

POLICY BRIEF (INPUT PAPER)

# Policies, Institutional Set-up and Financing of Marine Litter Prevention in Nigeria

2026



Project:



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# Abbreviations and Acronyms

<b>ARBR</b>	Alliance for Responsible Battery Recycling
<b>BBNJ</b>	Biodiversity Beyond National Jurisdiction
<b>CRSEP</b>	Cross River State Environmental Protection Agency
<b>CRSWMA</b>	Cross River State Waste Management Agency
<b>EPR</b>	Extended Producer Responsibility
<b>EPS</b>	Expanded Polystyrene
<b>EPRON</b>	E-Waste Producer Responsibility Organization Nigeria
<b>FCT</b>	Federal Capital Territory
<b>FCDO</b>	Foreign, Commonwealth & Development Office (UK)
<b>FME<sub>env</sub></b>	Federal Ministry of Environment
<b>FMITI</b>	Federal Ministry of Industry, Trade and Investment
<b>GCF</b>	Green Climate Fund
<b>GEF</b>	Global Environment Facility
<b>GDP</b>	Gross Domestic Product
<b>GPA</b>	Global Programme of Action for the Protection of the Marine Environment from Land-based Activities
<b>GPML</b>	Global Partnership on Marine Litter
<b>IMO</b>	International Maritime Organization
<b>LASEPA</b>	Lagos State Environmental Protection Agency
<b>LASWA</b>	Lagos State Waterways Authority
<b>LAWMA</b>	Lagos State Waste Management Authority
<b>LSMOEWR</b>	Lagos State Ministry of Environment and Water Resources
<b>MARPOL</b>	International Convention for the Prevention of Pollution from Ships
<b>NCS</b>	Nigeria Customs Service
<b>NESREA</b>	National Environmental Standards and Regulations Enforcement Agency
<b>NGO</b>	Non-governmental Organization
<b>NIMASA</b>	Nigerian Maritime Administration and Safety Agency
<b>NIOMR</b>	Nigerian Institute for Oceanography and Marine Research
<b>NIPC</b>	Nigerian Investment Promotion Commission
<b>NIWA</b>	National Inland Waterways Authority
<b>NPAP</b>	National Plastic Action Partnership
<b>NPO</b>	Nonprofit Organization

PPE	Personal Protective Equipment
PRO	Producer Responsibility Organizations
SDG	Sustainable Development Goal
SON	Standard Organization of Nigeria
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
WACA	West Africa Coastal Areas Management Program
WREI	Women Recyclers Empowerment Initiative

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# 1. Executive Summary

This policy brief examines Nigeria's marine litter governance framework, highlighting critical gaps between policy ambition and implementation. It was developed under the Prevention of Marine Litter in the Gulf of Guinea (PROTEGO) project through stakeholder consultations, field interviews and secondary research in Lagos and Cross River States, two of Nigeria's focal points, and was validated by the Federal Ministry of Environment. This brief systematically maps current legislative, institutional, financial and capacity weaknesses that hinder effective management of marine plastic pollution.

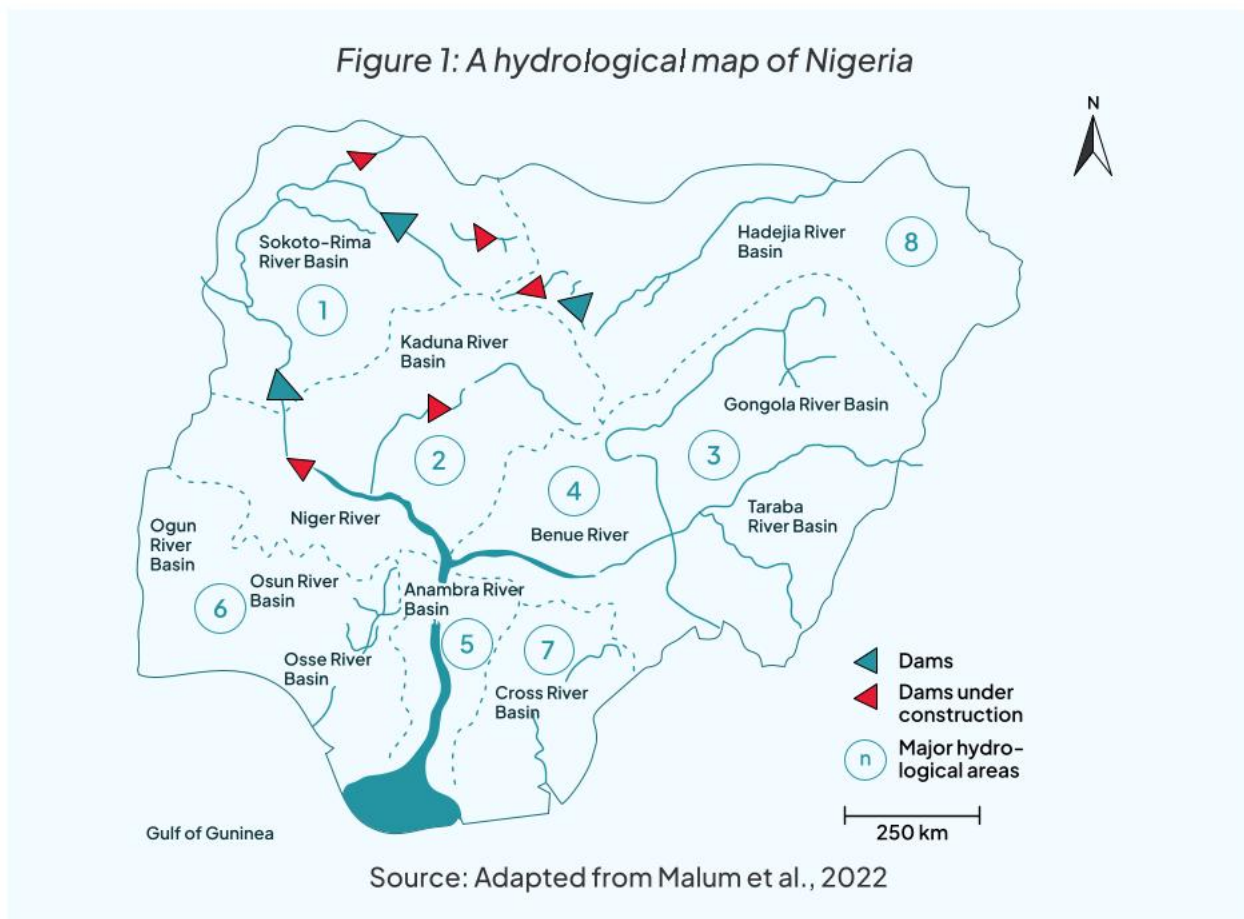
Nigeria, Africa's most populous nation with approximately 228 million people, faces a severe marine plastic crisis, with over 12 million tons of plastic waste generated annually, most of which remains uncollected, entering rivers, coastal waters and ecosystems that millions of Nigerians rely on for livelihoods, food security and economic activity. Fisheries, agriculture, and coastal tourism, which together contribute significantly to the National Gross Domestic Product (GDP), are under direct threat, while public health and biodiversity face increasing risks. Despite international commitments such as the MARPOL and the Basel Convention, along with national policy instruments like the 2020 National Policy on Plastic Waste Management and the 2023 National Action Plan on Marine Plastic Litter, weak enforcement, fragmented institutional mandates and underfunded operational capacity have limited the effectiveness of existing frameworks.

To address these gaps, the brief presents a sequenced, evidence-based set of recommendations designed to inform a review and strengthening of the existing policy framework to move Nigeria's marine-litter governance from reactive and fragmented to proactive, integrated and sustainable.



## 2. Background

Nigeria, located in West Africa, is the most populous country in Africa, home to about 228 million people (World Bank Group, 2025) from diverse cultural and religious backgrounds. It has approximately 853 km of Atlantic coastline on the Gulf of Guinea and diverse ecosystems, including coastal areas, rivers and lakes, which are critical to biodiversity and local livelihoods (WACA, 2016). The country's vast landmass of 923,768 square kilometers contains about 10,000 kilometers of inland waterways, which include prominently the Niger River, one of Africa's longest rivers, and the Benue River, flowing from the north-west and the north-east, respectively and merging into a confluence in the north-central before emptying into the Gulf of Guinea.



Widespread environmental degradation resulting from rapid population growth, industrialization, urbanization and weak waste management systems, particularly around the coastal states in the southern region, makes Nigeria susceptible to marine pollution. Hence, the country ranks among the top ten countries for marine pollution globally (Kodiya et al., 2025).

The country is one of Africa's largest crude oil exporters and its economy is primarily reliant on crude oil, which accounts for around 80% of export revenues (National Bureau of Statistics, 2024), between 5% and 7% of GDP (Aderounmu, Z., 2024) and more than 90% of government revenue (Abdulwakil et al., 2024). Agriculture (including fisheries) accounts for about 28% of GDP and, along with tourism, also plays important roles, making the health of the marine and coastal habitats critical for long-term economic growth and development. Despite a multiplicity of environmental policies, regulations and legislations at Federal, State/FCT, and Local Government Council levels (including Area Councils), environmental pollution remains prevalent due to poor waste management infrastructure, low public awareness and insufficient enforcement of existing regulations.

## Existing Challenges Regarding Marine Litter

Marine litter represents an acute environmental crisis across Nigeria's 853-kilometer coastline and extensive inland waterway network. The crisis is driven by converging pressures, rapid coastal urbanization, inadequate waste collection infrastructure, and surging consumption of single-use plastics (SUPs). Of the 12.9 million tons of plastic waste generated annually, 76% remains uncollected, with the majority entering marine environments through land-based leakage pathways, rivers, drains and coastal runoff (NPAP, 2024). Lagos State in the South-West and Cross River State in the South-South geopolitical zones, both focal points of the PROTEGO intervention, are coastal states with high quantities of marine debris. The key challenges to marine litter prevention in Nigeria are discussed below:



### **Inadequate Waste Management Infrastructure**

Nigeria faces significant challenges with waste management, particularly in urban areas. The waste collection and disposal systems are often inadequate and inefficient, leading to litter accumulating on streets and in waterways, which ultimately harms marine environments. A common practice among Nigerian households is the use of plastic bags for storing waste. Unfortunately, in the absence of effective waste collection services, these bags are frequently

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Area Councils are local administrative units in Abuja (Federal Capital Territory), similar to Local Government Areas or Councils in the States. The terms "State" and "Local Government", as used subsequently in this paper, include the FCT and the Area Councils, respectively

dumped in inappropriate places such as water bodies or drainage channels (Dumbili & Henderson, 2020), significantly contributing to marine litter. For example, in Lagos, the Lagos Waste Management Authority (LAWMA) reported that the city generates 13,000 metric tons of waste daily (Premium Times, 2025). This volume far exceeds the capacity of the state's waste management infrastructure, exacerbating the issue of improper disposal and highlighting the urgent need for improved waste management solutions.



### **High Plastic Consumption and Poor Disposal Practices**

Nigeria's dependence on SUPs for industrial packaging, such as sachet water bags and PET bottles, as well as for food wraps by street vendors, restaurants and households, contributes to the high volumes of plastic consumption and littering.



### **Urbanization and Population Pressure**

Rapid urbanization, alongside strong population growth, has significantly increased waste generation and exacerbated the challenges of waste management in many parts of Nigeria. The World Bank estimates that around 55% of Nigeria's population now lives in urban areas, reflecting a steady rise in urbanization over recent decades (World Bank, 2024). According to World Population Review, several Nigerian cities, including Lagos, Kano, Ibadan, Abuja, Port Harcourt, Kaduna and Benin City, each have populations above 1 million, with Lagos alone estimated at over 17 million inhabitants in 2025 (World Population Review, 2025). This rapid urban expansion has overwhelmed already fragile waste management systems that historically struggle with ageing infrastructure, limited technical capacity and constrained financing, especially in rapidly growing peri-urban and informal settlements.



### **Limited Public Awareness and Engagement**

The public is largely unaware of how marine litter impacts health, ecosystems and livelihoods. Educational initiatives are needed to engage communities in litter prevention and promote environmental stewardship. Even where there is knowledge and motivation around marine litter prevention, the supporting infrastructure, such as waste bins and effective sorting and collection systems, is often missing, thus frustrating the efforts by citizens to practice responsible waste management. This results in household waste being dumped on roadsides, drainage channels and water bodies, from where a significant portion eventually leaks into the ocean.



## Weak Enforcement of Environmental Regulations

Nigeria has laws to combat environmental pollution, but weak enforcement due to limited infrastructure and resources, low morale and lack of political will undermines efforts to manage marine litter and protect coastal ecosystems (World Bank, 2024). Although reception facilities exist within Nigerian ports, questions remain about their adequacy and operational effectiveness in ports such as Calabar, particularly regarding compliance with MARPOL Annex V requirements.

Additionally, overlapping mandates among institutions, for example, FMEnv and NIMASA, along with poor coordination among various ministries and agencies, hinder the effective implementation of marine litter initiatives. There is also a need for improved cooperation among waste management regulators, who often operate in parallel (World Bank 2024).



## Climate Change and Environmental Degradation

Climate change exacerbates the issue of marine litter through increased flooding and erosion, which can wash litter into marine environments. Stormwater runoff mobilizes historical plastic waste from dumpsites into major rivers like the Niger and the Cross River (UNEP, 2025a). The degradation of coastal ecosystems further diminishes their ability to filter and manage waste.



## 2. Policies, Important Actors and Initiatives

In this chapter, existing policies, regulatory frameworks and important stakeholders engaged in addressing marine plastic pollution in Nigeria are presented.

### 3.1 International Policies

On a global level, Nigeria participates in several conventions addressing marine pollution:

*Table 1: International Conventions adopted by Nigeria*

Convention	Year Ratified	Lead Agency	Key Marine Litter Provision	Implementation Status
Abidjan Convention	1984	FMEEnv	West/Central Africa marine cooperation	● Regional coordination
UNCLOS	1986	NIMASA	Maritime activities legal framework	● Active
Basel Convention	1991	FMEEnv	Transboundary plastic waste control	● Active
London Protocol	1996	NIMASA/ NIWA	Inland waterways pollution prevention	● In progress
MARPOL Annex V	2002	NIMASA	Ship-generated waste regulation	● Partial compliance
Stockholm Convention	2004	FMEEnv	Plastic additives (POPs) control	● Active

The **Abidjan Convention**, formally known as the Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region, was adopted in 1981 and entered into force in 1984 (UNEP, 2025b). It aims to prevent, reduce and combat pollution and promote sustainable management of marine and coastal resources along the Atlantic coast of 22 countries from Mauritania to South Africa by implementing legally binding protocols, supporting the development of regional action plans and capacity-building initiatives and encouraging cooperation with international organizations. Nigeria is one of the key signatories (OSPAR Convention, 2011; International Waters Governance, 2008). ructure, low public awareness and insufficient enforcement of existing regulations.

The **United Nations Convention on the Law of the Sea (UNCLOS)** provides the fundamental legal framework for all maritime activities and for governing the use of marine resources worldwide. Nigeria ratified it on 14th of August 1986 (UN, 2025). As a coastal West African state with significant maritime interests, Nigeria has implemented various aspects of UNCLOS through domestic legislation, particularly through the Nigerian Maritime Administration and Safety Agency (NIMASA), which was established in 2006 through the merger of the National Maritime Authority and Joint Maritime Labour Industrial Council (NIMASA, 2025). NIMASA serves as the apex regulatory and promotional maritime agency responsible for implementing domesticated International Maritime Organization (IMO) conventions and enforcing maritime safety, security and environmental protection in Nigerian waters (NIMASA, 2025; Nigerian Chamber of Shipping, 2025).

The Agreement under the United Nations Convention on the Law of the Sea, known as the **Biodiversity Beyond National Jurisdiction (BBNJ) Agreement**, was adopted on June 19, 2023, and will enter into force on January 17, 2026 (UN, 2025). As the third implementing agreement to UNCLOS, it provides a framework for conserving marine biodiversity in areas beyond national jurisdiction, addressing marine genetic resources, management tools like marine protected areas, and environmental impact assessments. The BBNJ Agreement also specifically targets marine pollution, including plastics, which threaten ocean biodiversity. Nigeria signed the agreement on May 3, 2024, but has yet to ratify it. Ratification would strengthen Nigeria's role in international ocean governance and support PROTEGO initiatives linking marine litter prevention to global biodiversity efforts.

**Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal:** Nigeria ratified the Basel Convention on the 13th of March, 1991, and it entered into force on the 5th of May, 1992 (Basel Convention, 2025a). At the Conference of the Parties (COP) - 14 in 2019, the Basel Convention adopted amendments to three annexes, namely Annexes II, VIII, and IX, that strengthen controls on transboundary movements of plastic waste and clarify how the Convention applies to these materials. These amendments make the Basel Convention the only global legally binding

instrument specifically addressing plastic waste. Nigeria has approved the Plastic Waste Amendments to the Basel Convention, which entered into force in May 2021. The Pollution Control and Environmental Health Department of the Federal Ministry of Environment serves as the focal point for Basel Convention implementation (Basel Convention, 2025b).

The **London Protocol**, which entered into force in 2006, was designed to modernize and eventually replace the London Convention of 1972 (formally known as the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter) with a more precautionary approach to marine pollution prevention. The Convention is one of the world's first international agreements protecting oceans from human pollution that has been in effect since 1975 (IMO, 2025). Nigeria is a party to the 1972 London Convention and ratified it on the 19th of March, 1976 and has also ratified the 1996 London Protocol (United Nations, 1977). Recently, the country has been working to implement the London Protocol specifically for its inland waterways (The Guardian, 2024).

The **International Convention for the Prevention of Pollution from Ships (MARPOL)** is the most important international Convention focusing on reducing all types of marine pollution from ships. MARPOL Annex V is a critical component of the Convention for the Prevention of Pollution from Ships that entered into force in 1988 and was strengthened in 2013 with a complete ban on waste disposal at sea (Serra-Gonçalves et al., 2023). Nigeria ratified all six annexes of the Convention (Afolabi, 2015) in May 2002, including Annex V, which specifically addresses garbage from ships and includes regulations on plastic waste disposal at sea. Its provisions have been domesticated through the Merchant Shipping Act 2007 ("MSA") and the Merchant Shipping (Ship Generated Marine Waste Reception Facilities) Regulations 2012 ("2012 Regulations") (Anammah, R. et al., 2023). NIMASA serves as the implementing agency for MARPOL.

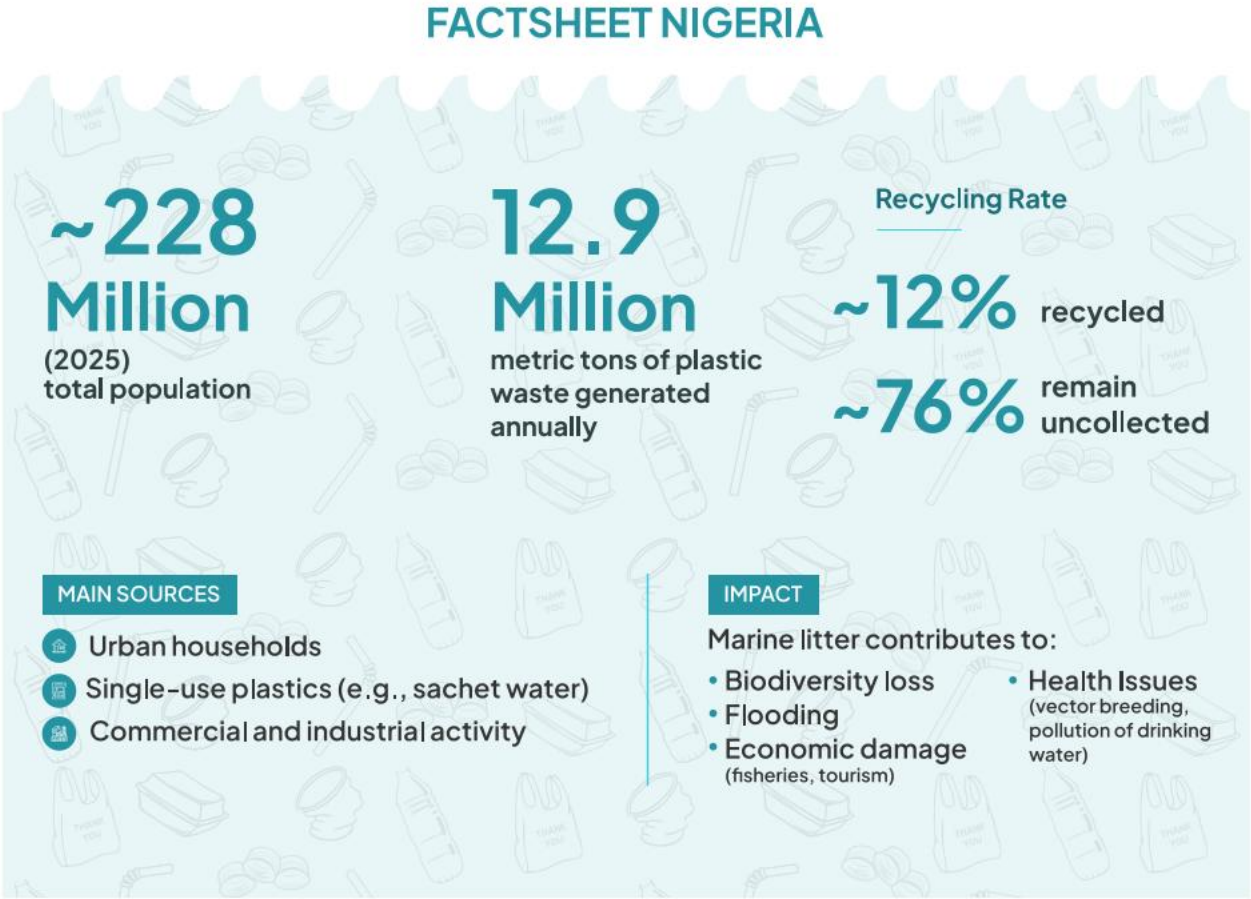
The **Stockholm Convention** focuses on eliminating or reducing persistent organic pollutants (POPs), which has recently expanded to include plastic additives, with two plastic-related chemicals (the flame retardant dechlorane plus and the ultraviolet stabilizer UV-328) added to the controlled substances list. Nigeria signed the Stockholm Convention on the 23rd of May, 2001 and ratified it on the 24th of May, 2004. The country has developed a National Implementation Plan (NIP) that addresses persistent organic pollutants, including those found in plastic products (Stockholm Convention, 2025a). The Pollution Control and Environmental Health Department of the Federal Ministry of Environment serves as the focal point for the Stockholm Convention implementation (Stockholm Convention, 2025b).

The **Global Plastic Action Partnership (GPAP)**, launched in September 2018, is an ambitious initiative created by public and private partners through the World Economic Forum to transform plastic pollution commitments into actionable solutions, accelerating the global response to the escalating plastic pollution crisis (GPAP, 2018).

Nigeria joined the partnership in 2021. Through the Nigeria National Plastic Action Partnership (Nigeria NPAP), launched in May 2023 (GPAP, 2021), the government is working collaboratively with businesses, civil society organizations and international partners to implement sustainable solutions for plastic waste management, in line with the Action Roadmap for the Sustainable Use of Plastics in Nigeria, launched by the Nigeria NPAP in October 2024. The partnership focuses on developing a circular economy for plastics, which could create jobs, stimulate economic growth and promote environmental sustainability (Okoh, K., 2023).

**Global Partnership on Plastic Pollution and Marine Litter (GPML):** Nigeria engages with the GPML as part of its broader efforts to address plastic pollution challenges. GPML, a multi-stakeholder initiative, was launched at the United Nations Conference on Sustainable Development in 2012. The GPML brings together governments, intergovernmental organizations, regional bodies, the private sector, civil society and academic institutions to address the growing challenge of marine litter and plastic pollution (GPML, 2012). Through this engagement, Nigeria gains access to the GPML's knowledge-sharing platforms, technical resources and international expertise that can strengthen the national capacity for monitoring and managing plastic pollution.

Figure 2: Fact Sheet on Plastic Pollution and Marine Litter in Nigeria



## EXISTING CHALLENGES



### Inadequate waste infrastructure

(e.g., LAWMA collects only a fraction of daily 13,000 tons in Lagos)



### High plastic consumption and poor disposal practices



### Overlapping mandates between agencies

(e.g., FMEnv, NESREA, NIMASA)



### Underfunded and understaffed institutions



### Limited public awareness and engagement



### Weak enforcement of environmental regulations



### Climate impacts

(e.g., floods mobilize plastic waste into oceans)



### No ban on single-use plastics

(e.g., sachet water)

## POLICIES

### NATIONAL

- **Environment Policy (1989/2016):** Pollution control, legal tools
- **Plastic Waste Policy (2020):** Focus on recycling, not source reduction
- **Solid Waste Policy (2020):** Lacks emphasis on biodegradability
- **Marine Litter Action Plan (2023):** Sea-based waste only
- **EPR (2014):** Limited, voluntary, 3 sectors
- **EIA Act:** Includes biodiversity impact assessments

### INTERNATIONAL

- **MARPOL Annex V, Basel, Stockholm, UNCLOS, London Protocol**
- **Abidjan Convention (regional cooperation)**

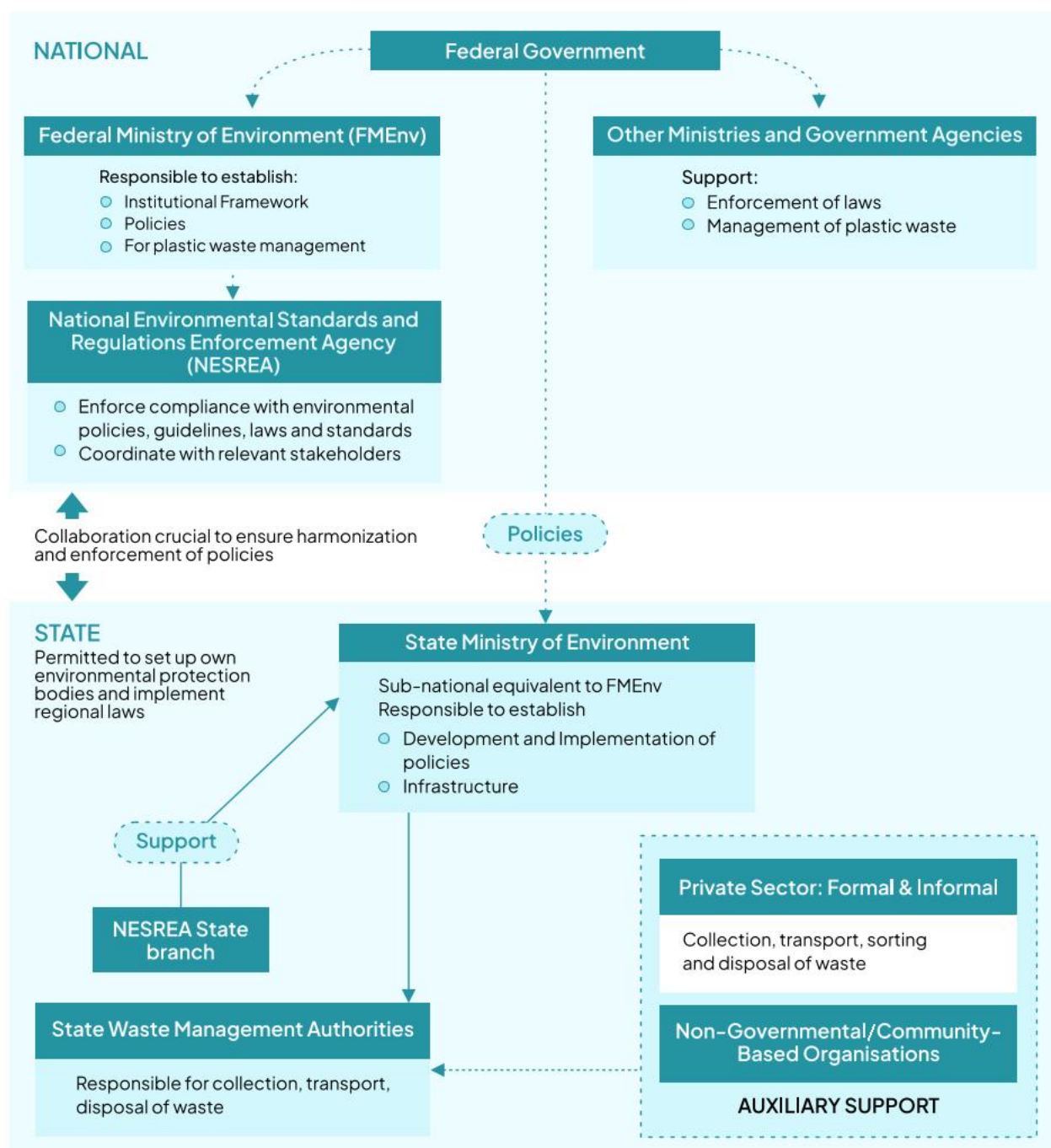
## CURRENT INITIATIVES

- **National: NPAP roadmap (2024);** circular plastics economy
- **Public-Private:** FBRA, REDIN, Wecyclers, PPPs in Lagos
- **States:**
  - **Lagos:** Cleaner Lagos, buy-back centers, Eco Circulate
  - **Cross River:** "Keep CRS Clean", green jobs pilot
- **NGOs:** NCF, Lekan Bakare, beach cleanups, Bottle for Books, WREI
- **Recycling:** Rapid PET recycling growth (e.g., Alef, Nestlé), community buy-in campaigns

## 3.2 National Policies and Actors

Nigeria, as a federal state, has a system where responsibilities are shared among the national (federal), state and local governments. The federal government establishes broad policies and frameworks, while state and local governments have significant autonomy in implementing and managing key sectors, including waste management. This division of duties creates a complex relationship between national policy and local implementation, necessitating effective coordination to tackle urgent environmental challenges.

Figure 3: Organogram of the Nigeria Waste Management System



(Source: Adapted from Study on Plastics Value Chain in Nigeria, UNIDO, 2021)

### 3.2.1 Federal-level Actors and Policies

In the following chapter, the main ministries and governmental authorities responsible for waste management on a federal level are described in more detail.

Table 2: Federal-level Actors in Nigeria

Agency	Primary Role	Marine Litter Functions	Key Challenges	Budget Allocation 2025
<b>Federal Ministry of Environment (FMEnv)</b>	Environmental policy development	National policy framework, international conventions, focal point	Limited enforcement capacity, coordination with states	Proposed national budget
<b>National Environmental Standards and Regulations Enforcement Agency (NESREA)</b>	Environmental regulations enforcement	EPR implementation, waste management compliance monitoring	Resource constraints, overlapping mandates with FMEnv	Part of FMEnv budget
<b>Nigerian Maritime Administration and Safety Agency (NIMASA)</b>	Maritime Safety Administration	Ship waste compliance, port reception facilities, MARPOL enforcement	Monitoring gaps, insufficient port infrastructure	Annual maritime budget
<b>National Inland Waterways Authority (NIWA)</b>	Inland waterways management	River pollution control, London Protocol implementation	Funding shortages, vast waterways coverage	Limited funding
<b>Nigerian Ports Authority (NPA)</b>	Port operations and management	Port waste management, MARPOL compliance in ports	Infrastructure gaps in smaller ports	Port revenue dependent

The **Federal Ministry of Environment (FMEnv)** is the primary institution responsible for developing and executing environmental policies in Nigeria, including programs aimed at reducing marine litter. Key set-ups and initiatives include:

- **Pollution Control and Environmental Health Department:** Serves as the focal point for implementing international conventions like the Basel Convention, MARPOL Convention and Stockholm Convention. This department oversees policies related

to hazardous waste management and marine pollution, including plastic waste.

- **National Policy on Plastic Waste Management (2020):** FMEEnv developed this policy to promote recycling, reduce SUPs, and raise public awareness of plastic waste issues.

The **National Environmental Standards and Regulations Enforcement Agency (NESREA)** enforces environmental laws and regulations, including those related to waste management and pollution control. Its role in marine litter prevention includes the implementation of EPR schemes, which hold producers responsible for the end-of-life management of their products and their packaging, as well as monitoring and enforcement activities. NESREA is responsible for conducting inspections to ensure compliance with waste management policies, but faces challenges due to limited resources and overlapping responsibilities and mandates with other state agencies.

**Nigerian Maritime Administration and Safety Agency (NIMASA):** NIMASA regulates maritime transport and ensures compliance with international maritime pollution standards. It coordinates Nigeria's National Action Plan on Marine Plastic Litter and enforces the Merchant Shipping Act (2007) and associated regulations to prevent illegal dumping at sea, reduce sea-based sources of marine plastic litter and encourage recycling activities. Due to Nigeria's vast maritime coverage, gaps remain in monitoring compliance. Key initiatives include the Maritime Action Plan for Marine Litter and Plastic Management (MAP-ML+P). This operational plan complements the International Maritime Organization's MARPOL Annex V by addressing ship-generated waste and strengthening port reception facilities.

**National Inland Waterways Authority (NIWA):** Manages inland waterways and addresses pollution in rivers and lakes and environmental assessment. NIWA's engagement with pollution control is ancillary to its core mandate of regulating inland navigation. The Authority's environmental oversight is restricted to operational necessities, focusing specifically on pollution issues that directly impede the maintenance and safe navigation of Nigeria's inland waterways. Specific efforts include NIWA's collaboration with state agencies to monitor pollution levels in major rivers like the Niger and the Cross River, though funding constraints limit its effectiveness.

The **Nigerian Ports Authority (NPA)** is responsible for maintaining clean ports and regulating waste management in port areas. It works closely with NIMASA to enforce MARPOL Annex V, provisions within its port jurisdictions and oversees all facilities for ship-generated waste management. The NPA faces challenges in ensuring compliance, especially in smaller ports like Calabar, due to limited infrastructure.

The **Federal Ministry of Water Resources** manages water supply, irrigation, freshwater systems and aquaculture while contributing indirectly to marine litter prevention through

Water Quality Monitoring Programs. They oversee efforts to maintain water quality in rivers and lakes that are affected by plastic pollution from upstream sources.

**Federal Ministry of Marine and Blue Economy:** Established in 2023 to ensure the responsible utilization of Nigeria's marine resources, this ministry plays a critical role in addressing marine litter through the Blue Economy Strategy. This strategy promotes sustainable practices in fisheries, aquaculture, marine transport and coastal tourism, while integrating marine litter reduction into its agenda.

The **Nigerian Investment Promotion Commission (NIPC)** is responsible for encouraging, promoting and coordinating investments in Nigeria. In the context of preventing marine litter, the NIPC plays a crucial role by attracting investments in sustainable waste management infrastructure and technologies while promoting investment opportunities in circular economy initiatives. It also coordinates with international investors interested in Nigeria's recycling sector and facilitates public-private partnerships for waste management projects. Furthermore, the NIPC works to create incentives for investments in biodegradable packaging solutions and alternative materials.

The **Federal Ministry of Industry, Trade and Investment (FMITI)** plays a crucial role in fostering industrial development and shaping trade and other policies that promote investment. It can play a vital role in creating trade frameworks that encourage the import and export of environmentally friendly materials. Additionally, FMITI, through its agencies, is responsible for implementing regulations that can mandate manufacturers to incorporate recycled content into their products, facilitating a shift from virgin plastic production to more sustainable alternatives. Furthermore, through the Standards Organization of Nigeria (SON), one of its agencies, the ministry can establish standards for product design focused on minimizing waste generation, thus demonstrating its commitment to a greener and more sustainable industrial landscape. The Ministry's role, along with that of the SON, becomes even more imperative with the current global emphasis on implementing measures upstream to promote sustainable plastics design and production.

## **Federal-level policies**

The **National Policy on Environment** (adopted 1989, reviewed and revised 1999 and 2016) aims to provide a framework for the sustainable management of the country's environment. Waste management, pollution control, climate change adaptation, biodiversity conservation and sustainable use of national resources are among the key areas addressed by this policy paper. Emphasis is placed on principles such as the "polluter pays" and "precautionary principle", while public participation, environmental education and international cooperation are promoted as well. Key tools provided include legal and institutional frameworks, environmental impact assessments and

partnerships with stakeholders. One of the major shortfalls of this policy was the failure to incorporate EPR systems in the 2016 updated version, despite the introduction of EPR operational guidelines in Nigeria in 2014 (Ajani & Kunlere, 2019).

**National Policy on Plastic Waste Management (2020):** It serves as a strong example of a comprehensive framework for addressing plastic waste throughout its entire lifecycle. The main goals of this policy are to improve plastic waste collection and recycling, reduce SUPs as well as other problematic plastics, and increase public awareness about the issues caused by plastic waste. It outlines responsibilities across federal, state and local governments, as well as the private sector and stakeholders in the communities. Alongside strategies to improve public awareness on plastic waste management, as well as capacity building and investment in waste-to-energy technologies, the policy provides technical guidance for waste segregation, collection, transportation, treatment, and disposal.

However, the policy appears to mostly concentrate on waste management and recycling with less emphasis on upstream initiatives to promote sustainable plastics design and production, including plastic alternatives. While Annex 1 of the policy identifies a range of SUPs requiring various control measures or outright bans, no timelines were specified for such actions. Additionally, the policy has had a very limited impact due to the delayed implementation of its enabling instruments. For example, while the Implementation Guidelines on Collection, Diversion, Recycling and Single-Use Plastics for National Policy on Plastic Waste Management were officially launched in 2024, the enabling regulation – the National Environmental (Plastic Waste Control) Regulations – which was developed in 2023/2024, has been awaiting gazetting and implementation.

The **Nigeria National Action Plan on Marine Plastic Litter (2023)** addresses only sea-based sources of marine plastic litter. It outlines strategies for the prevention of plastic waste entering waterways and the ocean, to enhance the waste management infrastructure, especially in ports, and promotes alternatives to SUPs. Its key instruments include public awareness campaigns, stakeholder engagement, and policy reforms. Gaps remain in the policy itself as well as its enhancement mechanisms, which are critical for achieving a significant reduction in marine plastic pollution. Amongst other gaps, it does not sufficiently incentivize the development and adoption of sustainable packaging alternatives.

**Maritime Action Plan for Marine Litter and Plastic (MAP-ML+P) Management by NIMASA:** This operationalizes and complements the International Maritime Organization Action Plan by providing a national roadmap to tackle issues of waste from shipping-related activities, identify specific actions that need to be taken by different bodies, and strengthen collaborations (NIMASA, 2019). However, awareness of this document among stakeholders interviewed for this report was limited, and it does not appear to be

meaningful for cross-sectoral collaboration towards its implementation, based on field interviews conducted in Lagos and Calabar.

The **Nigerian Environmental Impact Assessment (EIA) Act** aims to ensure that potential impacts on the environment, biodiversity, and human health of proposed projects are identified and mitigated before their implementation. Its primary objectives are promoting sustainable development, protecting the environment, and ensuring public participation in decision-making processes. Key instruments include environmental impact statements, stakeholder consultations and monitoring guidelines for monitoring. By integrating environmental considerations into development planning, the EIA Act serves as a critical tool for safeguarding Nigeria's ecosystems, including marine environments, from harmful activities.

**Extended Producer Responsibility (EPR):** Starting with the release of the guidelines for implementation of EPR in 2014, Nigeria has established an EPR framework that mandates producers in three sectors (packaging, electronics and batteries) to take responsibility for the entire lifecycle of their products, including plastic packaging. Amongst others, this mechanism is designed to reduce virgin plastic use and increase circular economy implementation. However, the EPR guidelines introduced since 2014 have had limited impact, as they target only 3 sectors under what was intended as the pilot phase, and have remained voluntary with low overall compliance rates. While sector-specific Producer Responsibility Organizations (PROs) exist for electronics, batteries and packaging, stakeholder interviews revealed persistent issues with enforcement, transparency in producer reporting, and limited awareness among obligated parties, particularly among the more diffuse actors in the packaging sector. The updated EPR guidelines, which are expected to target more sectors and make compliance mandatory, have been in the works since 2022.

### 3.2.2 State-level Policies and Actors

Each state has the mandate to develop and implement its own environmental laws and policies. The following highlights the different state-level implementations.

#### Lagos State: Key Actors

**Lagos State Ministry of Environment and Water Resources (LSMOEWR):** Established to promote environmental sustainability in Lagos State, the ministry develops environmental policies, sets regulatory standards, and oversees drainage, waste management, and water resource agencies (LSMOEWRa, 2025). In July 2025, Lagos State commenced statewide enforcement of a comprehensive ban on SUPs, after an 18-month transition period announced in January 2024 (LSMOEWRb, 2025). The ban followed the prohibition of food packaging with styrofoam, which came into effect in 2024 and has reportedly achieved approximately 70% compliance through

engagement with the Food and Beverages Recyclers Alliance (FBRA) (LSMOEWRb, 2025).

**Lagos State Waste Management Authority (LAWMA):** This is the primary waste management agency that is pivotal in coordinating waste collection and disposal. Its initiatives like the "Cleaner Lagos Initiative" focus on improving waste services and promoting recycling (Franco-Garcia & Oyediran, 2019). However, field interviews conducted for this study revealed a persistent gap between policy intent and operational outcomes: while LAWMA operates across central commercial areas, waste pollution remains high in semi-urban neighborhoods and informal settlements, where irregular collection schedules and limited service coverage allow plastic and other waste to accumulate in drains, canals and lagoons. The interview also raised concerns about improper waste segregation during evacuation, noting that waste already sorted at the household level is sometimes co-mingled in the same collection trucks, undermining the purpose of source segregation.

**Lagos State Environmental Protection Agency (LASEPA):** The agency plays a crucial role in preventing marine litter in the state by enforcing environmental regulations, conducting monitoring and studies, and promoting awareness of sustainable practices (LASEPA, 2025). Some stakeholders interviewed for this study noted that LASEPA has the technical mandate to monitor pollution in general, but marine litter monitoring is fragmented and under-resourced. Also, plastic-specific indicators are not integrated into routine environmental assessments, and data sharing with LAWMA and LASWA is weak.

**Lagos State Waterways Authority (LASWA):** LASWA was established in 2008 to regulate, develop and manage water transportation and navigation on Lagos State's inland waterways, with responsibilities including ferry operations, safety enforcement, and waterway maintenance. Marine-litter density in the state is still high, particularly around informal settlements like Makoko and major slums like Ajegunle and other underserved waterfront communities, despite monthly or periodic clean-ups and increased partnerships with LAWMA's Marine Unit and civil society organizations (Franco-Garcia & Oyediran, 2019). Key limitations identified in interviews with LASWA employees and partners included jurisdictional overlaps with federal agencies, inadequate patrol and waste collection facilities, and restricted use of systematically analyzed monitoring data.

## **Policies in Lagos State**

Lagos State, as Nigeria's most populous and economically significant state, faces a critical challenge with marine litter, primarily plastic waste, due to its extensive coastline and dense urbanization.

To tackle these challenges, Lagos State has implemented several state-level policies and initiatives, primarily through LAWMA and LASWA, to reduce marine pollution, promote sustainable waste management and protect the state's (coastal) ecosystems. Specific initiatives include upscaling operational activities to remove marine debris, organizing public awareness campaigns, and encouraging community involvement in clean-up efforts (Kadiri, 2024). For example, LAWMA has launched programs targeting waste collection in marine hotspots along Lagos' coastline and waterways, such as canals and lagoons, to mitigate the environmental and health risks associated with marine litter (Ayeyemi, 2024). Field research confirms these efforts but also shows that clean-ups tend to be reactive and episodic rather than systematically preventing waste from entering waterways.

LAWMA operates under the **Lagos State Environmental Management and Protection Law (2017)**, which consolidates all environmental regulations in the state to promote sustainable development and protect natural resources. The law covers a wide range of areas, including pollution control, solid waste management, flood prevention and conservation efforts. To control pollution in Lagos state, industries are required to conduct EIA and submit Environmental Audit Reports for ongoing projects, and companies are obliged to comply with effluent treatment standards to prevent untreated discharges into the environment. Regarding solid waste management, the law promotes waste minimization practices, proper waste disposal, and recycling. It promotes EPR as well as partnerships with private entities to improve the financing of waste management infrastructure.

The law also covers health and safety standards: state facilities are required to provide personal protective equipment for workers, to adhere to public health laws, and to maintain adequate air quality. Besides promoting proper waste disposal practices, the law also penalizes illegal dumping, for example, in waterways. Despite this extensive framework, respondents noted that enforcement is inconsistent, unlawful dumping continues along canals and vacant lots, EPR requirements are not fully implemented, and public awareness of the 2017 law is restricted outside of the formal sectors. Several respondents noted that policies often function more as revenue instruments than as performance-oriented environmental tools, with insufficient monitoring of outcomes such as litter reduction or recycling rates.

LAWMA has also signed some partnership deals, such as a Memorandum of Understanding (MoU) with private entities like waste-to-energy firms, to improve solid waste management and recycling infrastructure (Environnews Nigeria, 2025). In addition, innovative measures like Reverse Vending Machines for plastic bottles, Blue Schools Ocean-literacy programs, and PSP waste-collection contracts show Lagos' potential to serve as a national model. However, interviewees stressed that these remain limited in coverage and impact, with large sections of the population and coastline not yet benefiting from such innovations.

## Cross River State: Key Actors

**Cross River State Ministry of Environment:** As the apex environmental authority, this ministry develops policies aligned with both national frameworks, like the National Policy on Plastic Waste Management (2020), and other state-specific priorities. Its 2025 action plan introduces innovative measures, including green economy partnerships and climate-resilient infrastructure projects (Pillartoday.ng, 2025). However, field interviews in Calabar indicate that these policies have not yet been fully domesticated into clear state legislation or consistently translated into operational programs on the ground, particularly for plastics and marine litter.

**Cross River State Waste Management Agency (CRSWMA):** The agency is tasked with municipal solid waste management, which includes overseeing the public waste containers across Calabar metropolis, waste collection and disposal. In practice, stakeholders reported that CRSWMA's engagement with national plastic and solid waste policies is weak, with irregular collection services, limited support for recycling initiatives, and no clear role in marine litter prevention along waterways and coastal zones.

**The Cross River State Environmental Protection Agency (CRSEPA):** It is responsible for monitoring environmental quality and enforcing environmental regulations. They play a crucial role in collecting data on water quality and assessing the extent of plastic waste and other types of pollution in coastal areas. The agency is tasked with preparing and updating periodic master plans for the development of environmental science and technology, as well as advising the government on the material and financial requirements necessary for implementing these plans. Additionally, CRSEPA initiates and promotes policies, programs, and research aimed at advancing environmental science and technology. Respondents noted that systematic monitoring of plastic and marine litter remains limited, data is not routinely used for decision-making, and coordination with CRSWMA and local governments on marine litter issues is weak.

## Policies in Cross River State

Cross River State, renowned for its ecological heritage, has made strides in developing state-level policies to address waste management and marine litter, though these efforts remain a work in progress. The state especially emphasizes community-led waste segregation and recycling to mitigate the flow of plastics into rivers and oceans. Field interviews reveal a persistent implementation gap: despite increasing policy intent toward source segregation and formal recycling systems, operational practice remains unchanged. Most communities continue to rely on mixed waste disposal and informal recovery systems, with no evidence of institutionalized at-source segregation programs at scale.

At the legislative level, Cross River State incorporates elements of Nigeria's national

frameworks, such as the National Solid Waste Management Policy, while also tailoring its strategies to local needs. The state has enacted the Local Government Amendment Bill 2025, which indirectly impacts waste management by strengthening local government structures to improve service delivery at the grassroots level. This includes provisions for better funding and administrative capacity for local councils, which play a critical role in waste collection and disposal (Cross River State News, 2025). However, marine litter or plastic waste is not explicitly addressed in the bill. Interviews with local government officials and community stakeholders in Calabar confirmed that there are no clear, legally defined duties, targets, or sanctions related specifically to marine litter or plastic leakage into rivers and coastal areas.

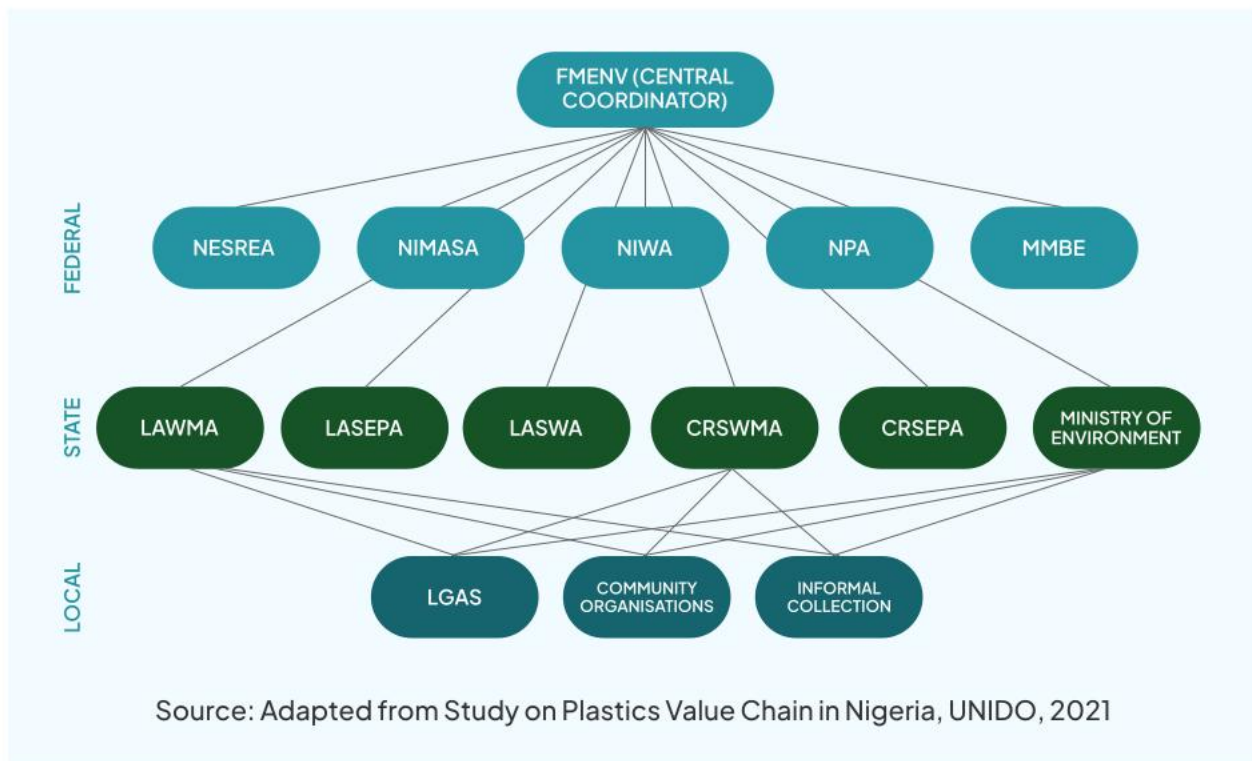
Additionally, the "Operation Keep CRS Clean" initiative, while not a formal legislative act, functions as a state-backed program aimed at emphasizing urban and coastal cleanliness through stricter enforcement of waste disposal regulations and public awareness campaigns. (Progressive News, 2025)

The state's policies aim to reduce plastic pollution, protect marine ecosystems, and promote public health. However, they lack a comprehensive legal framework solely dedicated to marine litter and plastic waste management. Current efforts are largely programmatic and rely on existing national laws, such as the National Solid Waste Management Policy, to guide implementation. Particularly in rural and coastal areas, enforcement mechanisms and infrastructure are underdeveloped. According to stakeholder interviews conducted in Cross River, the lack of a specific marine-litter law, poor coordination between state agencies and local government agencies, a low level of public awareness of national policies, and a lack of support for local recycling businesses all hinder effective implementation.

To address these gaps, Cross River State would benefit from enacting specific legislation that establishes clear mandates for waste management, introduces penalties for non-compliance and incentivizes recycling and sustainable practices across sectors. Such a law should also formalize roles for CRSWMA, CRSEPA and local governments in marine litter prevention, and be informed by the practical challenges and recommendations identified through the field interviews and questionnaires.

Stakeholders play pivotal roles in the state's waste management agenda. Local government councils implement waste collection and recycling initiatives, while non-governmental organizations (NGOs) and community-based organizations (CBOs) collaborate on public education and clean-up campaigns. Private sector actors, particularly in the tourism and hospitality industries, are encouraged to adopt sustainable practices, such as reducing single-use plastics and supporting recycling efforts. The interviews show that these actors are generally willing to engage more deeply but require clearer policy signals, financial incentives and long-term partnerships from the state to scale up their contributions to marine litter prevention.

Figure 4: Organogram of the Nigerian Waste Management System with Respect to Marine Litter From Lagos and Cross River State



### 3.2.3 Local Government Actors

The Constitutional Mandate under Nigeria’s 1999 Constitution (Fourth Schedule, Section 1(h)), makes the Local Government Councils (LGCs) primarily responsible for waste collection, sewage management, and refuse disposal. This includes maintaining public conveniences and ensuring environmentally sound waste practices in their jurisdictions (NESG, 2024).

## 3.3 Non-public Stakeholders and Initiatives

Nigeria relies on several non-public stakeholders to support the waste management system and marine plastic litter prevention. They are presented in the following section.

### Private Sector

#### Public-Private Partnerships

Public-Private Partnerships (PPPs) are increasingly being utilized to finance waste management systems across various states in Nigeria. These partnerships involve collaboration between government entities and private companies to enhance waste collection, recycling services and environmental sustainability (Alabi et al, 2020). Additionally, there are concerns about regulatory capture, where large companies might exert undue influence over policy decisions and regulatory frameworks. According to Idornigie (2020), "The fact that [PPP] is not conventional procurement must be

appreciated, and a relationship lasting 20–30 years must be carefully thought out. The risk of failure and default is high." This long-term commitment amplifies concerns about becoming dependent on corporate partners who may prioritize profit over public interest.

Lagos State presents a good example of this situation, and in the exceptional instance where a large foreign investor was engaged, the partnership was seen as undermined and eventually disrupted by political interests. (The Guardian, 2018)

## Financial Implications

- **Investment in Infrastructure:** PPPs can significantly reduce government financial burden while improving infrastructure. The Lagos State-LAWMA partnership with Visionscape involved a ₦50 billion investment in waste management infrastructure, including transfer loading stations and material recovery facilities, though it faced implementation challenges (BusinessDay 2018).
- **Innovative Solutions:** Private partners introduce innovative solutions that enhance efficiency. The Wecyclers-LAWMA collaboration demonstrates this through the deployment of low-cost cargo bicycles for waste collection in hard-to-reach areas that were hitherto inaccessible to LAWMA trucks, thereby achieving a 40% increase in collection efficiency and collecting 15,433 tons of recyclables over 12 years while creating employment opportunities (Uduak, 2024).
- **Profit Motives:** While effective, PPPs risk prioritizing profits over environmental benefits. The 2016 Lagos State partnership with private waste collectors faced criticism for servicing affluent neighborhoods with higher collection fees while neglecting low-income areas, highlighting the challenge of ensuring equitable service delivery in profit-driven models (Ibekwe, 2019; Ojoye, 2018).

## Long-Term Commitments

Effective public-private partnerships (PPPs) require long-term commitments from both parties to ensure that environmental goals are achieved. The Food and Beverage Recycling Alliance (FBRA) is a non-profit industry collaboration platform set up in 2013 by a Memorandum of Understanding to galvanize responsible players in the food and beverage industry, which includes companies like Coca-Cola, Nestlé and Unilever. It has established a 10-year commitment to fund PET bottle collection programs in urban areas. This initiative includes clear performance metrics for plastic recovery (FBRA, 2023).

A good example of a public-private partnership is the Nigeria National Plastic Action Partnership (NPAP) established by the World Economic Forum's Global Plastic Action Partnership (GPAP) in collaboration with FME<sub>env</sub>, convening government, private sector

and civil society stakeholders to develop a roadmap for reducing plastic pollution. This roadmap was launched in October 2024 and includes concrete actions for the short, mid and long-term, to reduce the initial generation of plastic products and improve the handling and recycling of plastic waste at the end-of-life stages.

## *Private Sectors*

The private sector plays a crucial role in waste management and recycling efforts in Nigeria. Companies involved in these sectors contribute to innovative solutions and infrastructure development.

**Waste Management Companies:** Firms like Nigeria's Recycling and Economic Development Initiative (REDIN) and Chanja Datti Limited focus on converting waste into resources by promoting recycling and upcycling initiatives. They work with communities to establish recycling programs and create sustainable waste management practices.

**Plastic Manufacturers and User Companies:** Some plastic manufacturers and food and beverage companies are starting to embrace circular economy principles. For example, Coca-Cola Nigeria has launched a new recycling hub in Lagos to reduce the environmental impact of its products (Packaging Gateway, 2025).

**Corporate Social Responsibility (CSR):** Many private companies like Coca-Cola, Nestle, Unilever, etc., fund waste management and environmental sustainability projects as part of their CSR initiatives. These efforts include sponsoring clean-up campaigns, supporting recycling startups and promoting eco-friendly alternatives.

**Producer Responsibility Organisations (PROs):** Nigeria's existing industry-led PROs, i.e., the Food and Beverage Recycling Alliance (FBRA), E-Waste Producer Responsibility Organization Nigeria (EPRON), and Alliance for Responsible Battery Recycling (ARBR), play a coordinating role in implementing EPR schemes by helping producers meet their obligations for post-consumer waste management. The FBRA, for example, works with manufacturers, waste collectors, recyclers, and government agencies to support plastic recovery, recycling programmes, public awareness campaigns and collection initiatives aimed at reducing packaging waste and improving circular economy outcomes.

## **Civil Society and Non-Governmental Organizations (NGOs)**

Numerous NGOs, CSOs, and NPOs in Nigeria focus on marine litter mitigation and environmental protection. These organizations often engage in advocacy, education, and practical initiatives to reduce plastic pollution and promote sustainable practices.

**Waste Africa** is a non-profit organization established in 2019, focused on innovative solutions and advocacy for sustainable solid waste management in Nigeria and across the African continent. It engages government, commercial, and residential stakeholders

through grassroots initiatives that promote recycling and provide incentives. Initiatives such as "Bottle for Books" allow students to use PET bottles to pay for school fees, while the Women Recyclers Empowerment Initiative (WREI) creates economic opportunities for rural and minority women. Through these efforts, Waste Africa aims to foster sustainable ecosystems in waste management (WASTE Africa, 2023).

The **Nigeria Climate Innovation Center (NCIC)** was set up by the World Bank in 2018 and is supported by the Office of the Vice President with the mandate to lead and drive the growth of the Nigerian green economy in both the private and public sectors (Nigeria Climate Innovation Centre, 2026). Since its inception, it has bifurcated the Nigerian green economy into four core thematic areas of focus: Renewable Energy, Waste Management (Circularity), Smart Agriculture, and Innovation in Water.

**Nigerian Conservation Foundation (NCF):** Established in 1980, NCF serves as Nigeria's foremost environmental NGO with a mandate to preserve biodiversity through evidence-based conservation strategies (NCF, 2025). They conduct awareness campaigns and educational programs aimed at reducing marine litter and protecting coastal ecosystems.

**Recyclers Association of Nigeria (RAN):** Founded by industry professionals and advocates, RAN aims to create a sustainable recycling ecosystem that benefits the environment, economy, and communities in Nigeria. They are forming a waste council, uniting all waste management umbrella bodies under one umbrella to foster collaboration, engage stakeholders to ensure recyclers' voices are heard and policies are favorable, and prevent future challenges.

**Centre for 21st Century Issues (C21):** This organization focuses on environmental advocacy and policy reform, promoting community engagement in waste management and environmental protection while integrating marine conservation into climate action frameworks (C21, 2025).

**Lekan Bakare Foundation:** This organization combines traditional knowledge with modern technology (Lekan Bakare Foundation, 2025). They are focused on SDG 14 implementation and they help to champion the protection & restoration of Marine Life & Coastal Resilience. Building a sustainable future through conservation, education, and action.

**Reswaye:** This initiative targets plastic waste through economic incentives. They help to promote sustainable communities through waste management initiatives focused on recycling, sustainable packaging, and marine litter reduction.

Additionally, numerous beach clean-up initiatives have been organized across Nigeria, often in collaboration with NGOs, community groups, and local governments. These initiatives engage community members and mobilize volunteers to remove litter from

the shorelines, raise awareness about marine pollution and the importance of keeping the beaches clean by reducing plastic usage, and promote community stewardship of coastal resources. Some of the NGOs engaged are the Lagos Beach Cleaners, Lekan Bakare Foundation, Lekki Conservation Centre, Nigerian Conservation Foundation, Mental and Environmental Development Initiative for Children, and Clean Climate and Environment Campaign Initiative. By organizing beach clean-ups, they prevent waste from entering the oceans and help to create a sense of environmental stewardship amongst local communities.

**Environmental Clubs:** These perform research on marine ecosystems, organize clean-up campaigns, and focus on waste management education. Most of them arise from local engagement, either by universities, like the University of Lagos Green Club, or local communities, like the Clean-Up Ijora Group, as part of the One Health Advocacy and Mentorship (OHAM).

## Academic Institutions and Research Organizations

Academic institutions and research bodies contribute to marine litter research, providing valuable data and insights that inform policy and practice.

**Universities** throughout Nigeria (national, state and local levels), such as the University of Lagos, University of Ibadan, University of Port Harcourt, University of Calabar, University of Nigeria and many others, perform valuable research on marine ecosystems, plastic pollution and its impacts on marine biodiversity, ecosystems, and coastal communities.

The **Nigerian Institute for Oceanography and Marine Research (NIOMR)** engages in research related to marine science, including studies on the effects of marine litter on fisheries and marine and coastal ecosystems.

## Recycling Projects

Several recycling initiatives have emerged in Nigeria in recent years, aiming to reduce plastic waste and promote sustainable practices. One notable initiative in recent times is the Lagos State Government Recycling Programme, which features an awareness campaign themed 'Eco Circulate'. This campaign encourages residents to participate in recycling efforts by providing designated collection points and collaborating with waste management companies to facilitate the recycling process (Oloniniran, 2024). Such initiatives are vital in addressing the growing challenge of plastic waste and fostering a culture of sustainability in urban areas. It was encouraged that the program should be carried out across each local government to tap into the initiative and empower themselves (Oloniniran, 2024).

By setting up markets for recycled materials, communities are enabled to make a profit

from selling their waste at these specific collection points that were introduced by local governments. Some local governments set up markets for recyclable materials, allowing communities to sell their waste to encourage recycling behavior.

**Expanding Local Plastic Recycling Capacity:** Plastic recycling capacity has grown rapidly in the country over the past 5 years, expanding from PET-to-fibre recycling to food-grade PET (bottle-to-bottle) recycling with 5 established players (Indorama, Alef, Polysmart, EngeePET, and Sonnex) in this niche segment. This development has led to Nestle using up to 50% recycled PET content in their table water bottles, even in the absence of a mandatory rPET content regulation (Inokotong, 2023; Nestle, 2023).

## 3.4 Finance Mechanisms

Nigeria relies on government funding, private sector investments and international donor support for financing its waste and marine litter management. Some financing mechanisms and implementation are outlined below.

### 3.4.1 Government Funding and Budget Allocations

National, state and local governments in Nigeria allocate budgets for environmental management, which includes the collection, transport, and disposal of waste as well as for marine litter mitigation. These funds support various initiatives, such as recycling programs, public awareness campaigns, and infrastructure development for different agencies.

The NIMASA's Maritime Action Plan on Marine Litter and Plastic Management (MAP-ML+P) receives funding through annual budgets of designated ministries, departments, and agencies, as well as from littoral states. This is implemented under the Revised Maritime Action Plan.

Additionally, the EPR system that has been implemented covers packaging food, beverages, e-waste and batteries sectors. Under EPR guidelines, producers and importers are mandated to bear the costs of collection, recycling, and disposal of post-consumer waste generated by their products. However, participation in the EPR system remains largely voluntary, with compliance rates remaining low despite the regulatory framework being in place since 2014.

### 3.4.2 International Aid and Grants

Nigeria receives financial assistance from international organizations such as the World Bank, United Nations Environment Programme, and Global Environment Facility. These funds often support capacity-building initiatives, infrastructure development and research.

The United Nations Environment Programme (UNEP) collaborated with the Nigerian

Maritime Administration and Safety Agency (NIMASA) on marine litter management initiatives in Nigeria, including a case study examining the impacts of marine litter on coastal communities in Lagos State. This partnership began in 2016 with a pilot project on water clean-up and identification of marine litter hotspots in the country. NIMASA developed a draft Maritime Action Plan for Marine Litter, which was subsequently approved by UNEP-GPA in 2021. This approval led to the creation of Nigeria's National Action Plan on Marine Litter and Plastic Pollution in 2020, which was launched in 2022. The plan received support from the International Maritime Organization (IMO) and UNEP provided technical expertise and resources for policy formulation and supported capacity-building workshops for government officials.

The **GloLitter Partnerships Programme (GloLitter)**, funded by the Norwegian Agency for Development Cooperation (Norad) and implemented by the IMO in partnership with the Food and Agriculture Organization (FAO), aims to assist developing countries to prevent, reduce and control marine plastic litter (MPL) from the maritime transport and fisheries sectors. The focus of GloLitter activities is at the country level, where it is envisaged that real actions need to be taken to prevent and reduce sea-based marine plastic litter (SBMPL). This project supported the Federal Ministry of Agriculture and facilitated the development of a Country Assessment Report on sea-based MPL with specific reference to shipping and fisheries and a national action plan.

The **World Bank** provided several hundred million dollars over the last decade to support projects and programmes, such as the Nigeria Erosion and Watershed Management Project (NEWMAP) and the West Africa Coastal Areas Resilience Investment Project (WACA ResIP), combating coastal erosion and reducing marine litter by improving solid waste management practices in coastal areas (World Bank, 2025). The Global Environment Facility (GEF) approved a \$2.9 million grant in 2021 for a project titled "Addressing Marine Plastics: A Systemic Approach in Nigeria", implemented by UNIDO. This project aimed to reduce marine plastic pollution through policy reforms, awareness campaigns, and support for recycling initiatives (GEF, 2017).

The **Green Climate Fund (GCF)** serves as an important source of funding for initiatives aimed at preventing marine litter, particularly those linked to climate change adaptation and mitigation. GCF has approved \$200.6 million for 16 climate change projects and programs across Nigeria (GCF, 2025). In 2022, they funded \$194 million through the Inclusive Green Financing Initiative (IGREENFIN I) for Nigeria and 12 other African nations, focusing on climate-resilient agriculture and green finance mechanisms (Ibrahim, 2022).

***Additional international funding includes the following:***

The **Global Environment Facility (GEF)** funded the "Circular Economy Approaches for the Electronics Sector in Nigeria" with \$2 million and co-financing of \$13,086,582 from NESREA and partners. This project established EPRON, the e-waste sector PROs,

diverting 18,000 tons of e-waste from landfills (GEF, 2021).

The **United Nations Industrial Development Organization (UNIDO)**, funded by the Japanese Government, has supported the Federal Ministry of Environment with invaluable technical support for the development of the National Policy on Solid Waste Management and the Implementation Guidelines for the National Policy on Plastic Waste Management, among other support for the circular economy. This led to a working document that provides guidelines on collection, diversion, recycling, and single-use plastics.

The **United Nations Development Programme (UNDP)** implemented the \$6 million GEF Small Grants Program in Nigeria, which has funded several community-based projects for marine litter prevention and coastal ecosystem protection since 2009 (The Guardian, 2020).

The **German Agency for International Cooperation (GIZ)** launched the "Marine Litter Prevention" project in Lagos State in 2019, providing technical assistance and capacity building for waste management authorities and supporting the development of a state-level action plan on marine litter.

Other bilateral organizations, such as the United States Agency for International Development (USAID) and the UK Foreign, Commonwealth & Development Office (FCDO), provide financial assistance for environmental projects that tackle pollution and promote sustainable resource management.

## Gap Analysis

### 3.5 Legislative Gaps

Given that both land-based and sea-based activities are the primary sources of marine litter, a comprehensive strategy that addresses both sources is required. The sources include a variety of different factors, such as mismanaged local government solid waste, littering and recreational activities, industrial and agricultural activities, river run-off, fishing, aquaculture, shipping, offshore operations and maritime tourism. There is yet to be a national policy that addresses the issues of land and sea-based waste-generating activities that holistically contribute to marine litter. Such a policy will need to consider the multisectoral issues with clarity and outline actionable targets and deliverables.

The current national, state, and regional policies addressing waste management have only addressed some land-based activities critical to marine litter in Nigeria and are thus bound to exhibit several significant gaps. Common issues include:

Nigeria's marine litter policies are fragmented and reactive. The 2020 National Policy on Plastic Waste Management focuses on recycling and clean-ups, but lacks upstream

measures like limiting plastic production or incentivizing alternatives. The Federal Government is taking steps toward a phased ban on single-use plastics (SUPs) to combat growing plastic pollution, although no comprehensive national ban is yet in place. In early 2026, a public hearing was held by an Ad-hoc Committee on Preparedness for the Single-Use Plastic Ban to create a transition plan (Punch Newspapers, 2026). This initiative aims to reduce major pollutants like sachet water packaging and PET bottles while considering the economic impact on the multi-trillion naira plastic industry (Punch Newspapers, 2026).

While earlier assessments suggested a lack of upstream measures, the 2020 National Policy on Plastic Waste Management actually establishes a comprehensive framework focused on three critical pillars: improved collection to divert waste from landfills; the expansion of recycling infrastructure with ambitious 2030 targets, including recycling 75% of packaging and 50% of all plastic waste; and the explicit elimination, reduction and circulation of specific SUPs such as Expanded Polystyrene (EPS) food containers, straws and lightweight carrier bags. Furthermore, the EPR regulation is a mandatory framework covering all recyclable waste streams, rather than a voluntary one. Although initial manufacturer resistance regarding policy backing limited active participation to three sectors, the regulation is designed to be binding across the industry.

Enforcement is weak due to ambiguous roles across federal and state agencies. NESREA and FMEEnv often duplicate regulatory functions, especially with inspections and enforcement activities, creating overlap and confusion. Local government integration is also minimal.

Although EPR frameworks exist, they are poorly enforced, with only 8% of producers complying (UNEP, 2023b). Despite being included in the Public Procurement Act, green procurement is rarely used, and there are no tax or subsidy incentives to use biodegradable materials and eco-friendly packaging.

Capacity Building and Institutional Awareness Deficits, beyond structural coordination failures, Nigerian government agencies face capacity building and institutional awareness deficits that undermine effective marine litter management. These deficits manifest at three interconnected levels: technical skill gaps, policy literacy failures and inadequate training infrastructure.

Monitoring and data systems are weak; most states, including Lagos, lack consistent data collection, documentation and accessibility on waste generation (World Bank, 2024) and management, making it difficult to evaluate or adapt policies. Cross River State has not yet enacted a comprehensive state law on marine litter or plastic waste, according to field interviews conducted. Instead, implementation relies on general waste -management provisions and programmes like "Operation Keep CRS Clean", which emphasize cleanliness but do not establish clear, enforceable obligations,

targets, or sanctions for plastic leakage into rivers and coastal waters. By adopting the Lagos State Environmental Management and Protection Law (2017) and issuing regulations through LAWMA, Lagos, on the other hand, has gone further than most states. However, marine-litter provisions remain indirect; producer EPR obligations are only partially operationalized and enforcement of bans and standards is limited, particularly in coastal communities and informal settlements where regulations may prioritize revenue collection over quantifiable environmental outcomes.

### 3.6 Institutional Gaps

Agencies lack adequate personnel capacity, equipment and technical expertise to design and implement effective waste strategies. Local governments face acute capacity deficits, limiting oversight and long-term execution, contributing to an overall poor implementation on the ground (Yakubu, 2017). Many agencies struggle with basic tasks such as route design and technology selection (World Bank, 2024), and the lack of adequate technical equipment and infrastructure exacerbates the inefficiencies further (Yakubu, 2017).

Overlapping mandates (FMEnv, NESREA, NIMASA, NIWA, and NPA) and poor inter-agency coordination hinder coherent implementation, while fragmented responsibilities weaken marine litter governance and obscure accountability.

In Cross River State, institutional weaknesses are acute; CRSWMA is formally responsible for municipal solid waste, but respondents during field engagements described irregular collection, weak engagement with recycling and little visible commitment to marine litter priorities, while CRSEPA operates with constrained monitoring capacity and no structured coordination mechanism linking the Ministry of Environment, CRSWMA, CRSEPA and local governments around marine litter prevention. This leaves local governments with unclear roles despite their proximity to communities and waterways.

According to the engaged stakeholders, Lagos illustrates how institutions that seem stronger on paper can still underperform. Although LAWMA and LASWA are active, stakeholders consistently reported a gap between institutional projection and actual effectiveness, with many areas in Lagos remaining heavily littered, clean-ups largely irregular and upstream waste management insufficient to prevent plastics from entering waterways. Additionally, coordination between LAWMA (land), LASWA (waterways), and LASEPA (regulation and monitoring) is further undermined by overlapping responsibilities, misaligned funding cycles, and the absence of a shared data platform for litter hotspots and enforcement. Meanwhile, capacity deficits and unclear mandates at the local government level weaken implementation.

Private sector involvement is low despite being encouraged in some plans. Outside of the Private Sector Partnership (PSP) programme involving small and medium-sized

waste collectors, structured and scaled public-private partnerships are rare and institutional barriers limit their effectiveness. Data collection and management are inconsistent; microplastics are not monitored and beach surveys are irregular. Poor documentation prevents hotspot mapping and performance tracking (World Bank, 2024). Community engagement remains limited due to low awareness, mistrust and top-down policy design, reducing uptake and sustainability.

### 3.7 Financial Gaps

Waste management and, in particular, marine litter management are underfunded, leading to many institutions becoming ineffective or, in some cases, moribund. For example, the Environmental Health Council of Nigeria (EHCON) was removed from budget allocations in 2025 due to paucity of funds (Punch Newspapers, 2025).

While Nigeria has demonstrated leadership in green finance, issuing sovereign green bonds worth ₦10.69 billion in 2017, ₦15 billion in 2019 and ₦50 billion in 2025, with plans to raise an additional ₦250 billion in coming years (BusinessDay, 2025; Nairametrics, 2025), these instruments have not been specifically directed toward marine litter prevention or coastal waste management infrastructure. There remains an absence of dedicated blue bonds or earmarked environmental funds specifically for marine and coastal pollution control (BusinessDay, 2025).

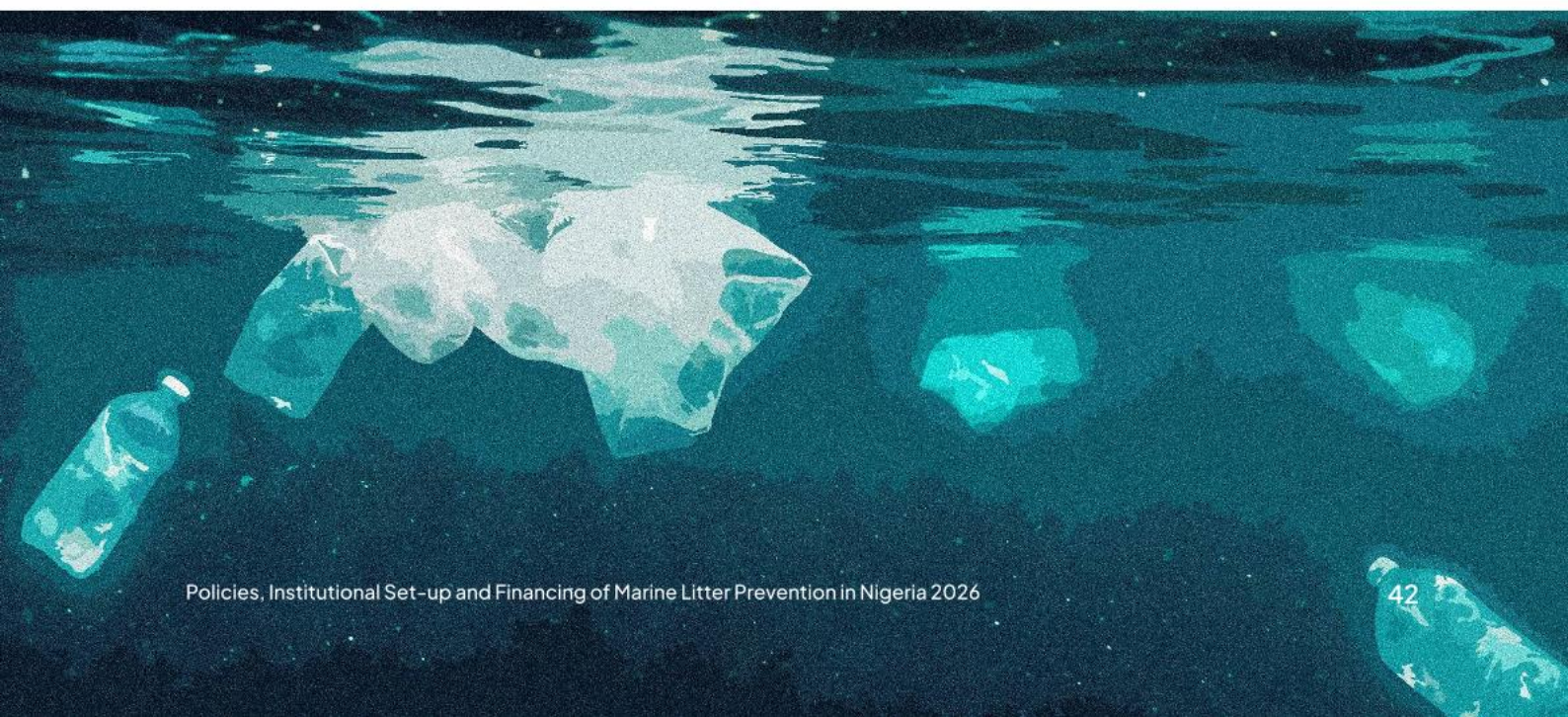
Dependence on international donors (e.g., USAID) poses sustainability risks when external funding ends and can create a cycle of reliance, with local governments deferring responsibility for essential services, thus leading to a gap in local ownership and accountability. Many national agencies lack the capacity to manage and report effectively on international grants. Private investment is constrained by high costs, regulatory bottlenecks, and limited incentives. Initiatives like the Food and Beverage Recycling Alliance (FBRA) remain localized in Lagos, and broader market participation is stifled by a challenging investment climate.

Interviews conducted in Cross River State highlight the near absence of dedicated funding for marine litter prevention: local initiatives and small recycling businesses receive little or no financial or in-kind support, there is no ring-fenced state budget line for coastal-zone or riverine litter control; and this lack of predictable funding disrupts continuity of clean-up campaigns and discourages private-sector investment in collection and recycling in and around the city. Lagos State, despite being Nigeria's economic hub with higher revenues and a more developed waste-management market, still exhibits inadequate financing for marine litter prevention. Household and business waste fees do not consistently translate into reliable services or robust infrastructure in low-income and waterfront areas, as stated by interviewees. Available tools such as EPR levies, PPPs, green finance, waste-to-energy MoUs, and terminal user fees remain underutilized or insufficiently scaled relative to the size of the challenge.

Table 3: Policy gaps summarized according to their dimension

Gap Dimension	Indicator	Nigeria	Benchmark	Observed Gap
Legislative	Comprehensive national legislative framework to address marine litter	There are National Action Plans on Marine Litter Management with priorities for legislative framework review	Most countries that participated in the GLO LITTER project, such as Madagascar and Vanuatu, have implemented their National Action Plans	Inadequate regulatory frameworks to support the plan's objectives and insufficient funding and resources  No designated authority to monitor and evaluate, to track progress and identify areas for improvement
	National Ban on specific Single-Use Plastics	No national ban; fragmented sectoral guidelines	Rwanda: Full national ban since 2008	Lack of a comprehensive legal framework for plastic regulation
	Marine Litter Provisions in Existing Laws	Partial coverage in the NESREA Act, NIMASA Act, EIA Act	Integrated marine litter acts in several countries	Legal gaps and overlaps across multiple regulatory acts
Institutional	Policy Mandate for Marine Litter	FMEnv (supervisory oversight) and NESREA both have overlapping mandates	Clear lead agency in well-coordinated systems	Role ambiguity; mandate duplication undermines enforcement; harmonization of conflicting responsibilities needed
	Enforcement Capacity	FMEnv, NESREA and NIMASA have limited coordination; the roles of NIWA and NPA unclear	Coordinated multi-agency taskforces (e.g., Indonesia)	Institutional fragmentation and lack of inter-agency collaboration
	Monitoring Role	Both FMEnv and NESREA claim oversight; there is no centralized marine litter monitoring system	Centralized environmental monitoring bodies	Absence of a unified monitoring framework

Financial	Federal Budget Allocation (Est. 2025)	~50 million USD (indicative; lacks marine litter-specific line item)	~200 million USD (UN & NPAP recommended benchmark)	Severe underfunding relative to estimated national needs
	Private Sector Investment in the Waste Sector	Concentrated in Lagos, national EPR implementation remains voluntary	Broader PPP involvement in countries like South Africa	Low investor confidence and a weak enabling environment for the circular economy
	Access to International Climate Finance	Lack of a strategy to utilize marine-specific climate finance, like the GEF Marine Programme and blue bonds. While some GEF funding is used for broader environmental initiatives, there's no clear framework for securing international finance for marine litter prevention, blue economy infrastructure, or coastal waste management.	Active access frameworks in Kenya, Indonesia	Missed financing opportunities from multilateral environmental funds





## 4. Recommendations

To address the persistent legislative, institutional, and financial challenges hindering effective marine litter management in Nigeria, the following recommendations are proposed. They provide practical and actionable steps to strengthen legal frameworks, operationalize a binding EPR system, improve inter-agency coordination, increase funding, and engage the public through education and inclusive initiatives. Enhanced data collection, monitoring, and traceability systems are also included to guide evidence-based implementation and track progress.

### 4.1 Policy Enhancement

These measures aim to strengthen policy frameworks and enforcement mechanisms, clarify stakeholder responsibilities, and promote a more integrated and effective approach to waste management and marine litter prevention.

*Table 4: Summary of Recommendations for Policy Enhancement*

Key Gap Area	Recommendations
Legislative Gaps	Develop a comprehensive lifecycle-based policy covering upstream measures, waste reduction and alternative materials, including a full lifecycle-based approach to plastics; integrate with NIPC and FMITI coordination.
	Ensure coherent policy frameworks across federal and state levels to facilitate collective progress and minimize the disparity in the pace of waste management regulations and enforcement among states.  Expedite enabling regulations alongside new policy and regulatory instruments to ensure enforceability and strengthen compliance.
	Enforce penalties for illegal dumping and institutionalize regular port audits under MARPOL Annex V and include penalties for non-compliance.

	Accelerate the implementation of the National Environmental (Plastic Waste Control) Regulations 2024, focusing on plastic reduction, reuse, recycling mandates, and restrictions on single-use plastics. Prioritize enforcement in high-impact coastal areas and urban centres.
	Implement tax rebates (e.g., 15%) for companies using biodegradable packaging (UNCTAD, 2023) and recycled plastics for manufacturing, and encourage manufacturers to design waste-minimizing products. These measures can additionally be supported by subsidies.

## 4.2 Institutional Strengthening

To effectively address marine litter and improve waste management in Nigeria, institutional strengthening is essential. This requires clearly defining responsibilities, improving interagency coordination and enhancing data collection systems to ensure a cohesive national response.

*Table 5: Summary of Recommendations for Institutional Strengthening*

Key Gap Area	Recommendations
<b>Institutional Gaps</b>	Clarify and harmonize institutional mandates, such as between LAWMA, LASWA, CRSWMA, LASEPA and others by establishing environmental coordination mechanisms (e.g., a Lagos Environmental Coordination Mechanism) that avoid duplication, create joint annual workplans for land and water-based waste and agree on shared indicators and data platforms, while also implementing collaborative approaches that address overlaps by enabling enforcement agencies like NESREA to work directly and transparently with institutions such as NIMASA.
	Anchor all marine litter management activities in a fully operational interagency task force under the Federal Ministry of Environment, using the NSCPWM, its Technical Committee, and Secretariat to coordinate efforts across NESREA, NIWA, NIMASA, SON, and NCS.
	Implement a digital platform for agencies to share their knowledge, best practices and lessons learned to enhance collaboration.
	Establish a robust, standardised national marine litter monitoring framework and system that uses mobile labs, plastic pollution mapping and tools such as the UNEP Clean Coast Index for hotspot targeting, while investing in city-specific systems such as a Lagos Marine Litter Monitoring System (linking LASWA visual surveys, LAWMA collection data and NIOMR research) and a Calabar hotspot monitoring scheme led by CRSEPA with regular shoreline and drainage channel surveys so that locally generated data feed into the national system to guide interventions, enforcement and evaluation of policy effectiveness.

Formalize informal activities: Integrate the informal sector into formal systems via cooperatives and tourism-levy-funded pilots; establish partnerships with private entities to set up buy-back centres (and transport credits in railway-enabled areas).

### 4.3 Financial Strategies

Robust and diversified financial mechanisms are required for effective marine litter prevention and waste management in Nigeria. Leveraging funding approaches and incentivizing private sector participation can help Nigeria to foster sustainable practices and drive impactful solutions. To ensure the sustainable financing of marine litter prevention, Nigeria should adopt a diversified approach that incorporates public, private and community-driven funding mechanisms. The following recommendations outline key strategies to enhance financial support for these efforts.

*Table 6: Summary of Recommendations for Financial Strategies*

Key Gap Area	Recommendations
Financial Gaps	Establish a Blue Economy Fund by implementing a 5% environmental levy on revenue from coastal tourism, hospitality, and maritime transport. Allocate revenues to community-led waste management projects, including Material Recovery Facilities (MRFs), with priority for informal settlements and underserved waterfront communities.
	Issue Blue Bonds to finance marine litter prevention infrastructure such as coastal waste collection systems, material recovery facilities in waterfront communities, and monitoring technologies; enforce full EPR compliance through mandatory registration, transparent reporting, and penalties for non-compliance, drawing on lessons from Kenya's PETCO model and other successful regional EPR frameworks (PETCO, 2019).
	Create a dedicated state budget line for marine-litter prevention; allocate specific funding within state budgets for marine litter activities (awareness, collection and support to recyclers), rather than relying solely on generic waste -management allocations and donor projects.
	Dedicate 20% of the Blue Economy Fund to proven high-impact projects (e.g., Lagos's Zero-Waste Market - 40% litter reduction); monitor with UNEP/IUCN metrics for outcome-based funding.

Involve the private sector for scaling up sustainable waste management systems and fostering innovation in marine litter prevention and unlock additional funding and technological advancements that complement public sector efforts by leveraging partnerships with local communities and providing targeted incentives for private investors to engage in sustainable waste management practices.

## 4.4 Capacity Building and awareness

To effectively address marine litter and improve waste management practices in Nigeria, capacity-building and awareness-raising initiatives are necessary. These efforts should focus on strengthening technical expertise, fostering interagency collaboration, and encouraging communities to adopt sustainable practices. The key recommendations for achieving these objectives are listed below:

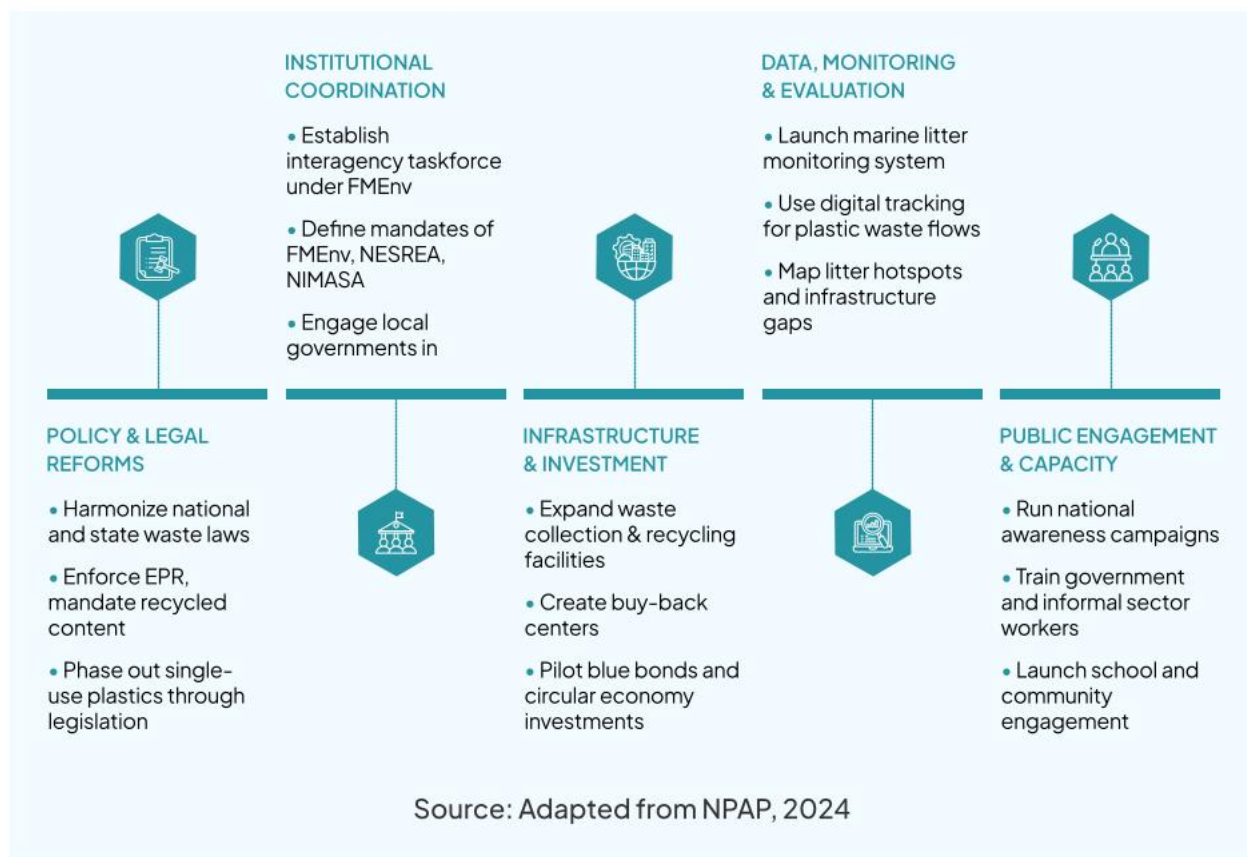
*Table 7: Summary of Recommendations for Capacity Building and Awareness Raising*

Key Gap Area	Recommendations
Capacity Gaps	Strengthen the technical capacity of LAWMA, CRSWMA, and local authorities through structured training on waste logistics, technology assessment, and monitoring. Deploy remote sensing, GIS and satellite tools to map pollution hotspots, track riverine waste, and monitor port discharge. Formalize and support the informal sector by organizing waste-pickers into cooperatives, providing personal protective equipment (PPE), health coverage, and contractual arrangements with LAWMA/CRSWMA to maximize plastic recovery before it enters waterways.
	Expand mass public awareness and behaviour-change campaigns on the impacts of plastic waste on the environment and marine ecosystems, and promote environmental stewardship through school-based clean-ups, religious institutions, markets, media outreach, mobile apps and digital platforms such as the Enterprise Environmental Monitoring Infrastructure Information System (EEMIIS), to address the very low awareness of national policies and the persistence of open dumping into drains and waterways.
	Implement gender-inclusive initiatives. An example is implementing mangrove conservation (e.g., Adopt-a-Mangrove) for women's economic empowerment: train women in plastic-free aquaculture, based on Ghana's Densu Delta model (Agbekpomu, 2021).

## 4.5 Implementation Roadmap

The results from this analysis are in line with the highlighted needs for action in the National Action Roadmap for the sustainable reduction of plastic pollution, which has been developed by the NPAP and was released in October 2024.

Figure 6: Strategic Implementation Roadmap (2025–2040): Key Priority Areas for Addressing Marine Litter and Plastic Pollution in Nigeria



Below is a suggested implementation roadmap that demands urgent and effective implementation as recommended by the Nigeria National Plastic Action Partnership (NPAP, 2024).

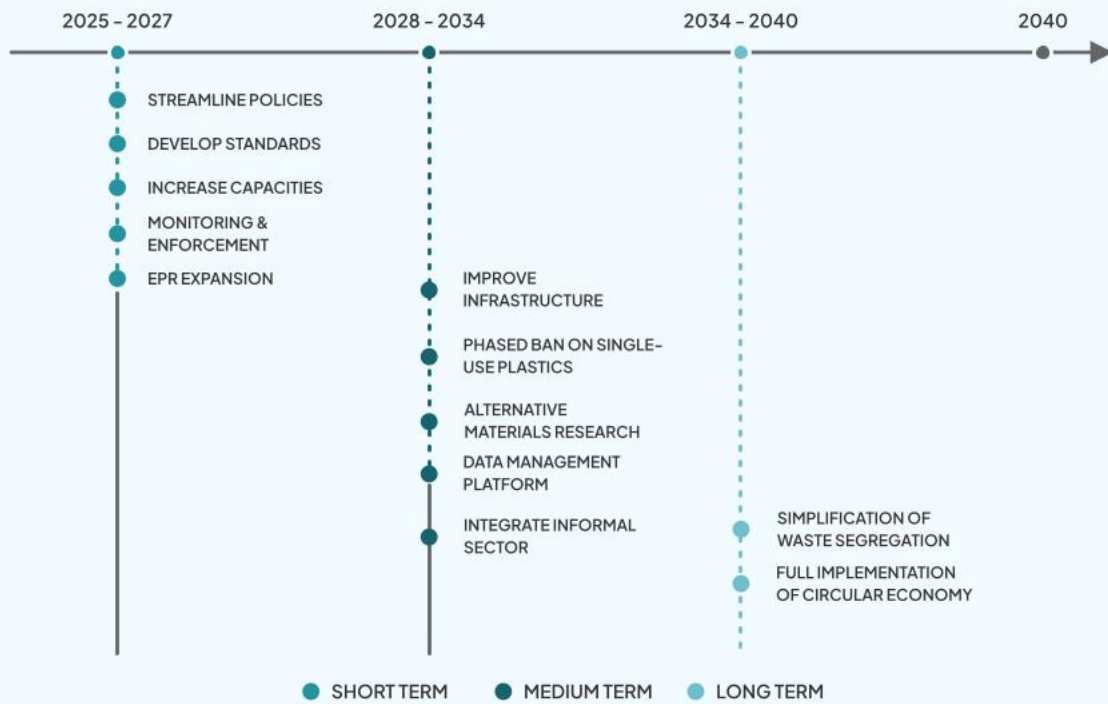
In the **short term (2025–2027)**, institutional capacities should be increased to streamline policies and responsibilities of agencies, especially between federal and state governments. Additionally, capacities for policy implementation and enforcement need to be increased, and adequate monitoring and information systems need to be implemented. Developing standards, such as national recycling standards, circular plastic packaging standards, and standardized guidelines for the management of different types of waste, is important to support a unified approach and increase the effectiveness of enforcement and monitoring of policy compliance. Businesses should be incentivized to adopt consumer reuse and refill models by extending the EPR system

to additional products and implementing eco-modulation fees. Furthermore, waste management monitoring should be improved by setting up an inventory of all existing dumpsites to monitor their refurbishment. Regulatory measures should support a phased approach to the use of recycled materials in product design by introducing a minimum recycled content for different products, thereby encouraging the recycling sector and infrastructure. Those initial efforts should be supported by nationwide awareness campaigns on the impact of plastic waste on the environment and sustainable waste management practices.

**Mid-term activities (2028–2034)** include the development of different investment and financing strategies, especially for investments in necessary infrastructure for waste management (trucks, recovery facilities, loading stations, etc.) and safe disposal to reduce and finally avoid plastic leakages into the environment. Furthermore, substituting plastics with alternative materials should be a major area of focus. Conducting research on and creating an inventory of sustainable alternatives, supporting local production of such, and redesigning products to enable their use are necessary steps to consider. A phased ban on single-use plastics modeled after the successful implementation in Kenya, Rwanda, and South Africa should be considered. It is important to inform all affected stakeholders well in advance and provide them with sufficient time needed to adapt to the new requirements (Rwanda Vision 2015; UNCTAD, 2023). Incorporating waste pickers into formal waste management systems with improved health, safety, and income protections. A national data management platform for tracking plastic waste generation, collection, and sorting should be established to enable evidence-based policymaking and monitor progress toward circularity targets.

The **long-term measures (2035–2040)** prioritize the simplification and scaling of at-source waste segregation through streamlined guidelines, improved public infrastructure, and logistics systems that make household-level sorting accessible and enforceable. This phase marks the full implementation of circular economy principles across Nigeria's plastic value chain, transitioning from a linear 'take-make-dispose' model to closed-loop systems where plastic waste is systematically recovered, reprocessed and reintegrated into production cycles. Achieving these goals requires that the foundational capacity-building investments recommended in this study, training government agencies, formalizing and upskilling informal waste workers, and embedding environmental literacy in coastal communities be implemented immediately during the short-term phase (2025–2027) to create the institutional and human capital necessary for circular economy operationalization.

Figure 7: Implementation Timeline for Nigeria's Marine Litter Management Roadmap (2025-2040)



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