadan (Ibadan South East and Ibadan North). The results revealed that these cultural groves such as Igbo Igbale, Okebadan, Igbo Oba, Igbo Oya and Oke Mapo Hill were multifunctional landscapes. These were the homes of gods and ancestral spirits, and were managed by well organised indigenous management systems that involved ritual practices, taboos, festivals and this intergenerational transfer of knowledge. The associated practices, in turn, reinforced spiritual continuity, contributed to the conservation of biodiversity and environmental management. However, this exploration outlined a number of major challenges to the wellbeing of these groves, such as quick urbanisation, land intrusion, religious metamorphosis, economic demands, and the decreased interest of the young individuals. The study found that the cultural groves in Ibadan continue to be important sources of indigenous knowledge, spiritual identity, and cultural heritage. The study also found that the cultural groves in Ibadan need a participatory and holistic conservation approach that acknowledges the cultural grove as a two-fold resource, both as a cultural heritage and ecological resource, in an urbanising environment.

Keywords: Ecological Resources, Cultural Heritage, Environmental Management, Indigenous Knowledge, Ibadan,

INTRODUCTION

From all over the world, cultural landscapes are historically and currently influenced by the spiritual, ecological and social life of communities. Of these, sacred natural sites like groves are some of the most persistent examples of the co-evolution of people and their beliefs and nature. They are places of worship and are also repositories for biodiversity and traditional knowledge, embedded in religious, mythological and ancestral significance. Cultural groves have become key tools in many societies to maintain ecological balance, implement customary laws, and uphold the identity of indigenous people, especially in situations where the modern conservation movement is not effective (Bhagwat & Rutte, 2006; Dudley et al., 2010). But with the eruption of urbanization, globalization and swift technological development, the continuity and conservation of these groves have become a matter of scholarly concern and advocacy globally because of the threats to their sustainability (Bhagwat & Rutte, 2006).

Generally, a grove is a small stand of trees that is maintained or set aside for various purposes including ecological, religious or cultural. These can be forests with little human impact, or planted fields, especially of sacred value. Groves are defined as “places where traditional religious beliefs ensure the protection of the forest, sometimes treated as ‘home’ of deities and spirits. Cultural groves describe forest patches with ecological and socio-cultural values, which are frequently maintained for their connection with traditional practices, sacred rituals or cultural heritage (Bhagwat & Rutte, 2006). The cultural groves are physical locations for rites of passage, seasonal festivals and the transfer of intergenerational knowledge. The management of these groves relies on traditional structures of governance, taboos and oral traditions as access and use are regulated, which ensures sustainability (Adeyanju et al., 2022).

Cultural groves are under increasing pressure due to deforestation, the extension of real estate, and cultural erosion; as such, they have become an increasingly important topic in the discussion of the environment and heritage. Conservation here refers to purposeful actions to prevent degradation of groves while maintaining their cultural and ecological roles. Community based forest management, cultural heritage listing and incorporation into urban planning policies are some of the strategies used. Conservation of cultural groves is not just a matter of technical protection but also of the revival of indigenous belief system and stewardship. The conservation of these sacred landscapes can be achieved through traditional knowledge and traditional conservation policy, although it is a complex journey (Adeyanju et al., 2022). In developed countries, sacred natural sites, such as cultural groves, are gaining institutional protection in the form of legal measures and designations as protected area, as well as cultural landscape conservation. In Japan, sacred Shinto forests (*chinju no mori*) are protected by religious beliefs and municipal ordinance, which acknowledge their historical and ecological significance (Rots, 2015). These models demonstrate that with a high level of community awareness of the cultural value of a sacred site, the conservation of these sites is more effective when it is based on a combination of traditional custodianship and contemporary policy frameworks. In other African nations, including Nigeria, Ghana, Kenya, and Ethiopia, however, cultural groves have long been neglected, even though they play an important ecological and cultural role (Dudley et al., 2010). Historically these groves were protected by traditional knowledge and authority systems, but these were weakened by colonial land systems, post-independence urban expansion and changes in religious belief.

Traditional knowledge and authority systems that protected these groves were weakened by colonial land systems, post-independence urban expansion, and changes in religious belief. Nigeria is home to many cultural groves, all with unique ethnic histories and local knowledge systems. One such example is the Osun-Osogbo Sacred Grove in Osun State, which is renowned for its cultural significance and biodiversity, and is considered one of the world's most important sacred forests (UNESCO World Heritage Centre, n.d.). In Ibadan, one of West Africa's oldest urban centres, cultural groves used to fill the landscape, embodying strong spiritual and social structures. Oke Are, Oja'ba Grove and Idi-Ayunre were sacred groves, gathering places, rain-making sites and places for dispute resolution.

The remaining groves in Ibadan represent significant stores of biodiversity, spiritual heritage and indigenous ecological knowledge that need to be preserved now. Some groves remain under the care of traditional custodians, but the diminishing strength of traditional ownership in the face of increasing property pressures and policy enforcement inconsistencies has reduced the ability to pass on knowledge that safeguarded groves in the past. The study conducted in the south western region of Nigeria reveals that there is a decline in the traditional knowledge of sacred groves particularly among the youth due to modernization and alteration of cultural values. They are at risk from urbanisation, western education and the lack of intergenerational knowledge transfer. Forests, rivers and hills in many African societies are endowed with spiritual and cultural significance (Dudley et al., 2010). For instance, the Osun-Osogbo Sacred Grove in the southwest of Nigeria is a UNESCO World Heritage Site that is sacred to the Yoruba people for annual festival activities and worship of their ancestors, and acts as a biodiversity sanctuary along the Osun River (UNESCO World Heritage Centre, n.d.; Onyekwelu et al., 2024). There are also sacred forests among the Kikuyu of Kenya, who consider the Mugumo trees to be cultural icons and sanctuaries. The groves are sacred and protected as places of worship, religious ceremonies and spirits. However, cultural groves are poorly documented and undervalued in the academic literature and public discourse, despite their cultural and religious importance. Cultural groves in Ibadan, a city of historical significance in Oyo State, have been used to serve spiritual, cultural and ecological purposes over the years.

However, modernization, urbanization, deforestation and the impact of Western religions, which often label traditional practices as superstitious, threaten this indigenous knowledge and cultural heritage. Prior research has noted the religious importance of cultural groves in the Yoruba view of the world, where they are frequently seen as places where gods are worshipped, ancestors are consulted, and cultural practices are carried out. The study therefore, evaluated the indigenous knowledge systems and explored their contribution to the preservation, spiritual relevance, and contemporary management of cultural groves in Ibadan, with a view to proposing culturally grounded strategies for their sustainability.

Study Area

Ibadan city of Oyo state is one of the most populated and historically important cities in sub-Saharan Africa. It was established as a camp of Yoruba warriors in 1829 and soon developed into a seat of trade, education and governance, becoming a political and economic power house during the colonial and post-colonial period. The metropolitan area now exceeds 3,080 sq. km. that supports more than three million people, thus emphasizing the city's explosive demography in recent decades. The city is situated in a topographic area characterized by a succession of ridges and valleys, with heights between 150 and 275 m above sea level. Ibadan is located in the tropical rainforest ecological zone of Nigeria, with the rainfall pattern being double in nature i.e. long rains (March-July) and the short rains (September - November), which provide an environment favourable for the growth of plants. Although there is significant urbanisation, there are areas in both urban and peri-urban settings where natural forests remain, particularly in communities where traditional beliefs and taboos are perpetuating their protection. The city of Ibadan has experienced significant urban changes since the mid-20th century, with the emergence of housing estates, shopping malls, and various infrastructure projects. This expansion has been at the cost of natural vegetation, and it has been recorded that more than 40 per cent of the original forest has disappeared from 1980 to 2020. The fragmentation of remnant forest patches – including cultural groves – has become evident, and it is therefore important to understand and safeguard these forest green enclaves. Ibadan is a richly Yoruba culture and the groves have been traditionally used for worship of the deities, rainmaking and rites of passage. For example, the Oke Are and Orita Aperin groves are examples of the classic ones, where they are embedded in local myths and are kept by hereditary custodians. Such groves are not only spiritual hubs but also places where communities develop collective identity, share their past and traditional ecological knowledge. In contemporary times, a few of the cultural groves in Ibadan are still relatively well-preserved and provide important clues to the sustainability of traditional conservation approaches in an urban context. Research shows that some groves do best when they have active community stewardship while others may become targets of real estate development and a lack of interest by younger people. Therefore, it is crucial to have knowledge of their conservation status and the socio-cultural context that underpins their existence in order to come up with effective conservation strategies.

LITERATURE REVIEW

Sacred groves are areas of land, typically forested, that are set aside for religious, spiritual, or cultural reasons. They are considered sacred spaces where deities, spirits, or ancestors reside, and are typically protected by traditional taboos, including hunting, logging, or farming. In many indigenous communities, sacred groves serve as places for ritual, worship, and spiritual connection. Sacred groves are an integral part of the religious and cultural life of the Yoruba people of southwestern Nigeria. They are usually associated with a specific deity, such as Osun, Ogun, or Sango, and are used in rituals, healing, and divination. One such example is the Osun-Osogbo Sacred Grove, a UNESCO World Heritage Site and a living monument to the Yoruba spirituality and ecological care (Gadgil, et. al. 2022).

Sacred groves have also a significant role in the conservation of biodiversity. They are often informal conservation areas (Grim, 2001) and are often home to rare and medicinal plant species due to the restrictions on exploitation within them. The traditional beliefs that protect these groves reflect the importance of indigenous knowledge in environmental management. But modernization, urbanization and religious change are increasingly threatening the survival of sacred groves. The traditional beliefs and practices that support sacred groves are declining as younger generations embrace new religious identities or move to urban areas (Gupta and Sen, 2021).

Sacred groves are areas of forest that are protected because of religious, spiritual, or cultural reasons. They are located in different parts of the world such as Africa, Asia, and South America. These groves are believed to serve as biodiversity hotspots and are considered to be an integral part of traditional environmental conservation practices. Groves are important for biodiversity conservation as they help to protect endangered species and maintain ecological balance. These areas act as genetic reservoirs, where native plant and animal species find refuge. Cultural groves are small areas of natural vegetation that have been maintained by indigenous people for religious reasons and ritual purposes. They are defined as traditional ecological knowledge-based indigenous conservation areas under customary law, which have cultural and ecological values. In Africa, cultural groves are considered guardians of ancestral heritage, and taboos are used to control human behavior, ensuring the protection of spirits and species. Cultural groves are living synthesis of nature and culture, which serve ecological, spiritual and moral functions in traditional societies.

Sacred groves, in the Yoruba religion, are considered to be the physical homes of the deities (òrìṣà) and the ancestors and are seen as significant places of connection between the spiritual and physical worlds. These groves are not only forests but also places of worship and initiation, festivals, and spiritual consultations. Grove are usually dedicated to a particular deity and maintained by a priest, a priestess or elders who have spiritual role in the grove. The Osun-Osogbo Sacred Grove, which is dedicated to the goddess of the river, Osun, is one of the most notable examples. This grove is a place of pilgrimage and is of significant importance in maintaining the Yoruba religious tradition and ecological values. These groves are used for ritual purposes, including sacrifice, divination, and initiation ceremonies, and are sometimes subject to taboos and prohibitions, such as hunting, cutting down trees, or entering with unclean intentions.

In the outskirts of Yoruba towns, sacred groves are frequently found, having shrines and sculptures, along with symbolic natural features, such as rivers, old trees and anthills, which are thought to have spiritual properties. The Yoruba regard the sacredness of these forest areas with seriousness and violation of the sacredness can result in spiritual retribution or social misfortune. This faith-based approach has, in the past, helped preserve biodiversity in these groves and represents an indigenous paradigm of ecological ethics. Furthermore, sacred groves are considered to be areas that help to maintain religious and cultural memory, the oral tradition, religious symbolism and historical continuity. These groves are “living temples” in the Yoruba cosmology that is a representation of the relationship between humans, nature and the divine. Although they hold important spiritual and cultural values in the Yoruba religion, sacred groves are facing threats from urbanization, encroachment on land and the expansion of monotheistic religions that sometimes consider their traditional beliefs as idolatry. Sacred groves are a basic element of Yoruba religion and worldview. These are not just places of spiritual life, but also a storehouse of cultural heritage and a haven for nature.

The Osun-Osogbo Grove in Osun State is a sacred grove of significant cultural and ecological value in Nigeria. The Osun Grove is a UNESCO World Heritage Area and is sacred to the river goddess Osun, whose custodians are the traditional priests, community custodians and traditional beliefs. The Osun Grove is a UNESCO World Heritage Site and is considered the home of the river goddess Osun, whose caretakers are the traditional priests, community custodians and traditional norms. The grove is also rich in biodiversity, with more than 400 species of plants, including some that are endemic or used for traditional medicine. Spiritual governance through rituals, festivals and community-based patrols. Spiritual governance through rituals, festivals and community-based patrols for compliance with the conservation rules¹⁴. There are similar groves to be found in other parts of Yorubaland, Igboland and northern Nigeria, which are sometimes used to mark the boundaries of communities, provide medicinal herbs or as places for secret initiation and cultural rites. It is this ubiquity that underscores the strong embedding of groves in Nigerian indigenous knowledge systems and environmental ethics (Awoyemi et. al. 2023). Other parts of Africa have similar cultural groves.

The Tanoboase Sacred Grove is sacred to the Bono people of Ghana, as it is believed to be linked to their ancestral migration history (Berkes, 2022). Clan leaders protect the grove and due to taboo, the grove is not well protected and is not well utilized for entry, cutting trees and hunting. Likewise, the Kaya Forests of the Mijikenda Kenyan people are sacred forests with relics and shrines that symbolize their tribal identity and traditions. The groves are managed by elders which limit access and carry out ritual ceremonies to emphasize their spiritual significance. Ecological value of these groves includes soil stabilization, pollinator habitat, and services that are not typically included in Western conservation programs – microclimate regulation. This African strategy of

sacred conservation exemplifies the important role that traditional practices can play in international conservation initiatives.

Awareness and knowledge of sacred groves are key factors in their current cultural and conservation value. Historically, knowledge of sacred groves has been deeply rooted in spiritual, cultural and environmental practices within traditional Yoruba society, and is passed on through priests, elders and community custodians. This may encompass spiritual importance of specific groves, taboos, ritual actions and culturally recognized access and use rules. Ogunjinmi et al. (2021) noted that indigenous knowledge is a factor that aids cultural understanding and management of sacred natural sites. But broader social and cultural shifts such as urbanisation, formal education, religious change and generational change can impact the continuity of this knowledge.

There is also literature that indicates that sacred grove knowledge is not evenly shared among the members of a community. Traditional custodians and older community members may have a more intimate understanding of the history, ritual and restrictions of specific groves than younger members of the community. This can lead to a loss of knowledge from generation to generation, especially in the loss of traditional knowledge. Ogunseitan (2021) observed that the understanding of traditional cultural institutions among the younger generation might be affected by the changes in social and religious practices. The situation can be more severe in urbanised areas, as there are more sacred spaces in evolving socio-cultural and land-use settings. Any statements about the degree of knowledge loss, however, should be taken with a pinch of salt as there is a wide variation in awareness between communities and between different types of residents.

The attitudes towards sacred groves are also changing with the changing social and cultural conditions. Historically, respect for sacred spaces was reinforced by religious beliefs, taboos, traditional institutions and the authority of community custodians. These mechanisms could help control entry to groves and deter activities considered to be inappropriate. But it would be a mistake to assume that all young people or urbanites have negative attitudes toward the contemporary. On the contrary, previous research has shown that attitudes are formed based on the power of traditional institutions, individual knowledge, religious beliefs, cultural attachment and the evolving socioeconomic conditions of communities. For instance, Akinyemi (2024) and Ajibade et al. (2024) found that cultural practices and traditional leadership were positively linked to the recognition of sacred sites. These results imply that the process of urbanisation or modernisation is not sufficient to be used as an indicator for attitude change, but rather it should be studied in an empirical way.

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There has also been a lot of discussion on the link between sacred groves and environmental conservation. Ecological traits of sacred natural sites have been reported in different geographical contexts. For instance, Chakravarty et al. (2024) found higher plant diversity in the sacred groves studied in India than in non-sacred groves. Likewise, Awoyemi et al. (2023) noted that there are species differences between sacred and neighbouring forests in their study area. These findings support the empirical evidence of the ecological significance of sacred groves in specific areas. But the results of the study in India or elsewhere in Africa cannot be extrapolated to Yoruba sacred trees in Nigeria. The ecological importance of individual groves should not be assumed simply on the basis of residents' perceptions, but rather be determined by the use of appropriate ecological assessment methods.

The literature also highlights a number of pressures that could impact on the survival and management of sacred groves. Potential pressures on sacred natural sites include urban expansion, competing land uses, agricultural

activities, infrastructure development, and changing cultural practices. However, the type and intensity of the pressures vary from place to place. Therefore, claims that sacred groves are being lost due to development or that communities no longer care about conserving sacred groves should be backed up with evidence from the study area. If it is derived from the answers provided by the respondents, it must be stated as a perception or reported experience, not as an ecological or land use fact.

The other issue is related to the institutional and community mechanisms for the management of sacred groves. Ijeoma and Aiyeloja (2022), and Iwuagwu and Iwuagwu (2025) have suggested that community involvement, the incorporation of sacred sites into larger conservation efforts, and environmental education and documentation of indigenous knowledge could be some of the approaches to enhancing their management. These approaches are relevant as traditional custodians, community leaders, government organisations and conservation bodies can have differing responsibilities and interests in the management of sacred sites. But suggested interventions in the literature should be stated as achieved results only if the cited study has tested their effectiveness. Specific recommendations, such as zoning, financial support, formal protection and awareness campaigns, should be separated from empirical evidence of what has proven successful in a specific community.

The literature reviewed shows that the cultural and environmental aspects of sacred groves are interrelated, with the evidence being stronger in one aspect than the other. Relatively significant discussion of indigenous knowledge, cultural values and traditional institutions and ecological claims need context-specific evidence on species diversity, vegetation characteristics, ecosystem services and environmental conditions. Likewise, the evidence from the populations and places studied should be provided to substantiate the reported decline in awareness and the shift in attitudes, as well as the conservation problems. In the context of sacred groves in urbanizing Yoruba communities, this distinction is especially relevant because cultural change, land-use change and conservation of the environment can happen at the same time. The literature therefore shows a need for research that investigates knowledge, awareness, attitudes and conservation practices based on the evidence from the people who are directly related to the conservation of the forest products.

These studies can determine if sacred grove knowledge is being passed down through generations, the perceptions of residents about the cultural and environmental value of sacred groves, issues faced at the local level, and what conservation actions are actually feasible by stakeholders. This will serve as a foundation to connect indigenous knowledge and modern conservation without assuming that perceptions are evidence of ecological conditions or conservation outcomes.

Gaps Identified from Literature

Cultural Groves have always served as a spiritual, cultural and ecological sanctuary in Ibadan, a city with long historical development in the Oyo State. But in the face of modernization, urban migration, deforestation and the gradual secularization of traditional practices by the Western religions, this indigenous knowledge and cultural heritage is under increasing danger. The religious importance of cultural groves within the Yoruba perspective has been captured in existing studies, where they are seen as central to worship of deities, contact with the ancestors and cultural practices (UNESCO World Heritage Centre, n.d.). Research efforts have mainly been directed to iconic groves such as the Osun-Osogbo Sacred Grove and no significant amount of research has been conducted on smaller groves in other urban environment such as Ibadan (Dudley et al., 2010). Furthermore, little has been documented on the current status and the functionality of groves in the urban fabric of Ibadan.

This study, however, does fill this gap as it identifies and documents existing significant cultural groves in Ibadan, and evaluates their ongoing religious and cultural functions within community settings. Most research has concentrated on iconic groves such as the Osun-Osogbo Sacred Grove with little research on smaller groves found in other urban locations, such as Ibadan (Agbelade et al., 2022). Furthermore, few studies and documentation on the status and performance of the groves in the urban fabric of Ibadan exist. This study, however, will go a long way to complete this void by identifying, documenting and also evaluating the status of the religious and cultural functions of these cultural groves in Ibadan communities. However, these studies are mostly general and ecological in nature and fail to specifically discuss the operation and degradation of these systems in urbanized Yoruba cities. Traditional institutions, taboos and customary practices contribute significantly to conserving cultural groves as illustrated in the literature. Most of these are however now less

effective due to the influence of modernization and urbanization, as well as changes in beliefs and values for conservation, especially in Ibadan where empirical evidence is limited. This study is designed to fill this void, by comparing the traditional mechanisms of cultural groves in Ibadan with the evaluation of their viability.

METHODOLOGY

This study adopts a qualitative research design, specifically a descriptive exploratory approach. The design is appropriate as it allows for an in-depth understanding of the indigenous knowledge systems, beliefs, and conservation practices associated with sacred groves in Ibadan. Semi-structured interviews were conducted with key informants using an interview guide designed to elicit information on the traditional management mechanisms, taboos, community rules, and challenges associated with cultural groves (Akinyemi, 2020). The population of this study consists of individuals with knowledge or experience related to the existence and conservation of cultural groves in Ibadan. These include traditional leaders, grove custodians, and the spiritual practitioners within communities where groves are located. The study utilizes a non-probability sampling technique, specifically purposive sampling. This method is chosen to deliberately select individuals who possess in-depth knowledge or firsthand experience related to the conservation of groves. Purposive sampling was used to select participants with extensive knowledge of the management and conservation of cultural groves. Twelve (12) participants, including traditional leaders, shrine custodians, and community elders, were interviewed because qualitative research prioritizes information-rich participants over large sample sizes. Data collection was carried on until saturation of information occurred. This study was carried out in two Local Government Areas (LGA) of Ibadan as against eleven LGA, which was found to contain active cultural groves easily accessible and suitable for the aim of the study. These selected areas were used as case studies and does not mean that cultural groves are not present in other parts of Ibadan. Semi-structured interviews and field observations were used to gather the data. Before the interviews, community leaders were asked for permission and informed consent was requested from all participants. Transcription and thematic analysis were used for the interview data and observational data were used to support the findings of the interviews. The identity of the participants was anonymized by code and only information that the participants wished to share was recorded. Cultural sensitivity with respect to sacred knowledge, which was not to be written down, was respected.

RESULTS AND DISCUSSION

The study was qualitative, involving 12 purposively selected participants comprising traditional leaders, grove custodians, priests and worshippers, from the knowledge systems, cultural meanings and conservation practices of sacred groves in Ibadan, Oyo State. The results show that cultural groves are still active in Ibadan South-East and Ibadan North-East Local Government Areas as significant spiritual, cultural and ecological institutions that are embedded in the Yoruba cosmology and community life. The study reinforces the findings of Ormsby (2013) who highlighted the importance of indigenous beliefs and customary practices in the conservation of sacred natural places in the face of growing pressures from urbanisation and social change. The respondents identified some prominent groves such as Igbo Igbale, Oke'badan and Ogunmakin as centers for ritual activities, ancestor worship and community decisions making. The groves are believed to be the abode of deities and ancestral spirits and access is managed through cultural taboos, rituals and gender restrictions. The high population of the male worshippers suggests the role of males in the traditional worship of indigenous religion (Aluko, 2021). Oral histories and myths reinforce moral values and help to reinforce community identity and taboos that help maintain the spiritual and ecological purity of the groves. The study found that the transmission of knowledge about grove management and importance is primarily through intergenerational learning, such as watching, apprenticeship, storytelling, and engagement in festivals and rituals. The involvement of children and youth is as learners and assistants; elders, custodians, and priests play a key role in the maintenance of the oral histories, taboos and mediation between spiritual and social worlds. This multi-layered mechanism of knowledge exchange contributes to the continuity of cultural practices and to reinforce community stewardship of the groves. The roles of the stakeholders are well defined in sacred grove management. Traditional rulers preside over access and conflict resolution, keepers/custodians take care of the actual building, ritual co-ordination and taboo observance, priests carry out spiritual ceremonies and divination, and elderly worshippers provide historical guidance and advisory support.

Together these roles maintain the groves as spiritually active places and help to stop environmentally damaging practices like logging, hunting and encroachment. Daily offerings, advices, and annual festivals became significant means to maintain spiritual balance and harmony in society. Festivals are not only religious events but also events to enhance the feeling of collective responsibility, intergenerational bonds and public commitment to grove protection. Consultation practices also locate the groves as local centres of problem-solving, where personal, family and community problems are addressed. The findings indicate that sacred groves in Ibadan are poly-functional spaces that represent a synthesis of spiritual beliefs, cultural memory, ecological conservation and social governance. They are closely associated with the active involvement of communities and the effective intergenerational transfer of knowledge, and their continued preservation. The study emphasizes the importance of recognising and incorporating these traditional conservation practices and systems into the larger cultural heritage and environmental management frameworks.

Table 1 Traditional Knowledge Systems Governing Grove Maintenance and Use

Respondent Role	Age Range	Direct Quote	Main Activities / Responsibilities
Baale (Traditional Ruler)	65+	<i>"This grove has been with our people for generations. We come here to seek guidance from the deities, especially concerning the destiny of our children."</i>	Supervises community access, approves rituals, preserves oral histories, mediates conflicts.
Grove Custodian	56–65	<i>"I am responsible for preparing ritual foods such as akara, cassava flour with gbegiri, and other offerings brought by worshippers. I act as both a spiritual mediator and a steward of the grove to ensure it remains a sacred space for our community."</i>	Maintains grove paths and shrines, prepares ritual offerings, enforces taboos, monitors ecological health.
Grove Custodian (Oke'badan)	56	<i>"The song 'E bami gbomo Oke lanti lanti' reminds us of the protection and security our deity provides. The grove safeguards us from adversities and strengthens our bond as a community."</i>	Supervises rituals, enforces unwritten codes, manages spiritual and ecological balance.
Grove Keepers	40+	<i>"We clear paths, maintain shrines, and assist with offerings. Our work preserves the history of our people and teaches the younger generation about our traditions."</i>	Assist custodian, perform minor rituals, guide youth, organize annual festivals.
Priests	40-65	<i>"We perform the rituals, invoke the deities, and guide the people on how to act within the grove. This keeps both the spiritual and environmental balance intact."</i>	Lead rituals, conduct divinations, maintain spiritual order, advise community.
Youth Worshippers	30–40	<i>"We help with preparations during festivals and observe how elders perform the rituals. This teaches us respect for our ancestors and the grove."</i>	Assist in rituals, learn traditions, participate in offerings, help maintain grove.
Children	10–15	<i>Observed participation in rituals and offerings under elders' supervision</i>	Learn rituals, observe elders, assist in minor ceremonial tasks.

Elderly Worshippers	65+	<i>“We advise on the right offerings and remind people about the spiritual significance of trees and animals here. The grove holds our history and identity.”</i>	Provide guidance on rituals, preserve oral histories, educate younger members, oversee grove respect.
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Source: Author’s Field Survey, 2025

The study reveals from Table 1 that the governance and preservation of sacred grove in Ibadan in Ibadan is well managed by the indigenous management system which involves the traditional rulers, the custodians, the priests, the grove keepers, worshippers and successive generations. The top of this structure is taken up by the Baale (traditional ruler), who is responsible for upholding spiritual standards, resolving conflicts, approving rituals and preserving oral traditions. The custodians of the groves are the operational force of the grove management, preparing the ritual, enforcing taboos and conducting regular grove maintenance, also engaging in spiritual mediation. Grove keepers help with these activities by providing physical facilities, participating in rituals, and helping to pass on knowledge from one generation to the next; priests oversee ritual performance, divination, and spiritual governance. The young and children are mainly learners and assistants, learning cultural values by observing them and by attending festivals, and the elderly worshippers are the keepers of collective memory and moral guidance. These actors create a comprehensive indigenous governance system that helps to maintain sacred groves as places of spiritual devotion, ecological protection and cultural continuity. The results also reveal that sacred groves in Ibadan are of great historical and spiritual importance, especially to elders and custodians who view them as living entities that are home to deities and ancestral spirits. The emphasis on secrecy, reverence, and ritual discipline grew to be central to the engagement of the groves and represented the cosmological principles of the Yoruba. Access is gendered, with some groves reserved for men; and spiritual norms of ritual purity and social order reinforce such exclusion. Due to age-based limitations on ritual participation and a loss of ritual experience, younger generations may relate symbolically to the groves. Festivals, storytelling and communal rituals are still very important cultural tools of transmission and identity building, though.

Besides their spiritual roles, respondents repeatedly emphasized the ecological values of sacred groves as biodiversity hotspots, sources of medicinal plants and green spaces in the current fast changing world of urbanization. The groves also act as moral and social regulators, taboos and ritual codes regulate the moral conduct and promote communal harmony. The findings corroborate the sacred groves as multifunctional spaces which carry out religious, cultural, ecological and governance functions in the community. While sacred groves are significant, the study also points to a number of factors that have contributed to the loss of sacred groves and knowledge systems, all of which are interrelated. Rapid urbanization and physical encroachment have reduced grove size, and ritual activity has been disrupted, with reduced community access. Christianization and Islamization of the indigenous people have also led to the marginalisation of their belief systems, which include less involvement of indigenous youth in the grove rituals. Intergenerational knowledge loss is a threat to the loss of ritual knowledge, taboos and ecological practices because younger generations are not interested in these practices. Also, in times of economic pressure, custodians are hampered in their ability to maintain groves and to resist commercial land use pressures resulting in both physical and cultural degradation. A number of preservation strategies were identified by respondents that address these challenges.

Documentation of oral history, rituals, songs and ecological knowledge was found to be essential for the safeguarding of Indigenous Heritage. The importance of educating youth in the community to restore cultural pride and environmental stewardship was emphasized. There was a suggestion to recognize sacred groves in urban development and heritage protection to ensure that they are not encroached upon. Respondents also felt that when managed properly eco-cultural tourism can offer economic support without encroaching on spiritual boundaries. Indigenous knowledge systems are at the heart of all strategies with a particular emphasis on strengthening intergenerational knowledge transfer through mentorship, apprenticeship and guided participation. Conserving cultural groves will not only depend on the conservation of the physical groves, but also on the conservation of the traditional knowledge, values and practices that support their conservation.

Contribution to Knowledge

The study shows that the culture groves in Ibadan have suffered degradation due to the fast rate of urbanization and the commercialization of land use. Policymakers need to recognise cultural groves as protected ecological and cultural assets in their city master plans. Planning controls can be applied to designate areas where sacred groves are safeguarded from development, widening of roads and building. This policy approach will need to involve working with planning authorities, environmental agencies and traditional custodians. The study highlights the vulnerability of groves because of low level policy enforcement. There is potential for national and local governments to enact legislation acknowledging cultural groves as heritage and conservation areas. These policies might involve fines for logging, land use, or defoliation, and rewards for communities to preserve and protect their groves. Legal recognition can also bring groves to the forefront in environmental impact assessments and help to consider cultural and ecological aspects when evaluating new projects. The results indicate that local knowledge and traditional stewardship play an important role in the survival of groves. Policymakers can create programs that enable communities to control and oversee these areas. Policy instruments can vary from grants, technical support, to participatory governance models that include custodians, youth, and local authorities to keep up with groves. This would help to fill the gap in knowledge between generations and enhance public awareness of the importance of the groves.

The study reveals that erosion of indigenous knowledge among urban youth is one of the factors of neglect of the groves. Policies for educating the ecological and cultural value of groves could be implemented in educational programs in schools, cultural centers and media campaigns. This information will be integrated into the formal and informal education to raise awareness and conservation actions in the community. Cultural groves are not only places of spiritual remembrance, they are also reservoirs of biodiversity.

Limitations of the Study

The study was constrained by the sensitive nature of the interview data gathered from custodians of the cultural groves, with some participants being hesitant to share some of the sacred or confidential information. The study was also conducted with a small number of participants (12) who were purposively selected from two Local Government Areas, so the results cannot be generalized. In addition, interviews in Yoruba were translated into English, and this may have led to some differences in meaning. Participants may also have been reluctant to share information or to give socially desirable answers because of the culturally sensitive nature of sacred groves.

CONCLUSION AND RECOMMENDATIONS

A synthesis of the key findings, recommendations, areas for further research and policy implications is found in the study on cultural groves in Ibadan. The study reveals the spiritual, cultural, historical and social significance of cultural groves such as Igbo Oba, Oke Mapo Hill, Igbo Igbale, Igbo Oya and Oke'badan in the Yoruba communities. Beyond their religious significance and spiritual bonds, these groves are also symbols of collective memory, protection, and cultural resilience, and are an important part of the lives of the people who value them. The outcomes show that these groves are managed following well-structured indigenous knowledge systems, which are being maintained by the custodians and the community members. Spiritual sanctity and ecological sustainability involve ritual observance, taboos, seasonal festivals and regular maintenance. Cultural activities, songs and festivals contribute to the reinforcement of cultural identity and social cohesion and link the present generation to the cultural heritage. While cultural groves are crucial, the study identifies several problems that threaten the existence of cultural groves, including the speed of urbanization, changes in religious beliefs, economic pressures, and the lack of a transfer of knowledge from one generation to another. These challenges reduce participation in the traditional use and decrease custodianship and make groves susceptible to encroachment and degradation.

The study proposes that systematic documentation of indigenous knowledge, enhancing community education and engagement, the institutional and legal protection, sustainable eco-cultural tourism, and intentional intergenerational knowledge transfer can solve these problems. The study highlights the need to incorporate cultural groves into urban planning processes, enhance legal safeguards, encourage community-based conservation efforts, and incorporate grove knowledge into educational and awareness campaigns from a policy

perspective. The inclusion of sacred groves in national biodiversity and conservation policies is crucial for their sustainability as cultural heritage and ecological resource. In conclusion, cultural groves in Ibadan remain vital and important sources of indigenous knowledge, spiritual identity, and cultural heritage. They must be conserved under a comprehensive, inclusive and participative conservation strategy, considering cultural continuity, environmental conservation and urban development. These strategies can help to preserve and restore cultural groves for current and future generations.

Further Areas of Research

Future research could be conducted to compare the cultural, ecological and management differences between sacred groves in Ibadan and other Yoruba cities like Osogbo, Oyo and Ijebu-Ode. This will enable the identification of regional differences in beliefs, preservation practices and threats, and give a wider picture of the functioning of indigenous conservation systems in southwest Nigeria. More studies are required to investigate the impact of fast urbanization, land-use change and population growth on the size, boundaries and ecological health of sacred groves. Longitudinal studies using GIS could give information on spatial encroachment patterns, biodiversity loss and environmental degradation over time. The views of young people, who are growing up in a modern way of life, religion and digital culture, are under-researched, whereas traditional custodians have their sacred groves. Future studies could explore youth awareness, willingness to engage in conservation, and intergenerational cultural values. Although sacred groves are biodiversity hotspots, many of them do not have up-to-date ecological documentation. Further studies can be done to measure species richness, medicinal plants, endangered species, and ecosystem services provided by the groves through botanical, zoological and ecological surveys. This would enhance their conservation value. There is a lot of literature that focuses on the role of the male custodian, while the role of the female custodian is not explored. Additional studies might explore the role of women in the transmission of knowledge, ritual, environmental protection and intergenerational learning in sacred grove communities.

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