Sacred Spaces in Peril: Climate Change (Flood) and the Disruption of Religio-Cultural Landscape in Rivers State

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Abstract

Climate change has become a defining threat to both environmental and cultural continuity in coastal regions around the world. In Nigeria's Rivers State, situated in the fragile Niger Delta, climate-induced flooding and deforestation is not only displacing people but also disrupting sacred geographies, eroding cultural heritage, and weakening spiritual identities. This study investigates how recurring floods and deforestation affect religious and cultural landscapes, particularly sacred spaces such as shrines, churches, altars, cemeteries, and ritual sites. Drawing on field interviews, ethnographic observation, and documentary analysis, the paper reveals that sacred spaces are increasingly vulnerable to environmental degradation, with profound religio-cultural consequences. The study is anchored in Sacred Ecology, and Cultural Landscape theories, providing an integrated analytical framework for understanding the spiritual implications of ecological loss. The findings reveal a neglected dimension of the climate crisis: its spiritual and cultural toll, it further show that communities are experiencing spiritual dislocation, ritual disruption, and cultural erosion. The paper argues for the urgent inclusion of sacred site protection in climate adaptation and environmental planning frameworks, and for a deeper engagement between environmental policy and cultural heritage conservation in Nigeria. Ultimately, it calls for a reimagining of climate justice and policy

that recognizes sacred landscapes, honors not only ecological but also spiritual and cultural resilience, identity and survival in a warming world.

Keywords: Sacred Space, Climate Change, Flooding, Cultural Landscape, Spirituality.

Introduction

Climate change has emerged as one of the most pressing existential challenges of the 21st century, not only because of its direct ecological impact but also due to its far-reaching effects on human cultural, spiritual, and religious life. In regions like the Niger Delta, particularly Rivers State, Nigeria, rising sea levels, intensified flooding, erosion, saltwater intrusion, and gas flaring are not only degrading ecosystems but also encroaching upon landscapes deemed sacred by indigenous and Christian communities (Nwankwo et al., 2021; Ayanlade & Jegede, 2023). These disruptions are not merely environmental but constitute a threat to cultural memory, religious identity, and communal cohesion. Sacred spaces, including ancestral groves, shrines, altars, rivers, graveyards, and traditional worship grounds, have historically been integral to the cultural and religious life of many communities in Rivers State. These spaces are not only geographical landmarks but are deeply embedded in spiritual beliefs, cosmologies, and ritual practices, Tylor (1856). However, many of these sites are increasingly under threat from climate-induced phenomena such as recurrent flooding and erosion. According to the United Nations Environment Programme (2022), cultural and religious landscapes in low-lying areas are among the most vulnerable to the effects of climate change, yet they receive little attention in policy discourse. In indigenous African thought, the land is not merely a physical space but a sacred entity with deep ancestral and metaphysical significance (Mbiti, 1990). For example, the groves in Kalabari, Ikwrrer, Andoni, Etche, Ogoni, Okrika, among other territories in Rivers State are often revered as abodes of deities and spirits, and rituals conducted there mark seasonal changes, community transitions, and ancestral connections. The flooding, deforestation and other unapproved human activities in such sites results in more than physical displacement it signifies spiritual dislocation, ritual discontinuity, and loss of intergenerational memory. Similar situations have been observed globally. In the Pacific Islands, for instance, climate change has submerged entire ancestral burial grounds and traditional worship

sites, leading to what scholars now term "spiritual homelessness" (Nunn & Kumar, 2019).

Christian communities in Rivers State also face these disruptions. Churches built in flood-prone areas such as, Abua, Abonnema, and Ahoada are frequently damaged or rendered inaccessible during the rainy season. These disruptions affect not only congregational worship but also rites such as baptisms, burials, and harvest festivals that are integral to communal religious life. As observed in the aftermath of Hurricane Katrina in the United States, the destruction of religious infrastructure leads to a temporary collapse in spiritual morale and social cohesion (Gunn, 2020). In the Nigerian context, churches often serve dual purposes as worship centers and community gathering hubs. When these spaces are damaged or displaced, entire communities lose both spiritual and social grounding. Moreover, the effects of gas flaring an environmental hazard common in the oil-producing communities of Rivers State have also been linked to the desecration of sacred spaces. Thick plumes of smoke and acid rain have not only poisoned the soil and water but have also made it impossible to perform outdoor religious ceremonies that rely on natural purity (Ite et al., 2013). In places like Omoku, Emohua, land, where traditional religion coexists with Christianity, the loss of clean water and unpolluted air has forced many spiritual practitioners to abandon long-held rites, accelerating the erosion of indigenous religious systems. Globally, cultural and religious sites affected by climate change are being recognized as critical heritage issues. The World Heritage Centre (UNESCO, 2021) reports that over 25% of cultural World Heritage Sites are at significant risk due to environmental stressors. From the Buddhist temples of Lumbini in Nepal threatened by floodwaters to the Indigenous Dreaming tracks in Australia disrupted by wildfires, the sacred is under siege worldwide. In Africa, the Lake Chad Basin once a center for spiritual cleansing and Islamic retreats is shrinking rapidly, turning sacred geography into ecological deserts (Bakari, 2022). These global examples highlight the urgency of localized studies such as this one, which investigates how climate change affects the religious and cultural integrity of Rivers State.

In the face of the growing awareness of these threats, existing climate change adaptation and environmental protection policies in Nigeria rarely factor in

religious and cultural heritage. The National Adaptation Strategy and Plan of Action on Climate Change for Nigeria (NASPA-CCN) makes no explicit reference to sacred or spiritual landscapes (Federal Ministry of Environment, 2021). This omission reflects a broader epistemological gap in climate discourse, which often privileges science and infrastructure over cultural and spiritual dimensions. Scholars have called for a shift towards "culturally embedded climate resilience," emphasizing the protection of non-material heritage in climate responses (Maldonado et al., 2021). This study, therefore, seeks to explore the disruption of sacred spaces due to climate change in Rivers State, focusing on both indigenous and Christian Religious landscapes. It aims to document the types of sacred spaces affected, understand the spiritual and cultural implications of their loss, and investigate how local communities are adapting. In doing so, the study contributes to an emerging body of scholarship that seeks to humanize the climate crisis by foregrounding its cultural, religious, and emotional dimensions. In essence, climate change in Rivers State is not just a matter of rising temperatures or receding shorelines; it is a deeply spiritual crisis that threatens the soul of communities. The destruction of sacred spaces is the erasure of memory, the disorientation of belief systems, and the silencing of rituals that bind generations. This paper calls for a redefinition of climate justice one that includes the protection of the sacred.

Theoretical Frameworks

For authenticity and validity, the study adopted Sacred Geography, Cultural Ecology and Environmental Justice as theoretical lens. Sacred Geography refers to the study and interpretation of geographical spaces that are imbued with religious, spiritual, or metaphysical significance. As a theoretical framework, sacred geography offers a lens through which scholars analyze how landscapes, natural features, and constructed environments become 'sacred' through human interaction, mythology, ritual, and belief (Eliade, 1959; Lane, 2001).

It is important to note that the idea of sacred geography does not have a single authorship. It is an interdisciplinary concept, developed from comparative religion, anthropology, and cultural geography. However, a few scholars are recognized as foundational voices. Among them are Mircea Eliade (1907-1986) who in hia work The Sacred and the Profane (1959) argued that sacred space is

qualitatively different from profane space, and religious communities recognize their world around hierophanies (manifestations of the sacred) and axes mundi (cosmic centers). While Eliade did not use the exact phrase " Sacred Geography" his writings laid the theoretical groundwork for understanding how geography become sacralized. Yi-Fu Tuan (1930-2022), a cultural geographer, in his work Space and Place: The Perspective of Experience (1977) expanded the special analysis of human experiences, including the sacred. His ideas influenced later works on sacred landscapes and sacred geography in geography and religious studies. This implies that the pioneer scholar most credited with laying the foundation of sacred geography as a theoretical lens is Mircea Eliade (1959), through his thory of sacred and profane space. Later scholars such as Yi-Fu Tuan, Belden Lane, and Chidester & Linenthal expanded it into what is now recognized as Sacred Geography in academic discourse.

Sacred geography allows for the exploration of how religious communities assign meaning and symbolic value to physical spaces, transforming ordinary geography into spiritually significant realms. At its core, sacred geography asserts that space is not neutral; rather, it is ritually and symbolically constructed. As Eliade (1959) argues, sacred space is a "breakthrough of the sacred" into the human world, often marked by a theophany or divine manifestation. Such spaces become centers of meaning around which communities organize their cosmologies, identities, and rituals. This can include temples, shrines, rivers, mountains, or ancestral groves that serve as contact points between the divine and the mundane. As a framework, sacred geography overlaps with phenomenology of religion, cultural geography, and environmental anthropology, enabling scholars to examine how spatial practices reflect theological and cosmological principles. For instance, in many Indigenous and African religious traditions, certain landscapes, such as rivers, trees, or hills are not only sacred but also living entities that must be honored and preserved (Mbiti, 1991; Chidester & Linenthal, 1995). Moreover, sacred geography provides a way to understand the politics of space, especially in contexts where sacred sites are threatened by modernization, conflict, or environmental degradation. In such cases, sacred geography can be used to advocate for the preservation of cultural and spiritual landscapes, emphasizing the intrinsic link between belief systems and land stewardship (Knott, 2005; Singh, 2020). This is particularly relevant in climate change discourse, where sacred spaces are

increasingly under threat from rising seas, deforestation, and urban expansion. In practical research, such as this, sacred geography as a framework helps map sacred landscapes, understand ritual behavior in relation to space, and interpret narratives of origin and identity grounded in specific geographical locales. It also sheds light on pilgrimage dynamics, territoriality, and the social production of sacredness. The framework emphasizes that sacredness is not only a matter of belief but is also performed, narrated, and spatially encoded (Lefebvre, 1991; Smith, 1987). Therefore, sacred geography is not merely descriptive but is deeply analytical. It helps researchers investigate how space is contested, sacralized, and negotiated through religious practice and cultural memory. It also provides tools for examining the interface between religion and ecology, highlighting how sacred spaces often become sites of both spiritual and environmental conservation.

Cultural Ecology is a theoretical framework that explores the dynamic interrelationship between human cultures and their natural environments. Emerging from anthropology and human geography, cultural ecology examines how cultural beliefs, social institutions, and economic practices are shaped by and adapt to environmental conditions and ecological constraints (Steward, 1955). First introduced by Julian Steward, cultural ecology aimed to move beyond environmental determinism by emphasizing a multilinear evolutionary perspective, which recognizes that societies respond to similar environmental challenges in different ways based on cultural factors (Steward, 1955). This approach underscores the adaptive strategies societies employ to manage environmental pressures while maintaining cultural continuity. For instance, religious beliefs or rituals may evolve to reflect local environmental conditions such as climate, topography, or the availability of water and vegetation (Butzer, 1989). As a framework, it enables scholars to analyze how human populations interact with their physical surroundings and how such interactions influence societal development, religious practices, settlement patterns, and resource use. Secondly, it offers insights into the relationship between sacred space and environmental stewardship. In many Indigenous and African traditional religions, sacred groves, rivers, and mountains are not only spiritually significant but also serve ecological functions such as biodiversity conservation and climate regulation (Posey, 1999). This underscores the dual role of culture in shaping both symbolic meanings and practical responses to ecological realities. Furthermore,

cultural ecology facilitates the analysis of cultural resilience and vulnerability, especially in contexts of environmental change. With the increasing impact of climate change, communities are forced to adapt their spiritual, agricultural, and social systems in ways that reflect both traditional knowledge and modern technologies (Berkes, 2012). For example, the relocation of shrines due to flooding, or the modification of farming rituals in response to altered rainfall patterns, reveals how cultural practices evolve in response to ecological stressors. Conclusively, cultural ecology as a theoretical framework offers a holistic approach to understanding how human societies mediate their existence with the environment through culture. It is particularly relevant in studies of religion and ecology, sustainable development, heritage conservation, and indigenous knowledge systems. By foregrounding the adaptive nature of culture, the framework highlights how sacred traditions and ecological awareness often coalesce, contributing to environmental resilience and cultural sustainability

Understanding Sacred Spaces

Sacred spaces refer to geographical locations or constructed environments that are designated, perceived, or experienced as being spiritually or religiously significant. These spaces are often regarded as places where the divine or supernatural is believed to dwell or become accessible to individuals or communities (Eliade, 1959). Sacred spaces serve as centers for worship, rituals, pilgrimage, reflection, and community identity, often marked by symbols, architecture, or natural features imbued with religious meaning. According to Lane (2001), sacred spaces are distinguished from ordinary or profane spaces through rituals, stories, and practices that transform them into meaningful places for believers. These places may include temples, mosques, churches, shrines, groves, rivers, or mountains, depending on the religious tradition. The sacredness attributed to a space can stem from divine encounters, historical events, mythological associations, or ongoing religious practices (Chidester & Linenthal, 1995). Sacred spaces are not limited to fixed or permanent structures; they can also be temporarily consecrated or symbolically marked during festivals, processions, or rites. They often have boundaries and behavioral expectations, such as rules of purity, silence, or restricted access, reflecting their separation from the mundane world (Turner, 1979). Furthermore, sacred spaces today are studied not only within theology and religious studies but also within anthropology, geography,

heritage studies, and climate resilience research, given their cultural, historical, and ecological importance (Knott, 2005).

In African indigenous religious systems, sacred spaces are not simply geographical; they are ontological imbued with divine presence and spiritual authority (Mbiti, 1990). Shrines, sacred forests, rivers, ancestral graveyards, and ritual altars play central roles in spiritual mediation, moral order, and cultural memory. According to Ejizu (2013), these spaces are the physical anchors of the community's spiritual ecosystem, and any disruption to them translates into a spiritual and cultural crisis. Christianity has also developed its own sacred geographies in the region. Churches, monasteries, holy wells, and prayer mountains are examples of spaces consecrated through liturgical practices and theological narratives (Uzukwu, 2019). In many Pentecostal and mainline denominations across Rivers State, annual conventions and spiritual pilgrimages are linked to specific sites. Theologians argue that these places are not interchangeable, they are constructed through history, sacrifice, and divine encounters (Barrett, 2021). Consequently, their disruption through climate impacts becomes theologically and emotionally significant.

Climate Change and Environmental Vulnerability in the Niger Delta

Climate change refers to long-term alterations in temperature, precipitation, wind patterns, and other aspects of the Earth's climate system. While the Earth's climate has naturally fluctuated over geological time, the term today often refers specifically to recent and ongoing changes that are largely driven by human activities, especially the emission of greenhouse gases such as carbon dioxide (CO_2) and methane (CH_4) (IPCC, 2021). These changes result from the intensification of the greenhouse effect, primarily due to the burning of fossil fuels, deforestation, industrial activities, and agricultural practices (NASA, 2022). The consequences include rising global temperatures, melting polar ice, sea-level rise, increased frequency of extreme weather events (such as floods, droughts, and hurricanes), and disruption of ecosystems and biodiversity (UNEP, 2021). Climate change is more than just environmental change; it also has significant economic, social, health, and political implications, especially for vulnerable populations and regions such as low-lying coastal areas and developing countries (World Bank, 2022). Its impacts are already being felt across various sectors including

agriculture, water supply, public health, and cultural heritage (IPCC, 2021). There is overwhelming scientific consensus that climate change is real and largely anthropogenic (human-caused). Tackling it requires global cooperation, policy innovation, sustainable development, and community-level adaptation and mitigation strategies (UNFCCC, 2023).

The Niger Delta region, where this study is situated, is widely recognized as one of the most environmentally threatened areas in sub-Saharan Africa. It faces compounding ecological challenges such as flooding, rising sea levels, salinization of freshwater sources, gas flaring, and oil spillage (Ayanlade & Jegede, 2023). Research indicates that coastal communities, including Idama, Soku, Sangama, Abua, Bonny, and Ahoada, are particularly vulnerable to climate-related impacts due to their low-lying geographies and long-standing environmental degradation (Adekola & Mitchell, 2011). Oil extraction, deforestation, and unregulated urbanization have further weakened the natural resilience of ecosystems, leading to more frequent flooding events and shoreline erosion (Nwankwo et al., 2021). As a result, built and natural heritage sites including sacred groves, riverside churches, and ancestral homesteads are being gradually submerged or rendered inaccessible. According to Adewale and Ekanade (2022), over 30% of rural communities in Rivers State have lost at least one culturally significant landmark due to climate-induced floods within the last decade.

Climate Change and the Erosion of Cultural and Religious Heritage

Globally, the conversation around climate change has begun to shift toward the intangible losses that communities suffer. Scholars now explore how rising temperatures, sea-level rise, and extreme weather events affect intangible cultural heritage, such as rituals, festivals, and sacred spaces (UNESCO, 2021). In the Pacific Islands, for instance, entire ancestral lands and graves have been submerged, leading to the loss of both spiritual identity and intergenerational continuity (Nunn & Kumar, 2019). In Nigeria, similar processes are unfolding, particularly in coastal and riverine areas. Bassey (2020) contends that while attention has been given to economic and infrastructural losses, little is done to document or preserve the spiritual dimensions of displacement. The obliteration of sacred rivers and trees due to oil pollution or erosion severs the relational ecology between people and their environment a relationship that is central to

African spirituality (Iroegbu, 2021). The Lagos lagoon, for example, once a focal point for water-related rituals among the Yoruba, is increasingly polluted and encroached upon, reducing its spiritual significance (Okeke, 2023). This has direct parallels with communities in Rivers State, where riverbank ceremonies such as the "Owu-Aru-Sun" are becoming harder to perform due to environmental disturbances.

Climate-Induced Displacement and Ritual Discontinuity

One of the most serious consequences of climate change is the forced displacement of communities from their ancestral lands. This has direct implications for religious life. Rituals often require specific landscapes groves, rivers, open spaces, or caves to be valid. Displacement breaks this link, resulting in what some scholars refer to as "ritual discontinuity" (Tschakert et al., 2019). In Rivers State, festivals like the Sekiapu of Kalabari or ancestral veneration rites in Buguma are tied to precise ecological calendars and geographical markers. When these sites are flooded or eroded, rituals are postponed, truncated, or abandoned altogether. This leads to social fragmentation and spiritual anxiety, particularly among the elderly who serve as custodians of tradition (Wariboko, 2022). Children growing up without access to these sites risk losing cultural and spiritual education rooted in place-based practices. Emerging studies in environmental psychology show that sacred spaces contribute significantly to mental wellbeing, identity formation, and communal solidarity (Watts & Brown, 2018). In traditional African settings, these spaces function as therapeutic centers for spiritual and emotional healing. Their desecration whether by environmental change or human activity can lead to increased feelings of grief, anxiety, and displacement. In coastal communities of Rivers State, the flooding of cemeteries and ancestral groves has triggered deep psychological distress, especially among women and elders who are culturally responsible for their upkeep (Umejesi & Akpan, 2018). The inability to perform sacred rites, especially during funerals or harvest seasons, creates a crisis of meaning that goes beyond material loss.

Role of Religious Institutions and Community Responses

Religious institutions have been largely reactive rather than proactive in addressing the threats of climate change to sacred spaces. However, there are emerging responses. Some churches in Port Harcourt and Bonny have started

integrating ecological messages into their sermons and are promoting environmental stewardship as a theological mandate (Ajagbonna, 2023). Indigenous priests and elders, though lacking formal support, are engaging in community-level documentation and relocation of threatened sacred items. Across Africa, interfaith initiatives are mobilizing around climate action. The Faith for Earth Initiative by the United Nations Environment Programme has collaborated with religious leaders in Kenya and Ghana to protect sacred forests (UNEP, 2021). Nigeria, however, still lacks a coordinated interfaith environmental strategy. There is immense potential for religious communities in Rivers State to play a leading role in climate resilience, provided they are empowered and culturally acknowledged. While international organizations like UNESCO have begun advocating for the protection of spiritual landscapes, national policies in Nigeria remain largely silent on this issue. The National Environmental Standards and Regulations Enforcement Agency (NESREA) and the Nigerian Environmental Policy make little reference to cultural and spiritual heritage (Federal Ministry of Environment, 2021). As such, there is a critical policy gap. Academic research has also lagged in this area. Most environmental studies in Nigeria focus on economic, infrastructural, or health-related consequences of climate change. There is limited scholarship on how environmental degradation impacts spiritual practices and sacred geographies. This study contributes to filling that gap by focusing on a deeply under-researched but culturally significant dimension of the climate crisis.

Research Design

A qualitative ethnographic research design was chosen for this study because it allows for an in-depth exploration of people's spiritual, cultural, and emotional responses to climate-induced disruptions. The phenomenological lens further complements this by focusing on the subjective meanings attached to sacred sites and rituals as they relate to memory, identity, and spirituality (Creswell & Poth, 2018). This design is particularly appropriate given that sacred spaces are not just physical locations but symbolic and affective spaces constructed through experience, belief, and tradition. By utilizing this approach, the study captures not only physical loss but also cultural and emotional dislocation. The research was conducted in selected communities in Rivers State, including Bonny Island, Abonnema, Abua-Odual, Buguma, and Ahoada coastal and riverine settlements in the Niger Delta. These areas were selected due to their high exposure to climate-

induced phenomena such as flooding, erosion, saltwater intrusion, and gas flaring. These communities also possess a mix of indigenous religious traditions and Christian denominations, offering a rich religious landscape for comparative analysis. The topography of these regions low elevation and proximity to the Atlantic coast, makes them extremely vulnerable to rising sea levels and tidal surges (Ayanlade & Jegede, 2023). The selection also reflects diversity in linguistic, ethnic, and religious heritage, particularly among the Ijaw, Etche, and Ikwerre ethnic groups. The study employed purposive sampling to identify participants with lived experience or cultural knowledge regarding sacred spaces and climate impacts. These included: Traditional religious custodians (e.g., shrine priests, grove caretakers), Christian clergy (especially in Anglican, Pentecostal, and African Initiated Churches), Women elders (often responsible for spiritual rites and local taboos), and cultural officers

Findings and Discussion

Flooding and the Erosion of Ancestral Spaces

Flooding emerged as the most visible and immediate environmental threat to sacred spaces across all study sites. In Ahoada and Abua-Odual, both Christian and traditional respondents lamented the annual inundation of graveyards, shrines, and church compounds. Chief Joshua Eyiba from Ukpeleiede in Ahoada stated: "The River has swallowed the ground where we buried our fathers. There is no more land for our spirits to rest." This physical erasure of sacred spaces translates into psychological and spiritual unease. In indigenous Kalabari cosmology, the land of the ancestors is both a literal and metaphysical reality; when ancestral graves are flooded, it is believed to disturb the spiritual balance of the community (Ejizu, 2013). Globally, this finding resonates with cases from Bangladesh and the Marshall Islands, where rising sea levels have submerged centuries-old cemeteries and temples, sparking what Nunn and Kumar (2019) call "existential mourning."



Rituals and Liturgical Displacement

Rituals are structured, symbolic actions performed in a patterned way, often expressing core religious or cultural values. On the other hand, liturgy is a formal public worship, particularly in structured religious traditions such as Christianity. Both are deeply rooted in place and time, often relying on specific environments, objects, and sacred geographies for their full meaning and performance (Turner, 1969; Bell, 1997). When the spatial conditions of these rituals are disrupted, their spiritual efficacy and communal significance can be challenged. Rituals and liturgical displacement therefore is the disruption, relocation, or transformation of religious ceremonies and sacred performances due to external forces such as environmental change, urbanization, conflict, or socio-political pressure. It highlights how the ritual life of a community becomes altered or dislocated when the sacred spaces associated with religious identity, memory, and practice are affected or destroyed (Grimes, 2014). Liturgical displacement occurs when religious ceremonies must be relocated from their traditional or consecrated spaces, often due to displacement caused by war, climate change, natural disasters, political persecution, or urban redevelopment (Sheldrake, 2001). For example, in flood-prone communities in the Niger Delta, seasonal flooding has displaced religious festivals and river-based rituals, prompting communities to perform them in non-traditional venues or with altered formats (Okonkwo, 2022).

This displacement is not merely a matter of geography but often affects the symbolism, atmosphere, and spiritual engagement of the ritual. Sacred rivers, groves, or altars may not be replicable in new environments. Hence, such displacement often leads to spiritual loss, cultural disorientation, or the re-imagining of sacred meaning (Hervieu-Léger, 2000). For instance, in Abonnema, the annual Owu-Aru-Sun (Water Spirit Festival) traditionally performed on the banks of the river has been postponed multiple times due to unsafe water levels and bank collapses. Ritual specialists such as elder Kikpoye Kenoye, Chief William Igeyni, mr, Uzutan Ekwelogwu expressed concern that skipping these ceremonies breaks the spiritual covenant between humans and the divine. Similarly, in Emelego, Agada, Emugan, Agbo and Okaki, Pentecostal pastors such as Tutumeni and Amakiri recounted that their church was forced to relocate every year due to flooding. Each relocation disrupted their liturgical calendar and decreased attendance. (interv.) He remarked: "It is like moving the altar of God. People lose their faith when they see His house destroyed." This disruption of worship is not unique to Nigeria. After Hurricane Katrina in New Orleans, the destruction of over 60% of the city's churches caused long-term spiritual dislocation (Gunn, 2020). In Rivers State, such dislocation is deepened by the lack of institutional support or acknowledgment of sacred sites in disaster management plans.

Polluted Rivers, Desecrated Groves and Cultural Trauma

Respondents in Egovia, Kunisia, Okobo and Akinima described the sacredness of Rivers and Forests, as central to their religious worldview. However, oil pollution and acid rain have rendered many of these places toxic. Woman leaders in Joinkrama (JK 1, 2, 3 & 4) recounted: "We used to fetch water from the stream before making offerings. Now the water burns our skin." (interv.) Field observation in Ajo-ohia in Ndele, Mini-Ikoro in Emohua, Ohia-Wovurugo in Ibaa and Ruhueli in Okporowo Ogbakiri confirmed that many shrines were either abandoned or covered in moss and soot, making ritual performance impossible. These findings align with Ite et al. (2013), who documented the correlation between gas flaring and environmental degradation in the Niger Delta. Beyond Nigeria, the Amazonian tribes in Brazil and Hindu devotees in India face similar crises. Polluted rivers such as the Ganges formerly considered purifying are now sources of illness, challenging core religious beliefs (Alley, 2016). In Rivers State, the desecration of sacred ecology also challenges theological constructs of nature

as divine or sacred. Many participants, especially elders, spoke of deep emotional pain associated with the loss of sacred spaces. This trauma was not only personal but communal. Mr. Joseph Ipeghan, a 67 years old traditionalist in Akani stated: "When the shrine fell, it felt like a death. Our god has no home now. We are orphans." This grief mirrors the concept of "solastalgia", a term coined to describe the emotional distress caused by environmental change (Albrecht et al., 2007). It also reflects what Watts and Brown (2018) identify as "sacred trauma," where spiritual harm occurs through physical displacement. Psychologically, these disruptions can trigger cultural alienation, particularly among the youth, who are growing up detached from traditional sites of identity formation. Without access to these locations, their initiation into community rituals is disrupted, leading to generational discontinuity.



Conclusion

This study has illuminated the profound and multifaceted impacts of climate change on sacred spaces within Rivers State, Nigeria. Through qualitative ethnographic inquiry, it has become evident that climate-induced phenomena particularly flooding, coastal erosion, and environmental pollution are not only degrading physical infrastructure but are also eroding spiritual, cultural, and communal foundations. These sacred spaces, which serve as nodes of spiritual identity, cultural memory, and social cohesion, are increasingly vulnerable to ecological shifts for which current policy and planning remain largely unprepared.

The findings reveal a pattern of spiritual displacement, ritual discontinuity, and cultural trauma, experienced not just as environmental damage but as existential and theological crises. Sacred groves have been submerged, rivers polluted beyond ritual use, and churches relocated leaving communities disoriented and spiritually bereaved. Yet, the resilience of these communities is also noteworthy. Through innovation, reinterpretation, and localized adaptation, religious practitioners both indigenous and Christian are preserving rituals, redefining sacredness, and advocating for the survival of their cultural and spiritual heritage. Despite this resilience, the study exposes critical gaps in environmental governance and policy frameworks in Nigeria, which often overlook or trivialize the cultural and spiritual dimensions of climate vulnerability. There is a clear need to reframe climate justice in ways that incorporate not just economic or scientific considerations but also cultural and religious values. The sacred, often relegated to the margins of environmental discourse, must now be brought to the center. Global parallels with indigenous groups in the Pacific, Amazon, and Arctic highlight that Rivers State is not alone in facing these dilemmas. As sacred landscapes are threatened across continents, there is a growing need for international solidarity, transdisciplinary research, and culturally grounded climate responses. Ultimately, the fight against climate change must not only be ecological but also spiritual, cultural, and human.

Recommendations

Culturally Inclusive Environmental Policy and **Community-Led Documentation:** The Nigerian government, through agencies like the Federal Ministry of Environment and NESREA, should develop and enforce culturally inclusive climate adaptation strategies. These should explicitly acknowledge and protect sacred sites as part of vulnerable cultural heritage. Environmental Impact Assessments (EIAs) must also consider religious and ritual spaces when approving development or mitigation projects. Secondly, sacred spaces in flood-prone or polluted areas should be documented, mapped, and archived through community-led initiatives. These records will preserve oral histories, spatial knowledge, and ritual practices for future generations. Support can come from NGOs, universities, and faith-based organizations.

Interfaith Environmental Collaboration and Integration of Sacred Ecology in Climate Education: There is a need for interfaith alliances to advocate for ecological justice. Both traditional and Christian leaders in Rivers State should collaborate on joint climate action programs. Such collaboration can help transcend doctrinal differences and strengthen community responses to environmental threats. Sacred ecology which is the understanding that nature holds spiritual significance, should be integrated into climate education and advocacy, especially among the youth. Schools, churches, and cultural centers can include teachings about local sacred sites and their environmental relevance.

Legal Protection for Sacred Sites and Global Partnerships: Advocacy should be directed toward developing legal frameworks that recognize sacred sites as protected zones under national and international law. Lessons can be drawn from Australia's Aboriginal Heritage Act or UNESCO's World Heritage guidelines on spiritual landscapes (UNESCO, 2021). Also, communities in Rivers State should be linked with global environmental justice movements and funding opportunities. Organizations like the Faith for Earth Initiative (UNEP) or Global Greengrants Fund support culturally grounded environmental projects. International visibility can also help secure protections through UNESCO or World Monument Fund status.

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