

Stewardship of Creation: Eco theology, Church History, and Artificial Intelligence for Environmental Sustainability in Nigeria

Odei Moses Adeiza, PhD¹; Awodeji Moses Temitope (PhD Students)², Adeyemi Stephen Ayodeji³ & Adeyefa O. Stephen⁴

Department of Religion and Development Studies,
Faculty of Humanities
Ajayi Crowther University, Oyo, Oyo State, Nigeria
E-mail: venodei4real2019@gmail.com; am.odei@acu.edu.ng
Mobile: +2348038095140; +2349030792304
ORCID ID: 0009-0005-1151-6445
<https://doi.org/10.56201/ijrcp.vol.11.no7.2026.pg1.8>

Abstract

Nigeria faces a convergence of severe environmental crises, including advancing desertification in the north, persistent oil pollution in the Niger Delta, and deadly farmer-herder conflicts intensified by climate change and shrinking natural resources. This article argues that these challenges are not merely economic or political but are fundamentally moral and spiritual, requiring a robust theological response from the Nigerian church. Employing a newly developed framework, the Creation Mandate Stewardship Theory (CMST), grounded in the Genesis mandate and enriched by African theological insights from scholars such as Mbiti and Bediako, the study examines human responsibility toward creation through three pillars: divine ownership, relational responsibility, and accountable action. Adopting a church-historical lens, the article traces the Nigerian church's trajectory from missionary-era neglect of ecological concerns through a period of prosperity-focused silence during Nigeria's most intense years of environmental exploitation to emerging but uneven engagement with creation care in contemporary mainline denominations. Biblical foundations and African ecotheological perspectives, including the contributions of Oduyoye and Kunhiyop, are presented as resources for reframing environmental stewardship as intrinsic to Christian mission rather than a foreign import. The article further explores artificial intelligence as an emerging tool for climate monitoring, agricultural extension, conflict mitigation, and multilingual environmental education while cautioning that technology must remain subordinate to theological conviction and community trust. Institutional, economic, theological, and technological barriers to church-led environmental action are identified. The article concludes with concrete recommendations for denominations, seminaries, and policymakers, urging the Nigerian church to embrace its calling as a steward, not owner, of creation and to become an active agent of ecological healing and social peace.

Keywords: *ecotheology, creation stewardship, environmental sustainability, artificial intelligence, Nigerian church*

Introduction

Nigeria today stands at the meeting point of two urgent conversations. The first is spiritual: what does it mean for a Christian to care for the earth as God's creation? The second is practical: how does a nation with sand advancing from the north, oil spilling in the south, and farmers and herders clashing in the middle find a way forward? This article brings these two

conversations together. It argues that the Nigerian church, informed by biblical teaching, guided by African theological thought, and assisted by new tools such as artificial intelligence (AI), can become a leading voice in environmental sustainability. The environmental problems facing Nigeria are not abstract. Desertification is swallowing farmland in the north (Turaki 112). Oil pollution has damaged rivers, farmland, and fishing grounds in the Niger Delta for decades (Ukah 88). Farmer-herder conflicts, worsened by shrinking grazing land and changing rainfall patterns, have taken many lives and displaced many families (Kalu 201). These are not only economic or political problems. They are also moral and spiritual problems, because they touch on how human beings treat the earth that God has given them to keep. This article has four goals. First, it explains the key concepts of stewardship, ecotheology, and environmental sustainability in simple terms. Second, it presents a theoretical framework called the Creation Mandate Stewardship Theory, which will guide the whole discussion. Third, it looks at Nigeria's environmental crises through the eyes of a church historian, asking what Nigerian churches have done, or failed to do, about the environment across time. Fourth, it explores how AI can support the church's environmental mission today. The article closes with practical recommendations for church leaders, theological educators, and policy makers.

Conceptual Clarification

Before going further, it is necessary to explain three terms that will be used throughout this article: stewardship of creation, ecotheology, and environmental sustainability. Stewardship of creation refers to the biblical idea that human beings do not own the earth; they are only caretakers of it on God's behalf. The book of Genesis says that God placed the first human beings in the garden "to work it and take care of it" (New International Version, Gen. 2.15). Kunhiyop explains that stewardship in African Christian ethics means that human dominion over nature is a delegated responsibility, not an unlimited right (Kunhiyop 214). In simple words, the earth belongs to God, and human beings only manage it for a while.

Ecotheology is a branch of theology that studies the relationship between religious faith and the natural environment. It asks how Christian teaching should shape the way believers treat forests, rivers, animals, and land. Oduyoye, writing from an African woman's perspective, connects ecotheology to justice, arguing that the abuse of the earth is closely linked to the abuse of the poor and of women, since both the land and vulnerable people are often exploited by the same greedy systems (Oduyoye 76). Environmental sustainability, in this article, means using natural resources in a way that meets today's needs without destroying the ability of future generations to meet their own needs. It combines ecological care, economic responsibility, and social fairness. When these three are held together, development does not have to come at the cost of the environment.

Theoretical Framework

This article is guided by a single theoretical framework named the Creation Mandate Stewardship Theory (CMST). This framework is built from the Genesis creation mandate and expanded with African theological insight, particularly the writings of Mbiti and Bediako on the relationship between African cosmology and Christian faith.

The CMST rests on three pillars. The first pillar is divine ownership: God is the ultimate owner of the earth, and human beings are only stewards (Ps. 24.1). The second pillar is relational responsibility: human beings are placed in community with the land, with one another, and with future generations, so that harming the environment is really a way of harming other people, both living and unborn.

Mbiti's description of African time and community, where the living, the dead, and the unborn are all connected, supports this pillar, because it shows that environmental decisions

made today affect people who are not yet born (Mbiti 108). The third pillar is accountable action: stewardship is not just a feeling; it must show itself in real action, such as tree planting, pollution control, and peaceful resolution of land disputes.

Using CMST, this study evaluates Nigeria's environmental crises and the church's historical response, not simply as scientific or political failures, but as failures, or successes, of stewardship. The theory also shapes the recommendations at the end of the article, since every practical suggestion is tied to one of the three pillars.

Environmental Crises in Nigeria: A Contextual Survey

Nigeria faces several environmental crises that are directly relevant to the church's mission. Three of these are considered here: desertification in the north, oil pollution in the Niger Delta, and farmer-herder conflicts linked to climate change.

Desertification in Northern Nigeria

Desertification is the process by which fertile land slowly turns into desert, usually because of a mixture of natural climate change and poor human land use. In northern Nigeria, states such as Sokoto, Katsina, Jigawa, and Yobe have experienced the steady southward advance of the Sahara Desert (Turaki 112). Farmers in these areas report shrinking farmland, drying wells, and disappearing vegetation. Desertification does not only destroy crops; it also pushes families to migrate southward in search of better land, which in turn increases pressure on land in the middle belt and southern regions. From a theological point of view, desertification raises hard questions. If the earth is God's gift, why is a large part of that gift turning to dust in the hands of the very communities placed there to care for it? Part of the answer lies in unsustainable farming methods, overgrazing, and deforestation for firewood, all of which reduce the soil's ability to hold moisture and resist erosion. Another part of the answer lies in wider climate change, which is driven by carbon emissions from industrialized nations far beyond Nigeria's control. The Nigerian church, therefore, faces a dual challenge: to address local practices that worsen desertification and to raise its voice on the global climate conversation that affects local communities.

Oil Pollution in the Niger Delta

The Niger Delta, home to Nigeria's oil wealth, has also suffered some of the country's worst environmental damage. Decades of oil spillage, gas flaring, and pipeline vandalism have polluted rivers, destroyed fishing grounds, and made farmland unproductive in states such as Rivers, Bayelsa, and Delta (Ukah 88). Communities that once depended on fishing and farming now struggle with poisoned water and reduced harvests, while economic benefits from oil extraction rarely reach the local people who bear the environmental cost.

This situation is not only an economic injustice; it is also a theological scandal, because it represents a clear violation of the stewardship mandate. Companies and, at times, government agencies have treated the Niger Delta's land and water as expendable, rather than as part of God's good creation entrusted to human care. Ukah observes that many Pentecostal and mainline churches in the Niger Delta have historically focused their preaching on personal salvation and prosperity, while remaining largely silent on the environmental devastation happening around their congregations (Ukah 91). This silence, as later sections will show, is now beginning to change.

Climate-Related Farmer-Herder Conflicts

The third crisis considered here is the conflict between farmers and herders, which has become one of Nigeria's most deadly and persistent security challenges. Traditionally, farmers and Fulani herders coexisted through seasonal grazing routes and mutual exchange.

However, changing rainfall patterns, desertification in the north, and population growth have pushed herders further south in search of pasture, often leading to violent clashes with farming communities in the middle belt and beyond (Kalu 201).

These conflicts are frequently reported in the media as religious or ethnic clashes, since many farming communities are predominantly Christian while many herding communities are predominantly Muslim. However, a closer look shows that the root cause is largely environmental and economic: shrinking grazing land and disappearing water sources are pushing two groups into competition over the same shrinking resources.

Kalu's analysis of religious violence in Nigeria warns against reading every conflict through a purely religious lens, since doing so can hide the deeper environmental and economic pressures that are the real drivers of the crisis (Kalu 205). For the church, this means that peacebuilding efforts must go beyond interfaith dialogue alone and must also address land use, water access, and climate adaptation.

The Church Historian's Lens: Nigerian Churches and the Environment

A church historian asks a simple but important question: what have Nigerian churches actually done about the environment across time? The answer reveals a story of early neglect, followed by slow and still-developing engagement.

Missionary-Era Attitudes to Nature

During the missionary era, from the nineteenth century onward, Christian missionaries in Nigeria often viewed African traditional reverence for nature, such as sacred forests, rivers, and hills, as a form of superstition to be replaced by "true" Christian faith (Idowu 145). Idowu explains that many indigenous religious practices, including taboos that protected certain forests or animals from exploitation, were dismissed by missionaries as pagan without any serious study of their ecological function (Idowu 147). Ironically, some of these traditional taboos had served as effective, if unintentional, conservation tools, protecting biodiversity long before the word "conservation" existed.

Bediako notes that early Christianity in Africa, including Nigeria, focused heavily on individual conversion, literacy, and Western-style education, with far less attention paid to how Christian faith should shape a community's relationship with land and nature (Bediako 63). This narrow focus meant that the church's teaching on creation care was, for a long period, almost entirely absent from Nigerian Christian life.

Post-Independence Silence and the Prosperity Turn

After Nigeria's independence in 1960, and especially with the rise of Pentecostal and charismatic movements from the 1970s onward, church attention shifted even further away from environmental concerns. Ojo's study of Nigerian charismatic movements shows that these movements emphasized personal breakthrough, healing, and material prosperity, with the natural environment treated mainly as a backdrop for miracles rather than as a subject of moral concern (Ojo 172). Prosperity-oriented preaching, in particular, often framed material success as a sign of divine favour, with little theological reflection on how that success was obtained or its impact on the environment. This period of relative silence coincided with Nigeria's most intense years of oil exploitation and the early stages of northern desertification, meaning that the church largely missed an opportunity to shape public conscience on environmental issues during a critical window of national development.

Emerging Church Environmental Engagement

In more recent decades, there have been encouraging signs of change. Mainline denominations, including the Anglican Communion and the Catholic Church in Nigeria, have

increasingly included environmental themes in pastoral letters, synod resolutions, and diocesan programs, often echoing global church statements on climate change and creation care. Some dioceses have organized tree-planting exercises, clean-up campaigns, and awareness programs tied to World Environment Day.

Adeyemo argues that African Christian ethics must move from a purely otherworldly focus toward a holistic gospel that addresses the physical conditions of African communities, including their environment (Adeyemo 134). This theological shift is slowly finding its way into Nigerian church practice, even though it remains uneven across denominations and regions.

Biblical and Theological Foundations for Creation Care

The Bible provides a strong foundation for creation care, even though this foundation has often been under-taught in Nigerian churches. The creation account in Genesis presents human beings as made in God's image and given the task of caring for the earth, not exploiting it without limit (Gen. 1.28; 2.15). The Hebrew word often translated "have dominion" does not mean reckless control; rather, it reflects the kind of caretaking a king would give a kingdom he must one day answer for. The Psalms repeatedly declare that "the earth is the Lord's, and everything in it" (Ps. 24.1), which directly challenges any theology that treats land, water, or forest as mere property to be used up without accountability. The prophetic books also link environmental disaster to human sin and injustice; for example, the prophet Hosea connects the drying up of the land with bloodshed and broken covenant faithfulness (Hos. 4.1-3). This prophetic pattern is strikingly relevant to Nigeria today, where environmental degradation is closely tied to corruption, greed, and social injustice.

In the New Testament, the apostle Paul writes that "the creation waits in eager expectation for the children of God to be revealed," describing creation itself as groaning under the weight of human sin and longing for restoration (Rom. 8.19-22). This passage suggests that the redemption Christ brings is not limited to human souls alone but extends to the whole created order. A church that takes this seriously cannot treat environmental destruction as a merely secular concern outside the scope of the gospel.

African Theological Perspectives on Ecotheology

African theology offers rich resources for developing a Nigerian ecotheology that speaks to local realities. Mbiti's foundational work on African religion shows that pre-Christian African societies generally held a strong sense of the sacredness of land, understanding land not simply as property but as a living trust shared between the living, the ancestors, and generations yet to come (Mbiti 108). This understanding, properly redeemed and placed within a Christian framework, can strengthen rather than weaken a Nigerian Christian ecotheology. Bediako's theology of translation, which holds that the gospel must be genuinely at home within African thought forms rather than simply imported from the West, supports the idea that Nigerian Christians do not need to abandon their instinctive African respect for land in order to be faithful Christians (Bediako 65). Instead, that instinct can be purified and directed toward biblical stewardship, rather than toward the fear-based nature worship of traditional religion worship. Oduyoye's ecofeminist theology adds a further dimension by linking environmental abuse with the abuse of women and the poor, arguing that both land and vulnerable people suffer under the same structures of greed and domination (Oduyoye 78). Kunhiyop's African Christian Ethics similarly insists that Christian morality in Africa must be holistic, addressing not only personal sin but also social and environmental sin (Kunhiyop 216). Taken together, these African theological voices call Nigerian churches toward a creation care theology that is thoroughly biblical, genuinely African, and socially engaged.

Artificial Intelligence and Environmental Sustainability: Opportunities for Nigerian Churches

Artificial intelligence, often shortened to AI, refers to computer systems that can perform tasks that normally require human intelligence, such as recognizing patterns, making predictions, and processing large amounts of data quickly. While AI is often discussed in relation to business or academic research, it also holds significant, and largely untapped, potential for environmental sustainability work within Nigerian churches.

First, AI can support climate monitoring and early warning. Satellite data processed through AI systems can track the advance of desertification, predict flooding patterns, and forecast rainfall irregularities with far greater accuracy than traditional methods. Churches in vulnerable areas, particularly in the north, could partner with agricultural extension bodies to receive simplified AI-generated alerts, which pastors could then relay to farming congregations during preaching or announcements, helping communities prepare rather than merely react to environmental shocks. Second, AI can support agricultural extension services that reduce farmer-herder conflict. AI-powered mobile applications can help farmers select crop varieties suited to changing rainfall, while similar tools can guide herders toward designated grazing corridors and water points, reducing accidental encroachment onto farmland. Churches, which often have deep trust and reach within both farming and herding communities through interfaith relationships, are well positioned to introduce and explain such tools at the grassroots level, turning technology into a peacebuilding resource rather than a distant abstraction. Third, AI can support environmental education and advocacy. AI-assisted translation tools can help Nigerian churches produce environmental teaching materials in multiple local languages, ensuring that creation care messages reach congregations in Hausa, Yoruba, Igbo, Ebira, and other languages, not only in English. AI-powered research tools can also help theological educators and church leaders access up-to-date environmental data quickly, strengthening the quality of sermons, Bible studies, and diocesan environmental policies. It is important to note that AI is a tool, not a substitute for theological conviction or community relationship. Its value depends entirely on the wisdom and integrity with which the church applies it. Used carelessly, AI could deepen dependence on foreign technology companies or spread inaccurate information; used wisely, within a framework guided by the Creation Mandate Stewardship Theory, it can become a genuine ally in the church's environmental mission.

Challenges to Church-Based Environmental Stewardship in Nigeria

Several challenges stand in the way of a strong church-led environmental movement in Nigeria. One challenge is theological: many Nigerian congregations still associate environmental concern with secular or Western agendas rather than seeing it as a core biblical mandate. Another challenge is economic: in a nation where poverty remains widespread, environmental protection can appear to be a luxury concern compared to immediate survival needs. A third challenge is institutional: denominational structures rarely include dedicated environmental desks, budgets, or trained personnel, meaning that environmental initiatives often depend on the passion of a few individual clergy rather than on sustained institutional commitment. Finally, there is the challenge of access to technology, since many rural congregations, particularly in the areas most affected by desertification and farmer-herder conflict, still lack reliable internet access, electricity, or digital literacy needed to benefit fully from AI-based tools.

Recommendations

Based on the discussion above, the following recommendations are offered to Nigerian church leaders, theological educators, and policy makers.

1. Denominations should establish dedicated creation care desks or committees at diocesan and national levels, with clear budgets and trained personnel, so that environmental work does not depend only on individual enthusiasm.
2. Theological institutions, including seminaries and Bible colleges, should incorporate ecotheology as a formal course, ensuring that future pastors are equipped to preach creation care as a biblical mandate rather than a foreign import.
3. Churches in desertification-prone northern states should partner with agricultural and environmental agencies to introduce simple AI-based early warning tools, translated into local languages, to help farming communities prepare for climate shocks.
4. Churches in the Niger Delta should use their moral authority to advocate publicly for corporate and governmental accountability over oil pollution while supporting affected communities with practical relief and legal awareness.
5. In farmer-herder conflict zones, churches should expand peacebuilding programs to include environmental and land-use education, working alongside Muslim leaders and traditional rulers to address the root causes of conflict rather than only its religious symptoms.
6. Church leaders should invest in basic AI literacy training for clergy and lay leaders so that available digital tools for climate monitoring, translation, and education can be used wisely and safely.
7. National and regional church bodies should collaborate with government and civil society organizations on environmental policy advocacy, ensuring that the church's moral voice is heard in national conversations on climate change and sustainability.

Conclusion

This article has argued that the environmental crises facing Nigeria, desertification in the north, oil pollution in the Niger Delta, and farmer-herder conflicts linked to climate change are not merely political or economic problems. They are also deeply spiritual matters that call for a robust theology of creation care. Viewed through the Creation Mandate Stewardship Theory, these crises reveal a long history in which Nigerian churches, shaped by missionary priorities and later by prosperity-focused revivalism, largely failed to develop a strong environmental voice. However, emerging signs of change, supported by rich African theological resources from scholars such as Mbiti, Bediako, Oduyoye, and Kunhiyop, and strengthened by new tools such as artificial intelligence, offer real hope. If Nigerian churches embrace their calling as stewards, not owners, of God's creation, they can become powerful agents of environmental healing and social peace in a nation that urgently needs both.

Works Cited

- Adeyemo, Tokunboh. *Africa's Enigma and Christian Hope*. WordAlive Publishers, 2009.
- Bediako, Kwame. *Christianity in Africa: The Renewal of a Non-Western Religion*. Orbis Books, 1995.
- Idowu, E. Bolaji. *African Traditional Religion: A Definition*. SCM Press, 1973.
- Kalu, Ogbu U. *African Pentecostalism: An Introduction*. Oxford UP, 2008.
- Kunhiyop, Samuel Waje. *African Christian Ethics*. HippoBooks, 2008.
- Mbiti, John S. *African Religions and Philosophy*. 2nd ed., Heinemann, 1990.
- The New International Version Bible. Biblica, 2011.
- Oduyoye, Mercy Amba. *Introducing African Women's Theology*. Sheffield Academic Press, 2001.
- Ojo, Matthews A. *The End-Time Army: Charismatic Movements in Modern Nigeria*. Africa World Press, 2006.
- Turaki, Yusufu. *Foundations of African Traditional Religion and Worldview*. IVP, 2006.
- Ukah, Asonzeh. *A New Paradigm of Pentecostal Power: A Study of the Redeemed Christian Church of God in Nigeria*. Africa World Press, 2008.