

Scrap picking as smokescreen for criminal activities: The case of cross River North, Nigeria

 Rosemary Ine Eneji^{1*}, Uzoh Esther E-C², Tangban Egbe Ebagu³,  Bassey Ekpenyong Anam⁴,  Ede Victor Itita⁵

¹Department of Sociology, University of Calabar, Nigeria; rieneji2@yahoo.com (R.I.E.).

^{2,3,5}Department of Social Work, University of Calabar, Nigeria.

⁴Institute of Public Policy and Administration, University of Calabar, Nigeria.

Abstract: Criminal activities arising from scrap-picking activities have become a recurring concern in many towns and cities in Cross River State of Nigeria, due to increasing demand for used or recyclable materials in the country. This study examined how scrap-picking contributes to incidences of crime in the state, focusing on trends and challenges. The study was carried out in Cross River State, where scrap pickers, scrap dealers, and security agents in Calabar South, Biase, and Bekwarra Local Government Areas were studied, in addition to community leaders and youths. One hundred and eight (108) persons participated in the study, which also involved focused group discussions and interviews. We found that scrap-picking has played a major role in the vandalization of public and private facilities in the state. Children less than 18 years of age were actively involved in scrap-picking activities, making them miss school, become psychologically stressed, and impairing their development. We suggest that community participation in addressing vandalism, metal theft, and child labor should be intensified. The interplay between scrap-picking and crime identified in this study should help law enforcement agencies and responsible stakeholders address some crime challenges and guide the development of targeted interventions to address criminal activities associated with scrap-picking.

Keywords: *Crime, Nigeria, Poverty, Recycling, Scrap metal, Teenagers.*

1. Introduction

Scrap picking is one of the ways of waste management in many countries, particularly third-world countries and has become a popular business venture due to its economic value and environmental benefits [1]. In Nigeria, scrap pickers are a transient group who move around the streets collecting used materials such as metals, electronics, cartons, plastics, and many others. Scraps are commonly collected from waste bins, dumpsites, and open dumps and sometimes they may be purchased from owners Morais, et al. [2]. Nuripuh, et al. [3] states that approximately, two per cent of the world's population engage in the scrap-picking business. It has been estimated that about 1 per cent of the population in cities in Africa, Asia, and Latin America rely on scrap picking as a source of livelihood [4].

The demand for scraps has increased worldwide in the last decade [5]. According to Yamaguchi [6] metals (85%), paper (10%) and plastics (5%) are the most traded waste materials among the G20 members. Statistically, over 90 per cent of stainless steel is being recycled worldwide. For instance, reports in 2017 as captured by the European Recycling Industries' Confederation [7] revealed that more than 600 million tonnes of steel were recycled worldwide. In Europe, the European Steel Association [8] also observed that more than 160 million tonnes of steel (56% of all steel produced) were scraps. The prices of scrap have skyrocketed in the international market and this has affected the growth of the scrap metal industry and local scrap pickers. Metal trade and sales are vital to the green

economy that supports the Sustainable Development Goals (SDGs). Solid waste management has contributed to economic growth and environmental protection [9].

Biliaminu [10] considered the scrap-picking industry in Nigeria to be not just a way of making money but that it plays a significant role in the country's effort in achieving environmental protection as one of the SDGs. The recycling industry supports the achievement of the SDGs while contributing to a greener, more prosperous society for everyone. Scrap pickers are mostly found at dumpsites and neighbourhoods searching for metal objects. Also, auto mechanic workshops are a rich source of scrap metals. Another popular source of scrap pickers is the homes, where owners of used materials (e.g., copper, iron aluminium, and plastics) exchange them for money or new plastic products, taking the form of trade by barter. In some cases, these scraps may be exported to other parts of the world, contributing to international trade.

Recently, metal theft and vandalism have become a recurring incidence and some authorities attribute them to scrap picking activities [11]. According to Sunday [12] there were several reports of criminal activities in Nigeria's federal capital territory (FCT) of Abuja involving scrap pickers, especially metal theft, assault, and vandalisation of private and public properties. These criminal activities of scrap pickers have become a source of concern and threat to residents of the FCT. In Akwa Ibom State of Nigeria, the government has banned scrap scavengers, who are usually seen with rusty carts, and roaming around neighbourhoods for scrap picking in response to the alleged killing of residents by scrap pickers in the state [13]. Generally, the enforcement of the law against scrap picking is weak. In Cross River State of Nigeria, there is no existing law against the operations of scrap pickers, despite their suspected involvement in criminal activities. It is also worrisome that children under 18 years of age are actively involved in the business in the state, making many of them miss school, exposing them to sharp objects, hazardous materials, and toxic substances that can lead to infections, injuries, and long-term health problems. This study was carried out to determine the incidence and magnitude of crime due to scrap picking in Cross River State of Nigeria. The variables studied were vandalism, metal theft, and child labour associated with scrap picking.

2. Methodology

2.1. The Research Area

The study was carried out in Cross River State of Nigeria with an area of 23,072,425 square kilometres and an estimated population of about 4,406,200 people. The state is divided into three political (Senatorial) zones: South, Central and North. For this study, one location - Local Government Area, was selected per zone (Calabar South, Abi and Bekwarra). The study population comprised community leaders, youths, scrap pickers, scrap dealers and security agents who have attained the age of 18 or more years, residing in Calabar South, Abi and Bekwarra Local Governments Areas (LGAs). These LGAs had populations of 219,800, 291,700 and 256,000 respectively. One hundred and eight (108) persons were purposively selected for the study, with 36 participants for each of the selected LGAs and their composition is shown in Table 1.

Table 1.
Distribution of study participants.

LGA	Community Leaders/Youth/Stakeholders	Scrap pickers/Dealers	Security Agents	Total
Calabar South	12	12	12	36
Abi	12	12	12	36
Bekwarra	12	12	12	36
Total	36	36	36	108

2.2. Data Collection

The data were collected during focus group discussions and in-depth interviews (IDI). The interviews were done in English language but provision was made for interpretation where necessary.

Two Research Assistants (RAs) were engaged to assist with collection of data. Nine interactive sessions with the focus group discussions (90 participants) were held across the selected LGAs. Each session had ten (10) participants; eighteen participants were involved in IDI whose schedule had 20 items and all questions in the interview guide were open-ended to enable participants express their (recorded) opinions freely.

2.3. Data Analysis

The data were analysed in themes using the thematic analysis method. The socio-demographic data of the participants were summarized descriptively using frequency tables and simple percentages.

3. Results

Table 2 shows the socio-demographic characteristics of the participants, with 70 (78.70%) of them being male and 23 (21.30%) female. In terms of age 20 (18.52%) participants were between 18 and 23 years, 18 (16.67%) were between 24 and 28 years, 25 (23.15%) were between 29 and 34 years, 30 (27.78%) were between 35 and 40 years and 15 (13.89%) were 41 years and above. Thus, the modal age of the participants was between 35 and 40 years.

Based on level of education, 39 participants (36.11%) had primary education, 53 (49.07%) had secondary education and 16 (14.81%) had tertiary education. The result showed that the participants were literate enough to offer their opinions on the study. Forty-two (38.89%) participants were single, 50 (46.30%) were married, 2 (1.85%) were divorced and 14 (12.96%) were widowed. Of the participants, 60 (55.56%) were into business, 4 (3.70%) had paid job, 38 (35.19%) were farmers, and 6 (5.56%) were into other occupations.

The participants had varied religious affiliations, with 60 (55.56%) being Christians, 40 (37.03%) Muslims and 8 (7.41%) were adherents of traditional religion. On the basis of monthly earned income, 8 (7.41%) participants earned less than N30, 000, 30 (27.78%) earned between N30,000 and N50,000 and 70 (61.81%) earned N51,000 or more. Thus, about 90 % of them earned above the minimum wage.

Table 2.
Socio-demographic characteristics of the study participants (n = 108).

Characteristics	No. of respondents	%
Sex:		
Male	85	78.70
Female	23	21.30
Age (Years)		
18-23	20	18.52
24-28	18	16.67
29-34	25	23.15
35-40	30	27.78
41+	15	13.89
Level of education:		
No formal education	0	0.00
Primary school	39	36.11
Secondary school	53	49.07
Tertiary institution	16	14.81
Marital status:		
Single	42	38.89
Married	50	46.30
Divorced	2	1.85
Widowed	14	12.96
Occupation:		
Business	60	55.56
Paid job	4	3.70
Farming	38	35.19
Others	6	5.56
Religion:		
Christianity	60	55.56
Islam	40	37.03
Traditional religion	8	7.41
Monthly earned income:		
<N30,000	8	7.41
N30,000-N50,000	30	27.78
N51,000+	70	64.81

3.1. Scrap Picking and Vandalism of Public and Private Facilities

We sought to understand how scrap picking promotes vandalism of public and private facilities in the study area. The thematic analysis of the qualitative data on the role of scrap picking in vandalism of public and private facilities in Cross River State was based on selected transcribed interview excerpts collected in the field. The participants confirmed that vandalism due to scrap picking was a pressing issue in many towns the area. High unemployment and poverty rates have played a significant role in pushing individuals towards scrap picking as a means of livelihood. Informal scrap picking has become a lucrative transaction for many people due to lack of formal recycling programmes. A lot of people both young old are attracted to trade of metal and other materials because of their significant resale value. Youths, often without job prospects, have therefore resorted to vandalising public and private facilities for sale as scraps to earn income. Weak enforcement of laws and regulations makes it easier for vandals to operate without repercussions. This had led to the destruction of public and private property and elevated maintenance and repair costs. The financial burden of repairing and replacing stolen or damaged infrastructure falls on the government and private entities, leading to higher costs. Persistent vandalism can erode trust in public institutions and contribute to a sense of lawlessness. When asked, how does scrap picking promote vandalism of public and private facilities in the State? The participants during the FGD and IDI, a 45-year-old male participant said:

“Scrap picking in Cross River State promotes vandalism of public and private facilities by encouraging individuals to damage infrastructure in search of valuable materials. This results in the destruction of properties, increased maintenance costs and compromised safety and aesthetics of the community”.

Another participant, aged 38, said: *“Scrap picking promotes vandalism in the State by incentivising individuals to illegally dismantle and damage public and private properties to obtain and sell valuable materials, leading to increased property damage and financial loss”.*

When asked, what the underlying causes of scrap picking and vandalism of public and private facilities were, and how would addressing these root causes help prevent such behaviours? The participants during the FGD and IDI offered their opinions as follows:

A participant, male, 29 years old, said: *“The underlying causes of scrap picking and vandalism include poverty, unemployment and lack of education. Addressing these issues through job creation, educational programmes, and economic support can reduce the incentive for individuals to engage in such destructive behaviours, thereby preventing property damage and improving community welfare”.*

Another participant, female, 25 years old, said: *“The primary causes of scrap picking and vandalism are economic hardship, high unemployment rates, and inadequate law enforcement. By improving economic opportunities, creating jobs and strengthening law enforcement, these behaviours can be mitigated, leading to reduced property damage and enhanced community security”.*

When asked, what strategies can be implemented to effectively deter vandalism associated with scrap picking, a 21-year-old female participant said: *“Effective strategies to deter vandalism associated with scrap picking include increased surveillance to monitor and prevent illegal activities, community engagement to raise awareness and foster cooperation, and alternative livelihood programmes to provide scrap pickers with legitimate income sources, reducing their reliance on vandalism”.*

Yet, another participant, male, 53 years old, said: *“To effectively deter vandalism by scrap pickers, strategies can include enhancing surveillance with security cameras, engaging the community in reporting suspicious activities, implementing stricter law enforcement, and offering vocational training and job opportunities to provide alternative livelihoods for scrap pickers”.*

When asked, how public and private facilities can be designed and managed to minimize the opportunities for vandalism by scrap pickers, a 50-year-old male participant said: *“Public and private facilities can be designed and managed to minimise opportunities for vandalism by using durable, temper-resistant materials, improving lighting and visibility, installing security systems, and regularly maintain and monitoring properties to quickly address vulnerabilities and deter potential vandals”.*

Another participant, a 44-year-old female said: *“Facilities can be designed and managed to deter vandalism by scrap pickers by incorporating robust security features such as surveillance cameras, enhancing lighting, creating clear lines of sight, and implementing regular maintenance and rapid repair protocols to address damage quickly”.*

3.2. Scrap Picking and Prevalence of Metal Theft

With respect to the question of how does scrap picking contributes to the prevalence of metal theft, the participants argued that scrap picking and metal theft are intertwined issues in towns and cities of the State and it is driven largely by economic necessity that affects urban life. Some residents engage in scrap picking due to high unemployment rates and poverty. Collecting and selling scrap materials have provided a crucial source of income. The demand for recyclable materials such as metal, plastics and electronics drives the scrap picking industry. The high market value of metals like copper, aluminium, and steel incentivizes theft as these materials can be sold for significant sums. Inadequate policing and enforcement make it easier for thieves to steal metal without facing severe consequences. The global demand for metal also drives local theft, as stolen metals can be quickly sold and integrated into the supply chain. The consequence is that metal theft often targets public infrastructure such as transformers, power cables, electrical installations, air conditioners, roofing sheets, and streetlights, causing widespread disruptions.

When asked, how scrap picking does contribute to the prevalence of metal theft in the State, a 48-year-old male participant said:

“Scrap picking contributes to the prevalence of metal theft in Cross River State by creating a market for stolen metal. Individuals are incentivised to steal metal from public and private properties to sell them for profit, leading to increased incidents of metal theft”.

Another participant, a 64-year-old female said:

“Scrap picking contributes to the prevalence of metal theft in Cross River State by providing a ready supply of stolen metal to the market. This activity encourages individuals to illegally dismantle infrastructure and steal valuable metals, leading to increased incidents of theft and financial losses for property owners”.

Also, when asked, to the extent to which scrap picking contributes to the prevalence of metal theft, and the specific types of metals and infrastructure most targeted by scrap pickers and metal thieves, 50-year-old male participant said:

“Scrap picking is a major factor to metal theft in Cross River State. It provides a steady source of stolen metals to the market. Commonly targeted metals include copper, aluminium, and brass, often taken from infrastructure such as electrical wiring, plumbing fixtures, and construction materials due to their lucrative resale value”.

Another male participant, 22 years old, said: *“Scrap picking plays a vital role in metal theft by supplying stolen metals to metal dealers. Commonly targeted metals include condemned iron, copper, aluminium, and brass, often sourced from infrastructure such as electrical wires, plumbing fixtures, and construction materials due to their high resale value and accessibility”.*

When asked, how the social, economic, and environmental dynamics of scrap picking do influence the demand for stolen metals, a 32-year-old male participant, said:

“The social, economic, and environmental dynamics of scrap picking in Cross River State drive the demand for stolen metals by creating a market where such materials are valued for resale”.

Another participant, a 47-year-old female said:

“The social, economic, and environmental dynamics of scrap picking in Cross River State contribute to the demand for stolen metals by creating available markets for easy trade of these materials”.

On the potential policy interventions that could disrupt this demand and reduce the prevalence of metal theft in the state, a 32-year-old male participant said:

“To disrupt this demand and reduce metal theft, potential policy interventions could include stricter enforcement of scrap metal trading regulations, promoting legal recycling practices, enhancing surveillance of metal recycling facilities, and implementing community awareness campaigns about the impacts of metal theft”.

Another participant, a 27-year-old male said: *“Policy interventions to reduce metal theft could include regulating scrap metal trade more strictly, promoting legal recycling channels, improving surveillance of metal recycling operations, and educating communities about the consequences of metal theft”.*

3.3. Scrap Picking and Incidence of Child Labour

We explored the interplay between scrap picking and child labour in Cross River State during the FGD and interviews. The participants suggested that scrap picking among children has contributed to increases in child abuse, which has a profound social, economic, and health impacts on the affected child. Most scrap pickers, basically children are driven by widespread poverty and hunger. The children are often exposed to hazardous materials and dangerous environments, leading to serious health issues. Yet, families in extreme financial hardship do rely on their children to contribute to household income through work, including scrap picking activities. Majority of the children engaged in scrap picking have limited access to education, irregular school attendance and poor academic performance. Inadequate enforcement of child labour laws allows these practices to persist. Children engaged in scrap picking face numerous health risks, including exposure to toxic substances and physical injuries. They also experience psychological stress which may hinder their healthy emotional and social development.

When asked about the interplay between scrap picking and child labour, a 40-year-old female participant during the FGD and IDI said:

“Scrap picking and child labour are related. This is because it involves children being vulnerable to engaging in hazardous work conditions while scavenging for valuable materials, often to support their families financially”.

Another female participant, aged 24, said:

“Scrap picking has contributed to child labour as children got involved in picking scrap materials, thereby exposing them to unsafe conditions and disrupting their education and well-being”.

Yet, another male participant, aged 49 said:

“Scrap picking has driven children into hazardous working condition as many of them are often involved in scavenging for valuable materials, which expose them to unsafe environments and hindering their access to education and proper development”.

And when asked what the underlying causes of child labour in scrap picking were, another male participant, aged 27 said:

“The underlying causes of child labour in scrap picking in Cross River State include poverty, lack of educational opportunities, family circumstances pushing children to contribute financially, and inadequate enforcement of child labour laws”.

A 40-year-old male participant also said: *“The underlying causes of child labour in scrap picking include economic hardship, lack of access to education, familial pressure to contribute to household income, and insufficient enforcement of child labour laws”.*

When asked how factors such as poverty, lack of education, and social norms do contribute to the perpetration of child labour in scrap picking sector, a 21-year-old male participant said:

“Factors such as poverty, lack of education, and social norms contribute to child labour in the scrap picking sector by forcing children into work to support their families financially, limiting their educational opportunities, and perpetuating a cycle where child labour is normalized due to societal expectations and economic necessity”.

Another male participant, aged 65 years said: *“Factors like poverty drives children into scrap picking to support their families financially. Lack of education limits their options, and societal norms may accept child labour as necessary, perpetuating the cycle in the scrap picking sector”.*

When asked about the short- and long-term effects of scrap picking on the physical and mental health, education, and social well-being of child labourers a male participant, aged 21 years said:

“Scrap picking can have immediate effects like physical injuries, respiratory problems, and psychological stress on child labourers. Long-term impacts include disrupted education, limited career prospects, and social isolation, affecting their overall well-being and development”.

Another participant, a 55-years old male said: *“Scrap picking can lead to immediate physical risks such as injuries and health issues, along with mental stress. Long-term effects include interrupted education, reduced career opportunities, and social marginalization, impacting the overall well-being and future prospects of child labourers”.*

When asked, how the short- and long-term effects of scrap picking could be mitigated through interventions and policies aimed at reducing child labour, a 26-year-old female participant said:

“The short-term and long-term effects of scrap picking can be mitigated through interventions such as providing access to education, enforcing child labour laws, offering social support programs for families in need, and promoting alternative livelihoods that are safe and sustainable for children”.

Another male participant, aged 49 years said: *“The short-term and long-term effects of scrap picking can be mitigated by implementing interventions such as ensuring access to education, enforcing child labour laws rigorously, providing social support to vulnerable families, and promoting alternative livelihoods that are safe and sustainable for children”.*

4. Discussion

The results showed that scrap picking has promoted vandalism of public and private facilities in many towns and cities in Northern Cross River State, Nigeria. Scrap picking has become an essential economic activity for many residents in the State, providing an income source for those without formal employment. Individuals, often from impoverished backgrounds, collect and sell recyclable materials

like metals, plastics, glass and electronics to recycling centres or middlemen. This not only causes economic losses but also disrupts public services. In most cases, weak enforcement of laws and regulations makes it easier for vandals to operate without repercussions [14]. Vandalism of public and private property increases maintenance and repair costs and the financial burden of repairing and replacing stolen or damaged infrastructure falls on the government and private entities, leading to higher costs as reported previously [15-19]. The vandals also target public infrastructure such as power lines, manhole covers, and even sculptures. This not only causes significant financial losses but also disrupts public services and safety.

The results also showed that the scrap picking activities have encouraged metal theft considerably, especially transformers, power cables, electrical installations, air conditioners, roofing sheets, and streetlight poles. Also targeted are private properties or household items such as cooking pots, ceiling and standing fans, metal protectors, motor vehicle parts, bicycles, motorcycles, wheelbarrows, and even farm implements as reported earlier elsewhere [11, 20-24]. The high market value of metals like copper, aluminium, and steel has made metal theft a lucrative endeavour. The theft of these materials also disrupts essential services, causing widespread inconvenience and economic losses. In some cases, metal theft involves organized crime networks that coordinate large-scale operations. These networks often exploit vulnerable individuals, including scrap pickers to steal and then sell the stolen metals to unscrupulous dealers. The economic impact of metal theft is substantial. Repairing and replacing stolen or damaged infrastructure requires significant financial resources. Public and private entities bear the costs, and this has strained the local economy, forcing the state to divert funds from other important projects. Metal theft also poses public safety concerns. For instance, the theft of manhole covers can lead to accidents, while the removal of electrical cables can also result in power outages, affecting hospitals, schools, and businesses. The role of scrap picking in metal theft in Cross River State highlights the intersection of economic necessity and criminal activity within an unregulated informal sector. Addressing this issue requires a multifaceted approach that includes strengthening regulations, enhancing law enforcement, engaging communities, and providing economic alternatives for those involved in scrap picking. These strategies would mitigate metal theft, protect critical infrastructure, and promote sustainable livelihoods.

Many children in Cross River State are engaged in scrap picking activities and these constitute child labour, which is an offence. Children are often involved in this activity to supplement the household income, especially in families where adults are unemployed or underemployed [25]. The involvement of children in scrap picking is thus closely linked to poverty and lack of access to education. Many families cannot afford school fees or related expenses, leading children to drop out of school to engage in scrap picking and predisposing them to wicked exploitation. They are often paid very little for their labour, and their work conditions are typically harsh and unsafe. Engaging in scrap picking also hampers children's physical, emotional, and cognitive development. The demanding nature of the work and the dangerous environment can lead to physical harm and psychological stress [26-28]. Moreover, missing out on education limits their future opportunities, perpetuating the cycle of poverty [29]. The informal nature of this work means the children lack legal protection and rights. This practice has a negative impact on the well-being of the children as they are often exposed to hazardous materials and dangerous environments, leading to serious health issues [30-32]. Although Nigeria has laws against child labour, their enforcement is often weak, particularly in informal sectors like scrap picking. Strengthening the implementation of child labour laws is therefore crucial. Regular inspections and stringent penalties for those exploiting children in scrap picking can help mitigate the issue. Also, a comprehensive and coordinated efforts involving government policy, community action, and NGO support would help to reduce child labour and provide a better future for the children involved.

5. Summary and Conclusion

This study has shown that several public and private facilities in northern Cross River State of Nigeria have been vandalised through scrap scavenging activities. Some public facilities like manholes,

electrical installations, transformers, roofing and street lights were affected. Also affected were both personal and government-owned vehicles and residential houses. The scrap picking activities contributed significantly to metal theft in the State and this is ascribed to the high poverty and unemployment rates as well as the global demand for metal objects for recycling. Many underage children were engaged or recruited as scrap pickers against child's rights laws and this has negatively affected their school attendance. There is a complex interplay between the economic necessity for scrap picking and criminal behaviour. While scrap picking provides a crucial source of income for many impoverished individuals, the unregulated nature of the activity creates opportunities for vandalism of public and private facilities, metal theft, and child abuse. The resultant increase in crime rates not only exacerbates socio-economic disparities but also undermines public safety and infrastructure. Addressing these issues would require a multifaceted approach that includes strengthening regulatory frameworks, enhancing law enforcement, promoting alternative livelihoods, and fostering community engagement. By implementing these strategies, the Cross River State can mitigate the negative impacts of scrap picking in relation to crime rates, thereby fostering a safer and more equitable environment for its residents.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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