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A Research Conducted By
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FORMALIZING THE INFORMAL WASTE PICKER ECONOMY FOR SUSTAINABLE DEVELOPMENT IN NIGERIA

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Researchers

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INCLUDE knowledge platform on Inclusive Development Policies**

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PREFACE

Informal waste picking is one of the oldest and most vital components of the informal sector in Nigeria, deeply embedded in the daily realities of urban and rural communities. It serves as a source of livelihood and empowerment for many, offering a pathway to sustainability for those who engage in it. Yet, this crucial activity has long been undervalued and poorly managed. Its vast potential remains largely untapped, leaving it in the hands of marginalized individuals who often lack the tools, resources, recognition, and faced with marginalization. Rather than celebrating their contributions, society has relegated them to the margins, using terms such as "scavengers" or "condemn iron pickers" to diminish the value of their work and reinforce their exclusion.

This research sheds light on the informal waste-picking sector in Nigeria, a neglected yet indispensable part of the country's waste management system. Fieldwork conducted in Abuja and Lagos, alongside interviews with informal waste pickers, recycling companies, and policymakers, revealed the intricate dynamics of this sector. Engaging with government and non-governmental stakeholders further enriched the study, allowing for a comprehensive understanding of the challenges faced by waste pickers and the opportunities for integrating their efforts into formal systems.

The research sought to answer important questions: What role do informal waste pickers play in waste management and recycling in Nigeria? What challenges hinder their recognition and integration into formal waste management systems? How can policies and interventions be crafted to support the formalization of the sector, enhancing its contributions to sustainability and economic development?

The findings reveal that informal waste pickers are vital to Nigeria's waste management systems. They play a crucial role in recycling and environmental conservation, filling gaps that formal systems cannot address. Despite their indispensable contributions, they face significant obstacles, including criminalization, societal stigma, and exclusion from social services. These challenges highlight the need for deliberate efforts to formalize the sector, provide necessary support, and integrate waste pickers into broader frameworks of development.

This report is a call to recognize informal waste pickers in Nigeria as essential actors in the waste management ecosystem. It urges policymakers, stakeholders, and the public to reconsider their perceptions and prioritize policies that enhance the dignity and contributions of this often-overlooked group.

AUTHORS' BIOGRAPHY

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ACRONYMS

ACGS	Agricultural Credit Guarantee Scheme
AEPB	Abuja Environmental Protection Board
AMAC	Abuja Municipal Area Council
ASWAMA	Anambra State Waste Management Authority
BVN	Bank Verification Number
CACS	Commercial Agricultural Credit Scheme
CBN	Central Bank of Nigeria
FEPA	Federal Environmental Protection Agency
FCDA	Federal Capital Development Authority
FCT	Federal Capital Territory
FGD	Focus Group Discussion
FRN	Federal Republic of Nigeria
INCLUDE	Knowledge Platform on Inclusive Development Policies
IPCR	Institute for Peace and Conflict Resolution
KIIs	Key Informant Interviews
LAGESC	Lagos State Environmental Sanitation Corps
LAWMA	Lagos State Waste Management Agency
MSME	Micro, Small and Medium Scale Enterprises
NESREA	National Environmental Standards and Regulations Enforcement Agency
NFIS	National Financial Inclusion Strategy
NIN	National Identification Number
NIRSAL	Nigeria Incentive-Based Risk Sharing System for Agricultural Lending
OSIWRTP	Ondo State Integrated Waste Recycling and Treatment Project
SDGs	Sustainable Development Goals
SMEs	Small and Medium-Scale Enterprises
UNDP	United Nations Development Programme

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EXECUTIVE SUMMARY

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Informal waste picking is often observed as an unsightly and unsanitary source of livelihood by the general public, yet for informal waste pickers, the business of waste picking from dumpsites represents valuable resources brimming with potential opportunities. Developed economies have been adding billions of dollars annually through advanced waste management, creating employment, and strengthening their informal and semi-skilled workers with the platform to grow through the value chain in the sector.

Across Nigeria's major cities, informal waste pickers perform a crucial role in waste management by collecting, sorting, and recycling discarded materials from streets and dump sites. These individuals are known locally as *baban bola* in the North and *omo gbonla* in the Southwest. These workers help reduce urban waste but are often marginalized, facing economic insecurity challenges and lacking access to essential services.

This study examines the informal waste pickers' economy in Nigeria. The objective is to demonstrate how the informal waste pickers economy, despite its informality, does not translate to illegality. It is an economic waste ecosystem that has contributed to value creation, waste management, economic activities, and knowledge creation in the waste management sector. This study also focuses on their dynamics and challenges and how they create social-economic marginalization for waste pickers operating in the informal waste-picking ecosystem.

The focused localities are Abuja and Lagos, engaging the informal waste pickers' ecosystem on knowledge creation, the inclusion of the workers, their roles in recycling waste, gender, and child labor dynamics among informal waste pickers, and formalization and its impact on peace and security. The qualitative and quantitative study is centered on content analysis of secondary data and surveys. Combining academic analysis with everyday insights, this research examines the informal waste pickers' ecosystem, regulators, consumers, marketing strategies, waste values, and challenges. A core focus is on financial inclusion and the opportunities to reach formalization.

Through interviews, focus group discussions, and participatory workshops conducted from February to June 2024, the study reveals that waste pickers are essential contributors to environmental management and job creation within the informal sector and play a vital role in recycling and waste reduction, forming a key part of the informal waste ecosystem.

However, they also face significant obstacles. Waste pickers are frequently criminalized and marginalized by society, lacking socio-economic inclusion and financial access. Furthermore, strained relationships with security and environmental agencies have led to a challenging operating environment, limiting their ability to work effectively. Formalization efforts could enhance their working conditions, provide access to financial services, and promote social recognition.

KEY MESSAGE

The informal waste sector plays a vital role in Nigeria's economy, particularly in cities like Lagos and Abuja, by recovering valuable materials and supporting the recycling industry. "Despite the growing amount of waste generated annually, waste pickers bridge gaps in the formal waste management system. They contribute to environmental sustainability, job creation, and resource recovery. However, their work remains unacknowledged mainly and stigmatized, leading to social exclusion, police harassment, and criminalization. The preceding highlights the urgent need for policies that protect and integrate their rights into formal systems, ensuring recognition of their vital contributions.

Government policies on informal waste pickers vary significantly across Nigeria. While regions like Abuja adopt lenient policies, Lagos enforces stricter regulations, including mandatory registration and frequent arrests. The inconsistency underscores the need for a unified approach that formally integrates waste pickers into waste management systems while ensuring their rights and continuing their essential work.

The scavenger economy functions within a transparent value chain: informal waste pickers collect low-value materials, which go-betweens aggregate and sell to recycling companies. These materials are then processed into higher-value raw materials. However, fluctuations in exchange rates and currency devaluation can destabilize the market. Formalizing the sector could improve job creation, resource efficiency, and economic stability.

Formalizing the waste-picking sector offers a promising solution to address challenges such as poor working conditions, stigmatization, and lack of access to services. Integrating formal waste management systems could provide waste pickers access to healthcare, financial services, and legal protections, fostering a more sustainable, inclusive system. Collaboration between government, law enforcement, and waste picker communities is essential to balancing regulation with economic opportunities. Formalizing the scavenger economy could also empower marginalized groups by granting them recognition, rights, and opportunities for community development. Though challenges like theft and criminalization remain, regulatory frameworks could promote environmental sustainability and economic opportunity, helping address these issues.

In the informal waste-picking sector, gender dynamics play a significant role. Men typically handle more physically demanding tasks, like collecting heavier recyclable materials, resulting in steadier pay. Conversely, women focus on sorting plastics—less physically demanding work but with less consistent income. The disparity reflects broader gender inequalities in the sector, where women's contributions are often undervalued both in compensation and recognition. While child labor is not as prevalent in waste picking due to the hazardous nature of the work, children still assist their parents in sorting materials during weekends or after school. The situation

highlights families' economic pressures and the complex ethical issues surrounding the delicate balance between earning a livelihood and ensuring children's well-being.

The report proposes the following actions to formalize and enhance the role of waste pickers in Nigeria's waste management system to support these conversations: Establish a Structured Governance Framework for Informal Waste Pickers. A central, formalized governance framework is essential for improving the coordination, safety, and efficiency of waste-picking activities. The framework should include the establishment of organized clusters or cooperatives of waste pickers, enabling better data collection, improved working conditions, and integration into the formal waste management system. In collaboration with policy actors, local governments should create these clusters at the city level, ensuring that waste pickers operate within a sustainable and regulated environment.

Enhance Financial Inclusion and Access to Economic Resources

Waste pickers must be empowered with access to financial resources, such as grants, microloans, and cooperative savings programs. Financial institutions and development agencies can enable waste pickers to formalize their operations and invest in growth opportunities by introducing financial products tailored to their needs. Structured cooperative societies can facilitate easier access to these financial tools, providing a foundation for improved business practices and long-term economic stability.

Strengthen Relationships with Law Enforcement

Given the challenges waste pickers face with law enforcement, building trust and fostering mutual respect is critical. Community-led initiatives such as workshops, dialogues, and joint activities between law enforcement and waste pickers could bridge the gap and reduce tensions. Law enforcement agencies should be encouraged to view waste pickers not as criminals but as key players in waste management. The mutual understanding will not only protect waste pickers from harassment but also facilitate their smoother integration into formal waste management systems.

Implement Health and Safety Programs for Waste Pickers

Waste pickers face significant health risks; it is vital to establish comprehensive health and safety programs to protect them. Regular health screenings, vaccinations, hygiene education, and personal protective equipment such as gloves, masks, and footwear should be provided. In partnership with NGOs and local governments, state and federal health agencies must collaborate to implement these health initiatives, ensuring that waste pickers are safeguarded from preventable illnesses and injuries.

Allocate Designated Spaces for Waste Pickers' Operations

The informal waste-picking sector often operates in hazardous, unregulated areas, exposing workers to eviction and displacement risks. Allocating designated spaces for waste pickers to operate would ensure a secure and organized environment to carry out their work. Urban planners and municipal authorities should identify and provide designated areas for waste-picking activities with necessary infrastructure such as storage, waste bins, and sanitation facilities. The approach could help formalize their operations and reduce the constant threat of displacement.

Incorporate Waste Pickers into Policy and Legislation

As a policy, waste pickers need to be formally recognized in national and local waste management policies. Legislation should define waste pickers' roles within the formal waste management framework to protect their rights and responsibilities. By ensuring that waste pickers are acknowledged and supported through inclusive policies, governments can guarantee that their contributions to urban waste reduction and recycling are appropriately integrated into sustainable waste management practices.

Foster Partnerships for Industry Funding and Resource Supply

A formalized waste-picking sector presents an opportunity for partnerships with industries, such as recycling companies and manufacturers, to create a steady resource stream. These industries could help fund and support waste-picking cooperatives, ensuring waste pickers have the resources and infrastructure needed to scale their operations. Local governments should facilitate these partnerships, ensuring recycling companies and other industries invest in waste-picking cooperatives, thus creating a mutually beneficial supply chain.

Integrate Technology into Waste Collection Processes

Technology integration can significantly improve the productivity and sustainability of waste-picking activities. Waste pickers can benefit from digital tracking, sorting tools, and mechanical aids that streamline operations and increase efficiency. By collaborating with technology providers, local governments can help introduce these technologies to the sector, enhancing waste pickers' operations and aligning them with modern, efficient waste management practices.

Gender and Children

This report recommends prioritizing the protection and well-being of children who spend educational hours at dumpsites, often under the guise of helping their parents or mothers. Key actions should include ensuring that these children have access to proper education by providing safe spaces for learning away from the dangers of the dumpsite. Local governments, in collaboration with NGOs, should work to raise awareness about the harmful effects of children's involvement in waste picking and promote policies that ensure children can attend school. Additionally, programs should be developed to provide children with opportunities for skill-building in a safe and supportive environment, offering them a future beyond hazardous work.



BACKGROUND

BACKGROUND

In major urban African cities such as Abuja and Lagos, the generated forms of organic and inorganic waste have contributed to the emergence and continuous existence of the informal waste management sector. The increase in the volume of waste attracts trash-mining activities by humans and animals. Trash mining provides livelihoods for many young Nigerians, who collect non-organic waste like plastic, iron, aluminum, paper, and zinc. Waste dumpsites have become socio-economic hubs and sustainability lifelines for many young people working in the informal¹ waste sector.

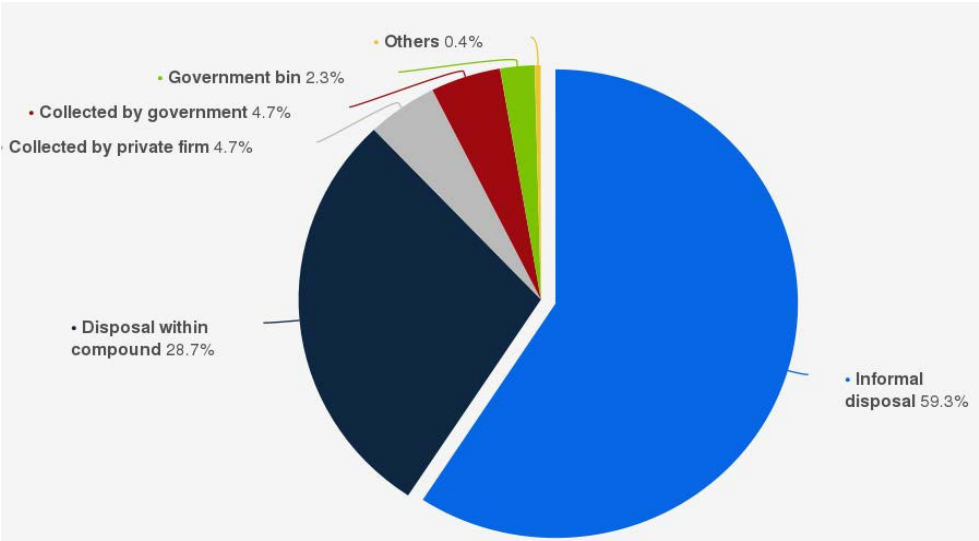
The contributions of many informal waste pickers to the informal economy through their activities have become a significant aspect of the informal sector (Susty Marshalls Communiqué, 2023). However, waste pickers face numerous challenges due to their informal status, despite the informal nature of their work not translating to illegality (Susty Marshalls Communiqué, 2023). Many informal waste pickers² are not strongly connected to essential social services and opportunities that will enhance their work and productivity. Instead, extensive informal sectors of informal waste pickers critical in waste management, recycling, remodeling, and consuming waste materials have been subjected to discrimination, segregation, and stereotypes. Hence, informal waste pickers in the informal sector represent one of society's most widely excluded, impoverished, and stigmatized segments despite their role in the environmental protection and waste management cycle.

A recent report by Moniepoint highlighted that about forty million micro, small, and medium enterprises (MSMEs) operate in Nigeria, with 89.4 percent positioned within the informal economy (Moniepoint, 2024). Cash transactions characterize the informal sector and are often called an "untapped economy," which includes marginalized groups such as the informal waste collectors who remain hidden and excluded from formal recognition. The lack of visibility limits their potential contribution to sustainable development. Within this context, informal waste pickers play a crucial role in waste management, accounting for 59.3 percent of waste disposal in Nigeria. In contrast, 28.7 percent of waste is disposed of within residential compounds, and only 4.7 percent is collected by government services. These statistics underscore a significant reliance on informal systems for effective waste management, further emphasizing the need for policies that integrate and empower informal workers to enhance their operational capacity and impact sustainability.

¹ The term "informal economy" (or "informal sector") was first introduced in academic and socio-economic discourse in the early 1970s. Anthropologist Keith Hart, during fieldwork for his doctoral research in Nima, a low-income neighborhood in Accra, brought the concept to prominence. Over the past five decades, it has gained global recognition. The International Labour Organisation (ILO) defines the informal economy as economic activities not adequately covered by formal arrangements, which can range from tax compliance to government-regulated business registration. Additionally, the informal economy is understood to encompass a wide spectrum of urban economic activities—from production and recycling to services like housing, transportation, infrastructure, and credit, extending even into political groups.

² The names of waste pickers have been used interchangeably with other names such as waste miners, resources miners, waste pickers. For consistency and purpose of this research, this report will make use of the term informal waste pickers

Fig 1: Major collectors of waste in Nigeria



Sources: <https://www.statista.com/statistics/1264873/distribution-of-waste-disposal-in-nigeria/>

In conceptualizing waste, Godwin and Edjere (2017) posit that waste is considered unfit, unwanted, and discarded due to economic reasons or ignorance of alternative technologies to process and reuse it. Scavenging is the manual sorting and picking of recyclable and reusable materials from mixed wastes at legal and illegal landfills, dumpsites, street bins and loads, transfer points, as well as waste collection trucks (International Labour Organization, 2004; Igwe, Anaje, Onyegbu, Ezechilue, & Nwatu, 2018). The term 'waste scavenger' is used interchangeably for waste pickers, waste reclaimers, garbage pickers, refuse pickers, trash pickers, rubbish pickers, recyclers, and waste salvagers, among others (Nuhu, Danbaba & Jamila, 2022).

Scavenging is a growing phenomenon in big cities in the developing world. The activity is a source of jobs for many people in an unstable economic condition and an informal means of sustainable waste and environmental management. Nyathi, Joshua, and Oludare (2018) revealed that approximately 2% of the population in developing countries makes a living through informal waste picking and that poverty caused by unemployment in developing countries leads to scavenging. The informal waste pickers are involved in both on-site and off-site waste recovery. They recover reusable and recyclable materials like plastics, aluminum, glass, paper, scrap metals, and animal wastes like horns and bones. These materials are recovered because of their potential value. Sometimes, the waste pickers also process some recovered waste before selling it to the resource merchants or the recycling industries (Rockson, Kemausuor, Seassey, Yanful, 2013; Auta & Paul, 2020).

In many African countries like Nigeria, rapid urban growth has exerted massive pressure on cities, towns, and surrounding areas (Aliyu & Amadu, 2017; Saghir & Santoro, 2018). Hence, due to population growth and urbanization, the amount of waste generated continues to increase, especially in major cities. In Nigeria, scavenging is an economic activity with enormous health risks and challenges (Adekiya, 2021). However, Aisbor and Ediere (2017) reiterated that despite the health hazards and risks associated with scavenging, it remains a source of income and employment for young men and women. It is also a source of raw materials for industry, construction, bottling plants, and plastic manufacturers (Asibor & Edjere, 2017). According to Ike, Anifor, and Daud (2018), the World Bank (WB) posits that Nigeria currently generates at least 0.51 Kilogrammes of waste daily, which accounts for 32 million tonnes of solid waste annually, projected to rise to 107 million tonnes by 2050. However, only 30% of the waste generated is efficiently collected and disposed of, mainly because two-thirds of urban households lack formal waste management services.

The inability to properly manage the waste generated in developing countries such as Nigeria creates policy and health gaps (Amasuomo & Baird, 2016). Nigeria, with a population of about 200 million people (National Bureau of Statistics, 2020), is one of Africa's largest producers of solid waste, producing about 27.61 to 30 million metric tons of waste (Bakare, 2020). Despite many policies and regulations, solid waste management in the country remains a challenge for the authorities,

stakeholders, and the entire public. Even with waste pickers informally filling the gap and making significant contributions to the economy and waste management, their activity is yet to be formalized, and they are yet to be financially included in services and opportunities provided by government sectors.

INCLUSION OF INFORMAL WASTE PICKERS IN NIGERIA'S SOCIO-ECONOMIC LANDSCAPE

In the Global South, informal waste pickers conduct their activities without social benefits and necessary financial inclusion (Marta & Helwege, 2018). In Nigeria, the Central Bank (CBN) postulates that financial inclusion is where various providers deliver financial services, reaching everyone who needs them (U. Kama & M Adigun, 2013). As outlined by the Central Bank of Nigeria (CBN) in the National Financial Inclusion Strategy (2023), financial inclusion encapsulates agent banking, stratified Know-Your-Customer requirements, financial literacy, consumer protection, linkage banking, the MSME Development Fund, and various credit enhancement programs such as the Agricultural Credit Guarantee Scheme (ACGS), Commercial Agricultural Credit Scheme (CACS), and the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL).

Despite the comprehensiveness of these initiatives, informal waste pickers have not been explicitly captured by the Nigeria financial inclusion plan, even in the informal context. The above was also highlighted by participants from the focus group discussion, who posit that one of the common challenges these workers face in the informal economy is accessing bank loans and institutional finances. The challenge stems from not having a Bank Verification Number (BVN), National Identity Number (NIN), or any other national means of identification, such as a 'voter's card' to benefit from such an opportunity.³

The omission likely lessens a focus on more organized sectors like agriculture and SMEs, the informal nature of waste picking, gaps in awareness and outreach, and the need for more tailored programs. While the overarching strategy aims for broad inclusion, specific mechanisms to support informal sector workers, like informal waste pickers, are lacking, suggesting a need for targeted microfinance initiatives, cooperative-based support, and customized financial literacy programs to ensure their financial inclusion.

The World Bank posits that financial inclusion is fundamental to reducing extreme poverty and boosting shared prosperity (World Bank, 2022). Adeola and Evans (2017) argued that financial inclusion in Nigeria, especially in the informal sector, can accelerate diversification, yielding economic gains and shared prosperity. According to the National Financial Inclusion Strategy (2023), about 26% of Nigerians are financially excluded, although demonstrating clear progress towards the Nigeria financial inclusion strategy.

Scavenging Economy and Recycling Waste in Urban Cities

The issue of solid waste management is a serious global environmental problem facing many developing urban cities across Africa and other Third World countries. Thousands of tonnes of solid waste are generated daily in African urban cities, most of which ends up in open dumps, drainages, and wetlands, contaminating the surface and groundwater and posing health risks and environmental challenges (Mor & RavindraK 2023). Several scholars (Babbitt et al., 2018; Gessderfer et al., 2016; Alcayaga et al., 2019) have looked at the informal economy of waste management and informal waste pickers and reviewed the idea that waste products and materials are not just waste but rather an 'economic system' that replaces the 'end of life' concept with reducing, reusing, recycling and recovering materials in the production, distribution, and consumption processes.

The state and activities of solid waste recycling by informal waste pickers in Nigeria's major cities, such as Lagos and Abuja, can positively impact the Nigerian economy through resource conservation, creation of job opportunities, and reduction of the magnitude of waste disposal problems. To understand the nature of the scavenging economy, Duckworth and Wilson (2020) posit that the reuse or recycling of waste material has been done for millennia. According to one of the participants during a stakeholder's participatory workshop, scavenging became a significant informal economic activity in Nigerian cities like Lagos after the Civil War. In the participant's words:

After the Nigeria Civil War, many destruction and survival strategies were adopted. There was so much waste, and nothing was important, but waste pickers saw the value in waste and filled that gap. Scavengers were

³Focus Group Discussion with Informal waste pickers at Olososun Dumpsite- Lagos, May 2024



Photo by: Tonye Marclint Ebiede

known from 1970 to 1997 and even worked with the town council.⁴ The scenario relates to Duckworth and Wilson's (2020) idea that wood, ceramics, metals, glass, paper, textiles, and food wastes represent some of the most discarded materials that become part of waste streams yet are considered a resource by informal waste pickers.

Seng and Fujiwara (2018) support the preceding claim, stating that informal waste pickers mostly mine materials are food waste, wood and leaves, mixed paper, textiles, nappies, plastic bags and cans, and discarded ceramics. Building from the United Nations Environment Programme's definition of waste as any material, substance, or by-product discarded or considered of no further use by the entity that produced it (UNEP 2015). The UNEP further clarifies that waste includes materials intended to be discarded, materials that have been abandoned, or those that have been deemed as residues from industrial, agricultural, or domestic processes.

From the preceding definitions, waste can be solid, liquid, or gaseous, and it often poses a potential risk to environmental and human health if not managed properly. One of the few statutes in Nigeria that attempts to define waste is the Lagos State Environmental edicts of 1985, section 32, which views waste to include "any

substance, which constitutes scrap materials or effluent or other unwanted surplus substances arising from the application of any process.

In Northern Nigerian cities, these informal waste pickers are called Baban-bola or yan gwangoni, literally translated as condemned iron collectors. In Southwestern cities like Lagos, they are called many names, such as *Omo bonla* and *Kole Kole*⁵. They play the role of mediators and managers in the relationship between societies and their environment. Igwe et al. (2018) posit that though the activities of informal waste pickers in Nigeria are sub-optimal, they can significantly impact the Nigerian economy through resource conservation, job creation, and, most importantly, reducing the magnitude of waste disposal problems.

Sreya and Panner (2020) submit that waste picking is an economic labor process involving the initial collection, purchase, and recovery of recoverable materials. Sreya and Panner (2020) further contend that informal waste workers are not refuse workers and are not concerned with the rudiment of waste management but are into it for socio-economic reasons, and their view of waste is seen from a resources perspective as they only collect materials for which there is a market and has economic value.

⁴Key stakeholders' participatory workshop, May-2024

⁵Omo bonla is a colloquial term in Yoruba, one of the major languages spoken in Nigeria, particularly in the South West region. It loosely translates to "a young person that picks waste." This term often refers to young individuals who scavenge through refuse in urban areas, collecting recyclable materials or items of value to sell. The phrase reflects the socio-economic challenges faced by many in these regions, where some young people are compelled to engage in waste picking to support themselves or their families. The term carries connotations of both the hardship endured by these individuals and the resourcefulness they exhibit in their efforts to survive. Kole Kole, on the other hand, is an onomatopoeic term derived from the sound made by informal waste pickers when hitting metals together as they sort through waste. This sound, "kole kole," mimics the clanging of metal objects, encapsulating the auditory environment of waste-picking activities. This term vividly illustrates the daily realities and the industrious nature of the informal waste pickers' work.

In their study, Ibrahim et al. (2022) reveal that scavenging activities reduce the amount of waste that needs to be collected, transported, and disposed of and extend the life of dumps and landfills. Reuse and recycling also render environmental benefits as they reduce water and energy use and lower pollution of solid, liquid, and gaseous by-products, compared with manufacturing products from virgin resources (Abdallah et al., 2021).

It is then possible to deduce that scavenging reduces society's exploitation of natural resources, which is a necessary step towards minimizing the impact of human waste on the environment and achieving the sustainable development goal (SDG 12)⁶. Gall et al. (2020) further posit that they constitute a large base of the pyramid workforce in any typical informal recycling sector. Several scholars (Velis, 2017; Aparcana, 2017; Kariuki et al., 2019) support the

argument that informal waste pickers perform the most labor-intensive and almost negligible role in recycling from mixed waste; however, they are often subjected to systemic marginalization and stereotype as outlaws of society.

These challenges put them in a position where they must cope with asymmetric power relations, exploitation, and volatile prices with constituted authorities such as security agencies and buyers respectively that threaten their daily income, which, under favorable conditions, can even be above the national minimum wage (Kariuki et al., 2019; Wilson et al., 2006; Kuria and Musaya, 2010). However, Majeed et al. (2017) suggest that since the informal waste management sector is often sustained in a cliquish socio-economic environment, the sector should be recognized, and deliberate efforts should be made to integrate it with the formal sector to maximize synergy.

Policy And Challenges on Waste Recycling And Management In Nigeria

In analyzing solid waste management and generation in Nigeria, Bakare (2020) states that Nigeria generates between 27 and 32 million tonnes of solid waste annually, about 2.5 million tonnes of plastic waste. The World Bank estimates annual solid waste could reach 107 million tonnes by 2050. Most of these wastes are household-generated waste and, in some cases, by industries, artisans, and traders. However, only a fraction of generated waste is collected and recycled correctly, as a coordinated waste management system and policy is challenging.

A study by Ogwueleka et al. (2021) categorized the waste items generated from households before informal waste pickers or waste management transport companies sort them to recycling plants or dump sites, respectively. Nwosu and Chukwueloka (2020) support the claim in their work, stating that households in urban areas primarily generate solid waste. In some cases, the larger producers of solid waste are local industries, artisans, and traders.

Adetola et al. (2021) demonstrated in their research the possibilities of converting waste into valuable resources, guided by sustainability principles, environmental conservation, economic

growth, and technological advancement. They emphasized that the recycling approach resolved issues linked with unsanitary and ineffective open dumpsites. Likewise, Nzeadibe (2019) uncovered the presence of informal solid waste recycling involving informal waste pickers, artisans, and intermediaries who retrieve plastics, metals, shoes, and textiles from landfills and unauthorized dumping sites within the state. Adetola et al. (2021) identified different recycling activities, including maize husk into maize-husk paper products, sachet water nylon repurposed to create paving stones or slabs, banana stems, and pineapple leaves, transformed into fibers for weaving products like caps, bags, cloths, floor mats, and table mats, contributing to the development of new eco-friendly goods and providing a sustainable solution for waste management. Somorin et al. (2017) also discussed waste-to-energy potential through incineration, estimating electricity generation for different Nigerian states. Palacio et al. (2019) highlighted the potential of municipal solid waste for power generation through thermo-chemical conversion, proposing it as an alternative to land-filling.

⁶Sustainable Development Goal 12 aims to ensure sustainable consumption and production patterns. It focuses on the efficient management of shared natural resources, reducing waste through prevention, reduction, recycling, and reuse, and encouraging industries, businesses, and consumers to adopt sustainable practices. Achieving SDG 12 involves implementing environmentally sound management of chemicals and wastes, reducing pollution, and promoting resource efficiency across the supply chain to achieve economic growth and development while reducing environmental impact.

While land-filling remains the most economical and convenient method of waste disposal, its numerous disadvantages to human health and the environment outweigh its benefits (Blair and Matarachi, 2021). The introduction of waste recovery, recycling, and waste-to-energy concepts in waste management in Nigeria is recent, primarily due to challenges ranging from insufficient investment in recycling technologies and equipment that restrict the scalability and effectiveness of recycling initiatives to operational costs and logistical complexities (Adetola et al., 2021). Despite these obstacles, the advantages outweigh the drawbacks and demerit considerations.

The approaches have the potential to achieve Sustainable Development Goal (SDG) related to job creation, poverty alleviation, and environmental sustainability (Nzeadibe, 2009), conserve energy, reduce waste, costs, and pollution, and provide a long-term solution to the country's electricity challenges (Ben-Iwo et al., 2016; Somorin et al., 2017). Although there is a lack of a coordinated waste management system, solid waste management is an area that remains under the purview of the Ministry of Environment at the Federal and State levels and the Environmental Health Department at the Local Government level under established legislations and guidelines relating to waste management.

Some of these legislations include the Harmful Waste Act (Special Criminal Provisions of 1988), the National Environmental Standards and Regulations Enforcement Agency (NESREA), Act 2007 (NESREA Act, repealed the Federal Environmental Protection Act of 1988), Environmental Impact Assessment Act of 1992, National Environmental (Sanitation and Wastes Control) Regulations, 2009 and the National Environmental Protection Regulations (Pollution Abatement in Industries and Facilities Generating Waste). According to Johnson-Odusanya and Olomjobi (2022), the primary aim of national environmental policy is to safeguard the environment and preserve natural resources to promote sustainable development. Strategically, it aims to align efforts in environmental protection and conservation of natural resources to foster sustainable development. However, an effective environmental policy should address population, energy, agriculture, and health concerns.

In July 2020, the Nigerian Federal government established a Solid Waste Management Policy to foster a healthier and cleaner environment for Nigerian citizens. Subsequently, on 10 May 2021, the Federal Ministry of Environment partnered with the United Nations Development Program to craft the National Solid Waste Management Policy. However, in 2021, the Federal Ministry of Environment introduced an independent national policy concerning plastic waste management. The objective is to enforce the utilization and recycling of plastic waste materials (National Policy on Solid Waste Management, 2020).

Also, drawing from the directive of the Federal Government to the states for the establishment of waste authorities, all states in Nigeria have established waste authorities under the Ministry of Environment. Some of these Waste Authorities include Abuja Environmental Protection Board (AEPB), Anambra State Waste Management Authority (ASWAMA), Lagos State Waste Management Agency (LAWMA), Lagos State Environmental Sanitation Corps (LAGESC), Oyo State Solid Waste Management, Rivers State Environmental Sanitation Authority, Kano State Refuse Management and Sanitation Board to name a few. The emergence of waste authorities in most states in Nigeria has brought about several strategies that are best suited for solving waste management problems in the states. However, informal waste pickers are still one of the major players in picking or collecting waste from streets, drainages when it rains, dumpsites, and home garbage.

The mountainous heaps of solid waste sites and industrial contaminants in Nigeria's urban cities such as Lagos and Abuja motivated the federal government of Nigeria to promulgate Decree 58 for the establishment of the Federal Environment Protection Agency (FEPA) on 30 December 1988 (Federal Military Government 1998). The formulation of a national policy seeks to ensure the quality of the environment is adequate for the health and well-being of Nigerians, raise public awareness and promote understanding of the essential linkages between the environment and development, and encourage individual and community participation in environmental protection and improvement efforts (Adelagan, 2004).



Photo by: Tonye Marclint Ebiede

Notably, implementing the FEPA policy was highly dependent upon specific actions geared toward major sectors and problem areas of the environment. Regarding the solid waste management sector, the actions were explicitly aimed at the management, collection, and disposal of solid waste in an environmentally safe manner and setting up a legal framework that regulates, sets standards, encourages public participation, environmental monitoring, and imposing fines on defaulters to encourage compliance (FEPA 1999, FRN 1991).

Over the years, FEPA has evolved into the National Environmental Standards and Regulations Enforcement Agency (NESREA) and has remained the institutional reference authority in environmental matters in Nigeria. However, state and local government agencies are expected to play their traditional tasks. Despite the formulation of FEPA and a national environmental policy, there are still significant challenges in protecting the environment as waste management remains highly irregular, not properly recycled, and restricted across major urban cities, where improperly sited open dumps have defaced several cities.



Photo by: Tonye Marclint Ebiede

LAGOS STATE WASTE AND ENVIRONMENTAL POLICIES

Each state of Nigeria and the Federal Capital Territory, Abuja, have independently formulated environmental protection, safety, waste management, and recycling laws. Under the State laws, enforcement is placed in the hands of several bodies, including the Environmental Sanitation Task Force, Waste Management Boards, State Environmental Protection Agencies, and Environmental Sanitation Courts. Special courts have also been established to try anyone violating the laws. Chukwuebuka (2023) acknowledged the informal recycling and waste recovery in urban cities, which has yet to gain the support of the state government in charge and the waste authorities in place.

To that end, only paper, metals, plastic, and glass are recovered and recycled because of their high market value. In a study, Adi Odey (2023) examines Lagos State solid waste management agencies and laws; he posits that the Lagos State government has enacted the Environmental Sanitation Law and Environmental Pollution Control law on environmental pollution and protection (Adi, 2023). In Lagos, LAWMA was created because local governments were accused of being incapable of performing their functions (Olokesusi, 1994; Urban Development Bank Report, 1999) as most state governments created task forces and ad hoc agencies or bodies that were in charge of waste collection activities due to the inability of local government councils to carry out their tasks.

ABUJA WASTE AND ENVIRONMENTAL POLICIES

Generally, the amount of waste generated is difficult to estimate, even in urban cities with well-organized collection and disposal systems. Muhammad (2021) estimated that household waste in Abuja is within 0.40 to 0.79 kg per capita per day, related to factors such as population density and types of activity across districts.

In Abuja, solid waste management was conceived in 1999 by the now-defunct Federal Environmental Protection Agency (FEPA). FEPA was subsequently merged with the Federal Ministry of Environment. However, apart from the Ministry, the Abuja Environmental Protection Board (AEPD) is in charge of the capacity for solid waste management in Abuja, and the Abuja Municipal Area Council (AMAC) is tasked with performing administrative functions in peripheral settlements. The three Institutions representing the three tiers, namely, federal, state, and local, were tasked with issues related to waste management, recycling, and reuse of solid waste in Abuja.



Photo by: Tonye Marclint Ebiede

Constitutionally, local governments are empowered to manage solid waste, with the 1999 constitution highlighting one of the functions of local government as "provision and maintenance of public conveniences, sewage, and refuse disposal" (Constitution of Federal Republic of Nigeria, 1999). In Abuja, Adama (2007) opines that the Federal Capital Development Authority (FCDA) was one of the first environmental agencies created in Abuja to handle solid waste management through the Environmental Pollution and Control Division in 1985. Subsequently, thirteen specialized agencies were created to manage different services. The Abuja Environmental Protection Board (AEPB) was one of the thirteen agencies. AEPB, created in 1989, was given formal constitutional status by Decree 10 of 1997, and it was primarily responsible for managing solid waste, including statutory roles such as the protection, conservation, and sustainability of the Federal Capital Territory (FCT).

The AEPB has four operational and three service departments, with the former including space management, liquid waste, solid waste, and public health (Abuja Environmental Protection Board, 2003). However, there have been some structural changes, with some departments merging into one department. The functions of the solid waste division, as spelled out in the decree, include procurement and distribution of waste bins in public places, refuse collection and transportation, street cleaning and litter control, management of particular waste (health care and hazardous waste), and recycling and reuse of waste (Abuja Environmental Protection Board, 2003).

Unlike state governments, whose essential responsibilities revolve around regulatory and monitoring activities, enactment of legislations, and assisting local governments? AEPB, in administrative terms, represents the state in environmental matters in Abuja. Unlike Lagos, creating a specialized environmental agency like the AEPB was difficult to attribute to the poor performance of the municipal council. As reported by the time the AEPB was created in 1989, the Abuja Municipal Area Council (AMAC) was already in existence as it was established in 1984, four years before the creation of AEPD.

Furthermore, the Abuja Municipal Area Council (AMAC) was primarily responsible for managing and recycling solid waste by the 1999 constitution. However, the activities of AMAC are limited to waste collection in markets and are guided by market waste management by-laws, which ensure that markets within Abuja municipality are kept clean at all times (Abuja Municipal Area Council, 2001). Dikko (2001), in his analysis of the Abuja master plan, argued that solid waste management was a fundamental part of the plan. He states that consortiums such as Messrs. Berger Soge Unecon were contracted to design a solid waste collection and disposal system for the city. The primary focus was also to utilize solid waste residuals to protect human health and incorporate management systems that could be operated and maintained at low cost with semi-skilled or unskilled staff (Federal Capital Authority, 1979).

In reviewing relevant literature and policies on waste management and the formalization of the waste-mining economy in Nigeria, waste management and formalizing the economy is multidimensional and multifaceted. In the academic milieu, two broad categorizations or perspectives can be used to identify the process. The first focuses on agencies, institutions, actors, and policies. The second is the nature of relations between agencies or institutions and actors, particularly concerning partnerships,

addressing policy gaps, and creating employment and economic opportunities. These two categorizations are reflected in this study and review but from a space of perspectives and critical analysis of existing literature. Hence, this section examines national and state policies and relevant literature on the space and place of institutions, actors, and government in formalizing the informal waste pickers' economy.

METHODOLOGY

Given the qualitative approach to the study, secondary and primary data sources were used. The former was extracted from arrays of published and unpublished resources applicable to the study, such as books, journals, magazines, conference seminar-papers, and newspapers on the scavenger economy in the States and Nigeria.

For primary data sources, the research team visited several officers and dumpsites in Abuja and Lagos to collect data using Key Informant Interviews (KIIs) and Focused Group Discussions (FGD) to gather qualitative data from stakeholders relevant to the objectives of this study. Specifically, the study interviewed waste collectors, intermediaries, policymakers, public servants, and environmental associations or unions. The primary data was generated using a participatory method, which combines twelve (12) Key Informant Interviews (KII) evenly distributed between both states with eight (8) focus group discussions (FGD) in total to gather context-specific information about waste pickers and the need for their formalization.

KEY INFORMANT INTERVIEW AND FOCUS GROUP DISCUSSION



Photo by: Chikaodili Arinze Orakwue

The interviews were carried out using a structured approach in English, Hausa, Yoruba, and Pidgin English.⁷ The interviews were conducted in Lagos and Abuja, and the participants consented to the information they

provided for the study. The interviews were both structured and semi-structured. The structured interviews enhanced precision, while the semi-structured ones facilitated diversity and allowed in-depth discussion. Focus group discussions also allowed for diverse views and enhanced detailed understanding of the issue by different categories of people. The key informant's interview and focus group discussions facilitated extensive discussions and provided the research team with detailed qualitative information.

Interviews were conducted with waste pickers, key personnel of regulatory agencies, and policy-making agencies. Formal and informal discussions were held with people knowledgeable about the waste pickers. Focus Group Discussion (FGD) was employed to generate data in the study area (Abuja and Lagos) and involved different stakeholders cutting across ethnic and religious lines of division.

⁷Pidgin English, also known simply as "Pidgin," is a creole language widely spoken in Nigeria and across West Africa. It evolved as a means of communication among people who speak different native languages. Pidgin blends elements of English with local languages and has its own unique grammar and vocabulary. It is often used in informal settings and is known for its vibrant and expressive nature.

DATA COLLECTION

The study conducted a pilot survey to find out how informal waste pickers understood the questions, owing to their supposed low level of education. Their responses were considered, and adjustments were made to the original questionnaire administered to the informal waste pickers. Furthermore, informal waste pickers' consent was sought during pre-survey visits, during which the date and time of the surveys were set. They were assured of confidentiality and that the study was conducted for policy purposes only.

The informal waste pickers were surveyed at the dump sites. The research team invited the environmental regulatory agencies and waste managers to a group discussion. Informal waste pickers were assured of confidentiality, as necessary steps to protect their identity were adhered to following their voluntary consent to participate in the survey. The preliminary survey revealed about 4000 informal waste pickers in Idu, Utako, and Mpape dumpsites in Abuja, while about 5000 and 2000 informal waste pickers are visible in Olusosun and Ijishagaifako Ijaiye, respectively. A purposive convenience sampling technique was employed to select knowledgeable informal waste pickers with more than five years of experience in waste picking. The study deployed content analysis to analyze the findings from the data collected to draw relevant insights from Key Informant Interviews, Focus Group Discussions, and other secondary data sources.

The study engaged a quantitative survey method to collect numerical data from participants. The method was used to quantify waste pickers' scope, patterns, and challenges in the informal sector, specifically focusing on their socio-economic conditions, formalization, and challenges in waste management activities. Through structured questionnaires, the survey gathered data that allowed for statistical analysis and provided a transparent, measurable understanding of the informal waste-picking sector, particularly the role of women and other marginalized groups within the ecosystem.

LIMITATIONS

Several limitations were encountered during this study. For instance, the research was limited to informal waste pickers in Abuja and Lagos, explicitly focusing on Lagos and Abuja as cities with an extraordinary presence of waste management agencies and informal waste pickers. Some dumpsites in Lagos were inaccessible due to some local regulations. Limitations were also encountered during the desk research, including the absence of key policy documents outlining the design and structure of governmental waste management programs and initiatives in the last ten years, which posed an additional challenge.

MARGINALIZATION, EXCLUSION, STIGMATIZATION, AND CRIMINALIZATION OF WASTE PICKERS IN THE INFORMAL SECTOR

While playing a critical role in recycling waste management, knowledge, and job creation in the informal sector, waste pickers often face marginalization, exclusion, stigmatization, and criminalization. The process often takes the form of social stigma and discrimination, as their work is viewed as undesirable or unsanitary. Additionally, informal waste pickers are excluded from formal waste management systems, marginalizing them within society. As captured by participants in focus group discussions:

Most times, police often raid their residents or dumpsites where they reside when crimes have been committed around their neighborhood.⁸ A stakeholder noted that informal waste pickers are often stigmatized as criminals due to theft or vandalism, which leads to criminalization and threatens peace and security.⁹

In describing the issue of vandalism and theft, participants from the focus group discussion posited that although incidents of criminality, vandalism, and theft do occur, the informal waste pickers' community at various dumpsites and sorting sites strongly condemn such actions and has established a taskforce to address these issues when reported at the dumpsites.¹⁰ One participant highlighted that rather than being branded as criminals and discriminated against by the police or security agencies, informal waste pickers need collaboration with the police. The cooperation would involve the police working with the informal waste pickers' taskforce at dumpsites and sorting sites to address these issues. It was noted that most informal waste pickers arrested in connection with such incidents are often rogue individuals who do not belong to any recognized scavenger community.¹¹

Aside from the stigma related to criminalization, theft, and vandalism, informal waste pickers highlighted that their work is very hazardous, often leading to health issues due to the privation of access to

⁸Focus Group Discussion at Idu Dumpsite, May, 2024

⁹Stakeholder Participatory Workshop, May-2024

¹⁰Focus Group Discussion at Mpape and Idu Dumpsite, May 2024

¹¹Focus Group Discussion at Utako Dumpsite, May 2024

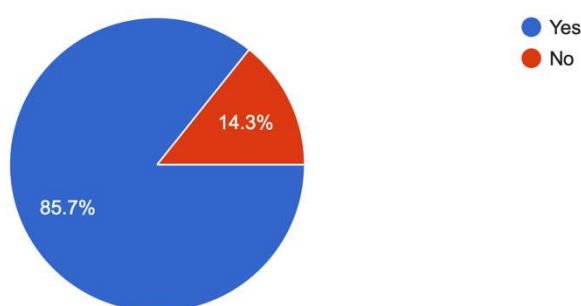
health and medical services or health insurance. The challenge of exclusion was a recurrent theme during focus group discussions with informal waste pickers at most of the dumpsites. They emphasized that they are excluded from accessing essential services, such as bank accounts, healthcare, and other socio-economic services available to most Nigerians because they do not possess a National Identity Number (NIN), Bank Verification Number (BVN), or voter's card. Without these documents, they often cannot open bank accounts, obtain SIM cards, or vote during elections.

The economic exclusion of informal waste pickers is another significant challenge highlighted during focus group discussions. Despite their economic contributions, they lack access to financial services and often face limited economic opportunities, perpetuating their marginalization within the broader economic system and preventing them from achieving financial stability and growth. The preceding intersection of factors underscores informal waste pickers' complex challenges and highlights the urgent need for interventions to address their marginalization, exclusion, stigmatization, and criminalization.

INFORMAL WASTE PICKERS ECONOMY FOR KNOWLEDGE CREATION AND PATHWAYS FOR FORMALIZING THE SECTOR

Understanding the perceptions of waste picking as an economy for knowledge creation vis-à-vis a pathway for formalizing the sector requires a detailed background on the activities of informal waste pickers and their role as well as challenges. As part of the study, we examined these dynamics to capture them better. The survey data underlines the pressing need for formalization, highlighted by 85.7% of respondents who see the benefits of formalization despite its challenges. Like most workers in the informal sector, informal waste pickers have free entry and a free market system. As some informal waste pickers describe, the market operates on a self-regulatory system, sometimes with a "Hit and Run"¹² system devoid of gatekeepers or any significant barriers to entry. New entrants can often start as informal waste pickers and transition to the middle before exiting into other businesses.

Fig 2: Survey on benefit of formalizing Informal Waste Picker Economy



Source: based on data collected through a Google Survey conducted by the Institute for Peace and Conflict Resolution (IPCR) in Lagos and Abuja, Nigeria, between April and August 2024. The survey engaged general waste pickers and stakeholders, such as recycling companies, to examine the benefits of formalizing the informal waste picker economy.

In describing their roles and responsibilities within the waste-picking economy, the chairman of the Bonla Bonla Association in Jabi describes the role of go-betweeners as the bridge between the informal waste pickers in the street and dumpsites and society at large. In that case, the intermediary buys materials from informal waste pickers, mobilizes informal waste pickers to sort and aggregate them, and facilitates the sale of scavenged waste material to recycling companies or manufacturers, ensuring fair prices.¹³ Most research participants posit that the knowledge and skills necessary for operating in the picking economy vary, although there is little difference. As a young man explained:

"That scavengers do not need any special skills or knowledge. However, the knowledge and skills necessary for the role require a certain level of experience, access to funds, and a network of contacts are essential. Middlemen must have experience in the waste management industry to effectively sort, aggregate, and negotiate market prices for materials"¹⁴.

¹² "Hit and Run" in the context of informal sector markets, such as waste picking, refers to the unregulated and often unpredictable nature of these markets. It describes the opportunistic behavior of individuals who quickly exploit available opportunities for profit and may leave just as swiftly when those opportunities diminish or risks increase.

¹³ This self-regulatory system can lead to high competition and volatility, with minimal long-term security or stability for the workers involved.

¹⁴ Key Informant Interview, Utako Dumpsite, May 2024

¹⁵ Key Informant Interview, May, 2024

The owner of a small business and intermediary

“Sufficient funds are crucial to buy materials from informal waste pickers and hold inventory until they can be sold to recycling companies or manufacturers. Establishing and maintaining a network of contacts is also important for middlemen, as these relationships facilitate smoother transactions and better opportunities within the scavenging economy. However, informal waste pickers need no special skills or knowledge; they just need instructions in picking waste that has a considerable monetary value up the value chain”⁴⁵.

Some participants mentioned that they joined the waste-picking business with the help of friends and family members already in the industry, either as informal waste pickers or as intermediaries. The support system makes it easier for newcomers, as they have someone to guide them and help them navigate the business. Having mentors within the community facilitates the learning process and also fosters a sense of camaraderie and mutual support among informal waste pickers. The network of assistance underscores the communal aspect of the informal waste management sector, highlighting how relationships and social ties play a crucial role in sustaining this vital economic activity.

The survey conducted by the research captured participants' perspectives on the challenges and potential benefits of formalizing the informal waste pickers' economy. It explored key areas such as recognition of the work, improvements in health and safety standards, increased access to financial services, and the potential for greater social inclusion. Additionally, the study sought to understand how formalization could foster innovation, open new markets, and improve waste management practices within the scavenging sector.

The assessment revealed compelling insights into these issues. 85.7% of respondents anticipated challenges in formalizing the informal waste economy. Despite these concerns, there was strong support for the benefits of formalization. 92.9% of participants believed formalization could improve working conditions, while 91.1% agreed it would increase waste pickers' income and financial stability.

Moreover, 91.1% of respondents felt that formalization would elevate the recognition and respect for the work of waste pickers, an important shift in how the sector is perceived. Almost 89.3% believed it would improve health and safety standards, an essential change to the often hazardous working conditions. Access to financial services was also seen as a key benefit, with 91.1% agreeing that formalization would increase access.

Survey participants also recognized the broader economic potential of formalization. A remarkable 94.6% believed it could lead to new markets and opportunities within the waste-picking economy, and 96.4% agreed that formalization would improve waste management practices. Finally, 91.1% of respondents saw formalization as a path toward greater social inclusion and equality within the scavenging economy.

These results paint a clear picture of a sector ready for transformation. The overwhelming support for formalization indicates that, despite the anticipated challenges, waste pickers and stakeholders believe the long-term benefits far outweigh the hurdles. The findings suggest that formalizing the sector could improve working conditions, create new economic opportunities, foster innovation, and promote greater inclusion for those involved in the informal waste economy.

⁴⁵Based on discussion with participants at Idu Dumpsite, May 2024

However, informal waste pickers often contend with fairly widespread perceptions of criminality resulting from the itinerant nature of their activities. Informal waste pickers move around the neighborhood, scouring household waste bins and dumpsites for solid waste and even abandoned household items. The often-thin line between household waste or items and valuable properties often leads to these accusations of theft and trespassing. The frequent movement of informal waste pickers across neighborhoods also compounds the problem. In describing the initial challenges to be more on "criminality" accusations and stereotypes, research participants described how they had faced passive and aggressive criminal accusations even when carrying out regular street waste picking. When asked about the challenges faced in their role, the participants highlighted several significant issues. A waste picker at Idu dumpsite explained the issue of criminality:

"One major challenge is the criminalization of baban bola¹⁶ and the frequent accusations of criminality by the police and other security agencies. The situation often leads to arrests and harassment, disrupting operations and livelihood. Focus Group Discussion at Mpape and Utako Dumpsite,"¹⁷

Given the informality in the waste picking practice, informal waste pickers often carry out their activities without any protocol on safe and health-conscious practices, thus increasing their vulnerability and exposure to hazardous waste and contaminated materials. The imminent health complications from their activities underscore the danger of informality. During a focus group discussion with women informal waste pickers at the Idu dumpsite, health and living conditions emerged as significant concerns. One participant explained:

"While sorting or picking waste, we see all sorts of things. Sometimes, we see syringes or needles, and they prick and wound us. Sometimes, they cut us because we do not use hand gloves and all those materials. We work from morning till night, and picking daily here affects us, but we do not mind because we are looking for money"¹⁸.



Photo by: Tonye Marclint Ebiede

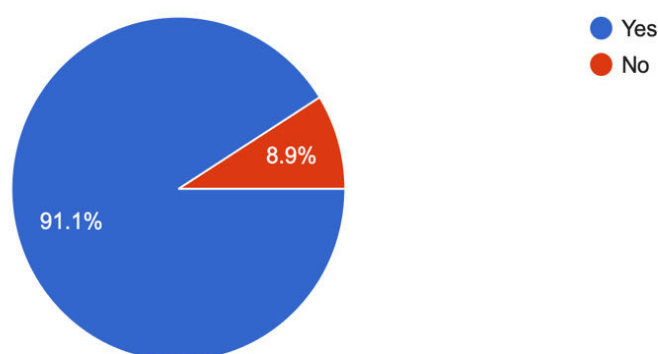
¹⁶Baban bola is Hausa term for informal waste pickers

¹⁷Focus Group Discussion at Mpape and Utako Dumpsite, May-2024

¹⁸Focus Group Discussion with Women Pickers at Idu Dumpsite, May-2024

However, the formalization of the scavenging economy could address these challenges by providing legal recognition and protection for informal waste pickers. With formal status, informal waste pickers could operate without fear of being unjustly targeted by security agencies. Formalization would help legitimize their roles, reduce criminalization, and foster a more stable work environment, which 91.1% of respondents agree would improve societal respect for scavenging as a legitimate form of labor.

Fig 3: Survey on Formalization leading to Greater Recognition and Respect for the Work of Scavengers



Source: based on data collected through a Google Survey conducted by the Institute for Peace and Conflict Resolution (IPCR) in Lagos and Abuja, Nigeria, between April and August 2024. The survey engaged general waste pickers and stakeholders, such as recycling companies, to examine the benefits of formalizing the informal waste picker economy.

Additionally, formalization could include implementing standardized regulations and policies that protect informal waste pickers' rights and ensure fair treatment. Formalizing scavenging could also facilitate better collaboration with law enforcement, reducing the stigma and criminalization associated with scavenging activities.

Moreover, formalization could improve health and safety conditions for informal waste pickers. Providing safety equipment, such as gloves, protective clothing, and training on safe waste handling practices would reduce the risk of injuries and health issues. Formalization could also ensure better access to healthcare services and support for those working in the scavenging economy, enhancing their overall well-being and quality of life.

In informal waste management, informal waste pickers are actively involved in various activities. These range from collecting and composting to sorting, processing, and selling waste materials. One respondent noted that waste picking is an autonomous form of self-regulated labor. Informal waste pickers work according to their schedule, deciding where to collect waste, how to collect it, and to whom to sell scavenged items.¹⁹ The autonomy allows informal waste pickers to manage their own time and operations, providing them with independence. They typically work from Monday to Saturday, and in some cases, they also work on Sundays. However, as mentioned by an intermediary during an informant interview:

¹⁹Key informant Interview, May-2024

"The average daily earnings of informal waste pickers in Nigeria, approximately 1,500 to 2,000 Naira (around \$0.90 to \$1.20 USD at the current exchange rate), place them below the international poverty line, set by the World Bank at \$2.15 per day. This highlights the economic hardship informal waste pickers face, underscoring the need for targeted support and policies to improve their livelihoods and elevate their earnings above subsistence levels."

Regarding the types of waste collected by informal waste pickers, most participants highlighted that the most commonly sought-after and collected items are plastics, metals, leather, iron, can bottles, rubbers, aluminum, paper, and steel. Informal waste pickers collect used clothing, electrical and electronic items, and household furniture. Participants explained that informal waste pickers focus on this range of items because they are relatively easy to pick, and there are ready buyers for such materials. The availability of a market for these items ensures that informal waste pickers can quickly sell what they collect, making their efforts financially viable. The selective collection process becomes evident in informal waste pickers' practical considerations in their daily work, balancing ease of collection with market demand.

The diversity in collected materials reflects the versatility and adaptability of informal waste pickers in the informal economy. Informal trash collectors can maximize their income and contribute significantly to the recycling and waste management ecosystem by focusing on various items. The approach underscores the importance of market-driven decisions in the activities of informal waste pickers, ensuring that their labor remains efficient and profitable.

Participants emphasized the need for government support when discussing how the scavenging economy can be better integrated into the formal economy. One essential suggestion from participants was that the government should provide a permanent place explicitly designated for waste picker activities. As one of the informal waste miners stated, a dedicated space would serve multiple purposes. Firstly, it would help to organize and centralize their activities, making informal waste pickers more visible and acknowledged as part of the formal economy. Secondly, it would reduce the stigma associated with their work.

"A dedicated space would serve multiple purposes. Firstly, it would help to organize and centralize their activities, making informal waste pickers more visible and acknowledged as part of the formal economy. Secondly, it would reduce the stigma associated with their work."

Another participant noted that having a known location for their business would ensure that informal waste pickers are not seen as "anyhow" and prevent people from looking down on them. Instead, the public would recognize and respect waste picking as a legitimate business. Such a move would provide a safer and more stable working environment for informal waste pickers and facilitate better regulation and support from the authorities. The integration could lead to improved working conditions, access to resources, and the potential for further professional development within the waste management sector. By formally recognizing and supporting the scavenging economy, the government can help transform it into a more structured and respected part of the broader economic system.

Some groups of our research participants from Abuja highlight the role of the Abuja taskforce as a significant factor affecting their work. The taskforce frequently arrests informal waste pickers, sometimes detaining them for two to three months and even collecting items they have picked. These arrests create significant disruptions in their lives and work. One participant explained that during these periods of detention, colleagues often have to pool their resources to gather the funds necessary to secure their release. The process strains their financial resources and hampers their ability to

maintain consistent work and income. Such regulatory actions underscore informal waste pickers' challenges in their daily operations. The frequent arrests and the subsequent need for collective financial support highlight the precarious nature of their work environment. Addressing these issues through more supportive and fair policies could significantly improve their working conditions.

Cart pushers²⁰ face significant regulatory challenges in Lagos due to LAWMA actions. The approach contrasts with informal waste pickers who primarily work at dumpsites, as they often have a more efficient relationship with government agencies. Interestingly, many participants in both Abuja and Lagos expressed hope that their situation would improve with government support. They emphasized the need for healthcare services, booths, gloves, uniforms, and insurance, among other resources. Some informal waste pickers aspire to upgrade from their current roles to become waste managers, while others hope to change businesses entirely.

The participants' optimism highlights a critical opportunity for governmental and institutional support to transform their working conditions and career trajectories. By addressing their needs and providing the necessary resources, the government can help these workers achieve more stability and success in the waste management sector. Additionally, policies can promote training programs and capacity-building initiatives designed to enhance the skills and knowledge of informal waste pickers. These programs may encompass technical training on waste sorting, recycling techniques, safety practices, and business management skills. Furthermore, policies can facilitate technology adoption within the scavenger economy by providing access to affordable and appropriate waste collection, sorting, recycling, and marketing technologies. By embracing technology, informal waste pickers can streamline their operations and increase productivity, leading to more efficient waste management practices.

The emphasis on policymaking highlights the potential for government intervention to empower informal waste pickers and elevate their role within the waste management sector. By prioritizing knowledge creation and technological advancement, policies can pave the way for a more sustainable and prosperous scavenger economy.

The first narrative, as demonstrated by the qualitative data, reveals a prevailing acknowledgment among informal waste pickers regarding the regulatory challenges they face, particularly from actions by the Abuja task force and LAWMA, which significantly disrupt their daily work routines. During a participatory workshop with LAWMA, a government participant highlighted that while the government is aware of these challenges and the need for possible interventions to improve waste-picking practices, most interventions have focused on restrictions and arrests when informal waste pickers operate within specific areas²¹.

The approach underscores the tension between regulatory enforcement and the need for supportive measures to enhance the efficiency, safety, and sustainability of waste-picking activities. Despite these hurdles, both Abuja and Lagos participants express a collective optimism, indicating a shared belief in the potential for government support and policy interventions to enhance their working conditions and elevate their roles within the waste management sector. The sentiment underscores the importance of addressing regulatory obstacles and providing essential resources to foster a more sustainable and prosperous scavenger economy.

²⁰Cart pushers are a subset of informal waste pickers who construct custom wheelbarrows or pushcarts to collect waste from various locations, including streets and dumpsites, allowing for more efficient waste gathering than relying on sack bags alone. This method enables them to cover wider areas and gather more recyclable materials in a day, maximizing both collection efficiency and earnings potential. Despite these efficiencies, cart pushers in Lagos face strict regulations by the Lagos Waste Management Authority (LAWMA), impacting their operations and economic opportunities.

²¹Stakeholder Participatory Workshop, May-2024



Photo by: Tonye Marclint Ebiede

VALUE CHAIN OF SCAVENGER ECONOMY AND IMPACT ON JOB CREATION

The waste management sector in Lagos and Abuja has been historically driven by a hybrid system that includes the informal sector, such as informal waste pickers, and formalized public-private partnerships collecting waste from residences and businesses from the city and transporting it to dumpsites. In Lagos, the state government works principally through the Lagos Waste Management Authority (LAWMA), while in Abuja, waste management is done by the Abuja Environmental Protection Board (AEPB). However, with no meaningful effort from the government to recycle, the gap between recycling and picking waste from households, streets, and dumpsites has been filled by informal waste pickers.

Waste picked by informal waste pickers is seen as the recovery of resources of certain reusable and valuable materials in the informal sector in terms of informal waste pickers collecting materials such as glass, paper, and metals from primary points, which are mostly household waste bins and street drainages and secondary points from open dumpsites.²²

Lagos has four major dumpsites: Olusosun, Ijishagaifako Ijaiye, Festac, and Ikorodu Dumpsites. Olusosun is one of the biggest dumpsites in Africa, sprawling on 100 acres of land space and under the control and supervision of LAWMA. In Abuja, the Idu dumpsite, Mpape, Banex, and Kubwa are active dumpsites in the capital city, with informal waste pickers camping and picking up waste daily. In Abuja, the Idu dumpsite, located in Abuja's industrial layout, is the biggest and most active dumpsite, with a colossal informal waste pickers community residing in a world of its own. A visit to the dumpsite for focus group discussion with informal waste pickers on the project revealed the significant presence of the scavenger community. The materials collected by informal waste pickers include plastics, metal, irons, aluminum, coppers, and paper.

²²Focus group discussion with Informal waste pickers at Idu, Utako, and Olusosun Dumpsite in Abuja and Lagos respectively; May, 2024.

In describing the impact of the value chain on the scavenger economy, participants in the focus group discussion indicated that their primary role as informal waste pickers in the value chain is the initial collection and sorting of waste materials. Informal waste pickers collect various types of waste, including metals, plastics, rubber, and iron²³. The informal waste pickers also assist in separating these materials and, in some cases, escorting the loaded materials to companies when supplied by mediators.²⁴ The essential initial step ensures that recyclable materials are extracted from general waste, setting the stage for further processing, selection, scaling, and resale.

As materials move through the value chain, their value increases significantly. Initially, when collected by informal waste pickers, scavenged materials are of low value. Once sold to intermediaries, these materials are sorted and aggregated, increasing their value. Recycling companies then process the materials, further enhancing their value by transforming them into usable raw materials. Finally, manufacturers use these recycled materials to produce new goods, at which point they attain their highest value.

Market dynamics, particularly currency exchange rates, significantly impact the value of scavenged materials. Participants highlighted the role of the dollar in determining the prices of materials. For instance, a participant from Abuja mentioned that the dollar has affected the value of most of what is being picked and resold.²⁵ Another participant from Lagos explained thus, "The price of scraps sold to retailers or companies depends on the value of the dollar to naira."

They emphasized, "Recently, many materials such as metal, plastic, and iron have become expensive due to the rise of dollars against the naira."²⁶ "The impact of the dollar on the value of waste items collected by informal waste pickers can be attributed to the practice of intermediaries and recycling companies exporting these materials, either as finished goods or raw materials.

It should be noted that informal waste pickers are primarily involved in the whole value chain process. However, they play a crucial role in the initial stage: picking waste materials from streets and dumpsites and sorting and selecting the collected trash into categories by separating plastic (mostly sorted by colors), iron, cans, and papers into different clusters. Meanwhile, intermediaries and recycling companies add value through sorting and processing. Also, the fluctuation in exchange rates, especially the dollar to naira rate, illustrates the interconnectedness of local waste economics with the global financial markets and highlights the economic vulnerability informal waste pickers face due to external economic factors.

The value chain analysis of materials collected by informal waste pickers reveals a dynamic process involving informal waste pickers acting as the initial link and gathering and sorting recyclable materials from other junk. Their role is pivotal in identifying valuable materials like plastic and iron, which are sold to intermediaries or recycling companies. In addition to informal waste pickers, intermediaries are vital players in the value chain. They serve as intermediaries, purchasing materials from informal waste pickers at lower prices and selling them to end-users at higher prices, thereby generating a profit.

Respondents highlight that the value of materials fluctuates throughout the chain. Initially, informal waste pickers may sell materials such as plastic for approximately 120 naira per kilo and iron for 250 naira per kilo²⁷. However, as materials transit to intermediaries, prices may change due to market dynamics such as demand and supply. One participant noted, "Anything that moves from the informal waste pickers' chain to intermediaries is also bound to change the price."²⁸ Overall, the value chain operates through the collaborative efforts of informal waste pickers, go-betweens, manufacturers, and end-users, each playing a vital role in collecting, distributing, and pricing recyclable materials.

²³Focus group discussion with Informal waste pickers at Idu Dumpsite, Abuja, 2024; Olososun Dumpsite, Lagos, 2024

²⁴The middle men are most times bosses to the informal waste pickers, paying them either daily rates or buying items from them; based on value and existing price.

²⁵Focus Group Discussion at Idu Dumpsite-Abuja, May, 2024.

²⁶Focus Group Discussion with Informal waste pickers at Olososun Dumpsite- Lagos, May 2024

The focus group discussions and key informant interviews revealed mixed responses regarding the impact of government policies and regulations on informal waste pickers. Informal waste pickers at the Idu dumpsite in Abuja generally reported positive interactions with government agencies and minimal regulatory interferences. One participant mentioned, "We have a working structure at the Idu dumpsite, which includes a task force, chairman, and youth leader. We do not have issues with the Abuja Environmental Protection Board or the Abuja Municipal Area Council (AMAC)." The situation indicates a functional relationship with government bodies. When crime and theft arise, informal waste pickers collaborate with the police, showcasing a cooperative approach to maintaining order and security within the dump site.²⁹

In contrast, the informal waste pickers at the Olososun dumpsite in Lagos experience stringent government control. During a stakeholders' participatory workshop, a participant was highlighted. "The activities of informal waste pickers, especially the 'cart-pushers' in Lagos, are strongly regulated by government agencies such as LAWMA." Despite the regulation, access to the dumpsite is not that restricted. "Access to the dumpsite is free for all; however, they are registered or linked to one association," noted another participant. The preceding idea suggests a regulated environment in Lagos, where informal waste pickers must adhere to specific guidelines and registration processes to operate.

According to Susty Marhsall Communiqué (2023), the anti-informality policy agenda and ensuing blacklisting of informal activities like it is in Lagos, disregard the contributions of the informal sector to the state's economy. The point is that informality does not always equal illegality. However, the peculiarities of informality need to be integrated into the planning and design of public infrastructure, services, and policies, calling for deliberations during any dialogue should be put forward to find a middle ground.

Both groups of informal waste pickers in Abuja and Lagos cited challenges with security and environmental agencies. They often face arrests and are targeted concerning

crimes such as vandalism, theft, and violence. A participant from LAWMA confirmed this during the stakeholders' workshop, stating, "Informal waste pickers, especially the cart pushers, are outlawed and forbidden by law in Lagos State. We can arrest about 200 informal waste pickers pushing carts daily."³⁰

The mixed responses from informal waste pickers in Abuja and Lagos illustrate the diverse impact of government policies and regulations on the value chain of the informal waste pickers' economy. In Abuja, a cooperative relationship with government agencies and minimal regulatory interference allow informal waste pickers to operate relatively freely. Conversely, in Lagos, stringent regulations and mandatory registration under government supervision create a more controlled environment for informal waste pickers. Additionally, both groups face significant challenges with security agencies, indicating a need for policies that address the complex realities of informal waste pickers' operations and enhance their legal protection. These findings underscore the importance of understanding local governance structures and their influence on informal economic activities, emphasizing the need for balanced regulatory approaches.



Photo by: Tonye Marclint Ebiede

²⁷Focus Group Discussion at Idu Dumpsite-Abuja, May, 2024.

²⁸Focus Group Discussion with Informal waste pickers at Olososun Dumpsite- Lagos, May 2024

²⁹Stakeholders Participatory Interview, Lagos-May, 2024

³⁰Stakeholders Participatory Interview, Lagos-May, 2024



Photo by: Tonye Marclint Ebiede

SCAVENGER ECONOMY AND SUSTAINABLE WASTE MANAGEMENT

The qualitative data reveals that informal waste pickers play a pivotal role in waste management by reducing waste accumulation by collecting and salvaging materials. This process not only helps to alleviate the strain on landfills but also contributes to the supply of raw materials for industries. Informal waste pickers' proactive efforts extend to environmental safety, as they are crucial in clearing blockages in drainages during rainy seasons. By removing plastic and metal waste from drainages, informal waste pickers help prevent flooding and reduce the risk of waterborne diseases, thus promoting a safer environment for communities. One participant emphasized the significance of informal waste pickers' actions during rainy seasons, stating:

"Sometimes, when it rains, they go around and even pick waste from blocked drainages, especially plastic, and can remove waste that normally blocks drainages and is disposed of improperly."³¹

Therefore, the contributions of informal waste pickers to waste management, environmental safety, and the supply of raw materials for industries are well recognized; informal waste pickers at dumpsites are essential suppliers of recyclable materials³² such as plastics, metals, and paper to industries and recycling facilities, supporting sustainable waste management practices and fostering resource efficiency. The role underscores the significance of informal waste pickers in promoting the circular economy and reducing the environmental impacts of waste disposal.

³¹Focus Group Discussion, Utako Dumpsite, May, 2024

³²Focus group discussion, Idu Dumpsite

Participants noted that the informal waste-picking economy provides economic opportunities that can prevent individuals from resorting to illicit activities. Formalizing and supporting this economy can empower marginalized groups, giving them a voice, recognition, and rights, enabling them to contribute positively to their communities. The multiplier effect enhances peace, security, and sustainable development in the society in particular and the Gross National Product of the country in general. However, there are instances where some informal waste pickers engage in theft or vandalism, especially if they feel compelled to resort to illegal activities to make ends meet. Such actions can lead to illegal dumping practices, causing negative environmental and social consequences. Conflicts with law enforcement or waste management authorities are common when scavenging activities are perceived as illegal or disruptive to public order.

Widespread perceptions of informal waste pickers as criminals contribute to negative public attitudes and hostility towards itinerant informal waste pickers. The movement of informal waste pickers around neighborhoods to collect household waste and scrap materials often results in accusations of trespassing and theft, leading to frequent run-ins with law enforcement. Participants during Key Informant Interviews deny these allegations, stating that most of these accusations are founded on age-long stereotypes about informal waste pickers. A participant in a key informant interview states thus:

We have a structure and hierarchy, including a chairperson, a secretary, and over 46 branches, which control upwards of 2000 informal waste pickers. Informal waste pickers are supervised and directed to follow strict codes of conduct. We have disciplinary measures, so most informal waste pickers accused of theft or vandalism are from rogue scavenging groups who do not belong to our organization and live under bridges without supervisory authority.³³

Ironically, despite the strained relationships between informal waste pickers and law enforcement agents, intermediaries who aggregate and wholesale items continue to

enjoy cordial relationships with law enforcement mainly attributable to their demonstrated ability to manage large scavenger clusters, coordinate the movement of informal waste pickers and ensure lawfulness within these scavenger clusters. Law enforcement agents often rely on intermediaries to hand over erring informal waste pickers within their structure for criminal investigation.

Linked to the above, some participants suggested that both criminal accusations and security challenges posed by scavenging could be addressed through dialogue and collaboration between informal waste pickers, local communities, authorities, and relevant stakeholders. The situation would raise awareness about responsible scavenging practices and potential security risks associated with illegal activities.

Clear regulations and guidelines for scavenging activities should be established, including waste management protocols, designated collection points, and permissible items for collection. Formalizing the scavenger economy would help ensure accountability, safety standards, and adherence to the law. Additionally, strengthening law enforcement efforts to address criminal activities related to scavenging, such as theft, vandalism, and illegal dumping, is crucial.

Moreover, informal waste pickers involved in theft or vandalism pose significant threats to peace and security. Informal waste pickers' activities are viewed as trespassing on private property or restricted areas when searching for materials, leading to conflicts with property owners and several other potential security risks. Prosecution of crimes committed by informal waste pickers is challenging due to the informal and transient nature of scavenging activities, limited evidence, difficulty in identifying perpetrators, and resource constraints faced by law enforcement agencies.

Overall, participants highlighted ways in which security agencies can support the formalization of the scavenger economy. Effective collaboration between security agencies and policymakers to create a legal framework that recognizes and regulates the

³³Key informant Interview with a middleman, May 2024

activities of informal waste pickers is essential. The framework should define their rights and responsibilities and provide a pathway for formalization.

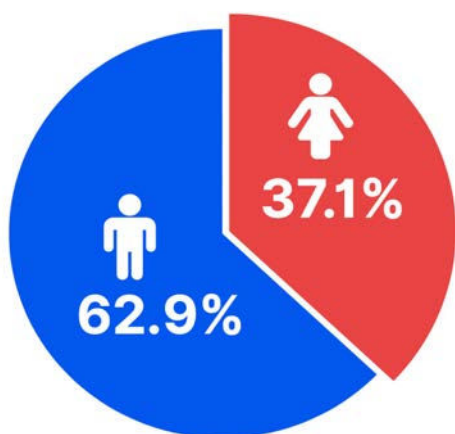
Meanwhile, security agencies can enforce laws that protect informal waste pickers from exploitation, abuse, and harassment, ensuring their safety and rights are respected. They can also work with local authorities to integrate informal waste pickers into formal

waste management systems, establishing collection points, recycling facilities, and partnerships with formal waste management companies. Formalization would help integrate informal waste pickers into the formal economy, reducing social stigma and discrimination and promoting social inclusion and empowerment.

GENDER AND CHILD WORKER DYNAMICS: HOW DO WOMEN AND CHILDREN CONTRIBUTE?

In the informal sector, gendered dynamics are observed. In Sub-Saharan Africa, 9 out of every 10 working women are engaged in the informal economy, with data from Moneypoint's (2024) informal economy report revealing that women own 37.1% of businesses in this sector. This underscores the informal economy as a critical avenue for women's economic empowerment across Nigeria and Africa, even as they face significant challenges to equity.

Fig 4: Gender Distribution of Informal Workers in Informal Economy



Sources: Moneypoint (2024) informal Economy Report

To better understand women's roles and contributions within informal waste-picking, we conducted focus group discussions with women working at various dumpsites and analyzed the insights gathered. A closer look highlights

the importance of their work and the unique obstacles they encounter in the sector.

Regarding gender relations to waste picking, females often engage in less physically demanding waste-picking activities than their male counterparts. Unlike men, who frequently move from street to street or from one dumpsite to another in search of recyclable materials, women generally operate within designated dumpsites or areas. They typically focus on collecting lighter materials, primarily plastics, rather than heavy metals.

One participant in a Focus Group Discussion at Idu described the male-female pattern of involvement, noting that women concentrate on specific types of waste, mainly plastics, within a set area.³⁴ Additionally, these women often collaborate with intermediaries or recycling companies to sort plastics by color, size, and content, adding value to the materials before they enter the recycling process. This division of labor highlights the tailored roles and limited mobility that women experience within the informal waste pickers economy, shaped by social norms and the physical demands of the work.

When discussing the risks associated with waste picking, female waste pickers highlighted various health risks that affect women in the sector. For women, these risks are compounded by the nature of their work in sorting plastics and other light materials at dumpsites, where prolonged exposure to harmful substances and inadequate protective

³⁴Focus group discussion, Idu Dumpsite



Photo by: Tonye Marclint Ebiede

gear heighten their vulnerability to hazardous waste and other occupational health hazards.

While both genders face significant health risks, the frequency and type of exposure to hazardous materials in their daily tasks underscore the need for gender-friendly safety measures. Participants also shed light on the social stigma and income disparities that shape the experiences of informal waste pickers, particularly women. One of their most significant challenges is the social stigma attached to their work. This stigma, deeply rooted in societal stereotypes, often marginalizes and discriminates against waste pickers. Viewed quite often as outcasts, their acceptance in the community is limited, thereby affecting their social standing and, at times, their self-worth personality.

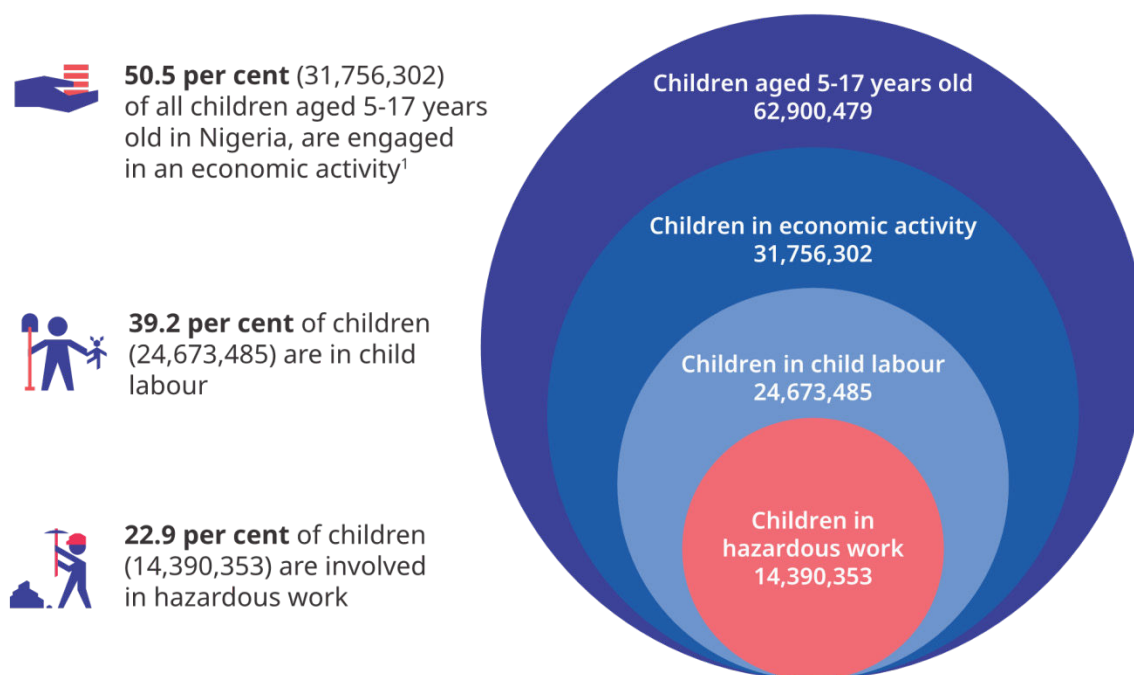
In terms of earnings, women face a distinct economic disadvantage compared to their male counterparts. Unlike men, who generally receive daily wages or fixed payments when working with go-betweens, women's income is often determined by the volume of plastics they collect. This piece-rate system can create a sense of financial insufficiency and instability for female waste pickers, as their earnings fluctuate based on the quantity and quality of materials gathered. These economic

and social challenges highlight the need for equitable pay structures and greater recognition of women's valuable, if undervalued, work in the scavenger economy.

Participants highlighted a clear division in payment structures based on gender roles within the scavenger economy. Most women reported being compensated per kilo primarily for sorting plastics, which requires meticulous attention to detail, such as separating plastics by color, size, and content to meet intermediaries' or recycling companies' demands. Conversely, men were primarily paid for picking materials, which involved physically demanding work, moving from site to site, and collecting various recyclables, including heavier metals.

This difference in payment approach being paid for sorting and men for picking—reflects not only the distinct tasks typically assigned to each gender but also contributes to the overall income disparity within the sector. While men receive consistent pay for their physically intensive work, women's earnings remain variable and dependent on the specific sorting tasks they complete, underscoring a significant gender-based economic segregation in the informal waste-picking economy.

Fig 5: Child and Forced Labor Age Representation



Source: Nigeria Bureau of Statistics. (2022). Child Labour in Nigeria at a Glance: Results from the Nigeria Child Labour and Forced Labour Survey 2022. Nigeria Bureau of Statistics

Child labor remains a widespread issue in Nigeria, with data revealing that 50.5 percent of children aged 5-17 are engaged in economic activities. Of this population, 39.2 percent are involved in labor, which can hinder their education, health, and development, and 22.9 percent are engaged in hazardous work, placing them at significant risk. However, findings from the field suggest that the scavenger economy adopts a more cautious approach toward child labor. Unlike other informal sectors that often rely on child workers, waste-picking stakeholders discourage the participation of younger children due to the work's physically taxing and hazardous nature. Key informants explained that only individuals aged 17 or 18 and above are deemed mature enough for the job, as it requires physical resilience and the ability to safely identify and handle specific materials.

Nevertheless, during focus group discussions with women waste pickers, they revealed that their children often assist them with sorting plastics, especially on weekends or after school during weekdays, allowing them to gather and prepare larger quantities for sale. While this type of support is less hazardous than direct waste picking, it underscores the economic pressures facing these families, as mothers rely on their children's assistance to maximize productivity. This nuanced practice within the scavenger economy reveals a blend of cautious ethical awareness regarding child labor, tempered by the economic realities that often compel families to involve their children in essential, albeit supportive, roles.



CONCLUSION AND RECOMMENDATIONS

CONCLUSION

Rapid industrialization, urbanization, and population growth in cities like Lagos and Abuja have incrementally led to the generation of tons of organic and inorganic waste, contributing to the emergence and growth of the informal waste sector. This sector is mainly serviced by informal waste pickers who pick and aggregate various waste materials, primarily non-organic wastes such as plastic, iron, aluminum, paper, and zinc, among many others, sold in exchange for cash as a source of livelihood. As informality thrives in the sector, informal waste pickers are often recognized in the waste management system despite their role as significant agents of waste reduction. This report provides an understanding of scavenging dynamics, its role in the waste economy, and large-scale waste management, seeking ways to formalize processes within the sector for more excellent economic value and better living standards for informal waste pickers.

The research finds that many informal waste pickers lack access to necessary social assistance that could improve their job and productivity. Instead, prejudice, segregation, and stereotyping have been applied to sizeable informal waste pickers sectors essential to waste management, recycling, and reusing waste items. Because of this, despite their place in the informal economy and waste management cycle, informal waste pickers in the informal sector constitute one of the most marginalized, poor, and disempowered groups in society.

Findings from the study reveal that scavenging is a lucrative activity in Nigeria despite its significant health risks and difficulties; scavenging is still a source of income and employment for young men and women despite the risks and health hazards involved. More so, it provides raw materials to the building, bottling, and plastics industries, making the activity pivotal to the success of several businesses higher up the national value chain. The activities of solid waste recycling by informal waste pickers in Nigeria's major cities, such as Lagos and Abuja, impact the Nigerian economy through resource conservation, job opportunities, and reduction of the magnitude of waste disposal problems.

Despite many laws and regulations, solid waste management in Nigeria remains a challenge for the government, stakeholders, and the general public. Although informal waste pickers are filling the void informally and contributing significantly to garbage management and the economy, their role has not yet been formalized. Like most agents in the informal sector, informal waste pickers have a free entry and free market system. As some waste pickers affirm, the market operates on a self-regulatory system, sometimes with a "Hit and Run" system devoid of gatekeepers or any significant barriers to entry. New entrants can often start as informal waste pickers and transit to the middle before exiting into other businesses.



Photo by: Tonye Marclint Ebiede

Drawing from findings, an analysis of the value chain of materials collected by informal waste pickers reveals a dynamic process involving informal waste pickers acting as the initial link and gathering and sorting recyclable materials from trash. Their role is pivotal in identifying valuable materials like plastic and iron, which are sold to intermediaries or recycling companies.

Since informal waste pickers are mobile by nature, frequently around the neighborhood, searching for solid garbage and even abandoned home items in trash cans and landfills, they are often accused of theft, trespassing, and other forms of criminality. However, the formalization of the scavenging economy could address these challenges by providing legal recognition and protection for informal waste pickers. With formal status, informal waste pickers could operate without fear of being unjustly targeted by security agencies.

Criminal accusations and security challenges posed by scavenging could be addressed through dialogue and collaboration between informal waste pickers, local communities, authorities, and relevant stakeholders. Additionally, formalization could include implementing standardized regulations and policies that protect informal waste pickers' rights and ensure fair treatment. Formalization could also improve the health and safety conditions of informal waste pickers. Providing safety equipment, such as gloves, protective clothing, and training on safe waste handling

practices would reduce the risk of injuries and health hazards.

This report advocates for a governance structure that coordinates the activities of informal waste pickers under the purview of central authority. Formalization requires deliberate action to smooth out scavenger-led processes in the waste management economy through various means, including adopting technology to enhance the efficiency of informal waste pickers and help scale the volume of waste material collected. This report recommends creating tailored vocational educational programs centered around waste management practices, community relations, basic hygiene, basic literacy education, and other well-streamlined programs to improve the capacity of informal waste pickers to function in an efficient formal structure.

Finally, to achieve financial inclusion and better economic positioning for the scavenger sector, it becomes crucial to create greater access for informal waste pickers to financial services and their integration into the mainstream economy. One way to achieve this is to fuse informal waste pickers and intermediary clusters into cooperative societies. These cooperative societies may gather essential data and documentation that will support the eventual delivery of grants, loans, and other financial instruments that members of these clusters have leverage to improve business processes and output.

RECOMMENDATIONS

Establish a Structured Governance Framework for Informal Waste Pickers

A centralized governance structure is essential to ensure efficient, safe, and organized waste-picking activities. This framework would involve forming identifiable clusters or cooperatives of informal waste pickers, enabling better coordination, safer working conditions, and reliable data collection on waste-picking activities. Municipal authorities and local governments could initiate this structure by organizing waste pickers at the city level, while policy actors, through thoughtful legislation, could develop regulations that empower these clusters, ensuring they operate sustainably within the formal waste economy.

Enhance Financial Inclusion and Access to Economic Resources

Access to financial tools, such as grants, micro-loans, and cooperative savings, is vital for waste pickers to achieve economic stability and growth within a formalized sector. Financial institutions could introduce programs tailored to the unique needs of waste pickers, and development agencies could work with these cooperatives to provide initial funding and resources. By establishing structured cooperative societies, waste pickers could access financial services more efficiently, allowing them to improve their business operations and invest in growth opportunities.

Strengthen Relationships with Law Enforcement

There is a critical need to build trust and mutual respect between waste pickers and law enforcement, given the frequent misunderstandings and tensions between them. Trust-building activities, such as community workshops, can foster respect for the roles each plays in society and waste management. Law enforcement agencies and community organizations could lead in organizing these initiatives, promoting a better understanding of waste pickers' work and reducing conflicts. Waste pickers would feel protected rather than criminalized through these efforts, facilitating their integration into formal waste systems.

Implement Health and Safety Programs for Waste Pickers

Given the numerous health hazards waste pickers face daily, it is imperative to implement robust health and safety programs. Regular health check-ups, vaccinations, hygiene and disease prevention education, and the provision of protective gear such as gloves, masks, and sturdy footwear would significantly reduce health risks. In partnership with state and federal authorities and NGOs, health agencies could collaborate to deliver these resources, ensuring that waste pickers access basic health services and essential protective equipment. This initiative would safeguard their well-being and contribute to a healthier, more productive workforce.

Allocate Designated Spaces for Waste Pickers' Operations

Waste pickers often work in undesignated open spaces, which makes their operations vulnerable to disruptions, including evictions and demolitions. By allocating specific plots for waste-picking activities, the government can offer waste pickers a secure, stable environment, reducing the constant risk of displacement and enabling

them to establish more organized operations. Urban planning agencies and municipal authorities could identify and allocate designated areas within cities, providing infrastructure that supports efficient and secure waste management practices.

Incorporate Waste Pickers into Policy and Legislation

To legitimize and protect the essential role of waste pickers, their contributions should be formally recognized in waste management policies. By defining waste pickers' roles, rights, and responsibilities within the legislative framework, governments can ensure that waste pickers have explicit protections and recognition as contributors to urban waste reduction and recycling. Legislative bodies, working closely with waste management authorities, could draft and enact inclusive policies, integrating waste pickers into the system, facilitating collaboration, and further promoting sustainable waste management.

Foster Partnerships for Industry Funding and Resource Supply

A formalized waste-picking sector offers recycling companies and manufacturing industries a valuable resource stream for recyclable materials. By forming partnerships, industries can help fund waste-picking cooperatives, enabling them to scale operations and meet higher supply benchmarks. In partnership with government authorities, recycling companies and manufacturing industries could invest in and support these cooperatives, creating a reliable supply chain that benefits the waste pickers and the larger recycling ecosystem. This funding could incentivize waste pickers to enhance collection efforts, fostering a mutually beneficial relationship.

Integrate Technology into Waste Collection Processes

Integrating technology into waste collection processes, such as using waste-picking aids, mechanical sorters, and digital tracking, can dramatically enhance productivity and increase the volume of materials collected. Such technological advancements would streamline waste pickers' operations, allowing for faster sorting and a continuous flow of materials to recycling plants and manufacturers. Private sector technology providers, working in coordination with municipal authorities, could lead the implementation of these technological solutions. This partnership would modernize the sector, making it more efficient, profitable, and sustainable.

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