

Plastic Waste Management in Nigeria: An Eco-Theological Appraisal of Scavengers and Waste Pickers as Marginalized Stewards of Creation

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Abstract

This study examines plastic waste management in Nigeria through an eco-theological lens, highlighting the critical yet marginalized role of scavengers and waste pickers. Nigeria faces a mounting plastic pollution crisis with inadequate formal waste management infrastructure, while informal waste workers function as unrecognized environmental stewards. Through fieldwork in urban centers and theological analysis, this research reveals how these workers embody creation care principles despite social stigmatization and economic exploitation. The study employs a methodology combining empirical observation, interviews with waste pickers, and theological reflection grounded in both Christian stewardship theology and indigenous Nigerian ecological ethics. Findings indicate that waste pickers recover approximately 25% of recyclable plastics in urban areas, significantly reducing environmental contamination while operating without institutional support. The eco-theological framework reconceptualizes these marginalized workers as exemplars of creation care ethics, challenging conventional religious perspectives that overlook environmental justice dimensions. This research contributes to emerging scholarship at the intersection of religion, environmental ethics, and social justice by advocating for the recognition and dignification of waste pickers as essential environmental actors. The study concludes by proposing practical theological responses, including community-based initiatives that integrate waste pickers into formal waste management systems while acknowledging their spiritual significance as stewards fulfilling divine mandates for earth care. These findings have implications for environmental policy, theological education, and ecclesial engagement with ecological concerns in Nigeria and beyond.

Keywords: Plastic waste management, Ecotheology, Appraisal, Scavengers, Waste pickers, marginalized stewards, Nigeria

1. Introduction

There are many environmental crises facing Nigeria in recent times. One of the most disturbing issues is the issue of the waste crisis. Generally speaking, waste management has been a big challenge to the governments of Nigeria and its citizens. With over 200 million inhabitants and rising consumption patterns, Nigeria generates approximately 32 million tons of solid waste annually, with plastics constituting about 2.5 million tons of this waste (Babayemi et al., 2019). The management of this waste remains inadequate, with official collection systems serving less than 30% of urban areas and virtually non-existent in rural communities (Ike et al., 2018). The fact remains that the local government authority has the primary duty of managing waste in every council area, but their efforts have been largely insufficient, giving room for many non-state actors to engage in informal waste management.

In this context, an informal economy of waste recovery has emerged, populated by individuals commonly referred to as scavengers or waste pickers. Operating without formal recognition, these workers navigate dump sites, streets, and neighborhoods, recovering recyclable materials that would otherwise pollute the environment. In almost all the dump sites in Nigeria, whether in the city or rural areas, you will find waste pickers and scavengers running after trucks coming to dump refuse, while some are busy digging through heaps of waste in search of plastic and other recyclable materials. Some do not operate in dump sites but move about from one street to another in search of disposed plastic containers. Others operate wherever parties such as wedding ceremonies or burials are held, picking all the empty plastic bottles already used by celebrants and their guests. Their work, though essential to environmental health, occurs at the intersections of extreme poverty, social stigmatization, and health risks (Nzeadibe & Anyadike, 2012).

This paper approaches the phenomenon of waste picking in Nigeria through an eco-theological framework, examining how theological understandings of creation care might inform a more just and sustainable approach to plastic waste management. It positions waste pickers not merely as participants in an informal economy but as "marginalized stewards of creation" whose labour contributes significantly to environmental conservation efforts. The scavengers and waste pickers may not understand the magnitude of their contributions to environmental cleanliness in Nigeria, despite abuses, risk, and stigma that their voluntary exercise has exposed them to. Though marginalized and humiliated by the public, they play an important role in helping to ensure a clean and safe environment.

The research addresses three central questions:

1. How does an eco-theological understanding of creation stewardship apply to waste recovery practices?
2. In what ways do Nigerian waste pickers embody aspects of environmental stewardship despite their marginalized status?
3. What theological and practical implications emerge from recognizing waste pickers as stewards of creation?

2. Literature Review

2.1 Waste Management Challenges in Nigeria

Nigeria's waste management infrastructure remains severely underdeveloped relative to the volume of waste generated. Adeyi and Adeyemi (2019) document how rapid urbanization, increasing consumption patterns, and inadequate policy implementation have created a waste crisis in major Nigerian cities. The issue of environmental care has suffered gross neglect, especially in the urban centres. Because of a lack of adequate arrangements for the collection and evacuation of wastes generated from different households and organizations, wastes are littered along the streets and roads, and some of them may be allowed to remain for a very long time before evacuation, thereby constituting a nuisance to the environment. In addition, many Nigerians have developed cold feet towards the care of the environment. This is largely due to a lack of punishment for improper disposal of waste. Less than 20% of collected waste is properly recycled or disposed of, with the remainder ending up in unregulated dumps, waterways, or burned in open air, releasing toxins into the environment (Babayemi et al., 2019). Plastic waste poses particular challenges due to its non-biodegradable nature and the country's limited recycling infrastructure. Kehinde et al. (2020) estimate that Nigeria is among the top 20 countries

contributing to marine plastic pollution globally, with significant ecological and public health consequences.

2.2 The Informal Waste Sector in Nigeria

The informal waste economy in Nigeria has been the subject of growing academic interest. Ecotheology is an aspect of Christian Theology that is speedily gaining recognition in Nigeria. This is because the environmental crisis in Nigeria has reached an alarming rate, and the government cannot be left alone to bear the burden that the environment has placed on the masses. Hence, this article is borne out of the desire of Ecotheologians in Nigeria to engage constructively in the management of the ecosystem from the biblical point of view. The waste pickers and scavengers in Nigeria, with their growing population, are recognized as unsung heroes and vanguards of the environment. Studies by Nzeadibe and Iwuoha (2008) and Oguntoyinbo (2012) document the socioeconomic characteristics of waste pickers, highlighting their contribution to resource recovery despite minimal recognition. This sector employs an estimated 100,000 people across Nigeria's major cities, providing livelihoods for some of the country's most vulnerable populations (Afon, 2012).

Nzeadibe and Anyadike (2012) explore the socioeconomic profile of waste pickers in southern Nigeria, finding that the majority are migrants from rural areas with limited education and few alternative employment opportunities. Despite their contribution to environmental management, these workers face significant occupational hazards, social stigmatization, and economic exploitation by middlemen in the recycling value chain. Trading in waste products such as plastic materials has become a big business in Nigeria. Many layers exist in the waste economy. While some are directly involved in hunting for the waste, some middlemen and women buy waste materials and later sell to other bigger business persons who eventually convey the waste to factories where recycling takes place. These chains of marketing have given room for exploitation of the collectors, who usually occupy the lowest rung of the ladder.

2.3 Eco-theological Perspectives on Environmental Stewardship

Eco-theology represents an integration of ecological concerns with theological reflection. Key works by scholars such as Conradie (2006), Boff (1997), and Sindima (1990) have established frameworks for understanding environmental care as a theological imperative. These perspectives emphasize humanity's responsibility to care for creation as an expression of divine mandate.

African eco-theological perspectives, as articulated by Gitau (2000) and Kyomo (2001), often emphasize the interconnectedness of human communities with their environments, drawing on both Christian teachings and indigenous African cosmologies that view the natural world as imbued with spiritual significance. Kaoma (2015) argues that traditional African concepts of *ubuntu* (humanness through community) extend to ecological relationships, forming a basis for environmental ethics.

The concept of the "preferential option for the poor" from liberation theology has been extended to ecological discourse by theologians like Boff (1997) and Orobator (2018), suggesting that environmental degradation disproportionately affects marginalized communities, creating an imperative for eco-justice that addresses both environmental sustainability and social equity.

2.4 Research Gap

While existing literature has examined both waste management challenges in Nigeria and theological approaches to environmental stewardship, limited research has explicitly connected these domains. This paper addresses this gap by developing an eco-theological framework that specifically recognizes the environmental stewardship role of informal waste workers in Nigeria.

3. Methodology

This research employs a mixed-methods approach combining:

1. **Literature review:** Analysis of academic publications on waste management in Nigeria, the informal waste sector, and eco-theological perspectives on environmental stewardship.
2. **Field research:** Interviews conducted with 25 waste pickers from three Nigerian cities (Lagos, Ibadan, and Port Harcourt) between September 2023 and January 2024. These semi-structured interviews explored participants' daily experiences, motivations, challenges, and perspectives on their environmental role.
3. **Theological analysis:** Examination of biblical texts, theological traditions, and contemporary eco-theological scholarship to develop a framework for understanding waste recovery as creation stewardship.
4. **Policy analysis:** Review of existing waste management policies in Nigeria, with attention to the recognition and integration of informal waste workers.

Ethical considerations included obtaining informed consent from all participants, ensuring confidentiality, and conducting research in a manner sensitive to the marginalized status of the participants.

4. Findings and Discussion

4.1 The Reality of Waste Picking in Nigeria

Field research revealed that waste pickers in Nigeria operate under extremely difficult conditions. Many begin work before dawn, traveling long distances to access waste sites and working 10-12 hours daily in hazardous environments. The average daily income among interviewed waste pickers ranged from ₦1,500-₦3,000 (approximately \$1-2 USD), barely sufficient for subsistence. Apart from those who have chosen to limit their work to dump sites, others use wheelbarrows, motorcycles, bags, and other means to gather and transport whatever they have gathered. Some also move from house to house to ask for plastic and other recyclable solid waste. The risk involved in this venture is indeed enormous.

Waste pickers reported facing multiple forms of marginalization, including:

- Social stigmatization and derogatory treatment from the public
- Harassment from authorities and security personnel
- Lack of protective equipment, resulting in frequent injuries and health issues
- Exploitation by middlemen who purchase recovered materials at exploitative rates
- Exclusion from formal waste management planning and policies

Despite these challenges, the waste pickers demonstrated remarkable resourcefulness and environmental knowledge. Many had developed sophisticated systems for identifying, sorting, and processing different types of plastic waste. Their recovery efforts focus particularly on PET bottles, HDPE containers, and polypropylene materials, which have established recycling value chains in Nigeria.

4.2 Environmental Impact of Waste Pickers' Activities

The environmental contribution of waste pickers in Nigeria is substantial, though largely unquantified. Based on self-reported collection amounts, the 25 interviewees collectively recover approximately 3.5 tons of plastic waste weekly. Extrapolated to the estimated 100,000 waste pickers nationwide, this suggests an informal recovery system that diverts hundreds of thousands of tons of plastic from the environment annually. This unrecognized environmental service addresses a critical gap in Nigeria's formal waste management systems. As noted by Ike et al. (2018), official waste collection services are limited primarily to affluent urban areas, leaving vast quantities of waste unmanaged. The waste pickers effectively extend the reach of recycling efforts to areas otherwise neglected by formal systems.

Furthermore, several waste pickers demonstrated awareness of the environmental significance of their work:

"I know what happens when plastics enter the water. They kill fish and block drainage. When I collect these bottles, I am helping to keep our environment clean." (Waste picker, Lagos)

"Some people call us names, but they don't understand that without us, their streets would be filled with waste. We are cleaning the city every day." (Waste picker, Ibadan)

These statements reveal an implicit understanding of environmental stewardship that aligns with eco-theological principles, despite most waste pickers being motivated primarily by economic necessity rather than environmental concern.

4.3 Eco-theological Framework: Waste Pickers as Stewards of Creation

4.3.1 Biblical Foundations for Waste Recovery as Stewardship

Several biblical themes provide a foundation for understanding waste recovery as creation stewardship:

- i. **Creation care mandate:** Genesis 2:15 describes humanity's role to "work and take care of" the garden, establishing stewardship as fundamental to human purpose. This mandate extends beyond mere exploitation to include the preservation and nurturing of ecological systems. Many Christians indeed understand this important divine injunction as domination of the environment. It was based on this attitude that Lynn White Jr. alleged that misunderstanding and misapplication of this instruction are largely responsible for environmental abuse among Christians (Lynn, 1999)
- ii. **Resource conservation:** Biblical texts contain numerous injunctions against waste and promote resource conservation. Examples include the gathering of leftover food after Jesus' feeding miracles (John 6:12) and instructions against excessive resource extraction (Deuteronomy 20:19-20).

- iii. **Redemption of the marginalized:** Throughout scripture, God demonstrates special concern for the poor and marginalized. The activities of waste pickers, who transform discarded materials into resources while working from positions of social marginalization, echo biblical themes of redemption and transformation.
- iv. **Dignity of labor:** Theological traditions affirm the dignity of all honest work. As Pope Francis notes in Laudato Si' (2015), "Work is a necessity, part of the meaning of life on this earth, a path to growth, human development and personal fulfillment" (§128). This perspective challenges the stigmatization of waste work and affirms its intrinsic value.

4.3.2 Waste Pickers as Embodiments of Creation Care

In this section, we shall examine how waste pickers embody creation care. There are several ways in which activities of waste pickers align with eco-theological principles. These include

- i. **Redemptive transformation:** Waste pickers transform what society has discarded into resources with renewed value, performing a tangible form of ecological redemption that parallels theological concepts of restoration and renewal.
- ii. **Prophetic witness:** By recovering resources from waste, these workers offer an implicit critique of consumption-based economics and demonstrate alternative possibilities for material stewardship.
- iii. **Embodied knowledge:** Many waste pickers develop sophisticated material knowledge systems that recognize the enduring value of created substances beyond their initial use, reflecting an implicit understanding of material stewardship.
- iv. **Suffering service:** The difficult conditions under which waste pickers labor, often bearing health risks to improve environmental conditions, echo theological notions of sacrificial service for the common good.

These parallels suggest that waste pickers function as "priests of creation" (using Chryssavgis' 2007 term) who mediate between waste and resource, between destruction and redemption, through their daily labor.

4.4 Challenges to Recognition and Integration

Several barriers prevent the full recognition of waste pickers as environmental stewards:

- i. **Social stigma:** Cultural associations between waste work and impurity persist in Nigerian society, reinforcing marginalization and preventing recognition of waste pickers' ecological contributions. No doubt, many of the waste pickers do not appear decent in their appearance. This is largely because most waste pickers are drawn from the poorest people in society.
- ii. **Economic vulnerability:** The precarious economic position of waste pickers forces prioritization of immediate survival over optimal environmental practices. Most of the waste pickers do so to raise urgent money to attend to immediate needs. They are likely to abandon the job as soon as their finances improve.
- iii. **Policy exclusion:** Current waste management policies in Nigeria largely ignore or actively exclude informal waste workers, despite their critical role in resource recovery. Some local authorities have demonstrated hostility against waste pickers as they are accused of interfering

with their mandate. As a result, they have refused to accommodate the waste pickers as partners in progress.

- iv. **Power imbalances:** Asymmetrical power relationships in recycling value chains minimize waste pickers' agency and capacity to improve their practices.
- v. **Theological neglect:** Religious communities in Nigeria have typically overlooked waste management as an area of theological concern and practical ministry. Thanks to the emergence of ecotheology in Nigeria, which is helping to project how the sacred scripture can be used to address current environmental challenges in Nigeria.
- vi. **Profiling and labelling.** Waste pickers are perceived to be from a particular race, which some consider to be hostile to peaceful co-existence. As a result, some waste collectors are forbidden to enter certain places. There is also the issue of suspicion that some of them are only pretending to be waste collectors, whereas they have some ulterior motive behind the waste work that they do.
- vii. **Unethical behaviour of some of the waste Pickers:** some waste pickers and scavengers are oblivious of the extent to which they can go in entering people's private properties. Some waste pickers have been accused of stealing valuable items from people's compounds. Some do enter people's compounds without permission. This has made many people see waste pickers as criminals who are looking for objects to steal rather than waste materials.

5. Theological Implications

5.1 Reconceptualizing "Dirty Work" as Sacred Service

Eco-theology invites a transformation in how waste work is perceived. Rather than "dirty" or "degrading," waste recovery can be understood as a form of sacred service that participates in God's ongoing work of creation care and renewal. This perspective challenges prevailing social stigmas and affirms the dignity of waste pickers' labour.

5.2 Expanding Notions of Environmental Stewardship

The case of Nigerian waste pickers challenges narrow conceptions of environmental stewardship that focus primarily on the conservation of "pristine" natural areas. It reminds us that stewardship must include engagement with the "broken" parts of creation—the waste, pollution, and environmental degradation that characterize the Anthropocene. Waste pickers exemplify this expanded notion of stewardship through their reclamation of materials from waste streams.

5.3 The "Option for the Poor" as Environmental Principle

Liberation theology's "preferential option for the poor" finds ecological expression in the waste pickers' situation. Their marginalization highlights the interconnection between social and ecological injustices, demonstrating how environmental degradation and social exclusion reinforce each other. An eco-theological response must address both dimensions simultaneously.

5.4 Creation as Gift and Responsibility

The waste pickers' work embodies a material recognition that created substances retain value beyond their initial use. This aligns with theological understandings of creation as gift rather than commodity—

a perspective that challenges disposability culture and affirms continued responsibility for materials throughout their lifecycle.

6. Practical Recommendations

6.1 For Religious Communities

- i. **Theological education:** Integrate waste management and environmental stewardship into theological curricula and religious education programs. Christians should see waste collection beyond a money-making business. Waste pickers should be recognized as stakeholders in the overall care of creation.
- ii. **Material stewardship:** Implement plastic waste reduction and recycling programs within religious institutions, potentially partnering with local waste pickers. Churches should inaugurate and implement a programme aimed at helping reduce solid waste, especially plastic waste, in Nigeria. Proper solid waste disposition should be adopted by the church. This is because churches in Nigeria contribute much to the total waste generated in every community.
- iii. **Social recognition:** Conduct blessing ceremonies for waste pickers, publicly affirming the dignity and ecological significance of their work. Recognition and appreciation of waste pickers will motivate many more people to get involved in creation care activities such as waste management.
- iv. **Material support:** Establish health clinics, educational opportunities, and cooperative development programs for waste picker communities. The church can decide to assist waste pickers by providing them with safety tools and offering them advice on how to safeguard their life while carrying out their duties.
- v. **Advocacy:** Support waste pickers' rights and integration into formal waste management systems through religious leaders' public statements and community organizing. Rather than see waste pickers as competitors, the church can help them, through advocacy, to get Government recognition and support.

6.2 For Policy Development

- i. **Formal recognition:** Officially acknowledge waste pickers' contribution to waste management systems through identification cards, legal protections, and inclusion in policy development.
- ii. **Infrastructure access:** Provide waste pickers with access to sorting facilities, storage areas, and processing equipment to improve efficiency and working conditions.
- iii. **Social protection:** Extend healthcare, education, and social security benefits to informal waste workers and their families.
- iv. **Value chain integration:** Develop policies that strengthen waste pickers' position in recycling value chains, reducing exploitation by middlemen.
- v. **Extended Producer Responsibility:** Implement policies requiring plastic producers to contribute to the management of their products' end-of-life, creating sustainable funding for improved recycling systems that include waste pickers.

6.3 For Waste Pickers and Their Organizations

- i. **Cooperative formation:** Establish and strengthen waste picker cooperatives to increase bargaining power and improve working conditions.
- ii. **Ecological education:** Develop training programs on the environmental significance of waste recovery to strengthen waste pickers' identity as environmental stewards.

- iii. **Religious engagement:** Form partnerships with faith communities for material support and public advocacy.
- iv. **Technical improvement:** Acquire skills and technologies for higher-value processing of recovered materials.
- v. **Public narrative:** Develop communication strategies that emphasize waste pickers' environmental contribution to counter stigmatization.

7. Conclusion

This paper has examined the role of waste pickers in Nigeria's plastic management system through an eco-theological lens, arguing for their recognition as marginalized stewards of creation whose labor constitutes a form of environmental care with theological significance. Despite working under difficult conditions with minimal recognition, these individuals provide essential ecological services that prevent plastic pollution and extend the lifecycle of materials. An eco-theological analysis reveals that waste pickers' activities align with biblical mandates for creation care, resource conservation, and redemptive transformation. Their labor represents a form of embodied ecological knowledge and practice that challenges disposability culture and demonstrates alternative possibilities for human-material relationships.

The marginalization of waste pickers highlights the intersection of social and environmental injustices that eco-theology must address. Recognition of waste pickers as creation stewards invites both theological reconceptualization of "dirty work" and practical action to improve their working conditions and social standing. The way forward requires collaboration between religious institutions, government agencies, and waste picker organizations to develop integrated approaches that simultaneously address environmental sustainability, social justice, and human dignity. By recognizing waste pickers as valuable partners in creation care rather than as problems to be managed, Nigerian society can move toward more just and sustainable waste management systems.

In the words of a waste picker from Port Harcourt: "We are helping to clean Nigeria. If we stopped working tomorrow, you would see the difference immediately." This simple statement encapsulates the theology of this paper—that the most marginalized workers are often those most intimately involved in the daily work of creation care, deserving not only recognition but celebration as essential participants in the divine mandate of earth-keeping.

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