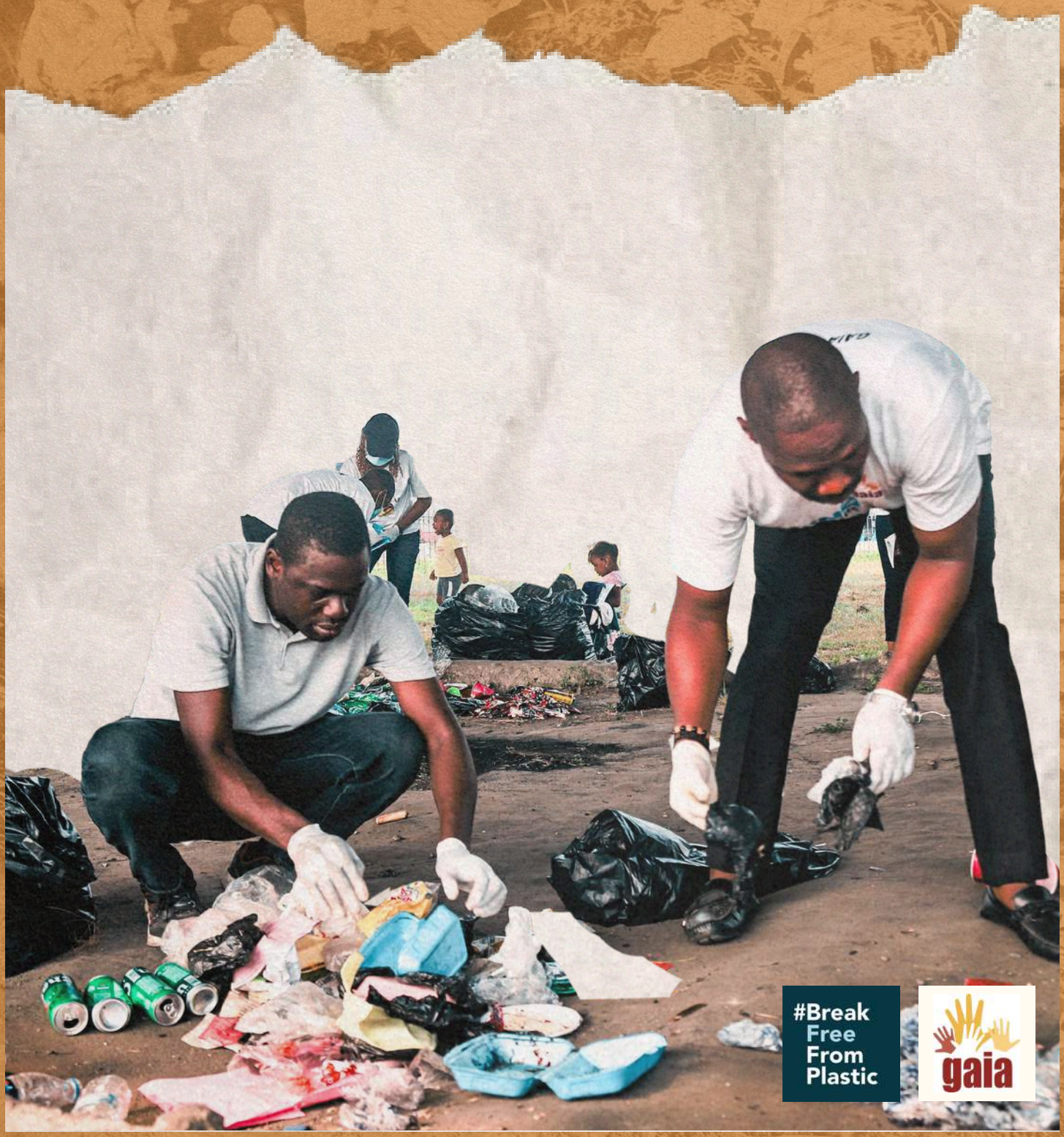
NIGERIAN
BRAND AUDIT REPORT

2018–2024



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https://brandaudit.breakfreefromplastic.org/nigeria-brand-audit-report/

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GAIA: GAIA is a global network of grassroots groups, non-governmental organisations (NGOs), and individuals, in over 90 countries. The organisation envisions a just, zero-waste world built on respect for ecological limits and community rights, where people are free from the burden of toxic pollution, and resources are sustainably conserved, not burned or dumped. GAIA works to catalyse a global shift towards environmental justice by strengthening grassroots social movements that advance solutions to waste and pollution. www.no-burn.org

BFFP: The #BreakFreeFromPlastic (BFFP) Movement is a global movement envisioning a future free from plastic pollution. Since its launch in 2016, more than 12,000 organisations and individual supporters from across the world have joined the #BreakFreeFromPlastic movement to demand massive reductions in single-use plastics and to push for lasting solutions to the plastic pollution crisis. www.breakfreefromplastic.org

Photo Credit: Lekeh Development Foundation

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1. Introduction

Between 2018 and 2024, Nigeria witnessed a growing wave of civic engagement and environmental advocacy focused on addressing the plastic pollution crisis. Recognising the urgent need for evidence-based action, a coalition of nine Nigerian organisations—Centre for Earth Works (CfEW), Community Development Advocacy Foundation (CODAF), Green Knowledge Foundation (GKF), Policy Alert, Social and Economic Development Initiative (SEDI), Sustainable Research and Action for Environmental Development (SRADev), Pan African Vision for the Environment (PAVE), Community Action Against Plastic Waste (CAPws), and Lekeh Development Foundation (LEDEF)—embarked on a nationwide plastic brand audit data collection campaign. These audits spanned eight cities across seven Nigerian states, including Osogbo, Jos, Ughelli, Warri, Port Harcourt, Lagos, Uyo, and Benin, providing a comprehensive overview of the plastic waste landscape across diverse urban and regional settings.

The brand audit approach conducted by these organisations is a participatory science initiative that involves counting and documenting the brands found on plastic waste to help identify the corporations responsible for plastic pollution. Through this participatory process, the audits have uncovered compelling insights into the most common plastic waste items, including the dominance of sachet packaging and plastic bottles, and have highlighted the disproportionate role of multinational corporations such as Coca-Cola and PepsiCo in Nigeria's plastic waste streams. The findings of this multi-year audit underline the scale and persistence of single-use plastic pollution, as well as its environmental, social, and health implications. They also serve as a clarion call to policymakers, corporations, and communities to work collaboratively toward Zero Waste practices and systemic change (GAIA, 2023). This report synthesises the audit data, contextualises the findings within Nigeria's broader plastic crisis, and proposes strategic recommendations to combat one of the country's most pressing environmental challenges.

Photo Credit: Community Action Against Plastic Waste (CAPws)

2. Confronting the Plastic Crisis in Nigeria: An Overview

Background: The Global Plastic Crisis

Plastic pollution has emerged as one of the most pressing environmental challenges of the 21st century. Over 400 million metric tons of plastic are produced annually, nearly half of which are single-use plastics that contribute significantly to environmental degradation (UN News, 2023). According to Geyer (2020), only 10% of all plastic waste has been recycled, while the rest ends up in landfills, incinerators, or litter in natural ecosystems (Geyer, 2020; Vuppaladadiyam et al., 2024).

The widespread use of plastics, particularly in packaging, has led to severe consequences for marine life, biodiversity, and human health. Plastic pollution contaminates water bodies, enters the food chain through micro-plastics, and contributes to climate change due to emissions from plastic production and waste incineration (World Economic Forum, 2022). In response, global efforts such as the **Intergovernmental Negotiating Committee (INC) on Plastic Pollution**, the **Basel Convention (which Nigeria has been actively involved in)**, and the **European Union's single-use plastics directive** have sought to regulate plastic production, improve waste management, and promote circular economy principles. (UN, 1989; UNEP, 2022)

Africa's Growing Plastic Crisis

Africa is increasingly burdened by plastic waste due to rising urbanisation, population growth, and a lack of adequate waste management infrastructure. Although it contributes less than 5% to global plastic production, the continent faces severe environmental and socio-economic impacts from plastic pollution (WHO, 2023). Many African countries, including Kenya, Rwanda, and South Africa, have taken regulatory actions, such as banning plastic bags and developing extended producer responsibility (EPR) frameworks, to address plastic waste.

However, challenges remain, particularly in countries with weak enforcement mechanisms, informal waste economies, and limited recycling infrastructure. Nigeria, as Africa's most populous nation, exemplifies these challenges and underscores the urgent need for comprehensive policies and sustainable waste management solutions that prioritise upstream measures.

The Nigerian Scenario

Scale and Impact of the Plastic Problem

Nigeria generates approximately **2.5 million metric tons of plastic waste annually**, making it one of the largest plastic polluters in Africa (UNIDO, 2021). Lagos, the country's commercial hub, generates approximately **13,000 metric tons of waste daily**, with plastics accounting for a significant portion. According to a 2022 World Bank report, **only 9-12% of Nigeria's plastic waste is recycled**, with the remainder contributing to environmental pollution (World Bank, 2024).

Key contributors to the plastic problem in Nigeria include:

- **Single-Use Plastics:** Widespread use of sachet water, plastic bags, and disposable food packaging persists.
- **Weak Infrastructure:** The limited number of recycling plants and inadequate waste collection services, particularly in rural and semi-urban areas, significantly exacerbate the plastic problem.
- **Plastic Leakage into Water Bodies:** Major rivers, including the Niger and Benue, transport plastic waste into the Atlantic Ocean, affecting marine ecosystems.
- **Consumer Behaviour and Economic Realities**: The widespread use of sachets and single-use plastics is driven by affordability and convenience. For many Nigerians, sachets offer an accessible means of purchasing water, beverages, and other products in small quantities.
- **Inadequate Waste Management:** Nigeria's waste management infrastructure has not kept pace with its growing population and consumption. Collection rates vary widely, with up to 60% of waste remaining uncollected in urban areas, resulting in littering, clogged drainage systems, and environmental degradation.
- **Policy Gaps and Enforcement:** However, these problems are further exacerbated by **enforcement challenges**, **a lack of industry compliance**, and **insufficient public awareness**.

Policy and Enforcement Gaps:

Policies and regulations abound in the plastic value chain sector:

i. ***National Plastic Waste Management Policy (2020)***: The National Plastic Waste Management Policy, introduced in 2020, aims to address Nigeria's escalating plastic pollution crisis (Federal Republic of Nigeria, 2020). This policy outlines a comprehensive framework for managing plastic waste through strategies such as promoting recycling, encouraging the use of biodegradable alternatives, and implementing educational campaigns to raise public awareness about the environmental impact of plastic waste. However, some gaps exist, such as the lack of attention to trade issues related to plastic waste and the Basel Convention's plastic waste amendments. The framework for the effective management of Extended Producer Responsibility (EPR) between the government and industry was not clearly explained. Without a baseline figure, the target to reduce plastic waste by 50% is vague. By 2020, a commitment to phase out single-use plastic bags and Styrofoam by 2028 was too ambitious. However, these single-use plastics have generated considerable discussion among policymakers over the years, leading to bans on single-use plastics by sub-national governments, particularly Lagos State.

ii. ***National Solid Waste Management Policy (2018)***: The National Solid Waste Management Policy, established in 2018, provides a broad strategy for managing all types of solid waste, including plastics (Federal Government of Nigeria, 2020). The policy emphasises the importance of waste segregation at the source, recycling, and the safe disposal of hazardous waste. It also advocates for the development of infrastructure to support sustainable waste management practices nationwide. The policy lacked baseline data on waste generation and its disaggregation. The policy's support for organic waste-to-energy has currently culminated in embracing the incineration of co-mingled waste, likely because the policy did not object to this approach.

In addition, state Governments have ensured that relevant provisions of national policies are domesticated, as the national policies allocate waste management responsibilities to state and local actors.

While Nigeria has introduced measures such as plastic bag bans and EPR frameworks, enforcement remains weak. Key challenges include limited producer registration, inadequate fee management, and insufficient monitoring.

Environmental and Socio-Economic Consequences of Plastic Pollution in Nigeria

1. **Marine and Land Pollution:** Nigeria ranks among the top contributors to marine plastic pollution. Plastics from cities like Lagos and Port Harcourt wash into the ocean, endangering marine biodiversity.
2. **Flooding and Drainage Blockage:** Plastic waste clogs drainage systems, contributing to urban flooding, particularly during the rainy season.
3. **Health Impacts:** Microplastics from improperly disposed of plastics contaminate food, water, and air, posing long-term health risks such as endocrine disruption and respiratory diseases.
4. **Economic Losses:** The plastic crisis threatens fisheries, tourism, and agriculture while increasing public sector costs for waste management.
5. **State-Level Bans and Regulations:** Some states in Nigeria, such as Lagos, Oyo, and Abia State have announced restrictions on single-use plastics, though enforcement remains weak (Nigerian Tribune 2023; BusinessPost.ng 2024; DailyTrust.com 2024; LAWMA 2024; Punch Ng 2024)

Role of Stakeholders in Addressing the Plastics Crisis in Nigeria

- ***Government***

The government plays a crucial role in addressing the plastics crisis through policy formulation, enforcement, and investment in waste management infrastructure. For instance:

- ***NESREA's Efforts and Challenges***

The National Environmental Standards and Regulations Enforcement Agency (NESREA) made significant strides in developing the Plastic Waste Control Regulation in 2023. This regulation aims to provide a more targeted approach to plastic waste management, focusing on reducing plastic pollution through stricter controls and guidelines (Nigerian Tribune, 2023). However, due to government bureaucracy, the regulation has yet to be gazetted, delaying its implementation and enforcement. For example, some single-use plastics will be banned in 2025.

- ***Lagos State's Initiative on Single-Use Plastics***

In a progressive move, the Lagos State Government has recently taken steps to ban single-use plastics. This initiative aims to reduce the environmental impact of disposable plastic products, which are major contributors to plastic pollution (fmino.gov.ng, 2025). The ban includes items such as plastic bags, straws, and cutlery, encouraging the use of reusable and environmentally friendly alternatives.

How Nigeria’s Fossil Fuel Industry Fuels the Plastic Pollution Crisis

Upstream Assessment of Nigeria's Fossil Fuel Industry in Relation to the Plastic Pollution Crisis

Nigeria's fossil fuel industry is primarily centred on oil and natural gas since the discovery of crude oil in the Niger Delta in 1956 (TheEnergyYear.com, 2025). This resource contributes approximately 5.48% to the nation’s total real GDP (Gross Domestic Product), about 40.55% of government revenue as of 2021 (down from 51% in 2020), and around 90% of its foreign exchange earnings (Tarfa Bala, et al., 2024). The country holds 36.9 billion barrels of oil reserves as of 2023 and is a major player in the global oil market, ranking as the eighth-largest oil exporter by value and the sixth-largest LNG (Liquefied Natural Gas) exporter worldwide, with a 6% market share in 2022 (IISD, 2024). A substantial portion of the oil and gas extracted serves as feedstock for petrochemical industries, leading to the production of various plastic materials.

Connection Between Fossil Fuels and Plastic Pollution

Evidently, it is difficult to separate the link between fossil fuels and plastic pollution. With over 99% of plastic derived from fossil fuel-based chemicals, it creates direct and multifaceted links between the two industries (EarthDay.org, 2023). Plastic production begins with the extraction of fossil fuels, such as oil and natural gas, which are processed in facilities known as "crackers" to produce smaller molecules that form the building blocks for plastics like polypropylene (Client Earth, 2021). As the world transitions to cleaner energy sources, fossil fuel companies are increasingly investing in plastic production to sustain demand, with plastic manufacturing currently accounting for 12% of global oil consumption—a figure projected to rise in the next couple of years. Notably, the seven largest plastic producers by volume are all fossil fuel companies (CNBC, 2022).

The environmental consequences are severe. Plastic production contributes significantly to climate change, with projections suggesting it could consume 20% of the Earth's carbon budget by 2050 (The Guardian.com, 2024). Degrading plastics releases toxic chemicals and microplastics, disrupting ecosystems, affecting soil fertility, harming marine life, and potentially interfering with the ocean’s carbon sequestration capacity. Human health is also at risk. Microplastics have been detected in human placentas and lungs, raising concerns about their long-term health effects (Tamara Davison, 2024). Communities near extraction and production sites frequently face poor air and water quality. Despite growing awareness, plastic production is poised to expand by a third in the next five years, with greenhouse gas emissions from plastics projected to reach 4.3 Gt CO2e (Gigatonnes of Carbon Dioxide Equivalent). Addressing this crisis requires a comprehensive approach that reduces fossil fuel extraction and plastic production while aligning with global climate change mitigation efforts and protecting both human health and the environment.

Nigeria's upstream fossil fuel activities, while significantly contributing to the economy, also escalate the plastic pollution crisis, with the oil and gas sector accounting for 10% of the GDP and 86% of total export revenue (Barbados Free Press, 2010). This directly influences plastic production and pollution as the country remains the sole resin producer in the West African Coastal Areas (WACA) region, boosting a production capacity of 498 kt (kilotonnes) in 2019. Annually, this thriving plastic manufacturing sector is growing at a rate of 13.9%, with over 3,000 plastic companies, and the 2023 inauguration of the Dangote Refinery, Africa's largest petrochemical facility, further bolsters Nigeria's plastic production capabilities (AfricanClimateWire, 2024). This industrial growth, however, exacerbates the plastic pollution crisis, as the country generates approximately 2.5 million tonnes of plastic waste annually (Theresa Onaji-Benson & Peter Agada Ali, 2023). Lagos alone produces 870,000 tonnes of plastic, leading to environmental and health challenges such as clogged waterways, which cause flooding and microplastic contamination. It was recently reported that up to 22,079 pieces of microplastic contamination per litre were detected in the Osun River, with links to the degradation of soil fertility, disruption of marine ecosystems, and a reduction in oceanic carbon sequestration (EHN.org, 2024).

Nigeria’s Fossil Fuel Industry: Key Components and Processes

Nigeria's upstream oil and gas sector, supported by substantial infrastructure investments, is dominated by major players, including multinational corporations such as Royal Dutch Shell PLC, TotalEnergies, ExxonMobil Corporation, and Chevron Corporation, alongside the Nigerian National Petroleum Corporation Limited (NNPC Limited), the country's national oil company. These companies are linked to several petrochemical infrastructures. Nigeria's upstream oil and gas infrastructure comprises extensive assets, including deep offshore oil fields such as Bonga, Akpo West, and Agbami, as well as onshore and shallow-water fields in the Niger Delta. Gas processing facilities, including the Nigeria LNG Train 7 expansion, will boost capacity from 22 million to 30 million tonnes per year (EnergyCapitalPower.com, 2024). Key pipelines include the Ajaokuta-Kaduna-Kano (AKK) pipeline and the proposed Nigeria-Morocco pipeline with a capacity of 3 billion cubic feet per day; petrochemical plants such as Indorama Eleme Petrochemicals Limited, Notore Chemical Industries fertiliser plant, and Dangote's over $19 billion integrated oil and petrochemical refinery (Bloomberg, 2022); and several refineries, though many operate below capacity (Trade.gov, 2023).

The Regulatory Framework

Nigeria's oil and gas operations are governed by policies aimed at environmental protection and resource management. These operations, which include exploration, drilling, and production, are governed by several policies and frameworks:

1. The Harmful Waste (Special Criminal Provisions, Etc.) The Act of 1988 prohibits the unlawful disposal and management of harmful waste and imposes strict penalties on offenders to deter hazardous practices.
2. The National Oil Spill Detection and Response Agency (NOSDRA) Act of 2006 mandates NOSDRA to oversee oil spill management and environmental restoration, requiring operators to report and promptly clean up spills (Federal Republic of Nigeria, 2006).
3. The Nigerian Oil and Gas Industry Content Development Act, 2010, promotes local participation in the oil and gas industry while encouraging sustainable practices.
4. The Petroleum Industry Act (PIA) 2021 establishes the legal and institutional framework for petroleum operations in Nigeria (Energy Monitor, 2024). It mandates environmental management plans to mitigate and manage environmental impacts and introduces the Host Communities Development Trust to address issues affecting communities impacted by oil and gas activities.
5. The Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (EGASPIN), issued by the Department of Petroleum Resources (DPR), now known as the Nigerian Upstream Petroleum Regulatory Commission (NUPRC) (Federal Government of Nigeria, 2022), outlines environmental standards for waste management, spill response, and pollution control in the petroleum sector.

Despite a comprehensive regulatory framework, enforcement faces significant challenges due to institutional overlaps that lead to inefficiencies. These include corruption and a lack of political will to enforce penalties, inadequate resources and technology for effective monitoring of upstream operations, and the exclusion of host communities from meaningful participation and access to information.

Environmental and Social Impacts of Upstream Activities

The upstream fossil fuel activities in Nigeria have significant environmental and social impacts on the country and its people. These impacts are multifaceted and affect various aspects of Nigerian society, ecosystems, and its values.

Environmental Impacts

1. The upstream oil and gas sector in Nigeria contributes significantly to air pollution. Gas flaring, a common practice in oil production, releases harmful pollutants into the atmosphere (Lukman Abolade, 2023). This not only contributes to climate change but also affects local air quality, potentially causing respiratory issues for nearby communities.
2. Oil spills and improper waste management from upstream activities contaminate water sources. This pollution affects both surface and groundwater, damaging aquatic ecosystems and potentially compromising the local community's water supply (Arm.com.ng, 2024).
3. The exploration and extraction of fossil fuels often involve clearing land, which can lead to habitat destruction, fragmentation, and biodiversity loss. This is particularly concerning in Nigeria's ecologically sensitive areas, such as the Niger Delta.

Social Impacts

1. Communities near extraction sites face increased health risks due to exposure to pollutants. The reliance on diesel and petrol generators for electricity, partly due to inadequate infrastructure, further exacerbates these health issues.
2. While the oil and gas sector contributes significantly to Nigeria's economy (over 85% of export earnings and 30% of budget revenues), the benefits are not always equitably distributed (Energy Monitor, 2024). Local communities often bear the brunt of environmental degradation and land displacement, without seeing proportional economic benefits.
3. Environmental degradation and perceived economic injustices have led to social tensions in oil-producing regions, which have sometimes escalated into conflicts between local communities and oil companies.

Transition Challenges

1. Nigeria faces the challenge of balancing energy accessibility, affordability, and sustainability. The country needs to transition from reliance on diesel and petrol generators to cleaner energy sources, which is crucial for both environmental and social justice.
2. Nigeria's heavy reliance on the oil and gas sector makes it vulnerable to global market fluctuations and the ongoing energy transition. This poses challenges for long-term economic stability and development.

Future Outlook and Conclusion

The Nigerian government and industry stakeholders are increasingly recognising the need for more responsible fossil fuel exploration. There's a growing emphasis on improving efficiency in upstream operations, eliminating oil theft and gas flaring, and transitioning to cleaner energy sources, particularly natural gas. However, the path forward is complex. While the Nigerian federal government believes that upstream oil and gas development remains critical for funding Nigeria's energy transition, a shift from fossil fuels to renewable energy remains the future of the just transition. The country must strike a balance between its economic needs, environmental sustainability, and social equity to ensure a just transition in its energy sector.

Based on the above analysis, it is safe to conclude that Nigeria's fossil fuel industry plays a significant role in the plastic pollution crisis through its upstream activities. Addressing these issues requires coordinated efforts from the government, industry stakeholders, and civil society to implement effective policies and practices that mitigate environmental and social impacts, steering the country towards a clear sustainability plan.

Photo Credit: Policy Alert

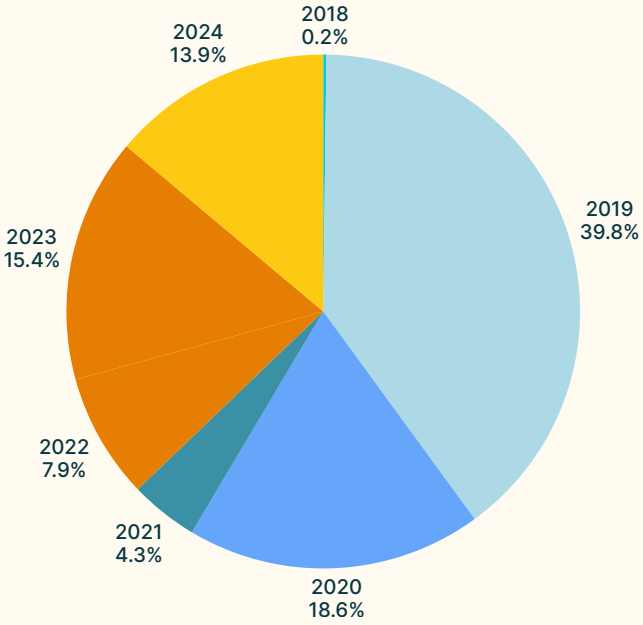
3. 2018-2024 Brand-Audit Data Overview and Assessment

Brand Audit Data

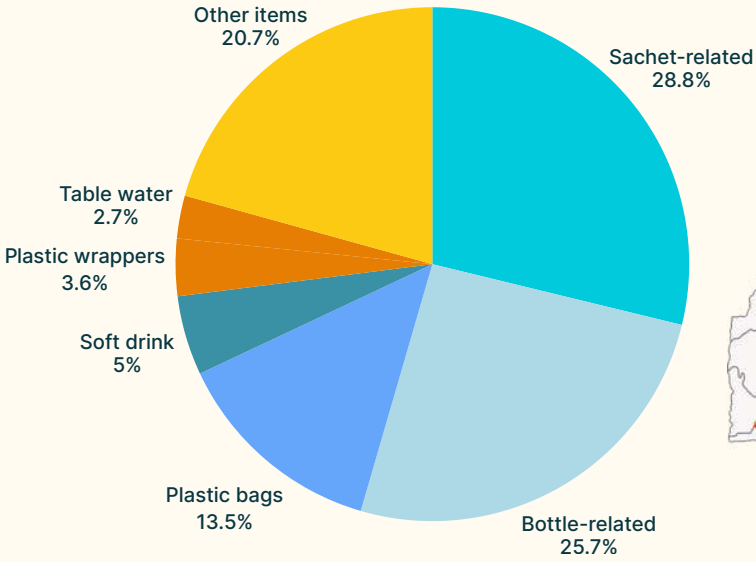
The assessment of the GAIA/BFFP Nigerian members' brand audits, conducted between 2018 and 2024, sought to analyse various data on common plastic polluters obtained from nine selected states across Nigeria during the period under review. These plastic brand audits aimed to identify the top polluting corporations and hold them accountable, demanding real solutions to the plastic pollution crisis in Nigeria. Brand Audit data on plastic waste was collected at community cleanup activities. This was achieved through the citizen science approach of sorting, counting, and identifying the types and brands of plastics, as well as the brand names. The citizen science approach has been a helpful tool globally for advocacy and demanding an end to the plastic industry's perpetual greed of prioritising profit over people and the environment. It has played a key role in holding companies accountable and driving both policy change and shifts in community behaviour in response to the escalating plastics pollution crisis.

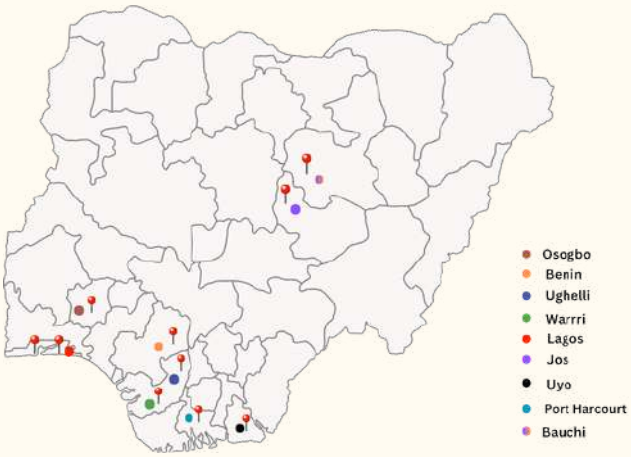
Total Plastic Waste Collected in Nigeria between 2018 - 2024

From the data obtained, out of the **298,174 pieces of plastic waste collected between 2018 and 2024,** it is evident that the total plastic waste count reached an all-time record high in 2019, with 39.8% of total plastic waste collected that year. While 2018 records the least plastic waste collected of about 0.2%, the lowest value recorded in 2018 was majorly because only a few organisations participated in the brand audit data collection of plastic waste items. 2023 and 2024 show slight variations of 15.4% and 13.9% respectively.



Top Plastic Waste Types between 2019–2024 in Nigeria - Overall





Per City in 2024 Only

City	Plastic waste item	Percentage of city plastic waste
Osogbo	Bottle-related Plastic pouch Cleanser	95.9% 3.4% 0.68%
Jos	Sachet Bottle-related Straws	85.2% 14.% 0.6%
Ughelli	Bottle-related Sachet Plastic bags	48.9% 41.8% 9.3%
Warri	Sachet Plastic bags Soft drink	50.3% 15.3% 7.1%
Port Harcourt	Bottle-related Plastic water dispenser	99.7% 0.3%
Lagos	Bottle-related Sachet Label	35.8 33% 9.3%
Uyo	Bottle-related Plastic spoons Plastic plates	90.4% 5.5% 3.3%
Benin	Bottle-related	100%

*** NB. Despite Lagos being a highly populous city, the results may appear low due to discrepancies in the sample area size**

Unpacking the Single-use Plastic Menace in Nigeria based on Top Plastic Waste Types collected between 2019–2024 in Nigeria.

Plastic pollution remains a significant environmental concern, exacerbated by the growing production and consumption of plastics. The data collected in the Nigerian brand audits between 2019 and 2024 reveals key trends in plastic pollution, highlighting the most problematic plastic items.

The most prevalent plastic product waste category is **sachets (approximately 85,593 pieces)**, followed closely by **bottle-related items (approximately 76,620 pieces).** These two categories alone account for the bulk of plastic pollution, underscoring the widespread use of single-use plastics, particularly in regions where bottled water and sachet-packaged products are prevalent. **Plastic bags (approximately 40,060 pieces)** and **wrappers (approximately 10,718 pieces)** further contribute to plastic pollution.

With approximately **50,310 pieces categorised as "other items,"** this broad category suggests the presence of various forms of plastic waste, including cutlery, straws, cups, and miscellaneous packaging. While these items might not dominate as much as sachets and bottles, their cumulative environmental impact is still significant.

Water Sachets

Sachet water, commonly known as “pure water” in Nigeria, is packaged water sealed in thin polyethylene material, which is non-biodegradable. The origin of sachet water production in Nigeria dates back to the 1990s (Babatunde & Biala, 2010; Onemano & Johnson A. Otun., 2019; Yo et al., 2014). The emergence and proliferation of water sachet production are linked to inadequate funding and the failure of the Nigerian government's urban and rural water supply schemes (The Nigerian Plastic Tsunami Report, CfEW, 2023). This failure empowered entrepreneurs to capitalise on the situation by mass-producing portable sachet water to meet the growing population's demand (The Nigerian Plastic Tsunami Report, CfEW, 2023).

Photo Credit: Community Development Advocacy Foundation (CODAF)

Over the years, it has become a daily essential for many Nigerians due to its affordability and convenience. However, the widespread consumption of sachet water has led to significant environmental challenges. It is estimated that 60 million used pure water sachets are disposed of every day across the country, amounting to about 20 billion sachets discarded every year, implying that more than 65% of individuals in Nigeria drink pure water (UNEP, 2023; UNIDO, 2021)

When buried or dumped in landfills, they disrupt the soil, affecting the nutrients and microbial life. Over time, these plastics can leak harmful chemicals into the soil and water, putting both nature and human health at risk. Worse still, landfills release methane, a potent greenhouse gas that fuels climate change (Kayla Vasarhelyi, 2023; Leah Burrows, 2024; UNEP, 2018).

In addition to this, water-sachet-clogged gutters create a breeding ground for stagnant water, which in turn makes it a haven for mosquitoes and diseases to thrive, and increases the damage caused by flooding. In rivers and oceans, wildlife often mistake sachets for food, leading to digestive blockages (National Geographic, 2016a). Without proper regulation and sanitation, water sachets also pose a potential public health concern. The environmental and public health risks associated with the improper disposal of water sachets are growing concerns that should not be overlooked. (National Geographic, 2016b; Pius Utomi Ekpei, 2022).

Key findings from the 2019-2024 Brand Audit results of GAIA/BFFP Nigerian members indicate that sachet water packaging and sachets are among the most prevalent plastic pollutants in Nigerian waste streams. The audit results have revealed that the total sachet count over the years amounted to approximately **28.8% (85,593 pieces)**, the highest count of all plastic waste. In reality, the number of plastic sachet waste is most likely much higher. This aligns with global trends on plastic pollution, where single-use plastics like sachets are increasingly identified as part of the major environmental threat (Kaycee Enerva, 2022; Ritu Sharma, 2024; UNEP, 2023; Varun Dhiman et al., 2022).

Additionally, the states of **Jos (85.2%), Warri (50.3%), and Ughelli (41.8%)** exhibit high percentages of sachet waste in their plastic waste streams.

The high number of sachets suggests a reliance on small, single-use packaging for beverages, condiments, and personal care products, often due to affordability and accessibility. However, their non-recyclable nature makes them a persistent environmental problem. Tackling this issue requires various alternatives, including the promotion of alternative delivery systems such as reuse and refill systems, improvements in waste management systems, stronger regulations and enforcement of policies on single-use plastics, and investment in clean water systems.

Plastic Bottle-related waste

Plastic bottle-related waste is the most common plastic waste found in Nigeria. GAIA/BFFP Nigeria member's brand audit data between 2019-2024, highlights the growing impact of plastic bottle-related waste on land and water ecosystems. This waste poses a severe threat to wildlife, marine organisms, and human health. Plastic bottles and containers are widely used for packaging liquids such as water, soft drinks, cooking oil, and medicine. These bottles are typically made from high-density polyethylene (HDPE) or polyethylene terephthalate (PET). Despite their convenience, plastic bottles have become one of the leading contributors to environmental pollution in Nigeria (CfEW, 2023).

The brand audit data collected between 2019 and 2024 show an increasing scale of plastic bottle-related waste in the country, which overall constitutes approximately **25.7% (76,620 pieces)** of total plastic waste. This data reflects a steady increase in plastic bottle waste, highlighting an urgent need to reduce production, improve waste management strategies, and shift systems away from single-use to reuse and refill.

Plastic bottles pose a significant environmental challenge in Nigeria. The production of these bottles requires substantial energy, primarily derived from fossil fuels (Kehinde et al., 2020), which contributes to greenhouse gas emissions and exacerbates climate change. Furthermore, when plastic bottles end up in landfills, they decompose very slowly and release traces of methane when exposed to sunlight and heat, a potent greenhouse gas that contributes to further fueling global warming. The improper disposal of plastic bottles is a widespread issue. These bottles often end up in rivers, oceans, and drainage systems, where they break down into microplastics. These microplastics are then ingested by marine life, causing harm and potentially entering the human food chain. (Tolinski, 2012; Vanguard, 2022; Yalwaji et al., 2022)

Photo Credit: Policy Alert

According to GAIA/BFFP Nigerian members' 2024 brand audit, **plastic bottle-related waste is the most common type of plastic waste found across the country (approximately 63.1% of total plastic waste collected)**. Multinational companies like **Coca-Cola and PepsiCo were identified as the two major contributors to this plastic pollution**, with bottle waste representing a large portion of their branded waste. The problem is compounded by the lack of accountability from these corporations to collect their products through mandatory EPR schemes [Extended Producer Responsibility] before they become waste in the environment.

Additionally, in most states, plastic bottle-related waste constitutes the highest percentage of plastic waste. Cities such as **Benin (100%), Port Harcourt (99.7%), Osogbo (95.9%), and Uyo (90.4%)** have overwhelmingly high bottle-related plastic waste. Whereas, cities such as **Ughelli (48.9%) and Lagos (35.8%)** have bottle-related plastics as a major contributor. This suggests widespread consumption of bottled beverages and a very poor recycling system, and a lack of reuse, refill or packaging-free product delivery systems, to manage bottle-related plastic waste.


Photo Credit: Community Development Advocacy Foundation (CODAF)


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Photo Credit: Sustainable Environment Development Initiative (SEDI)

Plastic Bags

Shopping bags made from polyethylene are commonly used in Nigeria and are known as polybags or nylon bags. Polyethylene (PE) is a globally common plastic product, and it is not just in Nigeria. The demand for Polyethylene (PE) increased by 20% from 2012 to 2017 (Ezeudu et al., 2024). Nigeria is one of the highest plastic-consuming countries in Africa and a large producer (Sack et al., 2020). Plastic bags in Nigeria are an integral part of the everyday lives of millions across the country. The ubiquitous choice of plastic bags is partly because of the lack of available alternatives like reusable bags, which can offer consumers better reliability than plastic bags.

Based on the 2019-2024 series of brand audits conducted by GAIA/BFFP Nigerian members, **plastic bags (polyethylene bags) were in the top five common plastic items**, forming approximately **13.5% (40,060 pieces)** of the total plastic collected. It is practically impossible to identify the brands or manufacturers of plastic carrier bags. Therefore, plastic bags may also form a large component of the unknown brand data between 2019 and 2024 in Nigeria.

Nigeria is faced with the massive problem of waste from plastic bags, which contributes to annual flooding, displaces thousands of residents, and causes diseases like malaria. Plastic bags became popular due to their versatility, affordability, and durability. The accumulation of polythene bags also renders agricultural soil sterile/barren as it impedes gaseous exchange.

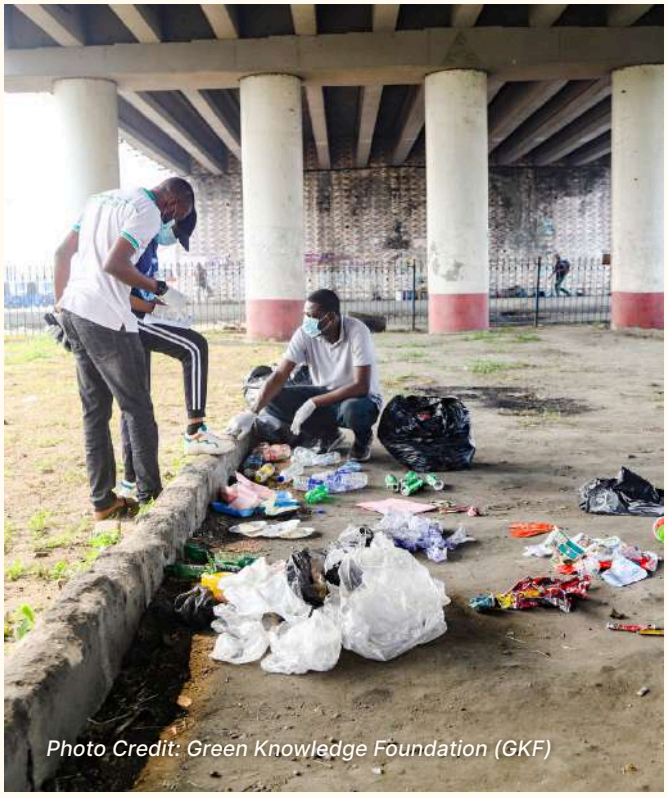


Photo Credit: Green Knowledge Foundation (GKF)

The constant consumption of plastic bags in Nigeria, along with single-use, indiscriminate littering, a lack of reliable alternatives, and inadequate waste disposal systems, is largely driven by their widespread availability, mass production, low cost, and cultural acceptance. Central to this ubiquitous choice of constant plastic bag use are social norms, such as requesting a free plastic bag and receiving it with every purchase at local shops, kiosks, supermarkets, open markets, or even during online shopping deliveries in many parts of Nigeria. It is common knowledge among retailers that refusing to provide a customer with a bag after a single purchase can negatively impact retailers' sales.

Many consumers in Nigeria do not take this refusal lightly, considering it a reason not to patronise vendors or shops. Most plastic bags are of poor quality, designed for single-use; after being disposed of, a new one is requested again for every purchase, catalysing a never-ending vicious cycle of production, consumption, and disposal, which has become the norm.

One unwholesome practice that remains underreported in Nigeria and has gradually become a norm, especially among low-income households, is the use of plastic bag (polyethene) waste to ignite domestic fires when using firewood or charcoal as cooking/heating solid fuel. This practice is further reinforced in trying economic times by the current increased price of domestic fuel (such as kerosene and cooking gas), occasioned by the removal of fuel subsidies, and the naira's exchange rate against the dollar in the international market. The consequent and devastating effects of burning plastic bags in whatever guise are far-reaching; this harmful practice not only poses severe risks to human health but also impacts the environment negatively. The emission of toxic chemical substances (dioxins, polychlorinated biphenyls, particulate matter, etc.) during the burning of plastics is known to cause cancer, heart disease, birth defects, harm to respiratory health and other severe health issues, while the emission of greenhouse gases (CO2 and methane) contributes significantly to climate change. In recent air pollution assessments, the open burning of mismanaged plastic waste in Kenya resulted in the release of 233 kilotonnes of noxious chemical gases (Pucino et al., 2020). Persistent Organic Pollutants (POPs) were also found to be present in free-range chicken eggs located close to open-burning plastic waste sites in Africa, suggesting severe contamination of food chains (Digangi & Petrlík, 2005).

Photo Credit: Policy Alert

Styrofoam

Styrofoam, which is derived from styrene, a petroleum-based substance, serves a variety of purposes, which is why it is so prevalent in Nigeria. However, despite not documenting this type of plastic waste in the brand audit results, it is also considered a highly problematic plastic. It is commonly used in Nigeria for various purposes, including serving food (in takeaway containers, disposable plates, and cups), packaging (for electronics and furniture), construction (for insulation and decorative mouldings), and other uses (such as coolers and decorative crafts).

Styrofoam is particularly vulnerable to sunlight, undergoing a process known as photodegradation or light disintegration. Prolonged exposure to sunlight leads to discolouration, causing the material to break down into a powdery substance over time. Styrofoam can leach harmful chemicals into food, especially when heated. There's also the specific issue of burning styrofoam because it is made from non-renewable petroleum products, which release particularly dangerous toxins into the air (CfEW, 2023).

Like other plastics, styrofoam pollutes the environment. It litters streets, clogs drains (leading to flooding), and ends up in rivers and the ocean (Andersen, 2022). This harms wildlife, especially marine animals; when it breaks down, it forms microplastics that contaminate the environment and potentially enter the food chain. It's often bulky, making it harder to collect and manage, and is also more fragile than some other plastics, causing it to break into smaller pieces more easily, which contributes to the microplastic problem.

Animals are particularly vulnerable to the dangers of Expanded Polystyrene (EPS) foam, which is similar in appearance to Styrofoam.

In conclusion, the overwhelming presence of plastic waste, particularly non-recyclable types such as sachets and wrappers, highlights the urgent need for more stringent policies and sustainable alternatives. While bottle-related plastic has a relatively higher recycling rate, poor collection or a lack thereof, and processing infrastructure often result in widespread pollution.

Top Plastic Polluting Parent Companies in Nigerian Brand Audits between (2018-2024)

Data collected within the period under review, from 2018 to 2024, were compiled for each type of product by parent companies and brand names.

Unbranded items accounted for the largest percentage of plastic waste collected across Nigeria. **Coca-Cola and PepsiCo were the top polluting parent companies of plastic waste collected.** Other major multinational contributors include ***Nestlé, as well as several local companies: Table Water, La Doo, Barna, Natural Water Ltd., Emerald Food & Beverage Company Ltd., Rite Foods Ltd., and CWAY Group.***

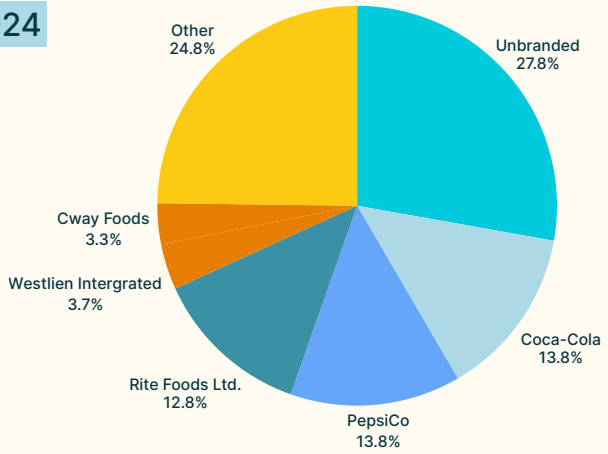
Photo Credit: Lekeh Development Foundation

These findings highlight the urgent need for these companies to take responsibility for the environmental impact of the product and the need to hold them accountable for the amount of plastic waste they generate. It is crucial for these companies to implement sustainable practices and invest in systemic solutions to reduce their plastic waste footprint. Furthermore, collaborating with recycling facilities, integrating waste pickers, and supporting legislation that addresses the full lifecycle of plastics are key steps towards a more sustainable future.

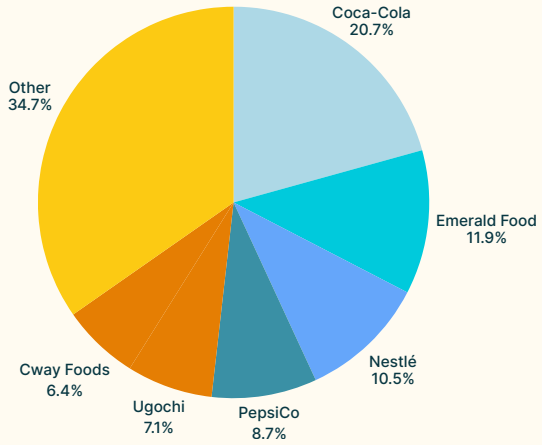
It is time consumer goods companies accept responsibility for the harm their business models cause. To take accountability and to provide solutions, companies must:

1. **Reveal** their plastic use by providing public data on the type and quantity of packaging used in different markets, and the chemicals in that packaging.
2. **End support for false solutions** such as burning plastic and chemical recycling.
3. **Redesign business models** away from single-use packaging of any type - including novel materials such as bio-based or compostable plastics.
4. **Invest in accessible, affordable reuse, refill or packaging-free product delivery systems** in all markets, while ensuring a just transition for all relevant workers.

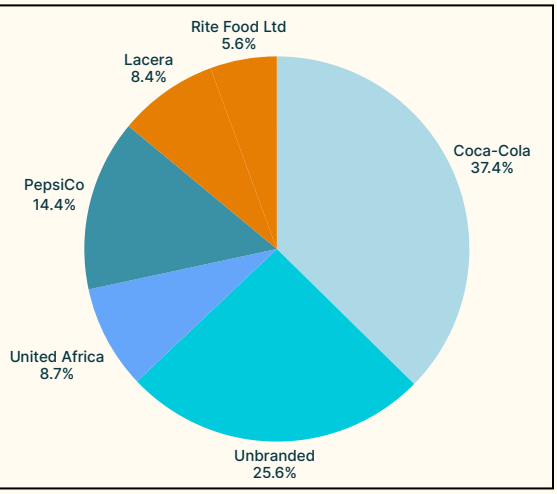
2024



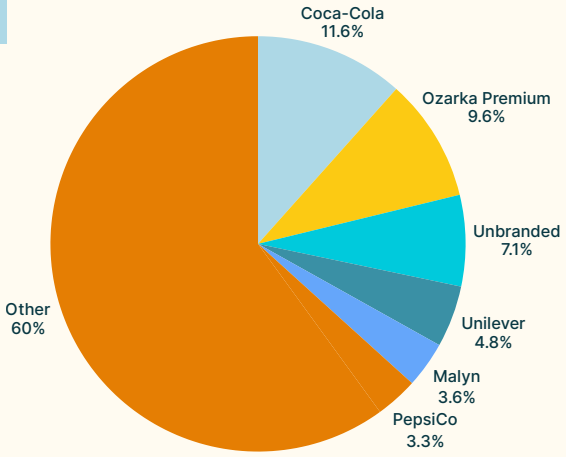
2023



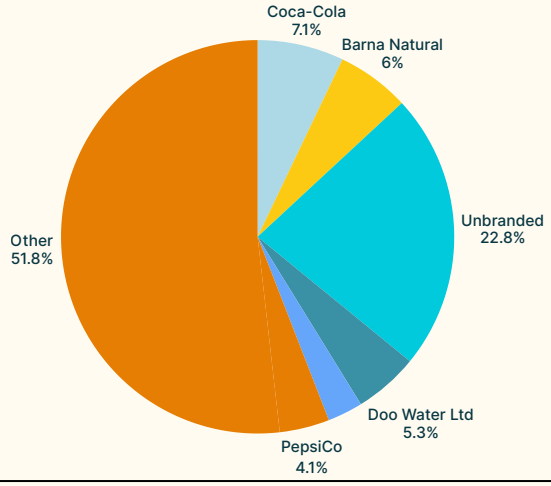
2022



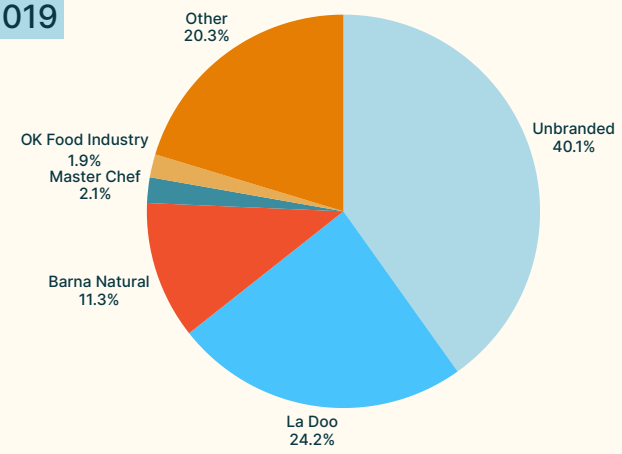
2021



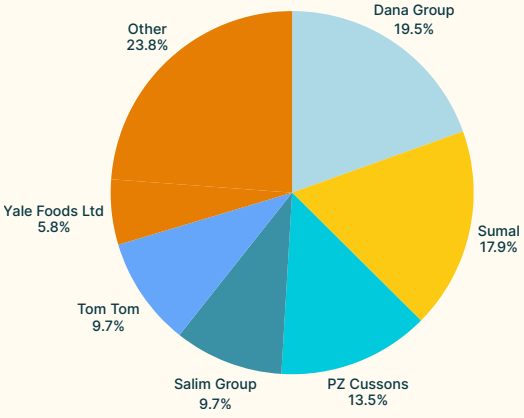
2020



2019



2018



4. Call to Action and Recommendations

Recent policy developments demonstrate Nigeria's commitment to addressing the plastic pollution crisis. The federal government announced a nationwide phase-ban on single-use plastics (SUPs) that commenced in January 2025, aiming to tackle the over 2.5 million tonnes of plastic waste generated annually. Lagos State has already implemented a SUP ban, targeting items such as straws, cutlery, and water sachets (AfricaNews, 2024). Despite these strides, enforcement and public awareness remain critical challenges, necessitating stronger efforts to ensure the effectiveness of these bans.

Furthermore, alarming studies, such as the discovery of severe microplastic contamination in the Osun River, underscore the need for robust waste management strategies. Nigeria's active participation in regional and global dialogues such as the Global Plastics Treaty further underscores its commitment to combating plastic pollution while creating opportunities for improvement.

To address the pressing issue of plastic pollution in Nigeria, particularly as highlighted by the GAIA/BFFP Nigerian members' brand audit data collected between 2018 and 2024, we propose the following recommendations targeting key stakeholders:

1. Government and Policymakers

- **Enhance robust policy to address plastic production and its impacts:** The Global Plastics Treaty represents the strongest opportunity to address the root cause of the plastic pollution crisis and lead to a significant reduction in plastic production and the extraction of fossil fuels. The government of Nigeria is strongly recommended to support the inclusion of binding global and national production phasedown targets compatible with just levels for planetary boundaries, starting with a 1.5-degree global warming threshold as a climate boundary, and the human right to health, with target values and phasedown schedules for plastic production. Comply with binding national targets as essential to avoid a global target for which no party is responsible, and a failure modelled on the Paris Agreement. It is also in their best interest to mandate the end of plastic production subsidies, including direct (e.g., tax credits, loans) and indirect subsidies (e.g., subsidised energy, water, and land use).
- **Implement and Enforce the SUP Ban:** Nigeria's commitment to banning single-use plastics (SUP), as exemplified by initiatives in Lagos State, must be backed by clear enforcement mechanisms. Strengthen efforts to monitor and evaluate the effectiveness of these bans while addressing gaps such as limited public awareness and a lack of affordable delivery systems.
- **Introduce Extended Producer Responsibility (EPR):** Strengthening Standards and Guidelines for EPR that is mandatory, integrates waste pickers and other waste workers and respects the waste hierarchy by prioritising reuse over recycling and enforces policies requiring manufacturers and importers to take responsibility for the lifecycle of their plastic products, including post-consumer waste.
- **Strengthen Waste Management Infrastructure:** Allocate funds to upgrade waste collection, sorting, and recycling facilities nationwide, ensuring equitable access to these services in both urban and rural areas.
- **Establish Regulatory Incentives:** Provide tax breaks or subsidies to businesses that adopt sustainable practices, such as reuse, refill, or packaging-free product delivery systems, and closed-loop systems.
- **Promote Regional Collaboration:** Work with the Economic Community of West African States (ECOWAS) and neighbouring countries to harmonise plastic waste policies and tackle transboundary waste challenges.

2. Corporate Sector

- **Adopt Sustainable Packaging:** Transition to reuse and refill delivery systems, or toxic-free recyclable materials in product packaging, with a timeline for eliminating non-recyclable and toxic plastics.
- **Transparency in Plastic Use:** Publicly disclose annual plastic usage and set reduction targets aligned with global sustainability standards.
- **Support Community Recycling Initiatives:** Partner with local waste pickers and recycling cooperatives to establish a true circular economy (GAIA, 2023a).
- **Innovate for Impact:** Invest in Research and Development (R&D) for alternative materials and sustainable product designs to reduce plastic dependency.

3. Civil Society and NGOs

- **Advocate for Stronger Policies:** Demand more stringent laws on plastic production and monitor their effective implementation.
- **Community Engagement:** Conduct awareness campaigns to educate citizens on the environmental and health impacts of plastic pollution.
- **Empower Informal Waste Workers:** Provide training, equipment, and fair compensation to informal waste workers, recognising their vital role in waste management.
- **Promote Citizen Science:** Involve local communities in brand audits and data collection to hold corporations accountable for their plastic waste.

4. Academia and Research Institutions

- **Research Sustainable Alternatives:** Prioritise studies on locally sourced materials to replace plastics.
- **Data-Driven Decision-Making:** Collaborate with policymakers and NGOs to analyse plastic pollution trends and recommend evidence-based interventions.
- **Capacity Building:** Offer training programs on waste management and circular economy principles for stakeholders at all levels.

5. Public Engagement

- **Adopt Responsible Consumption Habits:** Encourage individuals to reduce plastic use by opting for reusable bags, bottles, and containers.
- **Participate in Cleanups:** Mobilise communities for regular clean-up activities to remove plastics from the environment.
- **Report and Advocate:** Use digital platforms to highlight pollution hotspots and advocate for immediate action by authorities.

6. Targeted Actions Based on Audit Findings

- **Focus on Key Polluting Parent Companies:** Engage Coca-Cola, PepsiCo, and Rite Foods Limited in dialogues to reduce their plastic footprints, especially in bottle-related items.
- **Address Unbranded Waste:** Implement stricter controls on the production and disposal of unbranded plastics and mandatory labelling, while improving waste audit processes to identify sources.
- **Tackle Sachet Waste:** Develop policies to phase out single-use sachets and promote alternatives such as refillable containers.

By addressing these areas, Nigeria can make significant strides in reducing plastic pollution, safeguarding its ecosystems, and achieving its sustainability goals. Recognising ongoing efforts, such as the Lagos State SUP ban, underscores the need for enhanced enforcement, public-private partnerships, and continuous improvement to ensure meaningful, measurable, and sustained impacts.

5. Conclusion

Over the course of six years, the Nigerian Brand Audit has painted a clear and urgent picture of the country's mounting plastic crisis. With over 298,000 pieces of plastic waste collected from eight cities across seven states, the findings speak volumes to a nationwide challenge driven by the unchecked plastic production and burden of avoidable & problematic single-use plastics—particularly sachets and plastic bottles. These items continue to flood Nigeria's communities, clog waterways, and threaten human and environmental health, with little to no accountability from the major corporate producers responsible for much of this waste.

This report would not have been possible without the remarkable dedication of the GAIA/BFFP Africa members in Nigeria. Their hard work—collecting waste data under often difficult conditions, engaging local communities, and documenting the reality of plastic pollution—has been nothing short of inspiring. Their grassroots leadership and unwavering commitment to environmental and social justice offer not only critical insight but a powerful example of what people-powered solutions look like in action.

Looking ahead, there is a pivotal opportunity on the horizon. The ongoing negotiations towards the world's first Plastics Treaty marks a crucial moment for the global community to deliver a strong, legally binding, and ambitious treaty to end plastic pollution across its entire life cycle—from extraction to disposal. For Nigeria and the rest of the world, this is a chance to push for real systems change that prioritises people, health, and the planet over corporate profits and examines options to scale and increase the adoption of reuse systems that reduce reliance on single-use packaging and other items (Northen et al., 2023). It is essential that this treaty includes binding targets for reducing plastic production, financial support for a just transition, and a rejection of false solutions such as incineration and chemical recycling. The path to a zero-waste, climate-safe future is still within reach—but only if governments, corporations, and civil society act decisively. With data in hand and movements on the ground leading the charge, Nigeria is well-positioned to be a powerful voice in the global call for justice and accountability in the plastics crisis.

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