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# Urban Transformation and Informal Livelihoods

**A Battle for Space and the Geographies of Expulsion of Informal E-waste Workers in  
Accra, Ghana**

**Dissertation**

zur

Erlangung des Doktorgrades (Dr. rer. nat.)

der

Mathematisch-Naturwissenschaftlichen Fakultät

der

Rheinischen Friedrich-Wilhelms-Universität Bonn

Kumulative Dissertation vorgelegt von

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aus

Accra, Ghana

Bonn, 2025

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Angefertigt mit Genehmigung der Mathematisch-Naturwissenschaftlichen

Fakultät der Rheinischen Friedrich-Wilhelms-Universität Bonn

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Tag der Promotion: 05.05.2026

Erscheinungsjahr: 2026

## **Preface**

This doctoral thesis is submitted in partial fulfilment of the requirements for the award of the Doctor of Philosophy (PhD) degree in Natural Sciences at the University of Bonn, Germany. The research presented herein was conducted at the Department of Geography between April 2021 and December 2025, under the distinguished supervision of Prof. Dr Detlef Müller-Mahn and Prof. Dr Klaus Greve. The study was undertaken within the framework of the *One Health and Urban Transformation project* under the One Health Graduate School at the Centre for Development Research (ZEF), University of Bonn. Financial support for this research was provided by the Ministry of Culture and Science of North Rhine-Westphalia (*Ministerium für Kultur und Wissenschaft des Landes Nordrhein-Westfalen, MKW*), Germany.

This thesis adopts a cumulative approach, weaving together three peer-reviewed manuscripts (Chapters 4 – 6) published in leading international journals in human geography and urban studies. The details of these manuscripts are presented in the subsequent chapters (4 – 6). A detailed list of the published papers included in this thesis is provided below.

**Sarpong, A. O., Müller-Mahn, D., & Osei, O. E. (2025).** Decoding the logics behind the demolition and redevelopment of Agboghloshie scrapyards, Accra, Ghana. *Geoforum*, 159, Article 104180. <https://doi.org/10.1016/j.geoforum.2024.104180>

**Sarpong, A. O., Müller-Mahn, D., Amankwaa, E. F., & Mensah, P. (2026).** Behind the curtain of Agboghloshie's demolition: A victim's perspective beyond revanchism. *Int. J. Urban Reg. Res.* <https://doi.org/10.1111/1468-2427.70106>

**Sarpong, A. O., Müller-Mahn, D., Amankwaa, E. F., Mensah, P., & Osei, O. E. (under second review).** From demolition to dispersion: Navigating changing geographies, insecurity, and the environmental injustice in Ghana's e-waste industry. Submitted on July 25, 2025, to *Heliyon* (Manuscript ID: HELIYON-D-25-09601).

**Akwasi Owusu Sarpong**

**Bonn, 2026**

## **Dedication**

I dedicate this work to my son, Melvin Owusu Sarpong Jnr., whose presence has been an enduring wellspring of joy, resilience, and inspiration, illuminating every step of my academic journey.

## Acknowledgements

At the dawn of this doctoral journey, I drew inspiration from the timeless adage: *“a journey of a thousand miles begins with a single step.”* Recognising that the pursuit of a doctorate is both arduous and protracted, this phrase served as a steadfast reminder of the power of perseverance and incremental progress. Now, as I arrive at the culmination of this voyage, I bow in profound reverence and gratitude to the Almighty God, whose unwavering guidance, sustaining strength, infinite wisdom, and ever-present voice have guided and upheld me through each stage of this scholarly endeavour.

I am also profoundly indebted to the many individuals whose generosity, intellectual insight, and steadfast encouragement have shaped the course of this research in immeasurable ways. Their contributions, ranging from the provision of vital data to critical feedback, and unwavering belief in the merit of this work, have not only enriched the substance of this dissertation but also sustained its very possibility.

Foremost among them is Prof. Dr Detlef Müller-Mahn, to whom I owe an immeasurable debt of gratitude. At a critical juncture, when securing a supervisor seemed an insurmountable challenge, Prof. Müller-Mahn graciously embraced the responsibility of overseeing my PhD work. A defining moment in this journey occurred on June 14, 2022, at precisely 6:20 a.m., when I received an email from him expressing his eagerness to meet in person to discuss my research. His words remain etched in my memory: *“I need to get a better understanding of how to best support you in your current situation; that is why I want to talk to you in person.”* That invitation marked a transformative turning point in my academic journey. Upon our meeting, Prof. Müller-Mahn welcomed me with warmth and kindness, treating me not merely as a student but with the care and consideration of a mentor and a father figure. His unwavering support, intellectual generosity, and profound commitment extended far beyond academia, shaping not only my scholarly development but also my personal growth. Prof. Müller-Mahn was consistently available whenever I sought his assistance, whether for academic consultations, letters of recommendations, or guidance during conference preparations. For his profound mentorship, kindness, and exemplary tutelage, I remain deeply and sincerely grateful.

I also extend my sincere appreciation to Prof. Dr Klaus Greve, my second supervisor, for his invaluable contributions and insightful feedback, which have significantly enriched this work. His willingness to co-supervise this research played an instrumental role in its successful completion.

I am likewise grateful to Prof. Dr Jessica Budds of the Geographical Institute, University of Bonn, for the warm reception at our initial meeting and for her willingness to serve on my defense examination committee.

My profound gratitude also goes to Dr. Kees van der Geest, my academic tutor at the United Nations University Institute for Environment and Human Security (UNU-EHS), Bonn, Germany. His guidance was particularly pivotal during the formative stages of this research, helping me navigate critical challenges in the wake of the abrupt demolition of the Agbogbloshie scrapyards in July 2021 – an event that not only displaced a critical community but also effectively erased my primary field site and threatened the feasibility of the study. In the wake of this setback, Dr. van der Geest provided insightful direction, reframing this unexpected development as an analytical opportunity rather than a terminal obstacle. His words continue to resonate with me: *“sorry to hear about the sudden development in your study site, which affects your research plans. On the other hand, this may be seen as an opportunity, as there will be much public interest in your research topic.”* This perspective did more than restore my confidence; it reshaped the very trajectory of the project, enabling me to reimagine the contours of the study in light of unfolding realities. Dr. van der Geest’s enduring support, both intellectually and institutionally, was further evident in his facilitation of my affiliation as a visiting scientist at UNU-EHS.

My gratitude further extends to the dedicated staff at the Centre for Development Research (ZEF) for their unwavering support throughout this doctoral journey. Dr. Silke Tönsjost, Academic Coordinator of the Bonn International Graduate School for Development Research (BIGS-DR) at ZEF, played a pivotal role in overseeing key academic and administrative processes, including securing the necessary ethical clearance for this research. I am equally grateful to her capable assistant, Max Voit, whose prompt and dependable assistance, whether through written communication or direct consultations, provided much-needed clarity and efficiency at critical moments. I further acknowledge with gratitude Dr. Timo Falkenberg, former Coordinator of the One Health and Urban Transformation Graduate School, for his foundational guidance at the outset

of my research. To Anna Maria Perez Arredondo, current Coordinator, I owe a particular debt of gratitude: her steadfast commitment, unflagging support, and collegial mentorship, from organising meetings, coordinating seminars, and ensuring seamless logistical support, greatly eased the complexities of this scholarly undertaking. Special thanks go to Dr. Joshua Ntjal, whose generosity of spirit, practical guidance, and companionship during my initial transition into life in Bonn eased both personal and academic adaptation and rendered the early stages of this endeavour far less daunting.

To my cherished colleagues – Abraham Kidane, Niklas Wagner, Atefeh Movassagh, Janosch Klemm, Manuel Glass, Joannishka Dsani, Eliana Lins Morandi, Jacqueline Hildebrandt, Kalpana Pachillu, Maria Luisa Espinel Ramos, and Sanjana Rajasekar, thank you for being my academic anchor amid the rigorous demands of this PhD journey. Our shared moments, filled with dialogue, laughter, critical debate, and mutual support, fostered a sense of belonging that transcended the demands of academia.

I extend my sincere gratitude to the staff of the Department of Geography and Resource Development at the University of Ghana, for their instrumental support throughout this research endeavour. I am profoundly indebted to Prof. Martin Oteng-Ababio, whose scholarly expertise and mentorship significantly shaped the direction of this study. His pioneering work on Agbogbloshie provided both a conceptual foundation and critical empirical framing, particularly in refining the research focus and grounding the study in a site of profound urban and environmental contestations. Beyond his scholarly contributions, Prof. Oteng-Ababio, in his capacity as then-Head of Department, was also pivotal in facilitating my academic transition to the University of Bonn, offering an essential recommendation that enabled my formal enrolment. Additionally, I acknowledge Prof. Ebenezer Fukuo Amankwaa for his pivotal role in forwarding the invitation for the PhD programme to me, laying the foundation for my participation in this academic endeavour. Special thanks are due to David Aladago, a fellow PhD researcher, whose dedicated support as my research assistant during the data collection phase was indispensable; his diligence, contextual knowledge of Agbogbloshie, and extensive local networks significantly enriched the empirical depth and nuance of this study. My sincere appreciation also extends to George Asare for his invaluable assistance with the statistical analyses in this study. I further wish to recognise Akua

Nyamekye Darko, with whom I began this doctoral journey, for her camaraderie and encouragement during the formative stages of this endeavour.

I am also indebted to the anonymous peer reviewers whose thoughtful critiques sharpened the quality of this dissertation, and to Joshua Bediako Koomson of the *Daily Graphic*, for generously providing photographic materials. My appreciation extends to key stakeholders at the Land-Use and Spatial Planning Authority (LUSPA), National Youth and Sports Authority, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and the Environmental Protection Agency (EPA), whose technical insights and institutional perspectives enriched the empirical grounding of this work. Finally, I am deeply appreciative of the interim Secretary of the Agbogbloshie Scrap Dealers Association (ASDA) and the many e-waste workers who, despite the trauma of displacement and the erosion of their livelihoods following the demolition of Agbogbloshie, nonetheless extended their trust and shared their lived realities with candour and dignity. Their narratives, situated at the nexus of displacement, resilience, and informal labour, constitute the moral and analytical core of this study, offering vital insight into the everyday realities of those navigating the precarious margins of contemporary urban transformation.

Beyond the bounds of the academic sphere, I am profoundly grateful to the individuals whose unwavering support has been the bedrock of my resilience throughout this PhD journey. Foremost among them is my mother, Mercy Oteng, whose steadfast prayers and quiet yet unwavering guidance have been an enduring source of strength and inspiration. I am equally thankful to my family, Nana Adebi, Susana Oteng, Abena Nyamesem, Albert Brefo Boateng, and Mercy Oteng-Adomah, whose unwavering faith in my abilities has fuelled my determination at every stage. To my friends, Derrick Somuah, Nana Agyemang, and Dinah Akos Sewor, thank you for your steadfast encouragement and presence at every turn.

This dissertation stands as a testament to the collective efforts of all these remarkable individuals, whose contributions have been truly indispensable in bringing this academic pursuit to fruition.

## Summary

Cities around the world are experiencing rapid urbanisation, a phenomenon that brings with it complex challenges related to employment, housing, infrastructure, and more. In response, governments are actively reimagining urban spaces through expansive infrastructure development initiatives aimed at enhancing liveability, modernity, and economic competitiveness. Ghana's capital, Accra, exemplifies this trend, as multiple interventions have been launched to modernise the city. However, while these transformations are often framed as progress, they systematically exclude marginalised groups within the informal economy. Informal workers, in particular, have been disproportionately affected by state-led demolitions, which are often carried out through forceful evictions and large-scale bulldozing operations. These actions not only disrupt informal economic activities and destabilise the precarious livelihoods of predominantly poor migrant workers who depend on these contested urban spaces for survival.

Against this backdrop, this PhD dissertation builds upon three seminal publications that interrogate the disjuncture between prevailing urban transformation paradigms and the lived economic realities of those in the informal sector. Anchored in the 2021 demolition of the Agbogbloshie scrapyards and the subsequent forced displacement of e-waste workers, the study explores how a state-led redevelopment initiative creates new urban margins and exacerbates socio-spatial inequalities in the name of modernisation.

To unpack these dynamics, the study employed a mixed-methods research design integrating quantitative, qualitative, and spatial analytical approaches. This design enabled a comprehensive assessment of the socio-economic, spatial, and policy implications of the Agbogbloshie demolition. The quantitative component comprised a structured survey administered to 350 displaced e-waste workers between September 2022 and March 2023, providing statistical insights into livelihood disruptions and adaptive strategies. Complementing this, the qualitative strand drew on 22 semi-structured interviews with a purposively selected group of civil society organisations (CSOs) and institutional actors from government and non-government bodies involved in urban planning, e-waste management, and the demolition process. In addition, 36 in-depth interviews were conducted with a subset of e-waste workers, community residents, and other institutional actors. Furthermore, 2 focus group discussions (FGDs) were conducted with e-waste workers, each

comprising six distinct activity groups: collectors, dismantlers, scrap dealers, recyclers, middlemen, and repairers. Each activity group included eight participants per session, resulting in a total of 48 participants per FGD and 96 participants across both sessions. All qualitative interviews were conducted between April and August 2023.

A policy and document analysis was also undertaken, focusing on national and metropolitan frameworks on urban development, informality, and e-waste management to examine the extent to which these policies enable or constrain the inclusion of informal actors in urban planning processes. To capture the spatial dynamics of e-waste activities after the demolition, the study employed Geographic Information System (GIS) techniques to map the redistribution and proliferation of e-waste sites across Accra's urban landscape. Field observations and photographic documentation further enriched the empirical data. Quantitative data were analysed using SPSS and Stata version 13. A binary logistic regression model was employed to identify factors influencing the livelihood outcomes of displaced e-waste workers. Qualitative data from interviews and focus group discussions (FGDs) were processed using NVivo software. Verbatim transcripts were reviewed, coded, and organised into thematic categories, and illustrative quotations were incorporated within the analysis to provide contextual depth and nuance.

Following the introductory chapter, Chapter two outlines the research methodology and study design. Chapter three presents the literature review, alongside the conceptual and theoretical framework underpinning the work. Chapter four, developed from a previously published article, critically examines the rationale and politics surrounding the demolition of Agbogbloshie. This chapter draws on qualitative interviews with 22 institutional stakeholders and six focus group discussions (eight participants per group), involving a total of 48 workers. Contrary to official narratives emphasising public health and environmental remediation, the findings reveal that the demolition was largely driven by a neoliberal urban transformation agenda rooted in revanchist logics, characterised by efforts to reclaim urban space from marginalised populations in favour of elite-centric development. Importantly, the chapter underscores the glaring absence of exhaustive consultations with displaced e-waste workers and other stakeholders, which further entrenched their marginalisation after the demolition.

Building on this foundation, Chapter five, also developed from a previously published article, investigates the socio-economic consequences of the scrapyards' demolition on displaced e-waste workers. Employing a mixed-methods approach, which included a survey of 350 e-waste workers and six focus group discussions (eight participants per group) involving 48 workers, the chapter identifies significant declines in income, savings, and remittances. These declines were further exacerbated by the destruction of essential working tools and infrastructure that supported their livelihoods. The chapter also documents an increase in health issues among displaced scrap dealers, including heightened psychological distress, symptoms of depression, and a rise in reported injuries sustained during the demolition carried out by state security personnel. Additionally, it highlights the disruption of critical economic and institutional linkages with organisations such as the GIZ Technical Training Centre, the Old Fadama clinic, steel manufacturing and recycling firms, and the Agbogbloshie Scrap Dealers Association (ASDA). This disruption not only affected service provision and supply chains but also reinforced the structural precarity and exclusion of informal workers within Accra's rapidly transforming urban economy. In the face of these compounding shocks, the chapter explores the range of adaptive strategies employed by displaced workers as they navigate heightened uncertainty and spatial dislocation.

While the previous chapter foregrounds the economic devastation caused by forced eviction, it also raises a crucial question: where, and under what conditions, do displaced e-waste workers reconstitute their activities after demolition? Chapter six, developed as a publishable article and currently under editorial review, addresses this question by systematically mapping the emerging geographies of informal e-waste work in post-demolition Accra. The chapter identifies 26 new e-waste clusters that arose organically in the aftermath of Agbogbloshie's demolition and examines the governance challenges associated with their proliferation. Through in-depth interviews with 20 displaced e-waste workers, 10 community residents, and 6 Environmental Health and Sanitation Officers, the chapter explores localised experiences of environmental degradation and public health risks, including include air pollution from open-air burning and persistent noise disturbances at these emergent sites. Additionally, it examines critical spatial constraints, particularly land tenure insecurities, which hinder displaced workers from securing stable operational spaces. The findings underscore mounting environmental and public health concerns among local residents

and reveal the diminishing regulatory capacity of the various Metropolitan, Municipal, and District Assemblies (MMDAs) to manage the dispersed and expanding informal e-waste activity within their jurisdictions.

Notably, the chapter documents a significant development following the change in government: many scrap dealers gradually reoccupied the Agbogbloshie scrapyards, re-establishing informal operations at the original site. This reoccupation illustrates the resilience and agency of informal actors, highlighting how top-down demolition strategies failed to remove them permanently and underscoring the persistent tensions between state-led urban redevelopment initiatives and the socio-economic realities of marginalised urban workers.

Synthesising insights from the preceding chapters, Chapter seven study concludes with a call for a paradigmatic reorientation of urban transformation strategies in rapidly urbanising contexts such as Accra. It argues that sustainable and equitable urban futures require inclusive and participatory governance frameworks that recognise, rather than criminalise, the resilience and socio-economic contributions of informal workers. The study advances a critical argument for integrating informality into urban modernisation agendas, emphasising that demolition-led and exclusionary redevelopment practices, hallmarks of “revanchist urbanism”, undermine both social justice and environmental sustainability. Here, “revanchist urbanism” is understood as a state-led strategy that seeks to reclaim urban space from marginalised populations in favour of elite-centric development. This perspective is crucial in demonstrating how conventional state-led approaches reproduce social and spatial marginalisation while constraining opportunities for inclusive and adaptive urban governance.

Consequently, the dissertation advocates for a transformative and inclusive urban policy framework that foregrounds participation, livelihood security, and the infrastructural upgrading of informal workspaces. By positioning informal actors as co-producers of urban space rather than as obstacles to modernisation, such a framework can foster a more just, resilient, and sustainable pathway for urban transformation in Accra and other rapidly evolving African cities.

## **Zusammenfassung**

Städte auf der ganzen Welt erleben eine rasante Urbanisierung, ein Phänomen, das komplexe Herausforderungen in Bezug auf Beschäftigung, Wohnraum, Infrastruktur und vieles mehr mit sich bringt. Als Reaktion darauf gestalten Regierungen den städtischen Raum aktiv neu, indem sie umfangreiche Infrastrukturentwicklungsinitiativen durchführen, die darauf abzielen, die Lebensqualität, Modernität und wirtschaftliche Wettbewerbsfähigkeit zu verbessern. Die ghanaische Hauptstadt Accra ist ein Beispiel für diesen Trend, da dort zahlreiche Maßnahmen zur Modernisierung der Stadt ergriffen wurden. Diese Veränderungen werden zwar oft als Fortschritt dargestellt, schließen jedoch systematisch marginalisierte Gruppen innerhalb der informellen Wirtschaft aus. Insbesondere informelle Arbeitnehmer sind unverhältnismäßig stark von staatlich veranlassten Abrissmaßnahmen betroffen, die oft durch gewaltsame Räumungen und groß angelegte Bulldozeraktionen durchgeführt werden. Diese Maßnahmen stören nicht nur die informellen wirtschaftlichen Aktivitäten, sondern destabilisieren auch die prekären Lebensgrundlagen der überwiegend armen Wanderarbeiter, deren Überleben von diesen umkämpften städtischen Räumen abhängt.

Vor diesem Hintergrund baut diese Doktorarbeit auf drei wegweisenden Publikationen auf, die die Diskrepanz zwischen den vorherrschenden Paradigmen der Stadtumgestaltung und den wirtschaftlichen Lebensrealitäten der Menschen im informellen Sektor hinterfragen. Ausgehend vom Abriss des Schrottplatzes Agbogbloshie im Jahr 2021 und der anschließenden Zwangsumsiedlung der E-Müll-Arbeiter untersucht die Studie, wie eine staatlich gelenkte Sanierungsinitiative im Namen der Modernisierung neue städtische Randgebiete schafft und sozio-räumliche Ungleichheiten verschärft.

Um diese Dynamiken zu entschlüsseln, wurde in der Studie ein Forschungsdesign mit gemischten Methoden verwendet, das quantitative, qualitative und räumliche Analyseansätze integrierte. Dieses Design ermöglichte eine umfassende Bewertung der sozioökonomischen, räumlichen und politischen Auswirkungen des Abrisses von Agbogbloshie. Der quantitative Teil umfasste eine strukturierte Umfrage, die zwischen September 2022 und März 2023 unter 350 vertriebenen E-Müll-Arbeitern durchgeführt wurde und statistische Einblicke in die Beeinträchtigungen ihrer Lebensgrundlagen und ihre Anpassungsstrategien lieferte. Ergänzend dazu stützte sich der

qualitative Teil auf 22 halbstrukturierte Interviews mit einer gezielt ausgewählten Gruppe von zivilgesellschaftlichen Organisationen (CSOs) und institutionellen Akteuren aus staatlichen und nichtstaatlichen Stellen, die an der Stadtplanung, der E-Abfall-Entsorgung und dem Abrissprozess beteiligt sind. Darüber hinaus wurden 36 ausführliche Interviews mit einer Untergruppe von E-Abfall-Arbeitern, Anwohnern und anderen institutionellen Akteuren durchgeführt. Darüber hinaus wurden zwei Fokusgruppendifkussionen (FGDs) mit E-Abfallarbeitern durchgeführt, die jeweils sechs verschiedene Aktivitätsgruppen umfassten: Sammler, Demontierer, Schrotthändler, Recycler, Zwischenhändler und Reparatere. Jede Aktivitätsgruppe umfasste acht Teilnehmer pro Sitzung, was insgesamt 48 Teilnehmer pro FGD und 96 Teilnehmer in beiden Sitzungen ergab. Alle qualitativen Interviews wurden zwischen April und August 2023 durchgeführt.

Es wurde auch eine Analyse der Politik und der Dokumente durchgeführt, wobei der Schwerpunkt auf nationalen und großstädtischen Rahmenwerken für Stadtentwicklung, Informalität und E-Abfall-Management lag, um zu untersuchen, inwieweit diese Politiken die Einbeziehung informeller Akteure in Stadtplanungsprozesse ermöglichen oder einschränken. Um die räumliche Dynamik der E-Abfall-Aktivitäten nach dem Abriss zu erfassen, wurden im Rahmen der Studie Techniken des Geografischen Informationssystems (GIS) eingesetzt, um die Umverteilung und Verbreitung von E-Abfall-Standorten in der Stadtlandschaft von Accra zu kartieren. Feldbeobachtungen und fotografische Dokumentationen bereicherten die empirischen Daten zusätzlich. Die quantitativen Daten wurden mit SPSS und Stata Version 13 analysiert. Ein binäres logistisches Regressionsmodell wurde verwendet, um Faktoren zu identifizieren, die die Lebensgrundlagen der vertriebenen E-Abfall-Arbeiter beeinflussen. Qualitative Daten aus Interviews und Fokusgruppendifkussionen (FGDs) wurden mit der Software NVivo verarbeitet. Wortgetreue Transkripte wurden überprüft, kodiert und in thematische Kategorien gegliedert, und zur Veranschaulichung wurden Zitate in die Analyse aufgenommen, um den Kontext zu vertiefen und Nuancen herauszuarbeiten.

Nach dem Einführungskapitel werden in Kapitel zwei die Forschungsmethodik und das Studiendesign beschrieben. Kapitel drei enthält eine Literaturübersicht sowie den konzeptionellen und theoretischen Rahmen, auf dem die Arbeit basiert. Kapitel vier, das auf einem zuvor veröffentlichten Artikel basiert, untersucht kritisch die Gründe und politischen Hintergründe für

den Abriss von Agbogbloshie. Dieses Kapitel stützt sich auf qualitative Interviews mit 22 institutionellen Akteuren und sechs Fokusgruppendifkussionen (acht Teilnehmer pro Gruppe) mit insgesamt 48 Arbeitern. Im Gegensatz zu offiziellen Darstellungen, die den Schwerpunkt auf die öffentliche Gesundheit und die Sanierung der Umwelt legen, zeigen die Ergebnisse, dass der Abriss weitgehend von einer neoliberalen Stadtentwicklungsagenda vorangetrieben wurde, die auf einer revanchistischen Logik beruhte und durch Bemühungen gekennzeichnet war, den städtischen Raum von marginalisierten Bevölkerungsgruppen zurückzugewinnen, um eine elitenorientierte Entwicklung zu fördern. Wichtig ist, dass das Kapitel die eklatante Abwesenheit umfassender Konsultationen mit den vertriebenen E-Müll-Arbeitern und anderen Interessengruppen hervorhebt, was ihre Marginalisierung nach dem Abriss weiter verstärkte.

Auf dieser Grundlage untersucht Kapitel 5, das ebenfalls auf einem zuvor veröffentlichten Artikel basiert, die sozioökonomischen Folgen des Abbaus der Schrottplananlage für die betroffenen E-Müll-Arbeiter. Unter Verwendung einer gemischten Methodik, die eine Umfrage unter 350 E-Schrottarbeitern und sechs Fokusgruppendifkussionen (acht Teilnehmer pro Gruppe) mit 48 Arbeitern umfasste, stellt das Kapitel einen erheblichen Rückgang des Einkommens, der Ersparnisse und der Überweisungen fest. Diese Rückgänge wurden durch die Zerstörung wichtiger Arbeitsgeräte und Infrastruktur, die ihre Lebensgrundlage bildeten, noch verschärft. Das Kapitel dokumentiert auch eine Zunahme von Gesundheitsproblemen unter den vertriebenen Schrotthändlern, darunter erhöhte psychische Belastungen, Symptome von Depressionen und eine Zunahme der gemeldeten Verletzungen, die während des Abrisses durch staatliche Sicherheitskräfte erlitten wurden. Darüber hinaus wird die Störung wichtiger wirtschaftlicher und institutioneller Verbindungen zu Organisationen wie dem Technischen Ausbildungszentrum der GIZ, der Old Fadama-Klinik, Stahlherstellungs- und Recyclingunternehmen sowie der Agbogbloshie Scrap Dealers Association (ASDA) hervorgehoben. Diese Unterbrechung wirkte sich nicht nur auf die Dienstleistungserbringung und die Lieferketten aus, sondern verstärkte auch die strukturelle Prekarität und Ausgrenzung informeller Arbeitnehmer innerhalb der sich rasch wandelnden städtischen Wirtschaft Accras. Angesichts dieser sich verschärfenden Schocks untersucht das Kapitel die Bandbreite der Anpassungsstrategien, die von vertriebenen Arbeitnehmern eingesetzt werden, um mit der erhöhten Unsicherheit und räumlichen Entwurzelung umzugehen.

Während das vorangegangene Kapitel die wirtschaftlichen Verwüstungen durch Zwangsräumungen in den Vordergrund stellt, wirft es auch eine entscheidende Frage auf: Wo und unter welchen Bedingungen nehmen die vertriebenen E-Müll-Arbeiter ihre Tätigkeit nach dem Abriss wieder auf? Kapitel 6, das als veröffentlichungsfähiger Artikel verfasst wurde und derzeit redaktionell geprüft wird, befasst sich mit dieser Frage, indem es die sich abzeichnenden geografischen Strukturen der informellen Elektronikschrott-Arbeit im Accra nach dem Abriss systematisch kartiert. Das Kapitel identifiziert 26 neue Elektronikschrott-Cluster, die nach dem Abriss von Agbogbloshie organisch entstanden sind, und untersucht die mit ihrer Verbreitung verbundenen Herausforderungen für die Regierungsführung. Anhand von ausführlichen Interviews mit 20 vertriebenen E-Schrott-Arbeitern, 10 Anwohnern und 6 Beamten für Umweltgesundheit und Hygiene untersucht das Kapitel lokale Erfahrungen mit Umweltzerstörung und Risiken für die öffentliche Gesundheit, darunter Luftverschmutzung durch Verbrennen unter freiem Himmel und anhaltende Lärmbelästigung an diesen neu entstandenen Standorten. Darüber hinaus werden kritische räumliche Einschränkungen untersucht, insbesondere Unsicherheiten hinsichtlich der Landnutzung, die vertriebene Arbeiter daran hindern, sich stabile Arbeitsräume zu sichern. Die Ergebnisse unterstreichen die wachsenden Umwelt- und Gesundheitsbedenken der Anwohner und zeigen die abnehmende Regulierungsfähigkeit der verschiedenen Stadt-, Gemeinde- und Bezirksversammlungen (MMDAs) bei der Bewältigung der verstreuten und expandierenden informellen Elektronikschrottaktivitäten in ihren Zuständigkeitsbereichen.

Insbesondere dokumentiert das Kapitel eine bedeutende Entwicklung nach dem Regierungswechsel: Viele Schrotthändler besetzten nach und nach den Schrottplatz von Agbogbloshie wieder und nahmen ihre informellen Aktivitäten am ursprünglichen Standort wieder auf. Diese Wiederbesetzung verdeutlicht die Widerstandsfähigkeit und Handlungsfähigkeit informeller Akteure und zeigt, dass es mit Top-down-Abrissstrategien nicht gelungen ist, sie dauerhaft zu vertreiben. Sie unterstreicht auch die anhaltenden Spannungen zwischen staatlich gelenkten Stadterneuerungsinitiativen und den sozioökonomischen Realitäten marginalisierter städtischer Arbeiter.

Das Kapitel 7 fasst die Erkenntnisse aus den vorangegangenen Kapiteln zusammen und schließt mit der Forderung nach einer paradigmatischen Neuausrichtung der Strategien zur

Stadtentwicklung in schnell urbanisierenden Kontexten wie Accra. Es argumentiert, dass eine nachhaltige und gerechte Zukunft der Städte inklusive und partizipative Governance-Rahmenbedingungen erfordert, die die Resilienz und den sozioökonomischen Beitrag informeller Arbeiter anerkennen, anstatt sie zu kriminalisieren. Die Studie liefert ein kritisches Argument für die Integration der Informalität in die städtischen Modernisierungsagenden und betont, dass abrisorientierte und ausgrenzende Sanierungsmaßnahmen, die Kennzeichen des „revanchistischen Urbanismus“ sind, sowohl die soziale Gerechtigkeit als auch die ökologische Nachhaltigkeit untergraben. Unter „revanchistischem Urbanismus“ versteht man hier eine staatlich gelenkte Strategie, die darauf abzielt, marginalisierten Bevölkerungsgruppen den städtischen Raum zugunsten einer elitenorientierten Entwicklung wieder zu entziehen. Diese Perspektive ist entscheidend, um aufzuzeigen, wie herkömmliche staatlich gelenkte Ansätze soziale und räumliche Marginalisierung reproduzieren und gleichzeitig die Möglichkeiten für eine inklusive und adaptive Stadtverwaltung einschränken.

Daher plädiert die Dissertation für einen transformativen und inklusiven städtebaulichen Rahmen, der Partizipation, Existenzsicherung und die infrastrukturelle Aufwertung informeller Arbeitsräume in den Vordergrund stellt. Indem informelle Akteure als Mitgestalter des städtischen Raums und nicht als Hindernisse für die Modernisierung positioniert werden, kann ein solcher Rahmen einen gerechteren, widerstandsfähigeren und nachhaltigeren Weg für die städtische Transformation in Accra und anderen sich rasch entwickelnden afrikanischen Städten fördern.

## **Declarations**

### **Declaration of Competing Interests**

The author affirms that there are no financial conflicts of interest or personal relationships known to have influenced, directly or indirectly, the design, conduct, or interpretation of the research findings presented in this dissertation.

### **Declaration of Generative AI and AI-assisted technologies in the writing process**

During the preparation of this dissertation, generative artificial intelligence (AI) and AI-assisted technologies, including *Grammarly*, *DeepL*, and *ChatGPT*, were utilised to enhance language clarity and readability in editing the articles and the surrounding frame text. *DeepL*, for instance, was employed to translate the summary from English into German, with the resulting translation subsequently verified by a native German speaker.

Following the use of these tools, the author carefully reviewed and edited all content and assumes full responsibility for its accuracy and intellectual integrity. The use of these tools and services was transparently disclosed during the peer-review process of the three publications incorporated into this cumulative dissertation<sup>1</sup> (Chapters 4 – 6).

<sup>1</sup>The text of this dissertation has been adapted from Elsevier's standard declaration regarding the use of AI tools in academic writing.

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## List of Abbreviations

AI	:	Artificial Intelligence
AMA	:	Accra Metropolitan Assembly
APC	:	African Policy Circle
ASDA	:	Agbogbloshie Scrap Dealers Association
CBD	:	Central Business District
CBOs	:	Community-Based Organisations
COHRE	:	Centre on Housing Rights and Evictions
EPA	:	Environmental Protection Agency
FGDs	:	Focus Group Discussions
GARID	:	Greater Accra Resilient and Integrated Development
GAMA	:	Greater Accra Metropolitan Area
GDA	:	Ga District Assembly
GGG	:	Green GAMA Grid
GIP	:	Ghana Infrastructure Plan
GIS	:	Geographic Information System
GIZ	:	Gesellschaft für Internationale Zusammenarbeit
GSS	:	Ghana Statistical Service
IBRD	:	International Bank for Reconstruction and Development
ICUA	:	International Conference on Urban Affairs
IOM	:	International Organisation for Migration
ISID	:	Institute for the Study of International Development
KIA	:	Kotoka International Airport
LMAWA	:	Let's Make Accra Work Again
LUSPA	:	Land-Use and Spatial Planning Authority
MCI	:	Millennium Cities Initiative
MESTI	:	Ministry of Environment, Science and Technology
MMDAs	:	Metropolitan Municipal District Assemblies
MoGCSP	:	Ministry of Gender, Children and Social Protection
NAM	:	Non-Aligned Movement

NDPC	:	National Development Planning Commission
NGO	:	Non-Governmental Organisation
NYA	:	National Youth Authority
NYC	:	National Youth Council
PAC	:	Physical Asset Categorisation
QDA	:	Qualitative Document Analysis
RRC	:	Regional Coordinating Council
SSA	:	Sub-Saharan Africa
TEC	:	Total Economic Value
TMA	:	Tema Metropolitan Area
TTC	:	Technical Training Centre
UN-DESA	:	United Nations Department of Economic and Social Affairs
UN-Habitat	:	United Nations Human Settlements Programme
WIEGO	:	Women in Informal Employment: Globalising and Organising
ZEF	:	Centre for Development Research

# **CHAPTER 1: INTRODUCTION**

## **1. Introduction: Setting the stage**

*This dissertation originally emerged from a research design that sought to examine the dynamics of the global e-waste supply chain, with Agbogbloshie serving as the central case study. At the outset of my PHD research, while still in Ghana, I conducted field reconnaissance in April 2021, which allowed for preliminary observation of the spatial and economic dynamics of the scrapyards. However, in July 2021, during my relocation to Bonn, Germany, to commence my doctoral studies, a pivotal event unfolded – the demolition of the Agbogbloshie scrapyards and the forced eviction of its residents, including the e-waste workers who constituted the core of my intended study population, dramatically reshaping the socio-spatial and economic landscape of the area.*

*This unexpected development not only rendered my original research focus untenable but also surfaced a series of more urgent questions concerning urban transformation, displacement, and the precarious conditions shaping informal livelihoods in Accra. In response, I reoriented the study to investigate the social and spatial transformations following the demolition and to analyse their implications for informal workers, whose everyday practices underpin critical dimensions of the city's informal economy.*

*To engage directly with these emergent dynamics and capture first-hand accounts of the demolition, I returned from Germany in September 2021 to organise the first stakeholder workshop for this study in Accra. This engagement, complemented by subsequent fieldwork in Agbogbloshie, enabled me to observe post-demolition developments firsthand, collect detailed narratives, and capture photographic documentation from displaced workers and key informants, providing a rich empirical grounding for the study.*

### **1.1. Background to the study**

Across the globe, countries are undergoing differentiated yet intensifying trajectories of urbanisation, fuelling a greater part of their human population in urban centres (UN-DESA, 2019; UN-Habitat, 2020). Migration, internal and international, has been a central driver of this urban expansion, as individuals move to cities in search of improved economic livelihood prospects and access to urban social services (Awumbila, 2014; IOM, 2019; UN-Habitat, 2020). Yet, this rapid

and often unplanned urban expansion presents significant challenges for city authorities, who often grapple with limited empirical data, constrained resources, and inadequate institutional capacity to manage urban growth and integrate new arrivals (OECD et al. 2025; UN-Habitat, 2020).

These systemic pressures have generated a range of urban vulnerabilities, including rising unemployment, overstretched infrastructure, housing challenges, and widening socio-economic inequalities (Ichimura, 2003). In response to these multidimensional challenges, many city governments have increasingly embraced urban transformation initiatives as strategic mechanisms to navigate the complex socio-economic and spatial pressures associated with accelerated urbanisation, aiming to enhance urban resilience and liveability (Ilicali & Giritli, 2020; Kabisch et al., 2018; Önal, 2019). Consequently, a multitude of programmes and projects have emerged (Mazutis & Sweet, 2022), giving rise to new categories of cities, such as “sustainable cities”, “green cities”, “eco-cities”, “low-carbon cities”, and “resilient cities” (Mazutis & Sweet, 2022). As McCormick et al. (2012) note, such large-scale initiatives, particularly in the Global North, have achieved varying degrees of success in mitigating the socio-economic and infrastructural pressures historically associated with poorly managed urban growth.

Undeniably, sub-Saharan Africa (SSA) epitomises these global perspectives, classified as a rapidly urbanising region (APC, 2020). Rural-to-urban migration has been central to Africa’s urbanisation and continues to drive this process (Awumbila, 2017; Lerch, 2017; Mercandalli et al., 2019; Price & Chacko, 2012; Teye, 2018; UN-DESA, 2019; UN-Habitat, 2016). African cities have increasingly emerged to provide enviable opportunities for millions of people, especially the disadvantaged groups, to advance livelihood strategies and entrepreneurship resulting in the growth of their human capital (Awumbila, 2014; UN-Habitat, 2013).

Despite these gains, considerable scholarly and policy discourse has drawn attention to the inadequacies of urban governance in Africa’s urban transition (ISID, 2018). The prevailing critique is that urbanisation across the region has largely occurred in an uncoordinated and poorly managed manner, often in the absence of comprehensive planning and effective policy frameworks (ISID, 2018). This institutional inertia has had profound implications for the provision and distribution of essential urban services. Critical infrastructures, such as affordable housing, formal employment, transport systems, and sanitation, have struggled to match the pace and scale of

demographic expansion (Awumbila, 2017; Olajide et al., 2018; Songsore, 2009). These deficiencies have contributed to a range of acute urban challenges, including rising unemployment, widespread informal settlements, escalating crime, environmental degradation, and chronic traffic congestion (Teye, 2018). These multi-scalar challenges collectively constitute the spatial and economic expressions of a poorly managed urbanisation process (Olajide et al., 2018).

Pressed by these realities, cities across SSA are undergoing “massive socio-spatial transformations” (Asante & Helbrecht, 2020; Burte & Kamath, 2023; Nikuze et al., 2019). In a bid to modernise, most African governments have, over the past years, initiated multiple development projects and adopted pragmatic measures aimed at formalising urban economies and restructuring cityscapes (Miraftab, 2007; Myers, 2015; Olajide et al., 2018). Lately, most African cities have seen a tremendous boom in large-scale urban developmental projects in housing, transport networks, and electricity infrastructure, among others (Adama, 2018; Müller-Mahn et al., 2021). Ultimately, this growth relies on positive macroeconomic indicators, liberalised markets, and investor-friendly policies, positioning these cities as lucrative frontiers for global capital and speculative urbanism (Watson, 2014).

Ghana exemplifies these urban dynamics, with its demographic landscape undergoing significant transformation, characterised by accelerated urbanisation that reflects broader SSA and Global South trends (Songsore, 2003). This urban transition is propelled by a combination of interrelated demographic drivers, including sustained rural-to-urban migration (Awumbilla et al., 2016), natural population growth, and the administrative reclassification of erstwhile rural settlements into urban centres (GSS, 2012; Songsore, 2003). Central to this process is a distinctly youthful migration pattern, historically rooted in pre-colonial socio-economic structures but persisting today, particularly the enduring north-to-south flow toward Accra and Kumasi (Adaawen & Owusu, 2013; Awumbila et al., 2011; Beals & Menezes, 1970; Cleveland, 1991; Yaro et al., 2011). Clearly, this trend rides on the heels of poverty, declining agricultural productivity, insufficient social services, recurrent ethnic conflicts, and an unpredictable climatic environment, that hinders agricultural activities (Awumbila, 2014; van der Geest, 2011). These factors compel most northern households to migrate southward, where the allure of formal-sector employment and improved livelihood prospects remains a powerful migratory incentive (Oteng-Ababio, 2012a).

The consequences of this internal migration are manifold. As Awumbila (2014) cogently argues, the influx of migrants into urban centres, particularly Accra and Kumasi, has not been matched by a commensurate expansion in social infrastructure or public services. Limited state capacity to provide the needed employment opportunities further constrains sustainable urban absorption (Agyei-Mensah & Owusu, 2010). This, to a large extent, creates challenges for host communities and aggravates the predicaments of migrants (Amankwaa et al., 2016; Awumbila, 2014; Oteng-Ababio et al., 2014a). Consequently, cities like Accra are constantly faced with growing challenges of unemployment, insanitary conditions, deteriorating infrastructure, acute shortage of housing, proliferation of informal settlements, and environmental pollution (Lattof et al., 2018). Worsened by this, is a situation where most of the infrastructure that has lured migrants into the city is also going through series of decay (Jawando & Oluranti, 2020). These evident social and spatial challenges tarnish city's image, rendering it less receptive to the investment community (Amoah et al., 2018).

Under these circumstances, informality emerges as a normative strategy, offering vulnerable migrants access to housing, employment, and livelihood opportunities within Accra (Crentsil & Owusu, 2018; Gillespie, 2015). As widely documented, Ghana's formal sector has not generated sufficient employment over the years, pushing many migrants into the informal economy, which remains the most viable option for marginalised groups in Accra (Adaawen & Jorgensen, 2012; Amankwaa, 2013a; Awumbila et al., 2016; Oduro et al., 2015). In response to these dynamics, many migrants have resorted to informal livelihood activities, including petty trading, street hawking, and head portering (commonly known as *kayayei*), as their primary means of subsistence (Adaawen & Jorgensen, 2012). However, these livelihood strategies are often marked by extreme precarity and unstable income (Oteng-Ababio, 2012a). Consequently, the informal e-waste recycling economy has emerged as a comparatively lucrative alternative, offering a relatively reliable source of income (Canavati et al., 2022), which scholars have shown to be directly linked to the growth of the informal sector, providing enormous livelihood opportunities for thousands of poor migrants (Amankwaa et al., 2016; Oteng-Ababio et al., 2014a).

Drawing on this, contemporary urban transformation processes ongoing in Ghana have brought to the fore a good number of key infrastructural projects and programmes within Accra (Fält, 2020).

These initiatives aim to address some of the inherent spatial inequalities and urban deprivations (Fält, 2020). However, this development trajectory has been widely criticised for exacerbating existing inequalities through forced displacements of low-income residents to create space for new projects (Adama, 2018; Ajibade, 2017; Arku et al., 2022; Bandaiko & Nutifafa Arku, 2023; IBRD, 2015). Such interventions seldom consider, and often give less priority to, marginalised sections of the community, particularly groups within the informal sector, such as street hawkers, slum dwellers and petty traders (Fält, 2020). Watson (2014) similarly argues that such modernist infrastructure projects can generate inequalities and reinforce socio-spatial segregation in African cities. Yet, the informal sector remains a crucial space where many urban residents find solace with regards to their housing needs and economic livelihood opportunities (Crentsil & Owusu, 2018).

This study focuses on understanding the social and economic transformations occurring in Accra and their implications for the livelihoods of the urban poor, particularly within the informal e-waste recycling sector. Insights from this research aim to inform policymakers in designing pragmatic interventions that address the challenges of urban transformation while supporting the resilience and well-being of informal workers in Ghana and comparable contexts globally.

## **1.2. The Ghanaian context – Statement of the research problem**

In recent years, urban authorities in Accra have markedly intensified efforts towards comprehensive urban transformation, driven by the dual imperatives of modernising the city and addressing persistent infrastructural deficits alongside mounting environmental challenges (Oteng-Ababio & Owusu, 2014). This agenda has materialised through a suite of large-scale infrastructural interventions, including the development of transport networks, educational institutions, healthcare facilities, high-end commercial and residential complexes, western-styled shopping malls, and industrial parks (Okwei et al., 2025). Framed within broader strategic programmes, and often short-term political imperatives (Brown et al., 2015), such as the *Millennium Cities Initiative (MCI)* and *Let's Make Accra Work Again (LMAWA)* (Amoah et al., 2018; Fält, 2020), these interventions, spearheaded by both state and private actors (Asante & Helbrecht, 2020), seek to reshape the socio-spatial architecture of the city while fostering economic growth, improving environmental health, and enhancing urban aesthetics (Amoah et al., 2018; Fält, 2020; Lindell et

al., 2019; Obeng-Odoom, 2010). Figure 1 depicts Accra's landscape in 1998, offering a glimpse into the city's formative stages of urban development, while Figure 2 illustrates the dramatic extent to which successive interventions have reshaped the city's skyline, redefining both its physical form and the socio-political logics of urban governance. Yet, many projects remain at the proposal or early implementation stage. Table 1, therefore, provides a summary of the major planned urban development projects that collectively anchor the trajectory of Accra's ongoing and evolving urban transformation.



*Figure 1. A view of Accra's landscape in 1998, illustrating early urban development.  
Source: Courtesy a key informant.*



*Figure 2. Changing skyline of Accra as a marker of contemporary urban transformation.  
Source: Wiredu, 2023. Used with permission.*

<b>Development Pillar</b>	<b>Urban Sub-sector</b>	<b>Planned Key Urban Development Projects/Initiatives</b>
Tourism Development	<ul style="list-style-type: none"> <li>- Modern Inner – City Beachfront Redevelopment Initiative</li> <li>- Culture, Arts, and Tourism Regeneration</li> </ul>	<ul style="list-style-type: none"> <li>- Marine Drive Development Project</li> <li>- 50 Consolidated Mall Centres – Ghana International Mall</li> <li>- The Black Star Experience</li> <li>- The Black Star Stadium</li> </ul>
Government Gateway and Investment Programme	<ul style="list-style-type: none"> <li>- Kotoka International Airport (KIA) Infrastructure Expansion Programme</li> <li>- Ningo-Prampram Project</li> </ul>	<ul style="list-style-type: none"> <li>- Airport City II</li> <li>- New International Aerropolis (Prampram)</li> </ul>
National Infrastructure Development Programme	<ul style="list-style-type: none"> <li>- \$10 billion “Big Push” Infrastructure Project</li> <li>- Consolidated Road Network</li> </ul>	<ul style="list-style-type: none"> <li>- The Three – Golden Triangle: Accra/Tema – Takoradi – Techiman (A-3T) Highway</li> <li>- Outer Ring Roads (Golden Orbital Motorways)</li> <li>- BRT and High – Capacity Bus Networks</li> <li>- Tramway Project linking Airport City I and II with Burma Camp</li> <li>- Underground Suburban Railway (Adenta – Accra Central – Kotoka International Airport)</li> <li>- Urban Inner – City Light Rail System</li> <li>- New Interchanges</li> <li>- Oxford Street Upgrade</li> <li>- Accra – Kumasi Expressway</li> </ul>
Industrialisation Drive	<ul style="list-style-type: none"> <li>- Industrial Enclave and Urban Renewal Project</li> </ul>	<ul style="list-style-type: none"> <li>- One District, One Factory (1D1F)</li> <li>- Agro – Industrial Zones</li> </ul>
Urban Development of Greater Accra	<ul style="list-style-type: none"> <li>- Greater Accra Resilient and Integrated Development Project (GARID)</li> </ul>	<ul style="list-style-type: none"> <li>- Korle Lagoon Project</li> <li>- Water – Inclusive Urban Development of Greater Accra</li> <li>- National Youth Village – Agbogbloshie</li> </ul>
Future Green Infrastructure and Sustainable Environment	<ul style="list-style-type: none"> <li>- Public Open Space Network of Parks</li> </ul>	<ul style="list-style-type: none"> <li>- Green Digital City</li> <li>- Green GAMA Grid (GGG)</li> </ul>
Cross-Cutting Urban Economic Transformation	<ul style="list-style-type: none"> <li>- Policy and Urban Economy Restructuring</li> </ul>	<ul style="list-style-type: none"> <li>- 24 – Hour Economy (infrastructure, transport, utilities, and security upgrades)</li> </ul>

*Table 1: Major planned urban development projects.*

*Source: Author’s construct, 2025, informed by urban policy and planning documents.*

Despite their lofty intentions, the ongoing pursuit of urban modernity appears misaligned with the everyday livelihood strategies of urban residents (Olajide et al., 2018) and has consistently failed to accommodate the informal economy, particularly the livelihoods of the poor in the informal sector, on which many urban dwellers and workers rely for their daily income (Brown & McGranahan, 2015; Gillespie, 2015; Omoegun, 2015; Owusu, 2007). Worryingly, interventions of this nature, conceived to revive inner-city infrastructure through urban regeneration policies and programmes, often subscribe to the logic of ‘decongestion’, which frames informal practices as spatial nuisances and socio-environmental threats (Oteng-Ababio & Grant, 2019). Such exclusionary practices have manifested in a series of state-sanctioned evictions and forced demolitions, frequently employing bulldozing approaches, as referenced in the work of Crentsil & Owusu (2018) and Okwei et al. (2025). In many instances, including communities such as Mensah Guinea, Kotobabi, and James Town, these interventions have been executed through coercive means, often involving militarised policing and the violent displacement of residents and informal workers (Fält, 2016; Gillespie, 2015; Knott, 2020; Lindell et al., 2019; Obeng-Odoom, 2011). Consequently, actors within the informal sector, including street vendors, slum residents, and e-waste recyclers, continue to bear the heaviest costs of Accra’s modernisation drive (Fält, 2016).

These dynamics are particularly pronounced in the case of Agbogbloshie, formerly one of Ghana’s largest and most prominent informal e-waste recycling hubs (see Figure 3, which depicts the deployment of armed security personnel and city authorities during the demolition exercise). Located in the heart of Accra, Agbogbloshie has sustained the livelihoods of an estimated 4,500 to 6,000 workers, many of whom are migrants from northern Ghana (Awumbila et al., 2016; Crentsil & Owusu, 2018; Gillespie, 2015; Oteng-Ababio, 2012a). For over a decade, the site has served as a central node within Ghana’s urban informal economy, with approximately 80% of its workforce engaged in scrap collection, metal recovery, and resale (Amankwaa, 2013b; Oteng-Ababio & Amankwaa, 2014; Teye, 2018).



*Figure 3. Deployment of state security and city authorities during the demolition the Agbogbloshie demolition exercise, July 2021.*

*Source: Koomson, 2021. Used with permission.*

Despite its significant economic contribution, the informal nature of e-waste work at Agbogbloshie has engendered profound environmental and public health challenges (Dodd et al., 2023). Informal recycling practices, such as open burning and manual dismantling, are carried out with minimal safety equipment, exposing workers to toxic pollutants, including lead, mercury, and dioxins (Asante et al., 2016; Fobil et al., 2018). These practices have led to severe contamination of soil, air, food, and water systems, yielding deleterious effects on human health, local biodiversity, and surrounding ecosystems (Dodd et al., 2023; Kyere et al., 2018; Lines & Garside, 2014). Figures 4 and 5 capture some of these hazardous activities as they unfold on the ground. Consequently, these issues have increasingly drawn the attention of local authorities and international advocacy groups, framing Agbogbloshie as both an ecological crisis zone and a policy dilemma at the nexus of urban informality, public health, and sustainable development.



*Figure 4. Manual dismantling of e-waste by workers.  
Source: Photograph by author, 2021.*



*Figure 5. Open-air burning of e-waste by workers.  
Source: Photograph by author, 2021.*

Between 2000 and 2017, Agbogbloshie was repeatedly designated for demolition due to its perceived environmental hazards (Azunre & Boateng, 2023; Doe, 2015; Oteng-Ababio & Grant, 2019). These threats culminated in a state-led demolition exercise in 2021, which razed substantial portions of the scrapyard, displaced thousands of informal workers, and destroyed vital infrastructure essential to the e-waste recycling value chain (Azunre & Boateng, 2023; Crentsil & Owusu, 2018; Grant et al., 2024; Okwei et al., 2025). Grant & Oteng-Ababio (2021) foreshadowed such developments in their study on the *“formalisation of e-waste recycling in Ghana”*, highlighting the likelihood of state-led disruption in informal e-waste recycling value chains.

The consequences of this demolition were immediate and far-reaching (see Figures 6 and 7). Beyond the material destruction of infrastructure and personal property, the livelihoods of

thousands of e-waste workers were severely undermined (Koomson, 2021). Displaced workers have reconstituted e-waste operations in peripheral and often unauthorised urban spaces – including Weija, Madina, and Ashaiman, where they face heightened vulnerability, spatial insecurity, and regulatory neglect. This forced spatial reordering raises critical questions for urban authorities, residents, and environmental regulators regarding land-use planning, public health, regulatory oversight, and the long-term viability of informal work in urban Ghana.



*Figure 6. Extensive destruction of properties belonging to e-waste workers.  
Source: Koomson, 2021. Used with permission.*



*Figure 7. E-waste workers reacting with visible shock and disorientation to the extensive destruction at Agbogbloshie, appearing uncertain about their next steps.*

*Source: Koomson, 2021. Used with permission.*

Although a growing body of urban scholarship has critically interrogated the rationalities of state-led urban redevelopment and the neoliberal logics driving urban beautification projects, including coercive decongestion strategies, the demolition of informal settlements, and the imposition of market-oriented urban reforms (Crentsil & Owusu, 2018; Fält, 2020; Oteng-Ababio & Grant, 2019) – insufficient attention has been paid to understanding the lived consequences of such transformations on the livelihoods of informal workers. Informal e-waste recycling, although largely overlooked in mainstream development discourse, remains a vital “survivalist” enterprise for thousands of migrants, contributing significantly to Ghana’s urban economy. Informal e-waste actors not only supply scrap metals to local manufacturing industries, such as the steel mills in Tema, but also fill a crucial gap in national e-waste management systems (Khan, 2018). Indeed, it is estimated that nearly 95% of all e-waste generated in Ghana is processed by actors within the informal sector (Grant & Oteng-Ababio, 2012).

Given these realities, this research seeks to fill a critical empirical and conceptual lacuna by examining the socio-economic, spatial, and psychological implications of the 2021 Agbogbloshie demolition on e-waste workers in Accra's informal economy. The study interrogates how large-scale urban transformation projects intersect with informal livelihoods and the extent to which such state-led interventions undermine the socio-economic resilience of vulnerable populations. Ultimately, the research grapples with a fundamental policy challenge: how can urban authorities reconcile the imperatives of modern urban transformation with the lived realities and livelihood strategies of informal actors, such as e-waste recycling, while simultaneously addressing pressing environmental, occupational health, and food safety concerns?

### **1.3. Research aim, objectives and questions**

The main aim of this study is to assess the implications of the recent large-scale demolition of the Agbogbloshie scrapyard on the livelihoods of migrant e-waste workers and to interrogate how the expulsion of these workers intersects with, and indeed shapes, the broader processes of urban transformation in Accra.

The specific objectives are to:

- i. Examine the logics and mechanisms employed by the state to demolish the Agbogbloshie scrapyard in pursuit of urban transformation.
- ii. Analyse the socio-economic consequences of the Agbogbloshie demolition on the livelihood strategies of e-waste workers.
- iii. Explore the geographies of e-waste trade in the Greater Accra Metropolitan Area (GAMA) and their associated health and environmental risks.
- iv. Assess the urban transformation outcomes of the demolished Agbogbloshie scrapyard.

In relation to the stated objectives, the study addresses the following key research questions:

- i. What occurred during the demolition of the Agbogbloshie scrapyard, how was the operation carried out, and what motivations and justifications were provided for it?
- ii. In what ways has the demolition of the Agbogbloshie scrapyard impacted the socio-economic conditions and “working relationships” of displaced e-waste workers, and how

have these workers adapted their strategies to sustain livelihoods in the aftermath of displacement?

- iii. What are the current e-waste trade practices in Accra following the demolition, and how do they pose potential health and environmental risks?
- iv. How can the demolition of the Agbogbloshie scrapyards provide lessons for understanding the social and economic transformations taking place in Accra?

#### **1.4. Research propositions**

This study is premised on the overarching proposition that the 2021 demolition of the Agbogbloshie scrapyards represents a critical inflection point in Accra's urban transformation trajectory, producing far-reaching socio-economic, spatial, and environmental consequences for migrant e-waste workers. Not only do displaced workers experience these disruptions in uneven and differentiated ways, but the dynamics of their post-demolition livelihoods also vary across the new localities into which e-waste activities have dispersed. The post-demolition reconfiguration of e-waste geographies within GAMA further raises critical questions for urban governance, environmental management, and the sustainability of informal work. Meanwhile, the contributions of informal e-waste recycling, particularly its role in resource recovery, waste management, and livelihood provisioning, have been underestimated and, in many policy circles, overlooked. On the basis of these considerations, the study advances the following propositions:

- i. There are variations in the logics, mechanisms, and justifications underlying the demolition of the Agbogbloshie scrapyards, and how these rationalities were operationalised by state authorities.
- ii. The demolition of the scrapyards has had significant and uneven socio-economic effects on e-waste workers, reshaping their livelihood strategies and "working relationships" in ways that intensify existing vulnerabilities.
- iii. The dispersal of e-waste activities across GAMA following the demolition is associated with new spatial patterns of environmental and public health risks.

## **1.5. Structure of the thesis**

This section outlines the overall structure of the cumulative thesis, presenting an overview of each chapter and illustrating how, collectively, they contribute to addressing the central research questions as stipulated in the study. The thesis is organised into seven chapters.

**Chapter One** introduces the study and lays the conceptual and contextual foundations for the research. It outlines the background and rationale for the study, defines the research problem, and articulates the guiding objectives, research questions, and propositions. In doing so, it establishes the framework within which the subsequent chapters are situated.

**Chapter Two** provides a detailed account of the research design and methodological approaches underpinning the study, as well as a contextual description of the study area. It outlines the philosophical orientation guiding the research, the quantitative and qualitative methods employed, and the procedures used for data collection, sampling and analysis. The chapter also discusses ethical considerations and researcher positionality. In addition, it offers a geographical and socio-economic overview of GAMA, within which this study is situated, with particular attention to the historical and spatial dynamics of Agbogbloshie, the primary study site, as well as the emerging e-waste locations.

**Chapter Three** provides a comprehensive and critical review of the relevant literature, conceptual frameworks, and theoretical perspectives underpinning this study. It interrogates existing scholarship on urban transformation, informality, contestations over urban space, and the geographies of expulsion, situating these within the broader discussions on neoliberal urban restructuring. Central to this chapter is the deployment of the revanchist framework as the principal analytical lens, providing a robust platform for examining the intersecting dynamics of exclusion, displacement, and state-led urban redevelopment.

**Chapter Four** presents the first of the three empirical articles, examining the institutional logics and policy rationales that underpinned the demolition and envisioned redevelopment of the Agbogbloshie scrapyards. This chapter situates this event within broader debates on the neoliberal restructuring of African cities and employs the revanchist framework to interrogate how

environmental concerns and urban modernisation agendas were strategically mobilised to legitimise the displacement of informal e-waste workers.

**Chapter Five** advances the empirical analysis by foregrounding the lived experiences of displaced e-waste workers in the aftermath of the demolition. Moving beyond conventional revanchist interpretations, it offers a victim-centered perspective that illuminates how state-led displacement disrupts income, work practices, and informal economic networks. The chapter further explores the adaptive strategies and resilience mechanism that workers employ to navigate these disruptions.

**Chapter Six** further extends the analysis by examining the spatial reconfiguration of e-waste activities across Accra following the demolition. It investigates emerging patterns of spatial insecurity, environmental injustice, and the socio-environmental challenges associated with the redistribution of informal e-waste activities. This chapter demonstrates that the forced displacement of e-waste workers has not mitigated environmental hazards; rather, it has relocated and, amplified vulnerabilities, generating new risks for both displaced actors and urban communities across the metropolis.

**Chapter Seven** presents the concluding discussion of the dissertation. It synthesises the key empirical findings, reflects on their theoretical and policy implications, and articulates recommendations for more inclusive and sustainable approaches to urban governance. The chapter proposes avenues for future research. A summary of the thesis organisation is presented in Figure 8.



*Figure 8. Structural organisation of the thesis.  
Source: Author’s illustration, 2025.*

To support this outline, Table 2 presents a detailed summary of the publication status and bibliographic details of the core empirical chapters.

<b>Chapter</b>	<b>Title of Manuscript</b>	<b>Co-Author(s)</b>	<b>Publication Details</b>
Four	Decoding the Logics behind the Demolition and Redevelopment of Agbogbloshie Scrapyard, Accra, Ghana	Detlef Müller-Mahn, Onallia Esther Osei	Published in <i>Geoforum</i> Volume 159, February 2025, 104180 6/j.geoforum.2024.104180
Five	Behind the Curtain of Agbogbloshie’s Demolition: A Victim’s Perspective Beyond Revanchism	Detlef Müller-Mahn, Ebenezer Forkuo Amankwaa, Peter Mensah	Accepted for publication in <i>International Journal of Urban and Regional Research</i> . Manuscript ID: IJURR-ArtR-0707.R1
Six	From Demolition to Dispersion: Navigating Changing Geographies, Insecurity, and the Environmental Injustice in Ghana’s E-waste Industry	Detlef Müller-Mahn, Ebenezer Forkuo Amankwaa, Peter Mensah, Onallia Esther Osei, Joshua Bediako Koomson	Submitted on 28 July 2025 to <i>Heliyon Urban Development</i> . Decision has not yet been made on the first submission. Manuscript ID: HELIYON-D-25-09601

*Table 2. Overview of the publication status of empirical chapters. Source: Author’s compilation, 2025.*

## **CHAPTER 2: METHODOLOGY**

## **2. Profile of Study Sites, Research Philosophy, and Methodological Approach**

### **Chapter Summary**

The purpose of this chapter is to articulate the study's geographical context, research design, and methodological procedures. It delineates the core elements of the research process, including the study area, participant selection, data collection strategies, analytical techniques, and the ethical principles that guided the inquiry.

The chapter is structured into six interrelated sections. The first section provides the contextual background of the study area, outlining the study site and focus on the study communities, namely Agbogbloshie and the emerging e-waste sites to which displaced workers have relocated, and describing their defining spatial and socio-economic characteristics. The second section elaborates on the research philosophy, detailing the ontological and epistemological assumptions underpinning the study and informing the adoption of a mixed-methods approach. The third section presents the overall research design, followed by a fourth section specifying the data sources and sampling procedures employed. The fifth section reflects on the researcher's positionality and the reflexive considerations that shaped field engagement. The final section outlines the ethical orientations and protocols that governed the conduct of the research, including the study's limitations.

### **2.1. Description of the study area**

#### ***2.1.1. The Greater Accra Metropolitan Area (GAMA)***

The study was undertaken within Accra, or the Accra Metropolis, which constitutes the administrative and functional core of the Greater Accra Metropolitan Area (GAMA) (Oduro et al., 2015). Historically, GAMA was composed of three administrative districts: the Accra Metropolitan Assembly (AMA), the Tema Municipal Assembly (TMA), and the Ga District Assembly (GDA) (Oduro & Oduro, 2025; Oteng-Ababio et al., 2013; Yankson et al., 2005). Over time, these initial jurisdictions underwent a series of administrative reforms and spatial reorganisations, eventually evolving into twelve autonomous yet spatially and functionally interconnected local government units (Amankwaa, 2017). Importantly, Accra Metropolis has

remained the principal urban centre and the key organising node of the wider metropolitan region, administering what the World Bank (2015) characterises as ‘Accra city proper’.

The name GAMA first appeared in an official planning document in 1992, when a Strategic Plan for the Greater Accra Metropolitan Area was prepared (Oduro & Oduro, 2025). At that time, GAMA covered an estimated 1,520 square kilometres, of which approximately 420 square kilometres were classified as built-up, and had a population of about 2.5 million (Oduro & Oduro, 2025). Since then, rapid population growth and the national push toward deepened decentralised governance have driven successive boundary re-demarcations across the metropolitan region (Oduro & Oduro, 2025). As of 2024, GAMA comprises 25 administrative districts (see Figure 9), spans approximately 1,488 square kilometres, and is bounded by the Eastern Region to the north, the Gulf of Guinea to the south, the Shai-Osudoku and Ningo-Prampram Districts to the east, and the Central Region to the west. The population has risen dramatically, from 405,136 in 1960 to 4,992,911 in 2021 (Oduro et al., 2024).

Parallel to demographic expansion, GAMA has witnessed extensive physical growth, characterised by the proliferation of residential developments, commercial facilities, and urban infrastructure to accommodate the needs of its rapidly urbanising population (Oduro et al., 2024). The built-up area expanded from 216 square kilometres in 1985 to 555 square kilometres in 2002 (Yankson et al., 2005) and, by 2024, accounted for approximately 65% of the metropolitan area (971.5 square kilometres) (Oduro et al., 2024). This spatial transformation has had far-reaching implications, including accelerated land-use change, environmental degradation, shifts in livelihood systems, economic displacement, and increasingly complex land-tenure dynamics (Asabere et al., 2020; Gough & Yankson, 2006; Oduro, 2010; Oduro & Adamptey, 2018; Oduro et al., 2024).

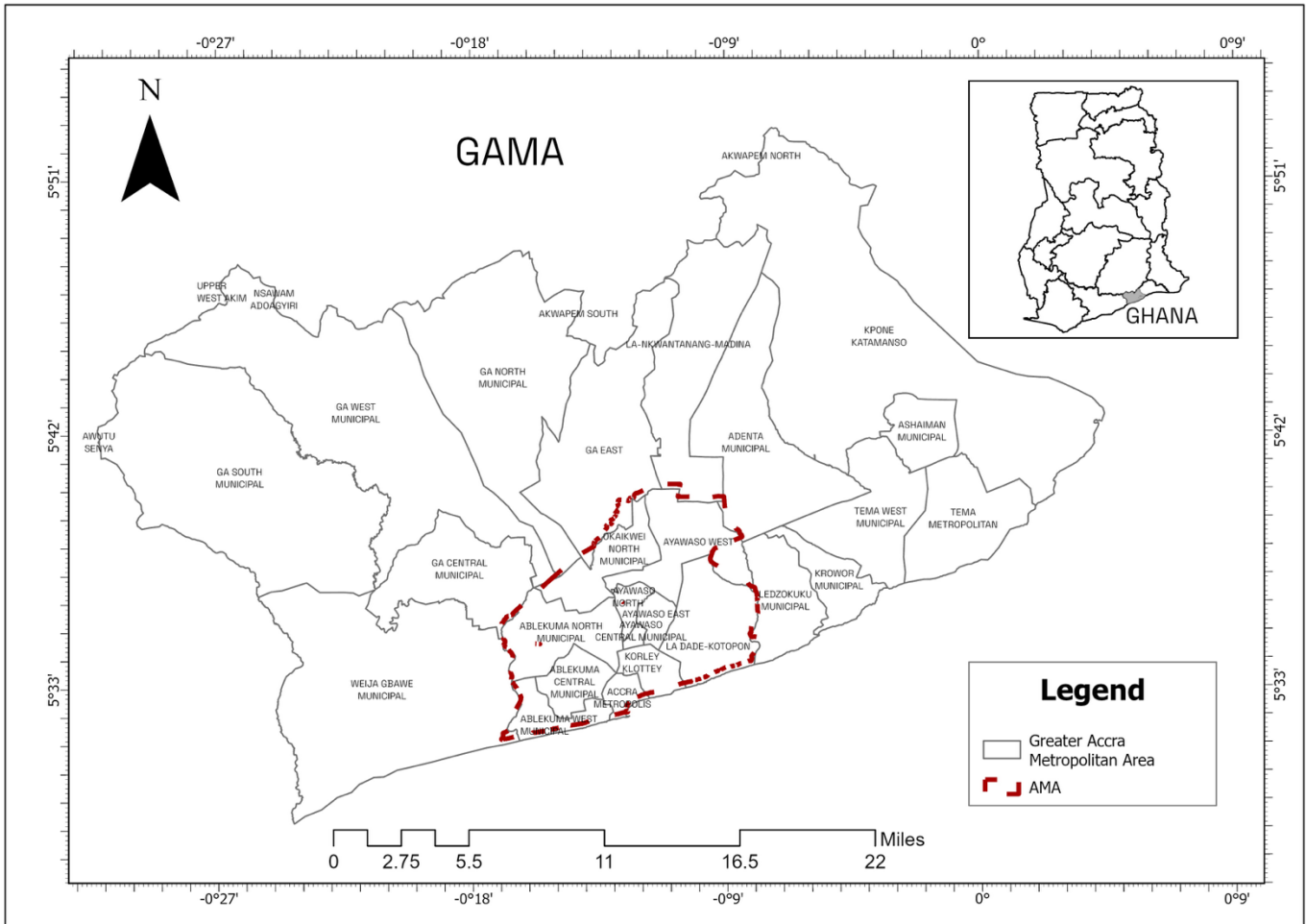


Figure 9. Composition of the Greater Accra Metropolitan Area.  
 Source: Author's construct, 2025.

### ***2.1.2. The characteristics of Agbogbloshie***

The primary locus of this research was the Agbogbloshie e-waste scrapyards, strategically situated in the heart of the Greater Accra Region (see Figure 10). Geographically, the site is bounded by the Odaw River to the west and Abossey-Okai Road to the east (Oteng-Ababio & Grant, 2019). Agbogbloshie has long been recognised as the largest e-waste scrapyards in Ghana (Brigden et al., 2008; Grant & Oteng-Ababio, 2021). The site serves as a major dumping ground for obsolete electrical and electronic equipment, where recycling is undertaken predominantly through rudimentary and hazardous practices, including manual dismantling, informal material recovery, and open-air burning (Amankwaa, 2014; Oteng-Ababio, 2012a). These activities are performed largely without safety equipment or professional oversight, significantly heightening the risk of toxic exposure for both workers and surrounding communities (Püschel et al., 2024).

Adjacent to the scrapyards lies a densely populated informal settlement, Old Fadama, which accommodates a substantial proportion of the site's workforce (Amankwaa, 2013b). Marked by limited access to essential services such as potable water, sanitation, and healthcare facilities, Old Fadama exemplifies the broader socio-spatial vulnerabilities characteristic of informal urban enclaves in Accra (Caravanos et al., 2011). Consistent with prior research (Amankwaa, 2013b; Grant & Oteng-Ababio, 2021), existing survey evidence indicates that approximately 80 percent of workers are migrants from northern Ghana, whose livelihoods are inextricably tied to activities at the scrapyards.

The emergence of the Agbogbloshie scrapyards dates to 1991, when the Accra Metropolitan Assembly (AMA) implemented citywide decongestion measures aimed at improving pedestrian and vehicular flow in preparation for the Non-alignment Movement (NAM) Conference (Akese & Little, 2018; Amoako, 2016, Amuzu, 2018; Davis et al., 2019). These interventions involved relocating street hawkers to the periphery of Agbogbloshie, particularly along the Abossey-Okai main road (Davis et al., 2019). Two years later, the relocation of Accra's wholesale yam market to the same area transformed Agbogbloshie into a major wholesale food distribution hub for the city and its environs (Davis et al., 2019).

The market's expansion stimulated high labour demand and spurred the growth of supporting economic activities, including vehicle repair, auto parts trading, welding, and tyre servicing (Afenah, 2012). Over time, these ancillary activities coalesced into a thriving scrap economy, establishing Agbogbloshie as Ghana's principal hub for informal electronic-waste recovery and processing (Davis et al., 2019; Grant, 2006). The site subsequently became a major destination for obsolete electronics, ranging from computers and televisions to assorted household appliances, consolidating its identity as one of the country's most significant e-waste landscapes (Asante et al., 2012).

As noted earlier, between 2000 and 2017, e-waste workers at Agbogbloshie were locked in a prolonged struggle with city authorities over their workspace (Oteng-Ababio & Grant, 2020). Their dismantling and burning practices generated significant environmental and public health risks (Grant & Oteng-Ababio, 2016; Oteng-Ababio, 2012), prompting multiple court-ordered eviction notices (Farouk & Owusu, 2012; Okyere et al., 2021; Oteng-Ababio & Grant, 2019). These tensions ultimately culminated in the 2021 forced eviction and demolition of the scrapyard under former Regional Minister Henry Quartey (Owusu-Sekyere et al., 2022).

The selection of Agbogbloshie as the focal research site is therefore analytically compelling. The 2021 state-led demolition dismantled key infrastructure, displaced thousands of workers, and disrupted an entire value chain central to Ghana's informal e-waste economy. This moment of rupture provides a rare empirical window into the socio-environmental consequences of urban displacement, the adaptive strategies of informal actors, and the reconstitution of e-waste geographies across Accra. As such, Agbogbloshie offers an unparalleled vantage point from which to interrogate the interplay between structural governance forces, livelihood resilience, and the socio-spatial inequalities that shape urban transformation in the Global South.



Figure 10. Map of Agbogbloshie.  
 Source: Amankwaa et al. (2016).

### 2.1.3. Emerging e-waste sites in GAMA

While Agbogbloshie constituted the primary site of empirical engagement, the scope of this study extended beyond its immediate geographical boundaries to include twenty-six additional localities across the Greater Accra Metropolitan Area (GAMA), where displaced e-waste workers reconstituted their livelihoods following the 2021 demolition (see Figure 11). The inclusion of these sites was essential for capturing the dispersed, networked, and evolving geographies of informal e-waste activity that emerged in the wake of state-led displacement. Importantly, the identification of these relocation sites was neither incidental nor anecdotal, nor was it based on isolated observations. Rather, it resulted from a deliberately structured and methodologically robust reconnaissance process designed to map the post-demolition trajectories of affected workers.

The research process commenced with systematic, field-based reconnaissance surveys aimed at mapping the mobility pathways of displaced e-waste actors. These surveys were spatially sequenced, iterative, and grounded in direct observation of operational cues, such as the movement of scrap materials, presence of makeshift weighing scales, disaggregated e-waste components, and informal trading interactions, that signalled the emergence of new e-waste enclaves. This process was complemented by an adaptive snowball identification strategy, whereby initial leads generated subsequent points of inquiry. Critical to this process were referrals from community gatekeepers, including traditional leaders, assembly members, and long-standing residents familiar with informal livelihood networks in their localities. Equally influential were former executives of the Agbogloboshie Scrap Dealers Association (ASDA), whose institutional memory and organisational networks facilitated access to dispersed worker groups and emergent clusters of activity.

The twenty-six identified relocation sites were subsequently categorised into four thematic clusters: inner-city enclaves, coastal urban towns, western peri-urban fringes, and northern peri-urban fringes within GAMA. Categorising sites according to these metropolitan sub-geographies enabled a more nuanced interpretation of how displaced e-waste workers navigated GAMA's uneven urban terrain and reconstituted their activities within areas marked by differing regulatory environments, land-use dynamics, and socio-economic conditions. Table 3 provides a detailed overview of these clusters and their defining socio-spatial characteristics.

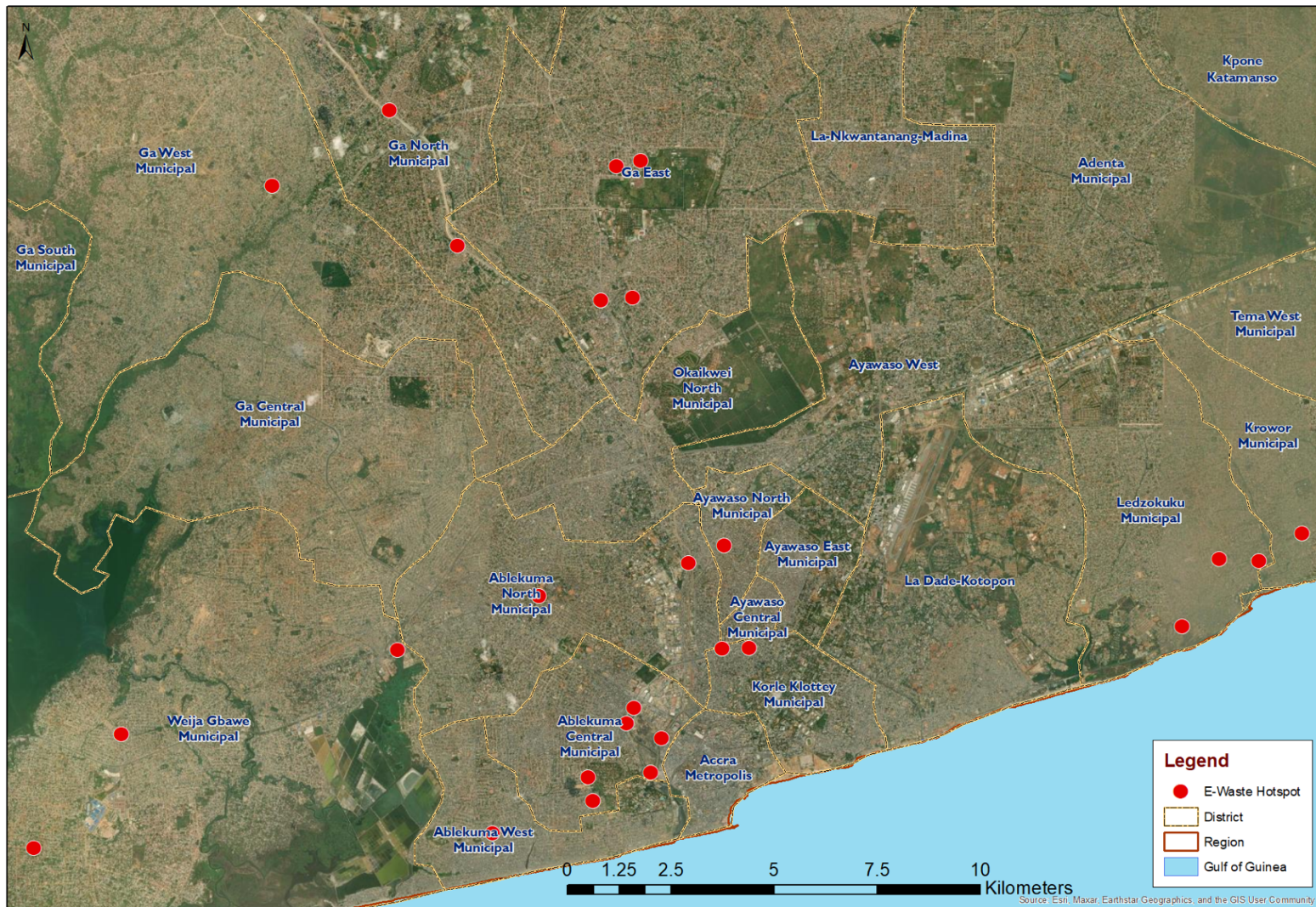


Figure 11. Spatial distribution of emerging e-waste sites within the studied metropolis.  
 Source: Field data, 2022.

<b>Cluster</b>	<b>E-waste site</b>	<b>Metropolitan/Municipal/District</b>	<b>Defining characteristics</b>
Inner-city enclaves	Maamobi High Tension	Ayawaso East Municipal	Densely populated core neighbourhoods; proximity to markets and spare parts hubs; limited space and intense regulatory oversight; high exposure to noise and air pollution.
	Kokomlemle ATC	Ayawaso Central Municipal	
	Central Mosque	Ablekuma Central District	
	Abossey Okai Traffic Light	Ablekuma Central District	
	Mortuary Road	Ablekuma Central District	
	Alajo	Accra Metropolitan	
	Mamprobi Sempe 1	Accra Metropolitan	
Coastal urban towns	Teshie Traffic Light	Ledzokuku Municipal	Fishing communities undergoing rapid urbanisation; located along coastal transport corridors; high residential density; exposure to flooding and sanitation challenges.
	Teshie Krobo 1	Ledzokuku Municipal	
	Nungua Goil Gas	Krowor Municipal	
	Nungua Cold Store	Krowor Municipal	
	Dansoman Kakari Park	Ablekuma West Municipal	
	Bortianor	Ga South Municipal	
Western peri-urban fringes	Weija	Weija Gbawe Municipal	Less regulated peri-urban zones; relative land availability; growing hubs for makeshift scrapyards.
	Mallam Overhead	Ga South Municipal	
	Darkuman cables and Wireless	Ablekuma North Municipal	
	Paloma	Accra Metropolitan	
	Soko Junction Laterbiokorshie	Ablekuma Central Municipal	
	Odumase	Ga West Municipal	
Northern peri-urban fringes	Ofankor Barrier	Ga North Municipal	Peri-urban settlements shaped by infrastructural expansion (e.g., Pokuase Interchange); increasing residential development; semi-formal land arrangements.
	Pokuase	Ga West Municipal	
	Dome Railways	Ga East Municipal	
	Dome Pillar 2	Ga East Municipal	
	Ashongman Estate 1	Ga East Municipal	
	Ashongman Estate 2	Ga East Municipal	
	Kwabanya	Ga East Municipal	

*Table 3. Thematic clusters of e-waste worker relocation sites in GAMA*

*Source: Author's compilation, 2025.*

## **2.2. Research Philosophy**

Every research endeavour rests on foundational assumptions regarding the nature of reality (ontological assumptions – what constitutes the real) (Crotty, 1998), the conditions under which knowledge of that reality can be generated (epistemological assumptions – how we come to know it) (Richards, 2003), and the theoretical and conceptual tools deemed appropriate for its investigation (methodological orientations). As Pretorius (2024) observes, a nuanced understanding of research paradigms is essential for developing coherent and philosophically grounded research designs, particularly within the humanities and social sciences, where meaning, interpretation, and positionality are integral to the production of knowledge.

Contemporary debates in the philosophy of science indicate an increasing convergence between research traditions, representing a marked departure from the epistemological tensions of the 1980s, when quantitative and qualitative paradigms were often framed as mutually exclusive (Amankwaa, 2017). This convergence is premised on the recognition that quantitative and qualitative approaches need not function as oppositional or substitutive methodologies; rather, when combined, they can offer complementary insights into complex social phenomena (Olsen, 2004). This orientation aligns with the principles of methodological pluralism, which advocate the strategic integration of diverse methods to capture the multi-layered, dynamic nature of social reality (Payne, 2006).

Guided by this paradigm of methodological convergence, the present study employs a mixed-methods approach underpinned by the philosophical tradition of critical realism (Sayer, 2000). Critical realism offers a meta-theoretical foundation that bridges positivist and interpretivist logics, positing a reality that is both materially grounded and socially mediated (Sayer, 2000). This stance enables the study to interrogate observable patterns of displacement and environmental change while simultaneously attending to the subjective experiences, meanings, and structural forces that shape the actions of e-waste workers in post-demolition Accra.

### ***2.2.1. Ontological perspectives***

Ontology derives from the ancient Greek present participle *ων* (on), meaning “to exist” (Dieronitou, 2014). In the social sciences, ontology refers to the nature of the entities that exist in the social world and the structures that constitute social reality (Dieronitou, 2014). Guba (1990) conceptualises ontology as the study of the “knowable” or, more broadly, the nature of “reality,” with ontological assumptions addressing the fundamental characteristics of the social entities under investigation.

Bryman (2004) identifies two principal ontological positions in social research: objectivism and constructionism. Objectivism posits that social entities exist independently of the researcher’s perceptions, adhering to an objective reality external to human cognition (Pretorius, 2024). In contrast, constructionism contends that social entities are products of collective human interpretation and action, constructed through the meanings and interactions of social actors (Pretorius, 2024). Within the broader constructionist paradigm, further distinctions are recognised, including “idealism” and relativism (Smith & Heshusius, 1986). The relativist position, as articulated by Guba, asserts that multiple, locally and historically contingent interpretations of reality exist, none of which can be categorically deemed true or false (Guba, 1990).

Positioned between these ontological extremes is critical realism, drawing on the work of Cook & Campbell (1979), who argue that humans perceive the causes of natural and social phenomena imperfectly. Critical realism acknowledges the existence of an objective reality while recognising that human understanding of this reality is mediated by social, cognitive, and historical processes (Pretorius, 2024). Its critical dimension lies in the researcher’s commitment to identify the underlying structures and mechanisms that generate observable social events and, in doing so, to inform interventions capable of reproducing or transforming existing social conditions (Bhaskar, 1975).

### ***2.2.2. Epistemological perspectives***

While ontology concerns the nature of reality, epistemology addresses the foundations and nature of knowledge itself, whether it is concrete, observable, and transmissible, or more subjective, arising from personal experience and insight (Cohen et al., 2006). The term derives from the

ancient Greek verb *epistamai*, meaning “to know something deeply” or “to internalise knowledge through experience,” highlighting the intimate relationship between the knower and the known (Dieronitou, 2014). From this perspective, epistemology emphasises the processes through which knowledge is constructed, aligning closely with humanistic approaches such as interpretivism or constructivism, where understanding emerges through subjective engagement with social phenomena (Dieronitou, 2014).

At the opposite epistemological extreme, knowledge is conceived as objective, measurable, and independent of the observer, reflecting the assumptions of the natural sciences (Pretorius, 2024). This position, associated with positivism, privileges empirical observation and quantifiable evidence as the basis of valid knowledge (Pretorius, 2024). Historically, strict adherence to either subjective or objective epistemologies, coupled with corresponding relativist or realist ontologies, reinforced the methodological divide between qualitative and quantitative research approaches (Pretorius, 2024). This divide underpins the so-called incompatibility thesis, which argues that quantitative and qualitative paradigms are epistemologically and methodologically irreconcilable. As Bryman (1988) observes, this paradigmatic “incongruence” arises from divergent epistemological assumptions, producing fundamentally different conceptions of how social reality should be studied and what constitutes legitimate knowledge (Dieronitou, 2014).

For this study, critical realism offers a coherent framework bridging these ontological and epistemological positions. The phenomena under investigation – the demolition of Agbogloboshie and the subsequent relocation of e-waste workers, are both materially grounded and socially constructed. Workers’ activities are shaped by structural forces, such as urban policies, regulatory regimes, and environmental conditions, while simultaneously mediated through social networks, perceptions, and adaptive strategies. Adopting a critical realist paradigm thus allows the research to integrate both objective assessments of structural processes and interpretive understandings of actors’ lived experiences, enabling a nuanced analysis of how displacement reproduces socio-spatial inequalities and reshapes the geographies of informal e-waste activity.

Positioning the study within a critical realist paradigm also provides a robust philosophical foundation for integrating quantitative and qualitative methods, recognising each as a legitimate and complementary source of insight (Amankwaa, 2017). In the context of urban geography, this

methodological synergy allows researchers to move beyond the limitations of purely numerical analysis, capturing the intricate social, spatial, and environmental dynamics that shape urban life. By blending statistical measurement with rich qualitative description, critical realism enables a deeper, multi-layered understanding of complex phenomena, such as the displacement and adaptive strategies of e-waste workers in Accra – that would remain obscured if approached through a single methodological lens (Amankwaa, 2017).

Building on the justification for situating the study within a critical realist paradigm, the following section outlines the mixed-methods research design, incorporating both quantitative and qualitative approaches.

### **2.3. Study Design**

To rigorously address the research questions, this study adopted a mixed-methods research design, integrating both quantitative and qualitative approaches. Given the multidimensional focus of the study – spanning informal sector livelihoods, expulsion, demolition, and urban transformation, this design was both methodologically and conceptually apt. Mixed-methods research offers a comprehensive framework for exploring complex social phenomena by drawing on the complementary strengths of both paradigms. As Poth & Munce (2020) note, such an approach facilitates the integration and triangulation of diverse data sources, thereby enhancing analytical depth and validity. Similarly, Shorten & Smith (2017) affirm that the adoption of mixed methods is warranted when a phenomenon requires investigation from multiple epistemological perspectives. Within this study, the approach enables a nuanced exploration of how state-led urban transformation intersects with informal e-waste livelihoods in Accra.

Operationally, the study employed a suite of data collection techniques to ensure methodological robustness and triangulation. These included a structured survey targeting e-waste workers and semi-structured interviews with a diverse array of actors whose roles and activities intersect with urban waste management and urban planning processes in Accra. These included stakeholders from both governmental and non-governmental institutions with mandates that directly or indirectly shape waste management, regulatory enforcement, and urban restructuring.

The study further engaged various categories of informal e-waste workers, namely collectors, burners, dismantlers, repairers, middlemen, and scrap dealers in focus group discussions. In-depth interviews were also conducted with residents of newly emerging e-waste locales, alongside ancillary actors such as representatives from microfinance institutions, recycling firms, the GIZ Technical Training Centre, Old Fadama Clinic, and local food vendors operating in or near e-waste processing zones.

Direct observation was undertaken across all emerging e-waste sites to document evolving dynamics of work in these new localities. These observations were complemented by systematic photographic documentation capturing key aspects of e-waste recycling activities at each site. Furthermore, Geographic Information System (GIS)-based spatial analysis was used to map and interpret the spatial configuration of emerging e-waste clusters. Additional methodological details are elaborated in Chapters 4 through 6 of the accompanying peer-reviewed articles, with a schematic representation of the overall research design provided in Figure 12.

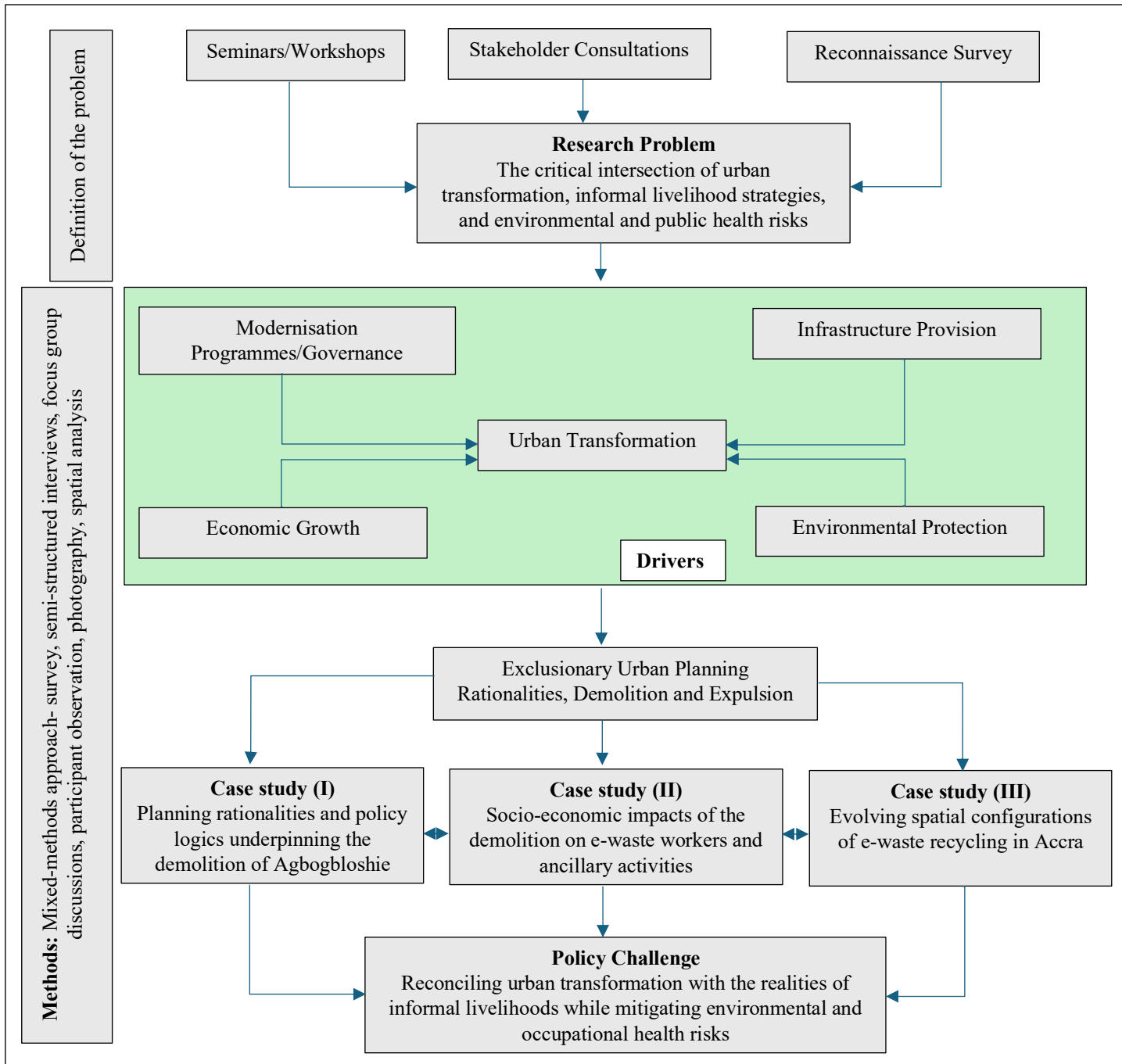
Methodologically, the study progressed through four interrelated phases. The first phase commenced with a transect walk across the former Agbogbloshie scrapyard, the site of the 2021 demolition, and the adjoining Old Fadama informal settlement, where many displaced workers subsequently regrouped after the eviction. The purpose of this initial scoping exercise was to gain a grounded understanding of the site's spatial dynamics, evolving socio-environmental conditions, and post-demolition transformations. This activity was undertaken in collaboration with the Coordinator of the One Health Project at the Centre for Development Research (ZEF), former ASDA executives, and key community informants (see Figure 13). As Geduld et al. (2021) note, transect walks provide researchers with an elevated, holistic view of a locality, revealing socio-spatial patterns, gradients, and practices that may otherwise remain obscured.

The second phase involved an extensive qualitative inquiry, drawing on semi-structured interviews and focus group discussions with a wide range of institutional stakeholders and e-waste workers. This phase interrogated the underlying logics, rationalities, and contested narratives surrounding the demolition and displacement of workers from Agbogbloshie. The use of qualitative methods at this stage aligns with Lim's (2024) assertion that such approaches generate contextually embedded insights into complex socio-political processes and their interwoven relationships.

Insights from participants were instrumental in refining the research trajectory and sharpening the overarching analytical questions.

Building on these insights, the third phase adopted a mixed-methods strategy to assess the socio-economic consequences of the demolition from the standpoint of displaced e-waste workers. Integrating quantitative and qualitative data within a triangulation design enhanced analytical rigour and illuminated the multidimensional contours of livelihood disruption. Consistent with Sale et al. (2002), the complementary strengths of mixed methods design enabled findings from one methodological strand to elaborate, extend, or recalibrate insights emerging from another, thereby strengthening interpretive nuance and overall validity.

The fourth phase returned to a qualitatively driven, spatially oriented approach. In light of the post-demolition dispersal of e-waste activities across multiple urban neighbourhoods, this phase entailed systematic mapping of newly emerging e-waste clusters using handheld Global Positioning System (GPS) devices, transect walks, and participant observation. As Finlay & Bowman (2016) contend, mobile geographic methods generate richly textured accounts of spatial practice, offering empirically grounded insights into how actors navigate, occupy, and reconfigure urban space.



*Figure 12. Summary of the research design.*  
*Source: Author's construct, 2025.*

In Figure 12, the research design illustrates an integrated framework that brings together multiple dimensions to interrogate the intersection of urban transformation, informal livelihood strategies, and emergent environmental and public health risks. Such an integrative architecture is essential given the complexity of the processes under examination, processes shaped by overlapping and sometimes competing drivers, including infrastructure expansion, state-led modernisation programmes, economic growth agendas, and environmental protection imperatives.

To capture the dynamic interactions among these drivers and their implications for Accra's informal e-waste economy, the study employs a mixed-methods design. This approach allows for the triangulation and integration of data from diverse sources, including surveys, semi-structured interviews, focus group discussions, observation, and GIS-based spatial analysis (Poth & Munce, 2020; Shorten & Smith, 2017).

At the core of the design are three interrelated case studies, each addressing a distinct yet interconnected dimension of the overarching research problem. Together, these case studies illuminate the structural forces, everyday practices, and spatial transformations that underpin the reconfiguration of e-waste activities in post-demolition Accra. The integrative design therefore provides more than a descriptive account: it establishes a rigorous platform for critically unpacking a central policy dilemma – how to reconcile the imperatives of urban modernisation with the lived realities of informal livelihoods, while simultaneously mitigating environmental and occupational health risks.



*Figure 13. The One Health Project Coordinator and researcher (author) during the transect walk in Agbogbloshie.*

*Source: Photograph by author, 2021.*

#### **2.4. Data Sources**

Both primary and secondary data sources were employed to investigate the multiple dimensions of the research, which centres on the intersections of urban transformation and informal livelihoods. Primary data collection involved a structured questionnaire survey administered to e-waste workers, complemented by semi-structured interviews designed to elicit in-depth insights into participants' experiences, perceptions, and adaptive strategies. These methods were further strengthened through additional qualitative techniques, including focus group discussions (FGDs) and in-depth interviews.

Secondary data were utilised to contextualise, triangulate, and extend the insights derived from primary sources. These materials included technical reports, academic publications, and urban policy documents obtained from relevant governmental and non-governmental institutions, such as the Land Use and Spatial Planning Authority (LUSPA), the Accra Metropolitan Assembly (AMA), the Environmental Protection Agency (EPA), the National Development Planning Commission (NDPC), the Ghana Statistical Service (GSS), and Green Advocacy Ghana (GreenAd).

Table 4 provides a detailed overview of the secondary data sources drawn upon in the study.

<b>Name of Institution</b>	<b>Type of Data</b>
Environmental Protection Agency (EPA)	<ul style="list-style-type: none"> <li>○ Policy documents on hazardous waste control and management</li> <li>○ Data on imports of electronic equipment (old and new)</li> <li>○ E-waste statistics (generation, collection, and recycling)</li> </ul>
Greater Accra Metropolitan Assembly (GAMA)	<ul style="list-style-type: none"> <li>○ Urban development plans and Accra city vision documents</li> <li>○ Demolition and decongestion policy frameworks</li> </ul>
Ghana Statistical Service (GSS)	<ul style="list-style-type: none"> <li>○ Population and housing census data</li> <li>○ Data on migrant populations in Accra</li> <li>○ Statistics on the informal sector</li> </ul>
Green Advocacy Ghana	<ul style="list-style-type: none"> <li>○ Reports, articles, and publications on e-waste</li> </ul>
Ghana Atomic Energy Commission (GAEC)	<ul style="list-style-type: none"> <li>○ Research publications and technical reports on e-waste</li> </ul>
Land Use and Spatial Planning Authority (LUSPA)	<ul style="list-style-type: none"> <li>○ Ghana Spatial Development Policy Framework and related spatial policy documents</li> </ul>
National Development Planning Commission (NDPC)	<ul style="list-style-type: none"> <li>○ National Urban Policy documents and planning reports</li> </ul>

*Table 4. Secondary sources of data.*

*Source: Author's compilation, 2021.*

### **2.4.1. Quantitative Approach**

#### *Survey of Informal E-waste Workers*

A survey employing a structured questionnaire (comprising both closed and open-ended questions) was administered to e-waste workers to assess the multidimensional impacts of the Agbogbloshie

demolition on their livelihoods. The questionnaire drew on the Sustainable Livelihoods Framework, capturing indicators across social, human, financial, physical, and natural capital domains (see Appendix 4 for the questionnaire). This approach enabled a systematic examination of how displacement affected workers' wellbeing, economic security, adaptive strategies.

Prior to data collection, a two-day training session was organised for enumerators at the Technical Training Centre (TTC), one of the few facilities within the Agbogbloshie enclave that remained intact after the demolition. The training focused on the principles of ethical data collection and the use of the Kobo Toolbox platform for digital survey administration (see Figure 14). Following the training, the draft questionnaire was pretested in a pilot study conducted in a neighbouring community outside the primary study sites. This location was intentionally selected to avoid biasing the main sample while still ensuring exposure to a population with comparable socio-economic and informal-sector characteristics.

The survey targeted actors across the entire e-waste value chain – including collectors, burners, dismantlers, repairers, middlemen, and scrap dealers. In addition to documenting livelihood outcomes, the questionnaire explored workers' perceptions of the logics and rationalities underpinning the demolition, as well as their processes of integration, adaptation, and evolving livelihood strategies in post-demolition contexts.

Data collection was conducted between September 2022 and March 2023 by the researcher and a team of seven trained enumerators, all of whom held first degrees. Each survey session lasted approximately 45 to 60 minutes, allowing for detailed engagement and clarification where necessary. To maximise participation and minimise disruption to workers' daily activities, interviews were scheduled during periods of lower work intensity, typically early mornings, late afternoons, or during temporary breaks in dismantling or trading activities. All participants were informed about the study's objectives and provided consent (see Appendix 2 for consent forms) prior to participation.



*Figure 14. Training of enumerators on survey instruments.  
Source: Photograph by author, 2022.*

## **2.4.2. Qualitative Approach**

### ***2.4.2.1. Semi-structured interviews***

For the semi-structured interviews (see Appendix 5 for the interview guide), twenty-two officials from key governmental and non-governmental agencies directly or indirectly involved in the planning and execution of the Agbogbloshie demolition were purposively selected (see Table 5 for the full list of institutions). Participant selection followed a purposive sampling strategy aimed at identifying institutional actors whose mandates, operations, and decisions were central to the governance processes under investigation. This included agencies responsible for urban planning, environmental regulation, metropolitan security, social protection, and local economic development. Within each institution, participants were selected based on their positional relevance, such as directors, unit heads, programme managers, and technical officers, whose roles placed them at the centre of the planning, coordination, or implementation of the demolition.

Interviews were conducted at the respective offices and institutional premises of these stakeholders across GAMA. These locations included ministerial complexes, metropolitan and municipal assembly offices, environmental regulatory agencies, planning departments, and non-governmental organisations. Conducting the interviews in participants' institutional settings provided valuable observational context, enabled access to supplementary documents, and facilitated deeper engagement with the operational environments in which decisions regarding the demolition were made.

As Dunn (2005) emphasises, the strength of qualitative interviewing lies in its capacity to elicit diverse meanings, interpretations, and experiences, as well as to interrogate complex behaviours, institutional rationalities, and underlying motivations. Semi-structured interviews were therefore particularly well suited to this component of the study. The selected stakeholders collectively represented the principal institutional actors influencing the political, environmental, and socio-economic processes that culminated in the destruction of the Agbogbloshie scrapyards.

The interviews were organised around a set of substantive questions designed to unpack the governance logics and socio-political dynamics underlying the demolition. Key themes included: dominant city visions and urban intervention policies informing Accra's recent redevelopment agenda; institutional roles, actions, and inter-agency coordination mechanisms; the rationalities – political, economic, environmental, or technological, driving the decision to demolish the site; future land-use plans for the cleared area; and the extent to which e-waste workers were engaged or consulted prior to the operation. Additional lines of inquiry probed the emergence of new e-waste clusters after displacement, associated environmental and public health risks, and the regulatory capacities of relevant institutions. The interviews also explored the broader social, economic, and political ramifications of the demolition for various stakeholders.

In all interviews, informed consent was obtained prior to commencement, and participants were briefed on the objectives and anticipated outcomes of the research. When interviewing state officials, permission was sought to attribute their statements to them in their official capacities; however, several declined due to the political sensitivities surrounding the demolition. All interviews were audio-recorded, with explicit consent, and subsequently transcribed verbatim for analysis.

S/N	Institutional Actors	Institutional type	No. of Participants
1.	Land Use and Spatial Planning Authority	Government	2
2.	Environmental Protection Agency (EPA)	Government	2
3.	National Development Planning Commission (NDPC)	Government	2
4.	Physical Planning Unit, Accra Metropolitan Assembly	Government	2
5.	Ministry of Environment, Science, Technology, and Innovation (MESTI)	Government	2
6.	National Youth Authority (NYA)	Government	1
7.	Greater Accra Regional Coordinating Council	Government	2
8.	Ablekuma Central Municipal Assembly	Government	1
9.	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Country Office Ghana	Private	1
10.	GIZ Technical Training Centre (TTC)	Private	1
11.	Old Fadama Clinic	Private	1
12.	Lambda Metals	Private	1
13.	N.N.EST Metals Company Limited	Private	1
14.	Agboglobshie Scrap Dealers Association	NGO/Association	1
15.	People's Dialogue	NGO	1
16.	Green Advocacy Ghana	NGO	1
<b>Total</b>			<b>22</b>

*Table 5. List of institutions interviewed.*

*Source: Author's compilation, 2025.*

#### **2.4.2.2. Focus Group Discussion**

In line with the study's objectives, two sets of focus group discussions (FGDs) were organised to address distinct thematic concerns. The first set explored the logics and rationalities underpinning the demolition, including issues of compensation, relocation processes, and communication between state actors and e-waste workers. The second set focused primarily on the livelihood impacts of the demolition, providing a platform for participants to articulate their experiences, concerns, and broader socio-economic challenges. Consistent with qualitative research principles, the FGDs were intended to foster open dialogue and generate in-depth insights into salient issues that emerged following the survey phase (Denzin & Lincoln, 1994).

All FGDs were conducted with e-waste workers representing the major occupational categories within the e-waste value chain – collectors, dismantlers, scrap dealers, recyclers, middlemen, and repairers. Recognising the specialised roles and distinct perspectives of each group, six FGDs were convened for each thematic set, resulting in one discussion per occupational category. Each FGD comprised eight purposively selected male participants, drawn from respondents engaged during the main survey exercise.

The sessions were held at the Technical Training Centre (TTC), located near the demolished Agbogbloshie site. This venue was strategically selected to maximise accessibility, minimise discomfort, and encourage candid participation. Discussions were conducted primarily in Dagbani, with translation assistance provided as necessary. In total, 48 participants took part in the first set of FGDs, with an additional 48 participants engaged in the second set, yielding a combined total of 96 FGD participants across both thematic areas.

#### ***2.4.2.3. In-depth interviews***

In-depth interviews were employed to generate nuanced insights into the socio-spatial dynamics, institutional processes, and lived experiences central to the study's objectives (Boyce & Neale, 2006). The first set of interviews involved twenty e-waste workers operating within newly emerging recycling sites in Ashongman Estate, Kwabenya, Nungua, Weija Gbawe, and Dansoman. A purposive sampling strategy was used to identify these participants, following a reconnaissance survey that mapped dense clusters of informal e-waste activity. These sites were selected because they exhibited prominent features of post-demolition dispersal, including open-air burning in close proximity to residential structures, extensive dismantling operations, and the formation of large, improvised yards embedded within the everyday spatial and social fabric of these communities. Interviews with recyclers explored the spatial reorganisation of e-waste geographies after the Agbogbloshie demolition, the amplification of environmental and public health risks, and the emerging adaptive practices within the informal recycling economy (see Appendix 6 for interview guide).

A second set of interviews was conducted with ten residents living within approximately two metres of active e-waste operational sites. Here too, purposive sampling was employed to capture

diverse residential positionalities. From each community, one landlord and one tenant were selected to reflect the differentiated experiences and vulnerabilities of property owners and renters. These interviews examined residents' perceptions of escalating environmental and social risks associated with the proliferation of e-waste activities in their neighbourhoods. Key concerns included visible environmental hazards, such as persistent smoke, particulate emissions, and noise; the everyday rhythms and disruptions generated by informal dismantling and burning; shifting land-use patterns, emerging informal rental arrangements; and broader social anxieties, particularly fears of theft attributed to the increased mobility of scrap collectors (see Appendix 7 for interview guide).

A third set of interviews was conducted with six purposively selected Environmental and Sanitation Officers from six communities within GAMA. These communities (Ga East Municipal, Krowor Municipal, La Dade-Kotopon Municipal, Ledzokuku Municipal, Ablekuma West Municipal, and Accra Metro) were deliberately chosen because they hosted emerging e-waste sites where activities, as identified by the research team, were being carried out on a large scale. Consequently, Environmental Health and Sanitation Officers from these areas were interviewed to gain insights into their perceptions of the sites, as well as their monitoring capacities and regulatory responsibilities (see Appendix 8 for interview guide).

#### ***2.4.2.4. Direct Observations***

Direct observational methods were employed to examine emerging e-waste sites across the urban fringes and within informal settlements. These observations focused on documenting the spatial organisation, operational dynamics, and socio-environmental interactions within these dispersed sites. Additionally, the cleared Agbogbloshie scrapyard was systematically observed to assess patterns of land use, site reconfiguration, and ongoing post-demolition activities.

#### ***2.4.2.5. Document Analysis***

Advanced qualitative document analysis (see Appendix 3) was undertaken to map the policy pathways through which the informal economy is framed, governed, and integrated within Ghana's urban development agenda. As described by Bowen (2009), document analysis involves a systematic procedure of identifying, selecting, appraising, and synthesising relevant documents to

generate contextual and empirical insights. The key policy documents reviewed included the *Strategic Plan for the Greater Accra Metropolitan Area*, the *National Urban Policy Framework*, the *Ghana National Spatial Development Framework (2015–2035)*, the *Long-Term National Development Plan (2018–2057)*, the *Ghana Infrastructure Plan (2018–2047)*, the *Ghana@100 Framework*, and the *Structure Plan for the Greater Accra Metropolitan Area (GAMAPLAN 2040)*.

Following Altheide's (2000) guidelines for Qualitative Document Analysis (QDA), inclusion criteria were first established to determine the relevance of documents to themes of informality, urban governance, and spatial restructuring. Documents were subsequently retrieved both physically from institutional offices and digitally from official repositories. Each document was then assessed to determine its scope, policy objectives, and substantive relevance to the study's analytical focus. A coding framework was developed to extract salient themes, particularly those relating to informal economic activities, regulatory orientations, and state-informal sector relations. A temporal, or time-series, analysis was also conducted to trace shifts in state discourse and policy positions on the informal economy across successive planning regimes. These findings were then synthesised to produce an integrated analysis of how national and metropolitan planning frameworks conceptualise and govern the informal economy.

## **2.5. Study Population**

The target population for this study consisted of informal e-waste workers. In line with Amankwaa's (2013) categorisation of the e-waste value chain, six principal groups were identified: collectors, dismantlers, burners/recyclers, repairers, middlemen, and scrap dealers. Workers within these categories were selected to participate in the survey.

## **2.6. Sampling Procedure and Sample Size Estimation**

In conducting this study, I employed a non-probability sampling strategy to recruit e-waste workers for the survey. The absence of a reliable sampling frame, compounded by the fragmented, fluid, and highly mobile nature of the e-waste sector following the demolition of the Agboglobshie scrapyard, posed significant challenges to systematic participant selection. Given these conditions, I adopted snowball sampling as the most practical and contextually grounded approach for

identifying respondents across the heterogeneous occupational groups that constitute the informal e-waste economy (Becker, 1963; Bryman, 1989).

To initiate the recruitment process, I drew on my existing relationships with community leaders, former executives of ASDA, and other key informants whose extensive knowledge of the site and the reconstituted post-demolition worker networks positioned them as invaluable gatekeepers. These actors served as crucial entry points, connecting me to initial participants and their new sites of operation across the city. From these first contacts, an iterative referral chain naturally developed, as participants connected me to other eligible workers who had also operated at Agbogbloshie prior to the demolition. This process allowed me to reach a broad, heterogeneous cross-section of displaced e-waste workers, many of whom would have been difficult to identify through conventional sampling approaches.

A total sample of 350 respondents was targeted, comprising 58 participants from each of the six principal e-waste occupational categories: collectors, dismantlers, burners/recyclers, repairers, middlemen, and scrap dealers. Eligibility was restricted to individuals who had previously worked at the Agbogbloshie site and directly experienced the 2021 eviction and demolition.

The sample size was determined using Cochran's (1963) formula, which is widely applied in studies involving large population or population whose size is unknown (Cochran, 1963). The resulting minimum recommended sample size was adjusted to ensure proportional representation across the six activity groups, leading to the final target of 350 respondents. This approach balanced statistical adequacy with the logistical realities of conducting research within a highly dispersed and fluid informal sector.

$$n_0 = \frac{z^2 \cdot p \cdot (1 - p)}{e^2}$$

Where:

$n_0$  = required sample size

$Z$  = Z-score corresponding to the desired confidence level (e.g., 1.96 for 95% confidence)

p = estimated proportion of the population with the attribute of interest (use 0.5 if unknown, for maximum variability)

e = desired margin of error (precision, e.g., 0.05 for ± 5%)

Applying the formula:

$$n_0 = \frac{(1.96)^2 \cdot 0.5 \cdot (1 - 0.5)}{(0.05)^2} = \frac{3.8416 \cdot 0.25}{0.0025} = \frac{0.9604}{0.0025} = 384.16$$

## **2.7. Data processing and analysis**

Data obtained from the e-waste questionnaire survey were rigorously checked for completeness and accuracy prior to analysis. Each questionnaire was assigned a unique identifier, systematically coded, and entered into datasets using the Statistical Package for Social Sciences (SPSS 17) and Stata 12. Descriptive statistics and cross-tabulations were performed to evaluate the impacts of the Agbogbloshie demolition on workers' livelihoods. Additionally, a binary logistic regression model was employed to examine the relationships between post-demolition livelihood outcomes and relevant predictor variables (see Appendix 12).

All recorded interviews and focus group discussions (FGDs) were transcribed verbatim, with responses in local Ghanaian languages translated into English. Transcripts were then systematically reviewed and organised using NVivo, a software programme to support qualitative analysis (Miles & Huberman, 1994). Data coding involved segmenting the text into meaningful units aligned with the study's objectives, with codes assigned to reflect emergent categories. This process facilitated the identification of key themes, which were subsequently classified into descriptive and analytical categories. Illustrative quotations from participants were incorporated to substantiate the findings and contextualise them within the lived experiences of e-waste workers.

## **2.8. Overview of the research questions, methodological approach, and key highlights of the study**

Table 6 presents an overview of the central research questions, the methodological approaches employed, and the key findings of the study. It also highlights the study's contributions to understanding the socio-environmental risks and vulnerabilities associated with informal e-waste

activities, particularly in the context of forced displacement and the broader dynamics of urban transformation following the demolition of the Agboglobhie scrapyards.

#	Research questions	Methodological Approach	Key findings and insights	Scholarly contributions to the field
Question 1	What occurred during the demolition of the Agbogbloshie scrapyards, how was the operation carried out, and what motivations and justifications were provided for it?	<p>Multi-pronged qualitative strategy:</p> <ul style="list-style-type: none"> <li>• Semi-structured interviews with key stakeholders (n=22)</li> <li>• Focus group discussions (n=6)</li> <li>• Advanced document and time-series analyses of long-term urban development policies and strategic frameworks.</li> <li>• Geographic Information System (GIS) mapping of e-waste sites.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of meaningful stakeholder consultation.</li> <li>• Evictions were conducted without a coherent or structured framework.</li> <li>• Exclusion of e-waste workers from the redevelopment of the reclaimed Agbogbloshie land.</li> <li>• The research reveals a fundamental disjuncture between the progressive intent of state policies and the punitive practices pursued by city authorities.</li> <li>• Framed as environmental and public health protection, the Agbogbloshie demolition ultimately exposed punitive governance and concealed land reclamation motives.</li> <li>• Persistence of informal e-waste recycling activities after the demolition.</li> </ul>	<ul style="list-style-type: none"> <li>• Establishes the need for city authorities to embrace sustainable urban transformation.</li> <li>• Demonstrates that urban development strategies must align with broader state policies addressing the informal economy.</li> <li>• Argues for redevelopment agendas that actively reintegrate informal workers into urban transformation processes.</li> <li>• Emphasises that urban development strategies must transcend demolition and eviction.</li> </ul>
Question 2	In what ways has the demolition of the Agbogbloshie scrapyards impacted the socio-economic conditions and “working relationships” of displaced e-waste	<p>Mixed methods approach:</p> <ul style="list-style-type: none"> <li>• E-waste workers survey (n=350)</li> <li>• Focus group discussion (n=6)</li> </ul>	<ul style="list-style-type: none"> <li>• Informal e-waste workers endured profound disruptions to their livelihoods, health, and socio-economic stability, further deepening their precarity.</li> <li>• The demolition disrupted key ancillary services supporting the informal e-waste sector.</li> </ul>	<ul style="list-style-type: none"> <li>• The institutionalisation of co-design workshops to ensure participatory and inclusive approaches to urban redevelopment.</li> <li>• The formation of worker-led committees to amplify the voices and agency of</li> </ul>

	workers, and how have these workers adapted their strategies to sustain livelihoods in the aftermath of displacement?		<ul style="list-style-type: none"> <li>Workers are coping through relocation, collective organisation, and plans for a permanent site in Koforidua.</li> </ul>	<p>informal workers in decision-making processes.</p> <ul style="list-style-type: none"> <li>The development of a comprehensive compensation framework.</li> <li>Emphasises the necessity of providing advance notice and meaningful consultation prior to any demolition activities.</li> <li>Argues against the use of coercive or brute force in demolition exercises.</li> <li>Recommends the institutionalisation of targeted psychological assessments and long-term mental health support.</li> </ul>
<b>Question 3</b>	What are the current e-waste trade practices in Accra following the demolition, and how do they pose potential health and environmental risks.	<p>Multi-pronged qualitative strategy:</p> <ul style="list-style-type: none"> <li>In-depth interviews with former e-waste workers (n=20)</li> <li>In-depth interviews with Environmental Health and Sanitation Officers (n=6)</li> <li>In-depth interviews with community residents (n=10)</li> </ul>	<ul style="list-style-type: none"> <li>Mapping uncovered 26 newly emerging e-waste sites across Accra, where displaced workers have regrouped into fragmented processing hubs.</li> <li>Displaced workers reported acute shortages of space for sorting and processing scrap, alongside a marked reduction in collection volumes compared with Agbogbloshie.</li> <li>Residents of newly affected communities expressed strong dissatisfaction with informal e-waste activities, citing significant environmental hazards and public health risks.</li> </ul>	<ul style="list-style-type: none"> <li>Advocates for the establishment of designated e-waste hubs within each MMDA to centralise and regulate scrap-related activities.</li> <li>Proposes implementing a mandatory registration and spatial mapping system for scrap dealers within MMDAs to enhance oversight and integration into formal governance structures.</li> </ul>

			<ul style="list-style-type: none"> <li>• Environmental Health and Sanitation Officers highlighted major operational challenges, emphasising that the spatial dispersion of activities across multiple communities severely impedes effective monitoring and regulation.</li> <li>• Informal e-waste workers have reoccupied the Agbogbloshie site, reconstructing workspaces on the previously demolished area.</li> </ul>	<ul style="list-style-type: none"> <li>• Calls for capacity-building initiatives providing training in safe waste handling, business development, and environmentally sustainable practices, thereby strengthening the resilience of scrap dealers.</li> </ul>
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*Table 6. Overview of the research questions, methodological approaches, and key highlights of the study.  
Source: Author's compilation, 2025.*

## **2.9. Researcher Positionality and Reflexivity**

Conducting research on the demolition of Agbogbloshie and its aftermath required a heightened awareness of my own positionality as a scholar. The fieldwork unfolded within politically charged and socially sensitive contexts, where issues of land, livelihoods, and environmental justice intersected with broader struggles over power, urban space, and representation in Accra. Entering these contested spaces as a researcher inevitably influenced the narratives participants chose to share and the extent of trust, they were willing to extend.

Access to displaced e-waste workers, for instance, was not automatic. Many participants expressed skepticism toward researchers, journalists, and NGOs, given past experiences where their stories were taken without any meaningful benefits or follow-up. Building trust required repeated visits, informal conversations, and a genuine interest in their daily routines beyond formal interviews. In this context, the research demanded patience, humility, and an acknowledgment of the unequal power dynamics inherent in knowledge production.

At the same time, engaging with institutional stakeholders posed its own set of challenges. State officials often presented the demolition as a necessary intervention framed in the language of environmental protection and urban modernisation. Critical inquiry into these narratives was not always welcomed; in some cases, access to officials was restricted, or interviews were carefully managed. These encounters underscored how urban policy narratives are meticulously constructed and strategically defended by state actors, often concealing the contradictions, exclusions, and silences that underpin them.

Personally, the research also left a profound impact on my understanding of urban precarity and resilience. For instance, witnessing the reoccupation of Agbogbloshie in 2025 revealed the unfinished nature of displacement and the remarkable agency of informal workers in reclaiming urban land amidst changing political circumstances. This experience challenged me to move beyond abstract theoretical formulations and to reflect more critically on how policy interventions, when detached from lived experiences, can reproduce exclusion and exacerbate injustice.

Finally, I became more aware of the ethical responsibilities involved in research, not only to analyse but to represent participants' voices with integrity and to contribute knowledge that can

influence policy and practice. This reflexive orientation shaped my portrayals of e-waste workers, not as passive victims of urban restructuring, but as active agents whose collective innovations and organisational strategies have significant implications for reimagining urban governance in Accra.

## **2.10. Ethical Considerations**

This study was conducted in strict adherence to established ethical standards in social science research, with particular attention to the principles of privacy, confidentiality, anonymity, informed consent, and academic integrity. Given the sensitivity of the subject matter, focusing on the precarious livelihoods of displaced e-waste workers and the socio-political tensions surrounding the demolition of the Agbogbloshie scrapyard, the researcher meticulously ensured that all phases of the investigation conformed to internationally recognised research protocols.

Prior to the commencement of fieldwork, ethical clearance was secured from the Centre for Development Research (ZEF) Ethics Research Board at the University of Bonn. Approval was granted under the registration code *22c\_22Akwasi Sarpong* on 27 July 2022, and a copy of the clearance is provided in Appendix 1. This approval underscores the researcher's commitment to upholding the highest ethical standards, particularly when engaging with vulnerable populations for whom issues of safety, trust, and autonomy are paramount.

To maintain the integrity of the research process, the use of artificial intelligence (AI) tools was confined exclusively to editorial functions, including language refinement and clarity enhancement in sections of the dissertation and in three peer-reviewed papers included in this thesis. The deployment of AI tools was closely monitored to ensure that it did not compromise the originality of ideas, intellectual ownership of arguments, or the authenticity of respondents' narratives. All core research processes, including data analysis, interpretation, and the formulation of conclusions, remained the sole responsibility of the researcher.

### ***2.10.1. Informed Consent Procedures***

Informed consent was rigorously upheld throughout the study and operationalised as a multi-layered process, tailored to accommodate diverse participant groups and their varying capacities for engagement. Consent procedures included both verbal and written formats, depending on the literacy levels and institutional positions of participants (see Appendix 2).

- E-waste Workers: For the displaced e-waste workers, consent was obtained verbally prior to both interviews and focus group discussions. A prepared oral consent script was read

aloud in the preferred language of participants, ensuring that the objectives, scope, and modalities of the research were clearly understood. This approach was particularly important given that many of the workers were members of a marginalised informal sector and had limited literacy. Participants were explicitly informed of their rights, including the option to decline participation or withdraw at any point without consequence. This oral process was therefore not only ethically necessary but also contextually appropriate for ensuring meaningful participation.

- **Community Residents:** For residents involved in this study, informed consent was secured through a formal written process. Each participant received a detailed explanation of the study's objectives, data collection procedures, and the guidelines governing participation, including the potential use of audio recordings. The consent process emphasised the voluntary nature of participation, explicitly affirming each resident's right to decline involvement or to withdraw at any stage without incurring any penalty or disadvantage.
- **Institutional Stakeholders:** For Environmental Health and Sanitation Officers and other institutional actors, consent was obtained in formal written form. Each participant received an information sheet outlining the research objectives, scope, and modalities, accompanied by a consent form to be signed prior to participation. Given their literacy and professional status, this written consent was deemed the most appropriate, providing a formal record of informed participation.

### ***2.10.2. Additional Ethical Safeguards***

Beyond the formal consent process, additional measures were adopted to further protect participants. For focus group discussions, explicit permission was sought to record the sessions, with assurances that all audio files would remain confidential and be used solely for academic purposes. In parallel, consent was also obtained for the photographic documentation of e-waste sites and associated activities. Participants were assured that all images would be anonymised as required and used strictly for scholarly purposes, without exposing them to risks of stigma, misrepresentation, or retaliatory consequences.

### **2.11. Limitations of the study**

Despite its substantive contributions, this study is not without limitations. First, the scope of participant recruitment was constrained. Although the research engaged twenty displaced e-waste workers (“masters”), six institutional stakeholders, and seven community residents, the overall sample size, while adequate for qualitative depth, does not fully capture the diversity of experiences within Accra’s rapidly evolving and complex e-waste economy. Importantly, this limitation is confined to the post-demolition objective of investigating the geographies of e-waste. Future research with larger, stratified samples could enhance representativeness and allow for broader comparative insight.

Second, the study relied primarily on self-reported accounts of environmental and health-related concerns from residents. While these perceptions are invaluable for understanding lived experiences and perceived risks, they were not complemented by systematic environmental assessments, such as soil or air quality analysis, or by epidemiological data. Consequently, this limitation restricts the ability to provide conclusive evidence regarding the scale and distribution of environmental health risks.

Third, the dynamic and dispersed nature of post-demolition e-waste activities presented challenges for longitudinal tracking. Many workers relocated multiple times between different neighbourhoods, and others combined e-waste work with seasonal or temporary forms of livelihood. This fluidity makes it difficult to establish stable baselines or trace linear trajectories of adaptation over time. The findings, therefore, reflect a snapshot in time, with recognition that the geographies of e-waste in Accra remain highly dynamic and continuously evolving.

Fourth, the study’s geographical scope was limited to GAMA. While this is justified given the centrality of Accra in Ghana’s urban restructuring and e-waste trade networks, it leaves unexplored the broader regional dimensions of displacement. In particular, post-demolition activities from Agbogbloshie may have diffused into secondary towns and peri-urban or rural localities. Comparative investigations beyond Accra could offer a more comprehensive understanding of the spatial reconfiguration of Ghana’s e-waste landscape.

Finally, the research encountered significant political sensitivities. The demolition of Agboghloshie remains deeply politicised, embedded in broader contestations over land, urban governance, and competing redevelopment visions. These sensitivities constrained access to some government officials, and certain institutional respondents exhibited defensiveness in their engagement. As a result, the ability to critically interrogate official narratives against internal policy documents and urban development plans was limited, affecting the depth of institutional analysis achieved.

## **2.12. Conclusion**

This chapter has provided a comprehensive account of the study's design, including the selection and justification of the Greater Accra Metropolitan Area (GAMA) and other emerging e-waste sites as the primary research settings. It further elaborated on the philosophical orientation underpinning the research, alongside the methodological approaches, data collection procedures, sampling strategies, and analytical techniques employed. Given the complexity of the subject matter, encompassing informal sector livelihoods, displacement, and urban restructuring in Accra, a multi-method approach was adopted. This integrated both qualitative and quantitative techniques under a critical realist framework, acknowledging the complementary strengths of the two paradigms.

Quantitative data were collected via a structured questionnaire survey, while qualitative data were derived from semi-structured interviews with stakeholders, focus group discussions with e-waste workers across the value chain, and in-depth interviews with community residents and other institutional actors. Advanced document analysis of urban policy and planning documents was undertaken to examine the integration of informal sector activities within formal urban development frameworks. In addition, spatial mapping of emerging e-waste sites across the metropolis was conducted to capture post-demolition dynamics.

Quantitative data were analysed using SPSS and Stata, while qualitative data were managed and interpreted using NVivo. Secondary data were also incorporated from relevant institutional sources, including the Ghana Statistical Service, the Environmental Protection Agency, the Land Use and Spatial Planning Authority, and the Ghana Atomic Energy Commission. Finally, this

chapter addressed the researcher's positionality, ethical considerations, and the limitations inherent in the study.

**CHAPTER 3: LITERATURE REVIEW,  
CONCEPTUAL AND THEORETICAL  
FRAMEWORK**

### **3. Literature Review, Conceptual and Theoretical Framework**

#### **Chapter Summary**

This chapter provides a comprehensive review of the existing literature on urban transformation, situating the phenomenon within broader debates on urban restructuring, governance, and the dynamics of informality. It develops a conceptual framework that elucidates the complex interrelations between urban transformation processes and the reconfiguration of informal livelihoods, drawing particularly on the Sustainable Livelihood Framework (SLF). The SLF offers a useful analytical lens through which to interrogate how diverse livelihood assets – human, social, financial, natural, and physical, are reconfigured under conditions of urban change, and how institutional and policy processes mediate these assets. Building on this conceptual foundation, the chapter establishes the theoretical bridge to the next section, which elaborates the study’s guiding analytical frameworks. Specifically, it integrates the revanchist urbanism perspective with environmental justice theory to examine how state-led urban transformation in Accra is experienced and contested by informal e-waste workers within the city’s broader trajectory of urban restructuring.

#### **3.1. Literature Review**

##### ***3.1.1. Definitions and Evolving Perspectives of Urban Transformation***

The concept of urban transformation has a rich historical evolution, progressing through successive phases, each shaped by broader socio-economic, political, and spatial dynamics. Over time, it has been articulated through a wide range of strategies, including reconstruction, revitalisation, renewal, redevelopment, and regeneration (see Table 7 for the evolution of urban transformation) (Robert & Sykes, 2008). These strategies, while reflecting shifts in planning paradigms, have been implemented in practice according to diverse institutional frameworks and socio-political conditions (Gülersoy & Gürler, 2011).

<b>Period</b>	<b>1950s</b>	<b>1960s</b>	<b>1970s</b>	<b>1980s</b>	<b>1990s</b>
<b>Policy type</b>	Reconstruction	Revitalisation	Renewal	Redevelopment	Regeneration
Major strategy and orientation	Reconstruction and extension of older areas of towns and cities, often based on a masterplan and suburban growth	Continuation of 1950s strategies, with suburban and peripheral growth, alongside early attempts at rehabilitation	Focus on in-situ renewal and neighbourhood schemes; continued development at the periphery	Many major schemes of development and redevelopment, including flagship projects and out-of-town developments	Move towards a more comprehensive form of policy and practice, with greater emphasis on integrated approaches
Key actors and stakeholders	National and local government; private-sector developers and contractors	Greater balance between public and private sectors	Growing role of the private sector and decentralisation of local government	Emphasis on private sector and special agencies; growth of partnerships	Partnership is the dominant approach
Spatial level of activity	Emphasis on local and site levels	A regional level of activity emerged	Regional and local levels initially; later, greater emphasis on the local level	In the early 1980s, focus was on the site; later, emphasis shifted to the local level	Reintroduction of a strategic perspective; growth of regional activity
Economic focus	Public-sector investment with some private-sector involvement	Continuing from the 1950s, with a growing influence of private investment	Resource constraints in the public sector and growth of private investment	Private sector dominant, with selective public funding	Greater balance between public, private, and voluntary funding
Social content	Improvement of housing and living standards	Social and welfare improvement	Community-based action and greater empowerment	Community self-help with very selective state support	Emphasis on the role of the community

Physical emphasis	Replacement of inner areas and development of peripheral areas	Some continuation from 1950s, with parallel rehabilitation in existing areas	More extensive renewal of older urban areas	Major schemes of replacement and new development, including flagship schemes	More modest than the 1980s; emphasis on heritage and retention
<b>Environmental approach</b>	Landscaping and some greening	Selective environmental improvements	Environmental improvements with some innovation	Growth of concern for a wider approach to the environment	Introduction of the broader concept of environmental sustainability

*Table 7. Evolution of urban transformation policies, 1950s-1990s.*

*Source: Reproduced from Robert & Sykes (2008).*

As cities experienced industrialisation, they faced multiple pressures, including rapid population growth, infrastructure problems, sanitation challenges arising from overcrowding and inadequate housing, industrial pollution, and changing socio-cultural demands, which necessitated the definition of, and attention to, urban transformation within urban fabrics (Alopopi & Manole, 2013; Boddy, 2003; Chen, 2020; Ernst et al., 2016; Salihoğlu et al., 2021). Despite its longstanding use, the term “urban transformation” remains contested and multifaceted. Its meaning varies across national contexts and spatial scales, reflecting the unique dynamics of each setting, the actors involved, and the specific outcomes of transformation projects (Büyük, 2019).

Urban transformation is increasingly conceptualised as a multidimensional and strategic process that reconfigures the physical, economic, and societal foundations of urban life (Acungil & Altun, 2021). Ece Kaya & Erbaş (2023) emphasise its pragmatic aim: the sustainable modernisation of outdated and inadequate infrastructure to meet the evolving demands of contemporary cities. Akkar (2006) offers a comprehensive framing, defining urban transformation as “the sum of the comprehensive and integrated approaches, strategies, and actions implemented to improve the economic, social, physical, and environmental conditions of urban space that experienced collapse and degradation.” Such strategies are not merely remedial; they are anticipatory, aiming to address present challenges while simultaneously fostering new economic, spatial, social, and environmental trajectories for urban areas (Roberts, 2000). In this light, urban transformation affords cities a strategic opportunity to reclaim their identity, enhance living conditions, foster inclusive public and green spaces, and establish resilient, modern infrastructural systems (Alpopi & Manole, 2013).

Wolfram et al. (2016) conceptualise urban transformation as both a process and an outcome, involving changes in the systemic configuration of urban areas. This phenomenon is often examined through the lens of sustainability performance (Wolfram et al., 2016). Donnison (1993) describes it as “new ways of tackling our problems, which focus in a coordinated way on the issues and areas where those issues are concentrated.” Among more comprehensive definitions, Roberts (2000) views urban transformation as “a comprehensive and integrated vision and action that leads to the resolution of urban problems, seeking to bring about lasting improvements in the economic, physical, social, and environmental conditions of an area undergoing change.”

In contemporary times, the importance of urban transformation has grown in response to global demands for sustainability and resilience (Da Ponte et al., 2020; Özbay, 2023). Rapid urbanisation and population growth have altered spatial organisation and urban metabolism, resulting in increasingly complex and dynamic urban forms (Pera, 2020). These transformations have significant environmental and social implications, underscoring sustainability as both a guiding principle and an evaluative framework for urban change (Mikelson et al., 2021).

For this study, I adopt Roberts' (2000) definition, as it most effectively captures the multidimensional character of urban transformation and foregrounds principles of integration, sustainability, and long-term improvement.

Empirical evidence from cities worldwide shows that urban transformation projects yield mixed outcomes (Lowton, 2025). Eranil Demirli et al. (2015) note that although these projects are often promoted as a means of improving living conditions of low-income populations, their implementation frequently results in unintended consequences, including social displacement and spatial inequality. In Turkey, for example, Eranil Demirli et al. (2015) and Gökmen (2009) document how urban transformation programmes aimed at rehabilitating dilapidated neighbourhoods, particularly those vulnerable to earthquakes, have disrupted established social networks in marginalised and low-income areas. In Izmir, relocation to peripheral public housing has weakened existing social ties and limited opportunities for social integration (Eranil Demirli et al., 2015). Similarly, in Istanbul, in-situ redevelopment initiatives led by the metropolitan municipality suffered from inadequate community engagement, resulting in affordability challenges and displacement (Gökmen, 2009).

Comparable patterns can also be observed beyond the Turkish context. In eThekweni (Durban), South Africa, despite the ongoing impacts of apartheid legacies, post-apartheid transformation initiatives successfully attracted investment and promoted racial integration (Schensul & Heller, 2011). However, global market pressures subsequently restructured the city's spatial economy in exclusionary ways (Schensul & Heller, 2011). Likewise, in the suburban peripheries of Rome, such as Fiano Romano, outward migration by middle-income groups has generated poorly serviced, car-dependent environments characterised by socio-spatial inequality (De Vidovich, 2021). Collectively, these examples illustrate that while urban transformation holds the potential

to be transformative, its outcomes depend on the governance mechanisms, participatory frameworks, and socio-political conditions under which it unfolds.

In Ghana, numerous communities are undergoing rapid urban transformation, characterised by both the incremental upgrading of existing neighbourhoods and the development of entirely new urban enclaves. While some areas are being constructed from scratch, others are experiencing substantial improvements in their social, physical, and economic infrastructure (Fält, 2020). For example, Osu illustrates an incremental transformation from a predominantly residential neighbourhood into a vibrant mixed-use district marked by strong expressions of global urban aspirations (Fält, 2020). Similarly, neighbourhoods such as Labone and Cantonments have witnessed significant shifts from purely residential zones to high-end mixed-use areas featuring luxury hotels, upscale apartments, and top-tier shopping facilities (Fält, 2020).

Planned new towns such as Appolonia City further underscore the scale of contemporary urban change, exemplifying large-scale, master-planned development built entirely from the ground up within Accra's metropolitan orbit (Fält, 2020). This transformation is also visible in the proliferation of high-rise apartments and gated communities in areas including Airport Residential Area, Dzorwulu, and East Legon, as well as in peripheral municipalities such as Adentan (Gaisie et al., 2019).

Furthermore, the rapid expansion of Western-style retail infrastructure, exemplified by the development of shopping malls such as A & C Mall, Accra Mall, Marina Mall, Junction Mall, West Hills Mall, Achimota Mall, and Oxford Street Mall – reflects shifting consumption patterns and the growing influence of neoliberal urbanism (Eduful & Eduful, 2021; Eduful, 2019; Gaisie et al., 2019). These malls typically integrate a range of services, including banking halls, entertainment centres, restaurants, fitness clubs, and spas, signalling the emergence of new forms of commercial and leisure-oriented urban space within the city (Gaisie et al., 2019).

Anthony Giddens' structuration theory offers a compelling analytical lens for understanding the dynamics of urban transformation currently shaping Accra's contemporary redevelopment agenda. Giddens sought to theorise the mutually constitutive relationship between social structures and human agency, arguing that social life is continually produced and reproduced through the recursive interaction of rules, norms, and institutional arrangements on the one hand, and the

actions of individuals and groups on the other (Chatterjee et al., 2019). Central to this framework is the *duality of structure*, which holds that structures simultaneously enable and constrain social action, while human practices in turn sustain, modify, or undermine those very structures (Chatterjee et al., 2019). As Binder (2006) emphasises, social structures such as legislative frameworks, cultural norms, and economic systems shape human action, yet they also continually shaped, reinforced or altered (intentionally or unintentionally) through human practices. This cyclical interaction generates an ongoing feedback loop in which structure and agency are deeply intertwined (Binder, 2006; Chatterjee et al., 2019).

Applied to Accra's urban transformation, structuration theory illuminates the intricate ways institutional power, redevelopment rationales, and lived urban experiences intersect. The 2021 demolition of the Agbogbloshie scrapyards serves as a critical case in point. In this instance, state institutions and planning authorities mobilised discourses of environmental remediation, public health protection, and urban order to legitimise the eviction of thousands of informal e-waste workers. These structural forces not only authorised the clearance of the site but also constrained the spatial practices and livelihood strategies of affected workers by restricting their access to centrally located land and disrupting established socio-spatial networks of informal recycling.

Yet, consistent with Giddens' emphasis on agency, affected actors did not merely absorb these structural pressures. E-waste workers responded through a repertoire of adaptive and resistant strategies: relocating dismantling operations to peripheral settlements, negotiating new informal land-use arrangements, reorganising fragmented recycling networks, and eventually reoccupying portions of Agbogbloshie in early 2025. Through these actions, informal workers demonstrated their capacity to negotiate, resist, and reshape structural conditions that sought to marginalise them. Their practices make visible the fluid and contested nature of Accra's redevelopment processes and underscore the ways in which agency can disrupt dominant urban visions and reorder space from below.

### ***3.1.2. Conceptualising Informality: Definitions, Characteristics, and Theoretical Debates***

The concept of informality is closely entangled with, and often used interchangeably with, what Fields (2011) terms its “cousin concepts” – the ‘informal sector’, ‘informal economy’, and ‘informal employment’. Each of these categories sheds light on the diverse strategies through which individuals and communities engage in unregulated and often precarious economic activities operating outside formal institutional and regulatory frameworks (Lindell, 2002). Clarifying the meaning of “informal” is therefore an essential prerequisite for theorising the broader phenomenon of informality.

The Oxford English Dictionary (OED, 2015) defines informal as that which is “not done or made according to a recognised or prescribed form”, or as actions marked by the absence of official procedure. Merriam-Webster (2018) similarly conceptualises informality as either the lack of ceremony or established formality, or as practices associated with ordinary, casual, or familiar use. Parallel meanings appear across other European languages: in Spanish, the Real Academia Española (2017) defines informal as non-formal or prohibited by virtue of its informal condition; in German, *informell* denotes a lack of formal assignment and non-official status (Duden, 2018); while in Dutch, *informeel* refers to the non-formal, unofficial, provisional, or non-binding (Van Dale, 2018). Drawing on these linguistic interpretations, Lindell (2002) conceptualises informality as encompassing economic activities that evade at least one dimension of state-mandated regulation – taxation, licensing, labour law – or that operate under community-based norms rather than formal institutional authority.

While earlier scholarship treated informality primarily as a phenomenon of the Global South, subsequent research expanded the lens to include industrialised economies (Portes & Sassen-Koob, 1987; Stepick, 1989). Scholars in the United States documented the longstanding presence of informal economic exchanges as survival strategies among marginalised populations (Dow, 1977; Ferman & Ferman, 1973; Lowenthal, 1975; Stack, 1974). Sassen’s (1988) study of New York further demonstrated how global economic restructuring and labour market segmentation intensified informalisation, by creating precarious employment niches and marginalising low-skilled workers from formal labour markets, even within advanced capitalist economies.

Despite its widespread use, the term *informal sector* lacks a universally accepted definition and remains conceptually ambiguous (Dell’Anno, 2022; Harding & Jenkins, 1989; Lorato et al., 2023;). A proliferation of overlapping terms – underground, irregular, subterranean, shadow, black, and clandestine economies – illustrates this conceptual fluidity (Feige, 1989; Gutmann, 1977; U.S. Department of Labour, 1992). The World Customs Organisation (2015) consolidates these terms as referring to activities that are unregulated, unrecorded, or insufficiently captured by national accounting systems. A foundational commonality across these definitions is the absence of formal recognition (Losby et al., 2002). The ILO (2021) defines the informal sector as comprising all economic units inadequately covered by formal institutional arrangements. Informal enterprises are typically small-scale, unregistered, and unregulated, though not necessarily illegal (Lorato et al., 2023). In collaboration with research networks such as Women in Informal Employment: Globalising and Organising (WIEGO), the ILO has expanded the conceptual boundaries of informality to include *informal employment* – forms of work that lack labour and social protection (Chen, 2007).

Over time, four major theoretical schools have sought to explain the origins and persistence of informality. The dualist school conceptualises informality as comprising of marginal activities that exist separately from the formal economy, serving as a safety net for the urban poor during economic downturns (Lorato, 2023). The structuralist school views informality as an integral component of capitalist production systems (Castells & Portes, 1989), portraying informal units and workers as subordinates whose informal status allows firms to reduce labour and production costs while enhancing global competitiveness (Castells & Portes, 1989). The legalist school, advanced by de Soto (1989), interprets informal workers as enterprising individuals who operate outside the formal system to circumvent bureaucratic inefficiencies and excessive regulations. Finally, the voluntarist school offers a more agentic perspective, suggesting that some informal workers, especially self-employed entrepreneurs, choose informality as a rational economic strategy rather than merely as an act of evasion (Maloney, 2004).

Beyond these theoretical debates, informality has been examined across two major empirical domains: economic informality and housing informality (Azunre et al., 2021; Azunre, 2024). Economic informality gained prominence through Hart’s (1973) study of income generation in

Accra, which identified a segment of the urban workforce operating beyond the formal wage economy. Hart's insights were subsequently institutionalised by the ILO (1972) and the World Bank (Sethuraman, 1981), embedding the informal sector within mainstream development frameworks. The second major domain, housing informality, has been shaped by the foundational contributions of Charles Abrams, William Mangin, and John F. C. Turner (Abrams, 1964; Mangin, 1967; Turner & Fichter, 1972). Their work traced the emergence of informal settlements – slums, squatter settlements, and inner settlements – as products of housing provision outside formal planning systems and zoning regulations (Khan et al., 2023; Mahabir et al., 2016).

A critical turn in the literature has repositioned informality beyond its narrow association with poverty (Azunre, 2024), framing it instead as a mode of urbanisation (Porter, 2011; Roy, 2005). Viewed in this way, informality operates as an organising logic that shapes urban transformation through the negotiability of value and the “unmapping” of space (Alsayyad & Roy, 2004). Informality is thus not merely a “way of life” for the urban poor but a relational process involving multiple actors, including elites, developers, and political figures, who actively reshape urban and peri-urban spaces (Azunre, 2024).

This expanded reading positions informality as a site of critical analysis (Banks et al., 2020), enabling the examination of the political economy of urban development, including who benefits, who is marginalised, and how power is exercised (Azunre, 2024). Although often associated with poverty, informality is also produced and perpetuated by elites, mafia-like networks, and state actors. Empirical studies document elite informalities such as illegal luxury housing in Bogotá's protected eastern hills (Martínez & Chiodelli, 2021), informal elite neighbourhoods in Islamabad (Moatasim, 2019), and major commercial developments in Mumbai constructed through illicit alliances (Weinstein, 2008). Chiodelli (2019) demonstrates similar dynamics in European contexts, while Roy (2005) identifies informal gated communities that create “hermetically sealed secessionary spaces” (Graham & Marvin, 2001).

Consequently, informality has emerged as a central analytical lens in contemporary urban studies (Lara-Hernandez et al., 2020), reflected in an expanding body of scholarship that highlights its relevance to global urban agendas (Kuppinger, 2019; Moatasim, 2018; Pasquetti & Picker, 2017; Sarmiento & Tilly, 2018). Yet, conceptualisations of urban informality remain diverse. While

some scholars characterise it as a set of urban practices situated outside formal legal and economic frameworks (Caldeira, 1996; Lucia Bayer, 2016; Roy, 2012; Roy & Alsayyad, 2004), others interpret it as a repertoire of bottom-up counter-practices that resist neoliberal urban policies (Kinder, 2014; Mayer, 2007). A further strand of research frames informality as a mode of city-making through which residents actively shape and produce urban space (Lydon & Garcia, 2015).

Despite these varying interpretations, the literature broadly converges around an understanding of urban informality as encompassing spontaneous, improvised, and often unregulated practices that unfold across urban space (Lara-Hernandez et al., 2020). Urban informality has traditionally been associated with economic activities undertaken by poor and underprivileged urban populations operating beyond state regulation and control (Adams et al., 2023; Azunre & Boateng, 2023; Okwei et al., 2025). The concept is also commonly invoked to describe extra-legal or illegal land occupation for housing by marginalised urban residents (Lutzoni, 2016; Rios, 2014; Roy, 2005; Roy & Alsayyad, 2004). In a foundational contribution, De Soto (1989) conceptualises urban informality as the key to survival and success ignoring or deliberately breaking unreasonable official rules and regulations in order to secure livelihoods and meet basic needs.

In addition, urban informality is increasingly recognised as both an adaptive strategy and a form of resistance by marginalised urban populations seeking access to housing and employment opportunities in the context of exclusionary urban policies (Bandauko et al., 2022; Banks et al., 2020; Mutsindikwa et al., 2021). A defining feature of urban informality is its role in resource recycling and urban waste management systems (Hemmer & Mannel, 1989; Perera & Amin, 1996; Wilson et al., 2006). Informal actors efficiently repurpose waste, discarded materials, and by-products that the formal economy often deems unusable, rendering them available for productive use (Hemmer & Mannel, 1989; Wilson et al., 2006). As Oteng-Ababio et al. (2014a) note, informal actors have long constituted an essential component of solid waste collection and recovery processes globally.

In the Ghanaian context, e-waste recycling is conducted almost entirely within informal settings, with less than 1% of e-waste managed within the formal sector (Asibey et al., 2020; Elbel, 2025). According to the ILO (2023), informal work is defined as “working arrangements that are in practice or by law are not subject to national labour legislation, income taxation, or entitlement to

social protection or other employment guarantees; for example, advance notice of dismissal, severance pay or paid annual or sick leave”. E-waste activities undertaken in such contexts pose significant governance and environmental management challenges; however, they simultaneously serve as critical livelihood strategies for workers and surrounding communities (Balde et al., 2024; Heacock et al., 2018; Parvez et al., 2021). At the same time, there is growing recognition of the sector’s significant contributions to urban economies (Misra et al., 2024; Perera & Amin, 1996), particularly in terms of waste management where its formal counterpart is lacking – both in capacity (Oteng-Ababio & Grant, 2020) and in technical expertise and efficiency (Khan, 2018). Indeed, estimates suggest that between 80% and 97% of Ghana’s e-waste economy operates informally (Owusu-Sekyere & Aladago, 2023; Püschel et al., 2024).

Despite their substantial economic contributions, including essential tasks such as collection, sorting, and recycling discarded electronics (Bjørn, 2025), informal e-waste workers remain largely excluded from policy agendas precisely because of their informality (Oteng-Ababio et al., 2014a). Consequently, the challenges confronting them are routinely marginalised within urban governance frameworks (Oteng-Ababio et al., 2014a). The sector thus continues to function on the peripheries of the formal economy, marked by systematic marginalisation, periodic antagonism from city authorities, and restricted access to essential urban infrastructure and financial services (Oteng-Ababio et al., 2014a). Workers typically operate without labour protections, exposing them to heightened risks of exploitation and socio-economic precarity (Fobil et al., 2021; World Bank, 2009). The industry’s informal nature further complicates regulation and oversight, exacerbating these challenges (Ecklu, 2021). As a result, informal recyclers are neither officially recognised nor integrated into formal waste management frameworks and are frequently ignored or actively constrained by institutions mandated to govern the sector (Oteng-Ababio et al., 2014a).

These structural exclusions have historically generated tensions between the state and informal e-waste workers (Bjørn, 2025), culminating most prominently in the 2021 demolition of the Agbogbloshie scrapyards, undertaken as part of state efforts to assert control over the land (Grant et al., 2024; Sarpong et al., 2025).

### ***3.1.3. Informal Economic Livelihoods and the Struggle for Urban Space***

The informal economy has become a defining feature of contemporary urban life, attracting increasing scholarly and policy attention due to its central role in both global and national economic systems (Azunre et al., 2021; Skinner et al., 2018). Recent estimates suggest that approximately 62 percent of the global labour force – nearly two billion people – depend on informal economic activities for their livelihoods (ILO, 2020). Informal employment accounts for 90 percent of total employment in low-income countries, 67 percent in middle-income countries, and 18 percent in high-income countries (ILO, 2018).

In SSA, the informal economy contributes between 25 and 65 percent of gross domestic product (GDP), highlighting its structural and functional significance in sustaining livelihoods (ILO, 2018). This prominence is even more pronounced in emerging and developing economies, where over three-quarters of the labour force engage in informal work, particularly in South Asia and SSA (ILO, 2018; Mensah, 2021).

Ghana provides a clear illustration of these dynamics. Since the 1970s, informal economic livelihoods concentrated in urban centres have become vital sources of household income, enabling many to meet their basic needs amid chronic shortfalls in formal employment opportunities (Debrah, 2007; Mensah, 2021). Nyamekye et al. (2009) note that by the 1980s, employment in the informal economy was already twice that of the formal sector, a ratio that grew more than five times by the 1990s, as both the state and the private sector struggled to accommodate the expanding urban labour force (Osei-Boateng & Ampratwum, 2011). Current statistics confirm this trend: the informal economy employs approximately 88 percent of Ghana's working population and contributes over 88 percent of the national GDP (GSS, 2014). These figures indicate that the informal economy is not marginal but rather a crucial pillar of Ghana's socio-economic structure.

Public urban spaces have thus gained increasing significance as the physical and social arenas where informal livelihoods are created, negotiated, and often contested (Chen et al., 2016). Urban spaces, such as markets, sidewalks, transport hubs, and open areas serve as the economic lifeblood of cities, facilitating access to work, customers, and social networks (Chen et al., 2016). A substantial body of research demonstrates that these spaces are essential for sustaining informal

economies, providing locations through which marginalised urban populations can secure livelihoods amid poverty, unemployment, and exclusion from formal labour markets (Asiedu & Mensah, 2008; Babere, 2013; Lyons et al., 2012; Moreno-Monroy, 2012). Informal workers such as street vendors, waste pickers, mechanics, and e-waste recyclers play a critical role in urban economies by facilitating the circulation of goods and services and significantly contributing to the social reproduction of the city (Skinner et al., 2018).

Within this context, Ikioda (2012) defines informal workers as individuals who operate without government permits, approved trading spaces, or permanent locations. These workers often embed themselves and their activities within urban open spaces in a discreet manner (Ikioda, 2012). This definition highlights the adaptive ingenuity that enables informal workers to navigate the urban environment, frequently transforming marginal or overlooked spaces into vibrant sites of economic activity (Ikioda, 2012).

However, the presence and use of urban space by informal workers often bring them into direct conflict with state institutions and urban authorities. A growing body of urban studies literature documents how state-led urban transformation processes – driven by neoliberal principles of modernisation and aesthetic renewal, frequently result in the displacement of informal workers in cities, both in the Global South and the Global North (Atkinson & Bridge, 2005; Bromley & Mackie, 2009; Fält, 2016; Gonzalez, 2017; Lees et al., 2015). These trends are evident, for example, in the removal of informal traders from city-centre streets in parts of Latin America, as well as in the state-led demolition of the informal settlement of Mensah Guinea in central Accra (Fält, 2016). City authorities commonly frame informality as a threat to order, safety, and modernity, which legitimises exclusionary and punitive interventions (Darbi et al., 2018; OECD, 2009). Perera & Amin (1996) note that urban authorities often perceive the livelihoods of poor populations, especially those conducted in streets and public spaces, as incompatible with effective environmental management, prioritising urban cleanliness over informal economic activity.

In Ghana, these tensions are particularly pronounced. Municipal authorities have historically employed coercive strategies, including demolitions, relocations, and evictions, as means of “restoring order” in urban spaces (Cernea, 2006; Steel et al., 2014). Evidence indicates that informal workers are systematically marginalised by exclusionary governance practices that

criminalise their economic activities (Skinner et al., 2018). Such strategies frequently manifest through harassment, extortion, arbitrary fines, confiscation of goods, and, in extreme cases, violent evictions (Crentsil & Owusu, 2018). Asiedu & Mensah (2008) highlight the precarious nature of livelihoods for street vendors in Accra, noting that they operate in constant mobility to evade city guards, known locally as *aba-ye*. Similarly, Mensah (2023) observes that informal workers perceive municipal authorities as unsympathetic and hostile, viewing their use of public space for livelihood activities as illegitimate and perpetually contested.

This ongoing antagonism underscores a deeper ideological struggle over the meaning and ownership of urban space. Informal workers view public spaces as essential for economic survival and social belonging, whereas the state seeks to sanitise and regulate these spaces to realise its vision of a “modern,” “world-class” city (Mensah, 2021). Cross & Karides (2007) argue that municipal officials often perceive the visibility of informal workers as indicative of urban disorder. This perception shapes policy orientations that prioritise cosmetic “beautification” and “sanitisation” over inclusive planning. Similarly, Chen et al. (2016) note that, rather than adopting integrated frameworks to accommodate informality, many cities engage in sporadic “clean-up” campaigns aimed at removing the visible presence of informal livelihoods from central urban spaces.

In Ghana, these exclusionary tendencies are exemplified by a series of state-led urban modernisation initiatives, such as the Modernisation of the Capital City Programme, the Let’s Make Accra Work Again campaign, and the Millennium Cities Initiative (Gillespie, 2015). Although framed as efforts to improve urban governance and liveability, these initiatives have resulted in large-scale demolitions and forced evictions, particularly targeting informal e-waste workers at the Agboghloshie scrapyards (Gillespie, 2015; Grant et al., 2024; Sarpong et al., 2025). Such practices not only threaten the economic security of informal workers but also raise critical questions about the right to the city, inclusive urban development, and socio-spatial justice within contemporary processes of urban transformation.

#### ***3.1.4. Geographies of Expulsion of Informal Workers***

Expulsion has emerged as a central theme in contemporary geographical scholarship, encompassing processes of dispossession, displacement, and forced eviction that occur across

various spatial and temporal scales (Brickell et al., 2017; Elliott-Cooper et al., 2019). The concept is critical for understanding new urban enclosures and the dynamics of accumulation by dispossession that characterise neoliberal urbanism (Hodkinson, 2012). Scholars in this field have drawn significant parallels between today's patterns of urban displacement, especially under racialised capitalism, and historical forms of land expropriation during colonial and settler regimes (Fullilove, 2004; Jackson, 2017). These regimes systematically dismantled existing systems of ownership, production, and social relations to impose new spatial and economic structures (Fullilove, 2004; Jackson, 2017; Smith, 2002; Wolfe, 2016).

Building on this, Saskia Sassen (2014) identifies the “new logics of expulsion” as a defining feature of contemporary global capitalism. She argues that, in recent decades, the global economy has experienced an increase in expulsions, affecting people, enterprises, and territories, from the core aspects of economic and social life (Sassen, 2014). These expulsions manifest in various, seemingly unrelated processes: the exclusion of migrants from national borders, the displacement of workers from the labour market, the dispossession of entire populations from their territories, and the forced removal of marginalised citizens from urban centres (Sassen, 2014). Aguilera et al. (2018) expand on this framework, outlining three interrelated dimensions of expulsion: exclusion from space or land, the use of coercion or violence, and processes of social and spatial distancing that reinforce marginalisation.

Although eviction and expulsion are often used interchangeably, they represent distinct yet interconnected forms of spatial exclusion that operate on different scales and degrees of institutional legitimacy (Elliott-Cooper et al., 2019). Eviction refers to the legally sanctioned removal of an individual or group from a dwelling or parcel of land – defined as “to provide or give a legal order to leave a place” (Lund, 2000; Oxford ESL Dictionary, 1993). A historical example of eviction can be seen in Sri Lanka, where the Veddhas were forcibly relocated from forested areas to colonial irrigation schemes during British rule and subsequently displaced again under postcolonial development programmes (Lund, 2000). In contrast, expulsion involves “sending out or away by force” (Lund, 2000; Oxford ESL Dictionary, 1993) and encompasses both localised exclusions, such as social ostracisation from specific territories, and large-scale displacements, such as the mass removal of populations from conservation zones and urban

centres. These forms of exclusion constitute serious human rights violations and lead to long-term conditions of precarity, dispossession, and socio-economic marginalisation (Lund, 2000).

In urban settings, expulsion has increasingly become a common governance strategy employed by states and municipalities to manage and regulate informal economic activities such as street vending, squatting, and informal recycling (Brown et al., 2015). These interventions range from minor displacements – brief interruptions during raids by city officials, to large-scale clearance operations that disrupt small-scale enterprises for extended periods, often justified by claims of beautification or city modernisation (Sarpong et al., 2025). Brown et al. (2015) point out that many displaced traders refer to themselves as “refugees,” highlighting the severe socio-economic dislocation and psychological trauma associated with repeated expulsions. Across geographic contexts, these practices, whether linked to land grabbing, gentrification, resource extraction, or state-led urban renewal, reflect a shared neoliberal logic that prioritises capital accumulation and aesthetic order over social inclusion (Pozzi, 2019).

The relationship between national and local authorities and the informal economy is marked by deep ambivalence and inconsistency. While some state agencies attempt to regulate or formalise informal activities through taxation and licensing, others, motivated by technocratic and aesthetic visions of the “modern city”, adopt aggressive policies aimed at erasing informality from visible urban spaces (Brown et al., 2015). These interventions are often carried out without an adequate understanding of the scale, complexity, or socio-economic logic of informal economies, nor of the poverty implications that follow mass evictions (Cross & Karides, 2007).

In many cases, the drivers of expulsions are more political than developmental (Brown et al., 2015). Clearances often coincide with political transitions, preparations for international mega-events, or visits from high-profile dignitaries, moments when the city’s visual image becomes a tool of political legitimacy and global aspiration (Brown et al., 2015). As Dekel (2020) and others note, the factors driving expulsion are multifaceted, including private sector interests seeking to benefit from rising land values (Benjamin, 2008; Kuyucu, 2014; Ortega, 2016), the reassertion of property control in anticipation of redevelopment (Turnbull, 2008), and campaigns framed around legality or public order. Yet, as Ghertner (2014) compellingly argues, these expulsions are also intricately linked to the moral and aesthetic visions of urban elites and municipal authorities. Their

disdain for “filthy” slums, informal markets, and scrapyards reflects a desire to cleanse the city in alignment with global urban ideals (Ghertner, 2014).

Environmental pollution, health and safety hazards, and traffic congestion, often associated with certain informal sector activities, are routinely invoked to justify their perceived incompatibility with orderly urban environments (Perera & Amin, 1996). As a result, informal sector activities are often displaced from central urban areas under the guise of promoting public cleanliness and order (Perera & Amin, 1996). In some instances, these activities are expelled simply to create an environment conducive to national or foreign investment in urban development projects (Perera & Amin, 1996).

The dominant political and policy narratives that justify these expulsions often draw on discourses of hygiene, public order, and aesthetic improvement (Bromley, 1998; Yeoh & Kong, 1994). Authorities justify clearance operations by citing concerns about environmental sanitation, traffic management, and public safety (Harrison & McVey, 1997; Öz & Eder, 2012; Perera & Amin, 1996). However, scholars have robustly criticised these justifications, arguing that the challenges associated with informality stem not from informal activities themselves but from exclusionary planning paradigms that fail to engage with the socio-spatial realities of informal livelihoods (Omuta, 1986; Perera & Amin, 1996; Sethuraman, 1981).

Ultimately, the geographies of expulsion expose the spatialised violence of contemporary urban governance. Informal workers – street vendors, recyclers, and other marginalised groups, are systematically excluded from the very urban spaces that their labour helps sustain (Brickell et al., 2017). These processes reflect the revanchist tendencies of neoliberal urbanism, which seeks to reclaim and sanitise city spaces through punitive measures, thereby deepening social inequalities and perpetuating cycles of dispossession in the name of development and modernisation (Smith, 1996).

### ***3.1.5. The concept of Marginalisation***

Broadly, marginalisation denotes the systematic process of relegating, downgrading, or exclusion of individuals and social groups from the benefits of society (Dwivedi et al., 2007). Today, it has emerged as a defining characteristic of urban landscapes across cities worldwide (Soliman, 2021),

shaping the spatial and socio-economic contours of contemporary urban life. When intertwined with poverty, marginalisation reveals multiple ways in which individuals are pushed to the peripheries – socially, economically, and politically, effectively restricting their access to resources, participation in decision-making, and inclusion in the processes of urban development (Soliman, 2021).

The concept of marginality, rooted in a wide array of disciplines (Bernt & Colini, 2013), was first theorised by Robert Park, a foundational scholar of the Chicago School of urban sociology (Perlman, 1976; Soliman, 2021). In his seminal essay *Human Migration and the Marginal Man* (1928), Park described the psychological and social “cross-pressures” faced by migrants navigating overlapping cultural worlds (Perlman, 1976). He characterised this condition of partial belonging, incomplete integration, and persistent outsider hood within dominant cultural systems as “marginality” (Bernt & Colini, 2013). Building on Park’s insights, Stonequist (1937) further elaborated the notion by examining individuals with hybrid identities who find themselves caught “between two fires”, navigating conflicting norms and expectations.

Over time, however, the term marginality has stretched far beyond its original sociological roots, evolving into a “catch-all” label used to describe a wide spectrum of conditions, including poverty, illiteracy, limited assets, and various forms of misfortune relative to societal norms (Bush & Ayeb, 2012). Reflecting its conceptual evolution, Billson (2004) delineates three distinct strands of marginality: (a) cultural marginality, referring to tensions arising from cross-cultural identities and assimilation; (b) social-role marginality, describing exclusion from desired reference groups; and (c) structural marginality, capturing political, social, and economic powerlessness and disadvantage. Among these, structural marginality has gained the greatest analytical traction in recent decades (Bernt & Colini, 2013).

A parallel and highly influential strand of marginality emerged from leftist Latin American debates of the 1960s and 1970s, shaped by rapid urbanisation and the proliferation of informal settlements – favelas, barrios, and ranchos – alongside vast labour markets operating beyond formal regulatory and economic structures (Bernt & Colini, 2013; Caldeira, 2009). To capture the exclusion of migrants from urban society, the economy, and political life, Latin American theorists employed terms such as *marginality*, *marginal masses*, and *marginal settlements* (Bernt & Colini, 2013).

Yet, as Perlman (2004) argues, the urban poor are not “marginal” in the sense of existing outside society; rather, they are deeply embedded within urban systems but rendered vulnerable through deliberate exclusion, repression, and stigmatisation. Ward (2004) similarly observes that classical marginality theory has been overtaken by contemporary understandings of “new poverty,” shaped by more complex social and economic transformations. In this context, marginalisation is understood as a condition in which a population, group, or individual exists (a) on the periphery or boundary of mainstream society, or (b) between two different cultures, being part of neither (Choi, 2001; Hall et al., 1994).

Today, marginality is widely conceptualised as an involuntary condition of exclusion from social, political, economic, ecological, and biophysical systems (Soliman, 2021). Those rendered marginal are systematically denied full access to resources, assets, and essential services; their capabilities are constrained, participation curtailed, and freedoms restricted (Lee & Ali, 2019; Soliman, 2021). As Perlman (1979) argues, marginality reflects exclusion from a closed system – a condition that not only undermines individual well-being but also contributes to structural fractures within the urban fabric.

For decades, entrepreneurs operating within the informal economy particularly in developing countries have often been characterised as marginalised actors (Adom, 2014). Two dominate theoretical frameworks have been advanced to conceptualise this marginality: the modernisation perspective and the structuralist perspective (Chen et al., 2004). Both frameworks depict informal entrepreneurs as inherently marginal, undertaken primarily by individuals positioned as the socio-economic peripheries of society (Adom, 2014).

### **3.2. Conceptual framework**

This study examines the multifaceted processes of urban transformation in Accra, with particular attention to their implications for the livelihoods of informal sector workers. Anchored by the study’s guiding research questions, the analysis builds on, and substantially extends, the Department for International Development’s (DFID) Sustainable Livelihoods Framework (SLF), as adapted by Oduro et al. (2015) in their examination of the effects of urban expansion on peri-urban livelihoods (see Figure 15). While Oduro et al.’s (2015) adaptation was oriented toward understanding peri-urban livelihood shifts, the present study advances this framework by

repositioning it within a distinctly metropolitan context of Greater Accra, a densely populated rapidly urbanising city characterised by pronounced socio-spatial inequalities and complex informal economies. In so doing, the study introduces an explicit urban transformation component and deepens the focus on transforming structures and processes, highlighting how institutional instruments, ranging from planning regulations and zoning directives to decongestion campaigns and large-scale eviction exercises, function as powerful mechanisms through which urban authority is exercised. These interventions, often framed as modernisation or spatial optimisation strategies, are shown to actively – and unevenly – reshape the livelihood strategies, adaptive capacities, and long-term outcomes of informal workers.

The enhanced framework therefore serves as the primary analytical lens for assessing how state-led interventions, most notably the demolition of the Agbogbloshie scrapyards, reconfigure the livelihood options, strategies, and wellbeing of displaced e-waste workers operating within Accra's urban informal economy. As Imoro (2017) observes, the sustainability of migrant and informal livelihoods is deeply contingent upon the socio-economic and institutional conditions they encounter, as well as their capacity to navigate emerging constraints and opportunities.

The SLF comprises five interrelated components: the vulnerability context; livelihood assets (natural, physical, financial, human, and social capital); transforming structures and processes (policies, institutions, and systems); livelihood strategies; and livelihood outcomes (DFID, 2000). Together, these elements provide a coherent and multidimensional lens through which to interrogate the dynamics of livelihood formation and transformation. For this study, the framework offers a particularly productive entry point, not only for unpacking the adaptive strategies deployed by informal workers, but also for illuminating wider questions of urban governance, socio-spatial inequality, and the evolving nature of urban livelihoods (Degefa, 2005; Imoro, 2017; Rakodi, 2002).

This study builds on a substantial body of scholarship on livelihoods approaches (Bebbington, 1999; Carney, 1998; Chambers & Conway, 1992; Scoones, 1998), which has profoundly shaped contemporary development thinking. Within this literature, the concept of “livelihood” has been theorised as far more than a set of economic activities. Chambers (1995) offers a succinct definition, framing livelihood as the means by which individuals secure their living – the

combination of resources and activities required to do so. Chambers & Conway (1992) provide a more comprehensive and operational conceptualisation, defining livelihood as the interplay of capabilities, assets, and activities necessary to sustain a living.

This framework begins with a transformative effect of rapid urbanisation in Accra, a process significantly shaped by migration dynamics (Awumbila & Ardayfio-Schandorf, 2008; Tanle, 2013). Oduro et al. (2015) note that the city's accelerated urban growth has heightened long-standing challenges, such as infrastructural deficits, sluggish improvements in living standards, and systemic weaknesses in urban management (Crentsil & Owusu, 2018). These pressures have amplified the disparity between population expansion and urban development, exacerbating socio-economic inequalities and deepening spatial vulnerabilities (Crentsil & Owusu, 2018). In response, state actors have pursued ambitious redevelopment agendas – conceptualised here as urban transformation – aimed at reshaping the city's economic, social, physical, and environmental landscapes (Asante, 2020). These interventions are often framed as modernisation strategies designed to address complex urban challenges (Asante, 2020; Fält, 2020).

Understanding these interventions necessitates a nuanced consideration of the institutional and policy frameworks within which they are conceived and implemented. This aligns with the “Transforming Structures and Processes” component of the SLF – also referred to as Policies, Institutions, and Processes (PIPs) (DFID, 2000). This dimension is particularly pertinent to the present study, as it foregrounds how governance arrangements, institutional practices, and regulatory mechanisms shape both livelihood opportunities and constraints that define livelihood outcomes (DFID, 2000). As noted by Farrington et al. (2002) and Moser & Satterthwaite (2008), these structures and processes operate across multiple scales yet exert a profound influence on the conditions under which individuals and communities pursue and sustain their livelihoods. Within this study, the PIPs component serves as an analytical lens to interrogate how contemporary urban policies, institutional configurations, and governance practices have mediated the livelihood trajectories of informal e-waste workers in the context of Accra's ongoing urban transformation.

For instance, in Accra, city authorities frequently implement decongestion exercises aimed at reclaiming and reorganising urban space, often framed under the guise of beautification or preparation for redevelopment projects (Crentsil & Owusu, 2018; Fält, 2020). These interventions

disproportionately target informal workers, street traders, slum dwellers, and e-waste recyclers, whose livelihoods are cast as incompatible with dominant visions of a “modern” city (Fält, 2020). The Let’s Make Accra Work Again (LMAWA) campaign exemplifies this dynamic, representing as a prominent case of revanchist urbanism in which eviction became a primary tool for clearing Agbogbloshie and displacing its e-waste workforce (Grant et al., 2024). Drawing on in-depth interviews, engagements with policy actors, and critical document analysis, this study interrogates both the processes and the rationales underpinning these demolitions. These actions are situated within broader debates on exclusionary governance, the politics of urban space, and the contested geographies of urban transformation in Accra. Such strategies of exclusion have imposed substantial pressures on the livelihood assets and adaptive strategies of displaced workers (DFID, 2000).

Within the SLF, livelihood assets – comprising social, physical, natural, financial, and human capital (Carney, 1998), serve as a critical lens for examining the impacts of the Agbogbloshie demolition. Financial capital, including income streams, savings, and remittances, was severely disrupted, undermining household stability and economic resilience. Physical capital, encompassing worker-owned structures, containers, tools, storage units, and other essential equipment, was systematically destroyed during the operation, eroding the material foundations of work. Social capital deteriorated as collective support networks, most notably the Agbogbloshie Scrap Dealers Association (ASDA), disintegrated; the loss of these organisational structures diminished coordination, and linkages with associated industries, such as steel companies reliant on consistent scrap supplies from the yard. Human capital suffered as workers experienced increased injury, psychological distress, and uncertainty; reflecting Tanle’s (2013) emphasis on the centrality of health for labour sustainability. Finally, natural capital, particularly land and workspace, was compromised, forcing workers into new urban environments marked by congestion, insecurity, and precarious tenure arrangements (Imoro, 2017).

These disruptions imposed significant burdens on the livelihood strategies of e-waste workers, affecting every segment of the recycling chain. The livelihood strategies component of the framework captures the diverse range of income-generating activities undertaken within the informal e-waste sector, including collection, dismantling, open burning, refurbishing, trading, and

brokering (Amankwaa, 2014). These strategies are highly interdependent, contingent on the availability of livelihood assets, and shaped by broader policy and institutional contexts (Imoro, 2017; Scoones, 1998). Livelihood outcomes, in turn, reflect the tangible results of these strategies, including income generation, well-being, and reduced vulnerability (DFID, 2000). The demolition disrupted every link in the e-waste value chain, precipitating declines in incomes, deteriorating living conditions, and exposure to risk.

The vulnerability context, a critical component of the SLF, refers to external conditions largely beyond individual control that influence susceptibility to shocks and stressors (Imoro, 2017). In this study, vulnerability encompasses both the longstanding health and environmental hazards inherent to e-waste recycling and the intensified risks arising from displacement, eviction-related violence, and precarious working and living conditions. Taken together, these analytical dimensions provide a comprehensive lens for examining how urban transformation, as exemplified by the demolition of Agbogbloshie, has fundamentally reshaped the livelihoods, strategies, and vulnerabilities of displaced e-waste workers in Accra.

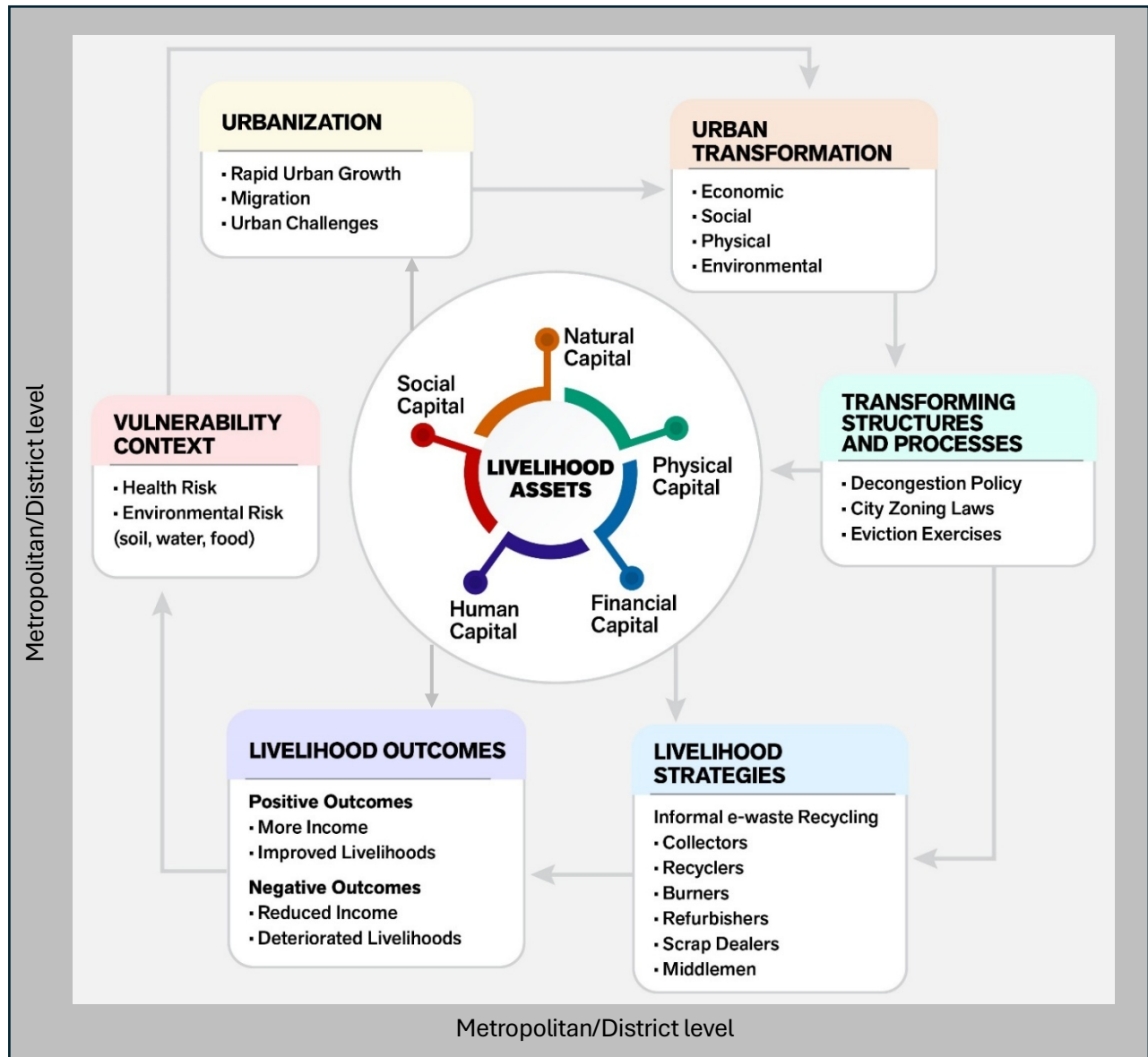


Figure 15. A conceptual framework for analysing the impact of urban transformation on urban livelihoods.

Source: Author's construct, 2025, adapted and modified: Oduro et. al. (2015) based on the Sustainable Livelihood Framework.

### **3.3. Theoretical underpinnings of the study**

#### *Synthesis of Revanchist Urbanism and Environmental Justice*

This study draws on two interrelated yet analytically distinct perspectives, revanchist urbanism and environmental justice, to examine the governance of informality and the broader urban transformation unfolding in Accra. Together, these frameworks illuminate the dynamics surrounding the demolition of the Agbogbloshie scrapyard and the displacement of informal e-waste workers, whose livelihoods and spatial practices are continually reshaped by exclusionary redevelopment agendas.

#### **3.3.1. Revanchist urbanism theory**

The revanchist framework, rooted in urban political geography (Aalbers, 2010; Smith, 1996), foregrounds state-led processes of displacement, exclusion, and the punitive reclamation of urban space. Derived from the French *revanche* (revenge), revanchism captures how neoliberal urban policies criminalise, stigmatise, and expel marginalised populations in the name of modernisation, order, and beautification (Atkinson, 2003; Johnsen & Fitzpatrick, 2010; Smith, 1996). Smith (1996) conceptualises revanchism as a “vengeful” project through which urban elites reclaim city spaces from marginalised groups, typically under the banners of “urban renewal”, “regeneration”, “redevelopment”, and “revitalisation” (Asante & Helbrecht, 2020), all in service of producing a marketable urban image capable of attracting global capital.

Subsequent scholarship has expanded and refined Smith’s conceptualisation of revanchism, illustrating the multiple ways in which punitive urbanism is enacted. Atkinson (2003), for instance, outlines four key modalities through which revanchist logics materialise in contemporary cities. First, he highlights governance mechanisms that impose heightened control over public space and regulate what is deemed “acceptable” behaviour. Second, he identifies programmatic interventions aimed at securing and sanitising the urban environment. Third, he draws attention to discursive practices that frame public spaces as sites of disorder or decline, thereby legitimising punitive responses. Finally, he points to economic imperatives that link urban development agendas to the attraction of investment, often achieved through visible spatial reordering.

Building on this, Johnsen & Fitzpatrick (2010) further operationalise revanchism by identifying four interrelated dimensions. The legislative dimension concerns the criminalisation of street-

based livelihoods. Second, the physical dimension reflects the redesign of urban environments to deter or exclude populations deemed undesirable. The third dimension, surveillance, captures the intensification of policing and monitoring within public and quasi-public spaces. The fourth dimension, discursive, illustrates how marginalised groups are framed as unclean, threatening, or responsible for their own marginality, thereby justifying exclusionary interventions. Through these contributions, the literature collectively demonstrates the multifaceted and evolving nature of revanchist urbanism (Johnsen & Fitzpatrick, 2010).

Building on Smith's formulation of revanchism as a "battle" over urban space, Mackie et al. (2014) extend this conceptualisation by identifying four interrelated arenas of contestation – spatial, political, economic, and socio-cultural, which they collectively term the "battleground framework".

Within the spatial battleground, the central struggle concerns control over space, the outcome of which determines whether displacement materialises as a physical and territorial reality. The political battleground highlights the uneven distribution of voice and power in urban decision-making (Mackie et al., 2014). Here, governmental actors, political elites, and middle-class constituencies typically dominate planning processes, while the perspectives of those targeted for displacement are marginalised or treated tokenistically (Brown et al., 2010; Hunt, 2009; Middleton, 2003; Rogers & Coaffee, 2005). The economic battleground reflects the influence of neoliberal policy agendas that privilege middle-class consumption and, in many instances, tourist investment, often at the expense of the economic activities of groups deemed "undesirable" (Mackie et al., 2014). Finally, the socio-cultural battleground centres on the symbolic and cultural struggles underpinning revanchist urbanism (Mackie et al., 2014). In this arena, the cultural practices, identities, and ways of life of marginalised groups are systematically devalued or delegitimised to make way for the norms and aspirations of dominant social groups, frequently framed as more modern or progressive (Mackie et al., 2014).

Empirical applications of the revanchist framework beyond Smith's original focus on New York City demonstrate its diverse manifestations across global contexts. Swanson (2007), for instance, illustrates how revanchism in Ecuadorian cities is entangled with racialised "whitening" projects that displace indigenous street vendors to accommodate global tourism. In Glasgow, revanchist

logics underpin zero-tolerance policies targeting homeless populations, even as politicians attempt to balance punitive measures with social service interventions (MacLeod, 2002). In Rotterdam, Uitermark & Duyvendak (2008) show how the Fortuyn-led administration mobilised revanchist policies to differentiate itself from preceding social democratic governments through heightened repression and disciplinary urban governance. In Seattle, Herbert & Beckett (2010) illustrate how municipal legislation was instrumentalised to displace homeless populations, effectively “banishing” them to peripheral and often more hazardous urban spaces. Similar dynamics are observed in the Andean city of Cusco, where policies directed at informal traders exemplify the socio-spatial consequences of revanchist urbanism (Mackie et al., 2014). Similarly, Kunkel (2016) documents how urban renewal in Frankfurt intensified the policing of marginalised populations, while Neethi (2020) highlights the revanchist dynamics underpinning the marginalisation of street-based sex workers in Bangalore.

Despite its wide-ranging application, the concept of revanchism has attracted significant critique. DeVerteuil (2006) illustrates how the presence of social welfare interventions, particularly in responses to homelessness, complicates and, at times, counterbalances the punitive logics emphasised in revanchist accounts, thereby challenging portrayals of urban governance as uniformly exclusionary. Hubbard (2004) similarly extends the critique by foregrounding the gendered dimensions of neoliberal urban policy, arguing that Smith’s original framework insufficiently captures the gendered inequalities reproduced through contemporary urban restructuring. More broadly, scholars have characterised the revanchist thesis as “simplistic,” “dystopic,” “incomplete,” “narrow,” “inaccurate,” and marked by “reductionist determinism” (Slater, 2017), underscoring ongoing debates about its explanatory scope and conceptual precision.

In Accra, the “Let’s Make Accra Work” campaign exemplifies these revanchist tendencies. Informal workers at Agbogbloshie have been depicted simultaneously as sources of environmental degradation and as obstacles to the city’s aspirations for modernity. The state-led demolition of the scrapyard thus represents more than a spatial intervention – it reflects a broader revanchist project aimed at reclaiming strategic urban space, producing a sanitised city image, and reconfiguring socio-spatial relations. Revanchist urbanism, as introduced by Smith (1996), offers a critical analytical lens for this study for understanding how displacement operates as a

mechanism of exclusion, reproducing socio-spatial inequalities and generating new geographies of expulsion in rapidly transforming Global South cities such as Accra.

### ***3.3.2. Environmental Justice theory***

In parallel, the environmental justice framework (Bullard, 1990; Schlosberg, 2007) emphasises issues of equity, rights, and inclusion in the governance of environmental risks. It examines how vulnerable populations disproportionately bear the brunt of environmental hazards while being excluded from decision-making processes that shape their livelihoods (Schlosberg, 2007). The environmental justice perspective extends beyond merely addressing who suffers from environmental harm; it also considers procedural justice, the extent to which marginalised groups are granted meaningful participation in environmental governance, and recognitional justice, which demands acknowledgement of their socio-economic contributions and lived experiences (Bullard, 1990; Gilio-Whitaker, 2021; Schlosberg, 2007).

Robert Bullard's pioneering scholarship was instrumental in conceptualising the structural nature of environmental racism (Bullard, 1990). His landmark study demonstrated that all city-owned landfills in Houston, Texas, were situated in predominantly Black neighbourhoods, despite Black residents comprising only a quarter of the city's population (Bullard, 1990). Since this foundational work, EJ has evolved into a multidisciplinary and global field addressing unequal environmental burdens across racial, socioeconomic, and geographic divisions (Schlosberg, 2013). This growth is reflected in the proliferation of dedicated journals, including *Environmental Justice* and *Local Environment*, which systematically explore the intersections of justice, policy, and sustainability. Yet, the concept remains theoretically fluid, lacking a universally accepted definition or measurement standard (Amuzu, 2018; OECD, 2024). As scholars frequently note, EJ "means many things to many people." Schlosberg (2007) therefore proposes a multidimensional model comprising distributive, procedural, and recognitional justice.

Scott (2014) further expands EJ's dual character as both a grassroots social movement and a normative analytical framework centered on fairness in environmental governance. From this perspective, advancing environmental justice requires amplifying the voices of historically marginalised groups, particularly low-income, racialised, and indigenous communities, within environmental and natural resource decision-making arenas that have long produced outcomes

disproportionately harmful to them. Complementing this approach, the U.S. Environmental Protection Agency (EPA) defines EJ as the fair treatment and meaningful involvement of all individuals, regardless of race, gender, income, or national origin, in shaping environmental policies and enforcement. Holifield (2001) adds a spatial dimension, emphasising how environmental risks cluster in specific geographical areas typically inhabited by low-income or minority populations.

Within the Ghanaian context, Oteng-Ababio's (2013) seminal work *Unscripted (In)Justice* highlights the spatial dynamics of environmental injustice in Accra and their implications for urban health disparities. Using cholera outbreak data, he demonstrates that nearly 85% of cases were concentrated in densely populated, low-income sub-metropolitan areas such as Ablekuma and Aseidu-Keteke. Deprived inner-city neighbourhoods, including Korle Gonno, Agbobbloshie, and Old Dansoman, recorded between 200 and 300 cases, while affluent enclaves such as Airport Residential Area, Cantonments, and East Legon reported virtually none (Oteng-Ababio, 2013). These stark differentials illustrate the distributive dimensions of environmental injustice, wherein marginalised communities disproportionately bear the burdens of inadequate sanitation, poor waste management, and institutional neglect (Oteng-Ababio, 2013).

These spatial inequities form an important backdrop to the present study, which examines how the forced displacement of informal e-waste workers from Agbobbloshie has reconfigured the geography of environmental vulnerability in Accra. By foregrounding the experiences of displaced workers and affected communities, the study aligns with the EJ tradition in interrogating how environmental interventions, however well-intentioned, can reproduce or intensify existing exclusions.

Distributive (in)justice draws attention to the unequal allocation of environmental risks and benefits (Amuzu, 2018). It underscores the need to consider how pre-existing social inequalities shape differential exposure to hazards, access to environmental amenities, and vulnerability to policy impacts (OECD, 2024). At Agbobbloshie, informal e-waste workers have historically borne the greatest burdens of toxic exposure, pollution, and occupational hazards, while intermediaries and exporters disproportionately reap economic benefits (Amuzu, 2018). Those most exposed, collectors, dismantlers, and burners, receive the lowest incomes and operate without protective

gear or institutional safeguards (Amuzu, 2018). Post-demolition, new geographies of vulnerability have emerged as e-waste activities dispersed into marginalised communities across Accra, many of which now face intensified exposure to open burning, soil contamination, and hazardous waste accumulation. As Bullard and Wright (1993) emphasise, where individuals live, work, and play profoundly shapes their exposure to environmental hazards.

Procedural (in)justice highlights entrenched exclusions from decision-making processes (OECD, 2024). Despite their central role in Ghana's waste recovery economy, informal e-waste workers are rarely integrated into policy discussions, and their forced removal from Agbogbloshie occurred without formal consultation (Amuzu, 2018; Sarpong et al., 2025). The Accra Metropolitan Assembly's longstanding refusal to provide basic services, such as water, sanitation, and electricity, out of concern that doing so might legitimise informal operations (Oteng-Ababio et al., 2017) further illustrates the persistence of non-participatory governance structures.

Recognition (in)justice captures the systemic misrecognition and stigma directed at informal e-waste workers. Their labour is routinely devalued, and they are frequently portrayed as criminals, nuisances, or environmental offenders (Amuzu, 2018). Collectors especially face harassment, wrongful accusations, and violence from both authorities and community members (Amuzu, 2018). Despite their indispensable contributions to material recovery and urban waste management, they remain largely invisible within formal policy frameworks and excluded from urban development initiatives, reinforcing their socio-economic precarity (Asibey et al., 2020).

Applied to the case of Agbogbloshie, the EJ framework illuminates how displaced workers, already exposed to hazardous recycling practices, experienced compounded vulnerabilities following the demolition. Their eviction not only disrupted livelihoods but also relocated hazardous activities into new urban spaces, amplifying environmental risks, spatial precarity, and tensions with host communities.

## **CHAPTER 4: THE URBAN DEMOLITION LOGICS**

#### 4. Decoding the Logics behind the Demolition and Redevelopment of Agbogbloshie Scrapyard, Accra, Ghana<sup>1</sup>

##### Chapter Summary

Grounded in the theoretical lens of urban revanchism (Smith, 1996), this inquiry sheds light on the continuous marginalisation of informal e-waste workers by revanchist forces in emerging economies like Ghana. Urban revanchism refers to the forceful reclamation of urban spaces from specific marginalised groups. Delving into the logics and initiatives underpinning the forced expulsion of informal e-waste workers in Accra – where the informal sector employs a significant portion of the population – this qualitative study argues that the state’s pursuit of modern urban transformation is strongly motivated by neoliberal logics, rather than purely health and environmental protection or promotion concerns. The demolition of the Agbogbloshie scrapyard without exhaustive consultation puts the workers of this section in a marginalised position. The arbitrary nature of the demolition kicks out this sector from urban transformation planning that concerns its economic perpetuity, and its established routines and practices. Though the demolished site reinvents itself in another prime urban location, it loses profit and needs time to rebuild itself to its previous status if the state agencies allow it to do so without demolishing it again. Otherwise, this unsustainable cycle will continue. We suggest, therefore, that city authorities embrace a sustainable urban transformation that transcends the conventional strategies for inclusive redevelopment. Such urban planning includes the marginalised in the decision-making process, and execution for agreed displacements.

**Keywords:** Demolition Informal E-waste Workers Revanchism Scrapyard Urban Transformation

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<sup>1</sup>This chapter (4) is based on a peer-reviewed article published in Geoforum. Received 21 May 2024; Revised 28 November 2024; Accepted 30 November 2024. *Citation:* Sarpong, A.O., Müller-Mahn, D., & Osei, E. O. (2025). Decoding the Logics behind the Demolition and Redevelopment of Agbogbloshie Scrapyard, Accra, Ghana, *Geoforum*, Volume 159, 2025, 104180, ISSN 0016-7185, <https://doi.org/10.1016/j.geoforum.2024.104180>. *Copyright:* © 2024 The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>). *Credit Statement:* Akwasi Owusu Sarpong: Writing – original draft, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualisation. Detlef Müller-Mahn: Conceptualisation. Onallia Esther Osei: Writing – review & editing, Validation.

#### **4.1. Introduction**

Cities in sub-Saharan Africa (SSA) are undergoing massive socio-spatial transformations (Agyemang et al., 2019; Nikuze et al., 2019). In recent times, African governments, in a bid to modernise, have initiated a manifold of development projects and adopted pragmatic policies to address some of the inherent concerns of their urban economies (Miraftab, 2007; Myers, 2015; Olajide et al., 2018). As Akanbang et al. (2022) assert, much of the urban transformation of the 21st century is expected to occur in Africa. In response, most African cities have experienced a tremendous boom in large-scale urban development initiatives, encompassing housing, road and railway networks, electricity grids, and other critical infrastructure projects (Gillespie & Schindler, 2022; Müller-Mahn et al., 2021). Ultimately, these bold endeavors are driven by favourable economic growth indicators and a supportive business climate, thus triggering huge city transformation investments, particularly in cities like Accra, Ghana (Watson, 2014).

Ghana's population is rapidly urbanising, consistent with observed trends across SSA and other parts of the world (Agyemang et al., 2019; Awumbila et al., 2014; GSS, 2013; Songsore, 2003; UN-Habitat, 2009). As documented, rural-to-urban migration has dominated the country's urbanisation process, with cities like Accra and Kumasi emerging as primary beneficiaries (Cobbinah & Erdiaw-Kwasie, 2016; Fumagalli & Schaefer, 2020; Shamsu-Deen, 2013). Literature highlights poverty and limited job prospects among the youthful population, as the main contributory factors pushing people towards urban centres (Adu-Gyami, 2001; Anarfi & Kwankye, 2005; Anarfi et al., 2003; Awumbila & Ardayfio-Schandorf, 2008; GSS, 2013). This ongoing migration trend casts a shadow over destination cities, presenting them with a host of complex challenges (APC, 2020).

This trend is particularly evident as the urbanisation process, marked by infrastructure provision and job creation, has lagged far behind the surging population growth (Songsore, 2009). Consequently, cities like Accra are constantly grappling with growing issues of unemployment, unsanitary conditions, deteriorating infrastructure, acute housing shortages, the proliferation of informal settlements, and worsening environmental conditions (Lattof et al., 2018). These challenges are further exacerbated by the deteriorating state of much of the city's essential infrastructure, including housing, water, sanitation, electricity, and marketplaces (Asante, 2020; Jawando & Oluranti, 2020). As previous studies indicate (Cobbinah et al., 2015; Obeng-Odoom,

2008), this deterioration, coupled with the enormous strain on urban systems, has led to pronounced social and spatial challenges, tarnishing the city's appeal and making it less attractive to international investments (Amoah et al., 2018).

To stem this tide, authorities in cities like Accra have embarked on urban transformation projects (Asante, 2020; Fält, 2020; Oteng-Ababio & Owusu, 2014), i.e. a range of development schemes for contemporary infrastructure like schools, hospitals, roads, and factories (Amoah et al., 2018). These transformative projects offer significant advantages, such as mitigating health risks, reducing environmental hazards, revitalising communities, and providing job opportunities for the teeming youth (WHO, 2021).

Nonetheless, the ongoing pursuit of modernity does not seem to 'walk in tandem' with the realities of urban informal livelihoods (Olajide et al., 2018) and has consistently neglected the informal economy in which many urban dwellers and workers in Africa/the Global South earn their income for daily sustenance (Brown & McGranahan, 2015; Gillespie, 2015; Omoegun, 2015; Owusu, 2007). For example, interventions like urban renewal policies and programmes often prioritise decongestion (Oteng-Ababio & Grant, 2019), which leads to evictions and demolitions that disproportionately affect informal residential communities (slums) and trade activities of informal sector workers (such as e-waste recycling) (Crensil & Owusu, 2018; Fält, 2016; Gillespie, 2015; Lindell et al., 2019; Obeng-Odoom, 2011). One striking example is the state-led demolition of informal communities like 'Mensah Guinea' in Accra, where large-scale redevelopment projects such as the Marine Drive project have displaced residents in the name of urban revitalisation (Fält, 2016). There is also the removal of street vendors, hawkers, and squatters from their commercial and residential zones, due to congestion and unhygienic conditions stemming from their operations within the city centre (Adaawen & Jorgensen, 2012; Obeng-Odoom, 2011).

Agbogbloshie has gained notoriety in both academic and environmental NGO circles since 2000. A substantial body of research highlight the environmental challenges emanating from the area (Amankwaa et al., 2016; Brigden et al., 2008; Caravanous et al., 2011; Fobil et al., 2018). Other studies have also articulated some of the approaches that are often used by state actors in their quest for urban transformation and the impact of such approaches on urban spaces and their informal economies (Crensil & Owusu, 2018). Oteng-Ababio & Grant (2019) underscored the use

of decongestion exercises, demolition of informal settlements, and threats of relocation as mechanisms to regulate the growth of informality in the city. Despite these prior studies and insights, it is also a truism that very few academic works have empirically examined how state institutions use state apparatus as a mechanism to perpetuate their 'individual' neoliberal agendas, as rightly pointed out by Grant et al. (2024), Oteng-Ababio & Grant (2019), and Stacey et al. (2021).

This study seeks to address this gap by anchoring its analysis in the revanchism framework, examining how contemporary urban transformations in Accra are driven by state agendas that marginalise the informal sector. It utilises the forced eviction and demolition of the Agbogbloshie scrapyards (an incident that unfolded in Accra on July 1, 2021) as a case study to point out some of the rationales behind Accra's transformation policies and programmes. Specifically, the study seeks to address two primary research questions: (a) To what extent were environmental concerns used as a catalyst for the demolition of Agbogbloshie scrapyards? and (b) How did the demolition exercise, unleashed by state institutions, affect the urban poor?

The structure of the paper is outlined as follows: following the introduction, the theoretical framework is discussed, with a focus on the concept of revanchism to highlight its relevance to the study. Next, the research context and methodology are presented, detailing the justification behind the selection of Agbogbloshie as a case study and a historical overview of the scrapyards' evolution. Afterwards, we present a discussion of the empirical findings, which draws upon interviews with urban planners, civil society organisations, and e-waste managers, as well as an analysis of policy documents and programmes to uncover the underlying logic behind the demolition. The concluding section synthesises the findings and provides recommendations for future research.

#### **4.2. The Logic of Evictions and Demolitions: A Theoretical Underpinning**

This study is grounded in Neil Smith's (1996) neoliberal work of revanchism, a term drawn from the French word 'revanche', meaning 'revenge' (DeVerteuil, 2006). The scholarly contributions of Smith link revanchism to spatio-economic processes associated with exclusion, centering the historic New York City events around the end of the 20th century. Hence, he defines revanchism

as the vengeful reclamation of urban spaces from specific groups such as minorities, the working class, women, the homeless, sexual minorities, and immigrants, with the goal of creating a positive city image to attract global capital (Smith, 1996). These kinds of city projects have been labelled as the ‘veil’ of ‘urban redevelopment’ initiatives and are often cloaked under terms like ‘urban renewal’, ‘urban regeneration’, and ‘urban transformation’ (Asante & Helbrecht, 2020).

At its core, revanchism takes place by systematically erasing the unwanted or ‘undesirable’ from the urban landscape (Johnsen & Fitzpatrick, 2010; Neethi & Kamath, 2022; Smith, 1996; Swanson, 2007). In many instances, revanchism eliminates the ‘undesirable’ through cosmetic refurbishment, and privatisation of public and informal spaces like streets, parks, public toilets, recreational areas, and slum communities. This study relies on revanchism to expose how Accra’s e-waste scrapyards and its labourers became targets of exclusion, erasure, and physical displacement under the guise of urban development planning (Amster, 2003; Neethi & Kamath, 2022).

A growing body of scholarship highlights the rise of revanchist narratives in the systematic marginalisation of informal sector workers. For example, Smith’s (1996) seminal research demonstrates how revanchism has been embedded in domestic legislation and laws in the United States to ‘clean up’ public spaces patronised by tourists, the middle class, wealthy residents, and visitors. Similarly, in Ecuador, un-savory strategies embedded in urban renewal projects have been used to ‘clean’ the streets of informal workers, beggars, and street children, forcing them into very precarious situations (Kunkel, 2016; Swanson, 2007). Kunkel (2016) also explores how state-led urban renewal projects in Frankfurt have heightened the policing of marginalised groups, while Neethi (2020) highlights the persistent marginalisation of street-based sex workers in Bangalore, exacerbated by revanchist urban transitions. Johnsen & Fitzpatrick’s work in 2010 expanded the lens of revanchist urbanism, analysing its manifestations, and its impact on city spaces across four main dimensions: a) legislative (involving the criminalisation of street lifestyles); b) physical (encompassing the manipulation of urban spaces to exclude undesirable groups or activities); c) surveillance (entailing increased monitoring and policing of public or quasi-public spaces); and d) discursive (relating to the depiction of homeless people as unclean, dangerous, or culpable for their own plight). Similarly, Atkinson’s (2003) study, ‘Domestication by Cappuccino or Revenge on Urban Space’, identified four different perspectives that further shape our understanding of

revanchism and its pervasive influence on urban spaces. These include: a) a mode of governance that exercises control over the public realm and dictates approved uses of such space; b) a set of programmes designed to secure public space and regulate the behaviour of its users; c) a prophetic and dystopian image in which public spaces and the city are deemed to epitomise a form of urban malaise and distress, from which vengeful policies can act as an ameliorative; and d) economic objectives that link urban economic development to the need to secure capital investment (Atkinson, 2003).

Despite the breadth of these contributions, the concept of revanchism has faced substantial critique. DeVerteuil (2006), demonstrates how social welfare responses to homelessness counterweight the revanchist logic, which predominantly focuses on expulsions. Similarly, Hubbard (2004) highlights the gendered dimensions of neoliberal urban policies, arguing that Smith's revanchist framework inadequately addresses the gendered inequalities perpetuated by neoliberal policies in urban spaces. Others have characterised the concept as 'simplistic', 'dystopic', 'incomplete', 'narrow', 'inaccurate', and reflective of 'reductionist determinism' (Slater, 2017).

These criticisms notwithstanding, it is important to acknowledge the scale of the informal sector in Accra, which comprises approximately 62 % of the workforce (GSS, 2021). Such a huge sector makes the generous contribution for the social welfare a drop in the ocean. Thus, given the extensive size of the informal sector, even the most generous social welfare interventions could only benefit a limited number of those affected. Additionally, in most cases, government's response has often failed to adequately address the entrenched economic hardships in northern Ghana. For instance, the government's social interventions, such as hairdressing, tailoring, bricklaying, and carpentry, only equip beneficiaries with employable skills. However, the absence of access to start-up capital significantly constrains graduates' individual initiatives. Compounding this challenge is the chronic poverty in northern Ghana, which ultimately forces these beneficiaries to rejoin their compatriots in southern Ghana in search of better economic prospects.

Atkinson's study provides a critical foundation for understanding the dynamics of urban poverty and exclusion, particularly in relation to the state's role in shaping these processes (Atkinson, 2003). Atkinson emphasises that punitive state practices are not merely expressions of state power but are intricately connected to broader socio-political structures and relationships (Atkinson,

2003). In this context, the state's actions are both influenced by and instrumental in shaping the power dynamics among various stakeholders, including marginalised populations, policymakers, and the general populace.

Building on Atkinson's insights, DeVerteuil's (2015) notion of relational punitiveness offers a much-needed nuanced perspective. DeVerteuil rightly contends that punitive measures, particularly within a democratic dispensation, do not operate in isolation. Instead, their implementation requires a supportive framework to fringe legitimacy. This framework often includes a combination of social welfare measures and public discourse that legitimises state actions.

The displacement of informal e-waste workers from Agbogbloshie exemplifies these dynamics, with the state invoking environmental concerns, specifically, the open incineration of wires for copper extraction, as justification for the eviction of scrap dealers. However, a critical examination reveals significant shortcomings in this rationale. While the burning of wires poses environmental and health risks, existing interventions, such as those spearheaded by GIZ, had already established structures to train workers in adopting safer practices. Similarly, the Agbogbloshie Makerspace Platform had also envisioned a transformative approach, aiming to reimagine the scrapyards as a hub for innovation, sustainable entrepreneurship, and community collaboration. These initiatives directly complicate the justification for the eviction as the only viable solution.

The selective application of environmental concerns further complicates the state's position. While informal e-waste workers were targeted under the guise of environmental protection, other severe ecological issues in the vicinity, such as the heavily polluted Odaw River and the ongoing discharge of untreated human waste at 'Lavender Hill' – remain conspicuously neglected. This disparity underscores a troubling pattern: the state's punitive measures disproportionately target vulnerable informal workers, raising critical questions about the legitimacy and broader socio-political motivations behind these actions.

In this paper, we adopt the revanchist framework to offer a deeper understanding of the forces driving the demolition and eviction of informal e-waste workers in Accra. We explore how neoliberal urban governance systematically marginalises and displaces vulnerable populations, focusing on the policies and actions targeting the Agbogbloshie scrapyards and its labourers. By

analysing these strategies, the study aims to uncover the ways in which urban development strategies are deployed as tools of exclusion and erasure. The subsequent section delves into the study's contextualisation and methodology.

### **4.3. The Study's Context and Methodology**

#### ***4.3.1. Selection of Agbogbloshie and Historical Context***

Agbogbloshie readily came to mind for this study due to its 'notoriety and prominence' (see Grant & Oteng-Ababio, 2012a) as a major hub for e-waste processing in Ghana. This, coupled with its strategic position of less than a kilometre from Accra's central business district (CBD)(Agyei-Mensah & Oteng-Ababio, 2012; Amankwaa, 2013a; Grant & Oteng-Ababio, 2012; Oteng-Ababio, 2010a, 2010b), has made the otherwise waterlogged area the only available 'virgin and relatively safe land' for any future development within the CBD. Thus, in spite of its industrial potential and prominence, Agbogbloshie's geographical location has locked the settlement in decades-long battle for survival, continuously being threatened by imminent eviction, displacement, demolition, and erasure. These threats, spanning from 2000, culminated in a large-scale demolition of the scrapyards in 2021. Agbogbloshie has since become a flashpoint in the larger struggle of urban survival and restructuring in Accra's cityscape (Grant et al., 2024).

The scrapyards' origins date back to 1991, when Accra Metropolitan Assembly (AMA) officials sought to ease congestion in key areas of the city to improve pedestrian mobility and vehicular flow (Akese & Little, 2018; Davis et al., 2019). This move was part of preparations for the Non-Aligned Movement (NAM) Conference (Amoako, 2016; Amuzu, 2018). Consequently, hawkers were relocated to the periphery of Agbogbloshie, particularly along the Abossey-Okai main road. Following this shift, Accra's wholesale yam market underwent a similar transition to Agbogbloshie two years later (Davis et al., 2019). This transformation turned Agbogbloshie into a major wholesale food distribution centre, serving Accra and its surrounding areas (Davis et al., 2019).

The market's expansion spurred high demand for labour, leading to the emergence of ancillary services such as vehicle repair, auto parts trading, welding, and tyre servicing (Afenah, 2012). These services eventually evolved into a major scrap market (Afenah, 2012), positioning Agbogbloshie as a central hub for e-waste activities in Ghana (Davis et al., 2019; Grant, 2006).

Over time, the site became a dumping ground for obsolete electronics – computers, televisions, and other household waste (Asante et al., 2012). The area’s population swelled further after the 1995 ethnic conflict in northern Ghana involving the Kokomba, Nanumba, and Dagomba groups, which triggered a mass migration of northerners to Agbogbloshie in search of employment and refuge (Amoako, 2016; Amuzu, 2018; Farouk & Owusu, 2012).

Between 2000 and 2017, e-waste workers engaged in a protracted struggle with city authorities over their workspace (Oteng-Ababio & Grant, 2020). Their informal activities, characterised by manual dismantling and open burning, released harmful pollutants and heavy metals into nearby water bodies, such as the Odaw River, and negatively impacted adjacent markets and residents (Grant & Oteng-Ababio, 2016; Oteng-Ababio, 2012b). These environmental and public health concerns prompted a series of court-ordered eviction notices (Farouk & Owusu, 2012; Okyere et al., 2021, p. 265; Oteng-Ababio & Grant, 2019). Ultimately, this prolonged contention culminated in 2021, when the Ghanaian government, led by former Greater Accra Regional Minister Henry Quartey, forcibly evicted the e-waste workers and demolished the Agbogbloshie scrapyards (Owusu-Sekyere et al., 2022).

This significant event – the demolition of Agbogbloshie – forms the focal point of this research. The site’s transformation, culminating in its demise, serves as a stark illustration of the revanchist forces at play within Accra’s urban development strategies. Fig. 16 displays the aerial view of Agbogbloshie prior to its demolition, while Fig. 17 shows the site from an aerial perspective after the demolition.



*Figure 16. Aerial view of Agbogbloshe before the demolition*  
*Source: Chasant, 2021a.*



*Figure 17. Aerial view Agbogbloshe after the demolition.*  
*Source: Photograph by author, 2022.*

### 4.3.2. Data Collection Methods

The study utilises primary and secondary data sources to address the research objectives. To shed more light on the logics behind the demolition, we collected primary data over a period of five months (August to December 2022) for this paper. This primary data comprised twenty-two semi-structured interviews with key stakeholders purposively selected from governmental and non-governmental institutions, whose actions influence e-waste management and Accra planning, as well as their direct or indirect involvement in the demolition process (see Table 8 for the list of institutions interviewed). Key stakeholders were interviewed regarding their perspectives on the demolition and eviction processes, the underlying motivations, the implementation process, the roles of various actors involved, and the nature of engagement among state actors involved in the demolition and subsequent urban redevelopment of the Agbogbloshie scrapyard as part of Accra’s transformation project. Gaining access to certain high-level stakeholders, such as the Greater Accra Regional Minister and prominent figures at the Regional Coordinating Council (RCC), to obtain their perspectives on the demolition and eviction process, posed considerable challenges. Compounding these challenges was the fact that other stakeholders interviewed presented conflicting viewpoints regarding the demolition.

<b>S/ N</b>	<b>Institutional Actor</b>	<b>Type</b>	<b>Participants</b>
1.	Land-Use and Spatial Planning Authority (LUSPA)	Government	2
2.	Environmental Protection Agency (EPA)	Government	2
3.	Accra Metropolitan Assembly (AMA)	Government	2
4.	National Development Planning Commission (NDPC)	Government	2
5.	Ministry of Environment, Science Technology, and Innovation (MESTI)	Government	2
6.	National Youth Authority (NYA)	Government	1
7.	Greater Accra Regional Coordinating Council (RCC)	Government	2
8.	Ablekuma Central Municipal Assembly	Government	1
9.	GIZ Country Office Ghana	Private	1
10.	GIZ Technical Training Centre (TTC)	Private	1
11.	Old Fadama Clinic	Private	1
12.	Lambda Metals	Private	1
13.	N.N.EST Metals Company Limited	Private	1

14.	Agboglobshie Scrap Dealers Association	NGO	1
15.	Green Advocacy Ghana	NGO	1
16.	People’s Dialogue	NGO	1
Total	—	—	22

*Table 8. List of institutions interviewed.*

*Source: Author’s compilation, 2025.*

Complementing the interviews, we conducted six (6) focus group discussions (FGDs) with workers from the scrapyards, representing diverse segments of the e-waste management value chain, including collectors, dismantlers, scrap dealers, recyclers, middlemen, and repairers (Amankwaa et al., 2016). Each discussion group consisted of eight (8) participants, totaling forty-eight (48) individuals. The discussions primarily focused on their perceptions of the demolition and eviction, the execution process, and their level of engagement with state actors throughout these events.

For ethical considerations, participants provided oral consent prior to the interviews and in FGDs, with all consenting to the digital recording of their contributions. To ensure data confidentiality, participant identities were anonymised. Ethical approval for this research was granted by the ZEF Research Ethics Board, Centre for Development Research, University of Bonn. The primary data were transcribed and analysed using NVivo, a qualitative analysis software, that facilitated the identification and extraction of the key themes discussed in the paper.

Additionally, we employed Geographic Information System (GIS) techniques in our study to systematically document the spread of electronic waste (e-waste) sites across the urban landscape of Accra following demolition activities. Specifically, the study utilised ArcMap software to analyse the spatial distribution of e-waste sites and their associated flow patterns. Fig. 18 outlines the methodological steps, including the conversion of e-waste points into shapefiles, extraction of relevant data from the Ghana District Data available through the University of Ghana RSGIS Lab website, execution of flow output data clipping, implementation of flow map analysis, and the symbolisation of e-waste sites on the generated maps.

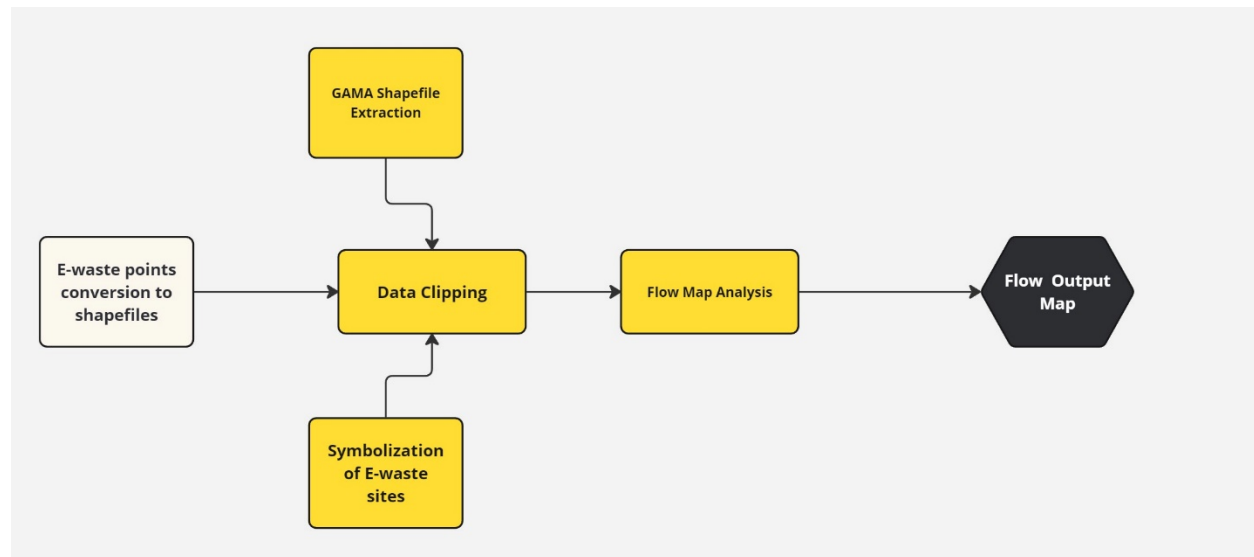


Figure 18. Conceptual framework of e-waste flow map analysis.  
Source: Author's construct, 2022.

To provide a holistic understanding of the interconnections between practices, policies, and integration of informal sector workers, we conducted an analysis of complementary secondary data sources, including key Ghanaian government policy and programme documents. Our analysis focused on long-term urban development/planning policies and frameworks relevant to the urban landscape of Accra from 1991 to the present. Key documents reviewed include the *Strategic Plan for the Greater Accra Metropolitan Area*, the *National Urban Policy Framework*, the *Ghana National Spatial Development Framework (2015–2035)*, the *Long-term National Development Plan (2018–2057)*, the *Ghana Infrastructure Plan (GIP) (2018–2047)*, the *Ghana @ 100 Framework*, and the *Structure Plan for the Greater Accra Metropolitan Area (GAMAPLAN2040)*.

Utilising advanced document analysis (Bowen, 2009), each document was meticulously evaluated to assess its scope, objectives, and relevance to the research focus. We subsequently identified salient themes and issues within them, particularly those pertaining to the informal economy, highlighting specific interventions and strategies designed to support and promote the livelihoods of workers in the informal economy. A time series analysis was conducted, tracing the evolution of the state's stance on the informal sector in urban planning, from early policy positions to contemporary perspectives (see Appendix 3 for a detailed time series analysis of long-term state policies and programmes). Following this national level analysis, we synthesised the findings with regional policies specific to Greater Accra Metropolitan Area (GAMA) to identify areas of convergence and divergence. This integrative approach provided a comprehensive understanding of how national-level plans align with GAMA's policies on the informal economy.

#### **4.4. Findings and Discussion**

##### ***4.4.1. Mapping Policy Pathways: Informal Economy Integration***

While urban transformation yields positive benefits for the country, it is imperative to recognise the indispensable role of the informal economy in the country's developmental trajectory, particularly given that 89% of the population operates within this sector (Baah-Boateng & Vanek, 2020). Quite distinctively, the policy attention given to this sector, coupled with a coherent strategy aimed at addressing the complexities of the urban informal economy and sustaining its livelihoods, is remarkable.

Our findings (see Appendix 3 for details) validate this policy emphasis, demonstrating the substantial integration of the informal economy into both the city and national government's developmental frameworks. Each policy document reviewed articulates distinct visions, strategic directives, and substantive provisions aimed at fostering the inclusion of the informal economy within the urban milieu. Importantly, GAMA's policy perspective closely mirrors the national stance, acknowledging both the challenges of the informal sector and advocating for measures to regularise, integrate, and enhance the livelihoods of its workforce. This convergence underscores the shared priorities between the state and GAMA, indicating a collective recognition of the sector's significance and a commitment to its inclusion within Accra's urban development framework.

For instance, a critical analysis of key policy documents, such as the *Ghana@100 Framework*, the *Long-term National Development Plan*, the *National Urban Policy Framework*, the *Strategic Plan for the Greater Accra Region*, and the *Structure Plan for the Greater Accra Metropolitan Area*, reveals a consistent emphasis on integrating the informal economy into formal structures. Of particular significance is Section 3.3 of the National Urban Policy Framework, which outlines four strategic priorities for addressing the needs of the informal sector: (a) shifting official attitudes toward the informal enterprises, from neglect to recognition and policy support; (b) ensuring that urban planning accommodates the activities of the informal economy; (c) enhancing and upgrading the operational capacities of informal enterprises; and (d) improving financial support for the informal economy.

Given the comprehensive nature of these policy frameworks, which explicitly advocate for greater inclusion of the informal sector, one might reasonably expect the government to explore ways of integrating the operations of e-waste workers rather than displacing them. However, the apparent disconnect between stated policy objectives and the exclusionary actions undertaken by city authorities during the demolition of the Agbogbloshie scrapyards suggests a significant lack of coherence in effectively addressing the challenges associated with informal sector labour, particularly that of e-waste workers. Such practices reflect the underlying revanchist tendencies among city authorities as they relentlessly pursue urban modernisation, often at the expense of marginalised populations.

#### ***4.4.2. Rationales behind the Eviction and Demolition of Agbogbloshie***

Drawing on the seminal works of Atkinson (2003), Johnsen & Fitzpatrick (2010), and Smith (1996), this study aims to elucidate how the eviction and demolition of Accra's e-waste scrapyards and its labourers were rooted in the insidious workings of urban revanchism, a theoretical construct that portrays certain groups or activities as 'undesirable' and consequently pushed out of urban spaces in favour of a more sanitized and modern urban environment. The Agbogbloshie eviction epitomises this dynamic, where e-waste workers, demonised for their environmental and health impacts, were expelled to make room for a 'civilised' reimagining of Accra's urban future.

The primary reasons proffered by stakeholders for the demolition of the Agbogbloshie scrapyards centered on the health and environmental risks posed by the activities of the workers. This is not

surprising, given that informal e-waste workers, between the epoch of 2000 and 2017, were subjected to a series of evictions due to the negative environmental and health impacts of their operations (Crentsil & Owusu, 2018; Doe, 2015; Farouk & Owusu, 2012; Gadugah, 2013; Okyere et al., 2021, p. 265; Oteng-Ababio & Grant, 2019). Indeed, evidence from interviews with key stakeholders further corroborates this assertion. For instance, a representative at the Ablekuma Central Municipal Assembly stated:

*The major problem was the environmental hazards, as it became necessary to salvage the city from these activities to keep the place healthy and environmentally friendly. (Research Interview, September 2022).*

A representative at the People's Dialogue stated:

*...Like I said, it was all about decongestion. Accra must be clean, and the first place of target was that place because there is so much filth due to their presence. So, the Regional Minister thought they were the first people to address, and when you remove them, you can bring some sanity to the environment around there. So, first was to decongest and make Accra clean, that was their intention. (Research Interview, October 2022).*

A representative at the E-waste programme at GIZ commented:

*There were quite a number of calls over the years, not now, for these people to be moved out of the area. They were messing up the area, burning cables, and the place harboured criminals. All manner of vices was happening at the scrapyards. (Research Interview, September 2022).*

The leadership of the Agbogbloshie Scrap Dealers Association expressed grave concerns about environmental pollution as the main cause for their eviction:

*But you know, we were many, and when you are many like that, things sometimes get out of hand, especially the burning. The burning of the copper wires was our main problem, and we had difficulty to control it. Because if you control them during the daytime, at night, they will come and do it. And so, all the time you would*

*see smoke emanating from this side. Every day, everybody could see it. (Research Interview, October 2022).*

The convergence of these pressing environmental and public health concerns culminated in wiping out what was deemed ‘undesirable’, paving the way for a more sanitised, aesthetically pleasing, and economically viable urban landscape. For example, a representative at the Land-Use and Spatial Planning Authority encapsulated this agenda, stating:

*The rationale was that they were a nuisance as far as the aesthetics of the place were concerned. They were contributing to the environmental injury, they were serving as criminal dens, and that they were sitting on land with low-value businesses relative to the potential value of the land. (Research Interview, September 2022).*

Notwithstanding, some stakeholders objected to the manner in which the eviction was carried out. For example, a representative at the Land-Use and Spatial Planning Authority remarked:

*I do not think the process was fully thought through, because it would not have turned out the way it did. (Research Interview, September 2022).*

These perspectives, articulated by stakeholders, underscore a recurring narrative within urban governance, where city authorities frequently employ revanchist language, framing the informal economic activities of the urban poor as contributors to filth and disorder (Gillespie, 2015). Consequently, evicting them from the Central Business District (CBD) is hailed as an act of vengeance against those who jeopardise efforts to transform the city of Accra (Gillespie, 2015). Such observations find parallels in a study conducted in Fresno, California, where city officials justified the bulldozing of homeless encampments under the pretext of sanitation issues, framing these evictions as imperative steps to address the health and environmental challenges (Speer, 2016). The government’s decision to evict workers from Agboglobshie, ostensibly justified by environmental and health concerns, raises critical questions about its alignment with broader policy objectives aimed at integrating the informal economy and promoting sustainable urban development.

#### ***4.4.3. The Persistence of Informal E-waste Recycling Activity after the Demolition***

Despite the various justifications put forth by stakeholders regarding the health and environmental hazards, the eviction and demolition of the Agbogbloshie scrapyards and its labourers had a profound impact on the e-waste trade landscape, resulting in a significant shift in its dynamics. Upon physical observation of the area, many of the workers have relocated their operations to the adjacent Old Fadama slum, located next to the demolished site. Others have dispersed throughout various residential areas and urban spaces in Accra, where they continue to engage in manual e-waste recycling and processing, with all the accompanying health and environmental consequences. These newly established sites have evolved into mini e-waste hubs, serving as critical nodes for a myriad of activities, including collection and transfer points, weighing, dismantling, recycling, and burning.

Comprehensive transect walks and spatial mapping exercises undertaken along the corridors of Accra have led to the identification of twenty-two new e-waste hotspots (see Figs. 19 and 20), thus resulting in the disintegration of one unwanted site into many undesirable sites within the city. As Obeng-Odoom (2011) asserts, such neoliberal actions used by city authorities only shift the problem. The very issues that justified the initial demolition of the Agbogbloshie scrapyards continue to fester under the watch of city authorities, as the e-waste trade has simply relocated adjacent to the demolished site. This raises the critical question of why no further action has been taken. It seems apparent that there may be underlying motives beyond the professed concerns regarding health and environmental risks. In an interview with a representative from GIZ, he candidly expressed that, in his assessment, the primary rationale for the demolition was that the government required the land for developmental purposes. The representative elaborated on this perspective, stating:

*Getting the land from the people, in my view, was the deciding factor. That is if you look around Accra, it is very difficult to find land anywhere. You will not find any land to put up anything until you demolish, or you clear old lands. This is the only prime land within the CBD. (Research Interview, September 2022).*

These findings corroborate the research conducted by Macki et al. (2014), which posits that the first battleground of revanchism revolves around the contestation of public space. The outcome of

this battle results in the systematic reclamation of urban spaces from marginalised groups, who are forcefully evicted (Neethi, 2020). Moreover, these findings reinforce the assertions put forth by Byerley (2013), contending that urban redevelopment initiatives often serve as mere window dressing, concealing acts of land-grabbing.

Amid these unfolding circumstances, the scattered nature of workers now presents significant regulatory challenges for city authorities. The environmental hazards that once plagued a centralised location are now dispersed across residential neighbourhoods and other urban spaces, inadvertently widening the problem and increasing the scope of public health and environmental risks.

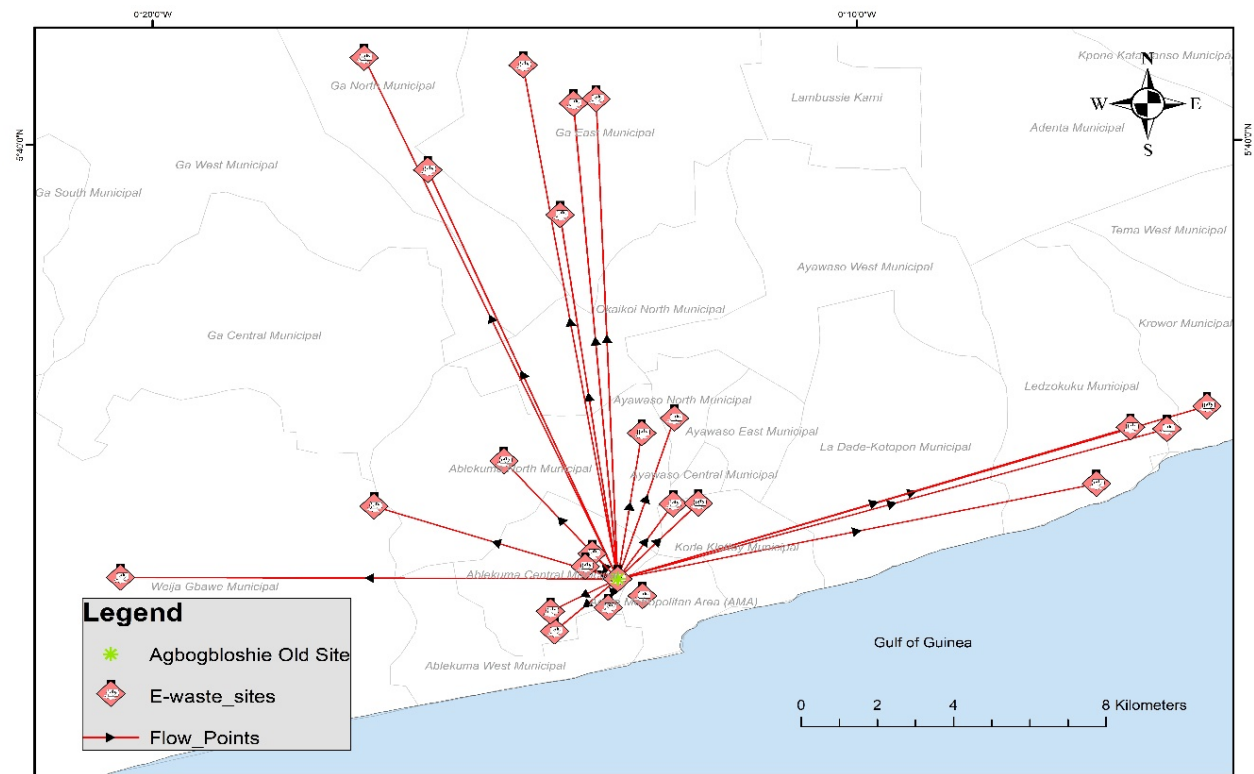


Figure 19. Spatial flow map of emerging e-waste sites in the Accra Metropolis.  
 Source: Field data, 2022, processed and mapped using ArcGIS.



*Figure 20. Emerging e-waste site in a residential area - Ashongman Estate  
Source: Photograph by author, 2022.*

#### **4.4.4. Lack of Consultation regarding the Demolition**

Like the scrap dealers, some government officials felt sentimental about their involvement in the demolition of the Agbogbloshie scrapyards. The demolition and eviction processes were carried out unilaterally, under the direction of the former Greater Accra Regional Minister, devoid of sufficient consultation with key stakeholders in the e-waste sector and urban planning, most notably, the very workers whose livelihoods hung in the balance. This blatant absence of consultation emerged as a prominent theme during in-depth interviews with key institutional actors, including representatives from the Land-Use and Spatial Planning Authority, the Physical Planning Unit of the Accra Metropolitan Assembly, the Environmental Protection Agency, the Ablekuma Central Municipal Assembly, and GIZ, alongside civil society organisations such as People's Dialogue, which advocates for the rights of marginalised communities, and Green Advocacy Ghana, which promotes sustainable solutions in the management of e-waste.

One official from the Physical Planning Department at the Accra Metropolitan Assembly, the body responsible for advising the district on national policies related to physical planning, land use, and development, was forthright in critiquing the demolition. The representative argued that the demolition initiative falls under the remit of the planning authorities and that the Regional Minister ought to have consulted with the respective institutions prior to assuming these responsibilities. The representative further stated:

*If the Assembly had been adequately resourced to work, it would have yielded great results. (Research Interview, October 2022).*

The representative from the Land-Use and Spatial Planning Authority also commented:

*We were not consulted. Because of the, let me say, blemished relationship, the whole enterprise was seen as a security thing rather than a developmental business. So, it was like a war field rather than a business enhancement meeting session with the people. That is why, from the beginning, it was just the security agencies that were doing their thing in partnership with Zoomlion as waste collectors to collect the debris. It was only afterward that we, together with the Regional Coordinating Council, EPA, and the Land Commission, were brought in to discuss the best use of the site. (Research Interview, September 2022).*

Similarly, during an interview with a representative from the Environmental Protection Agency, it was revealed that they were neither consulted nor did they participate in the demolition exercise, a sentiment that was also eloquently echoed by the representative from GIZ, who remarked in an interview as follows:

*From the beginning, many blamed us because they believed we knew about the demolition and did not inform them. (Research Interview, September 2022).*

It can be deduced that the scrap dealers expected GIZ officials to have informed them about the impending demolition exercise before it occurred. However, as the study revealed, the GIZ officials were equally uninformed and not consulted about the exercise, yet they suffered unfair accusations from the scrap dealers. This unfair treatment was particularly striking, given GIZ's pivotal role in advancing sustainable e-waste management practices in Ghana. For example, in

2016, GIZ made a significant investment of €5 million through a collaborative partnership with the Government of Ghana and the Federal Republic of Germany (Grant & Oteng-Ababio, 2021). As part of this initiative, a Technical Training Centre (TTC) was established in 2019 to train scrap dealers on environmentally sound practices for dismantling and recycling. Additionally, the Old Fadama Clinic was set up to address the healthcare needs of workers and residents of surrounding communities (Bungert, 2022). Regrettably, the demolition led to the collapse of the TTC, resulting in the layoff of all its workers and a significant reduction in patronage at the healthcare facility, with recorded visits decreasing from 262 in 2021 to 151 in 2022, and further declining to 56 in 2023, as indicated during an interview with the healthcare facility manager.

From the perspective of the e-waste workers, their participation in the decision-making process regarding their eviction was conspicuously absent. Their only involvement occurred during a meeting convened by the Ablekuma Central Municipal Assembly, where officials casually disclosed plans to carry out an eviction operation exclusively targeting ‘onion sellers’, another group of informal workers operating in the Agbogbloshie area. Supporting this claim, the workers also heard radio broadcasts and witnessed mobile advertisements in the Agbogbloshie area, announcing the relocation of ‘onion sellers’ to Adjen Kotoku on July 1, 2021.

During an interview with the interim General Secretary of the Agbogbloshie Scrap Dealers Association (ASDA), he revealed that the ‘onion sellers’ had received formal notification about their impending eviction. The Regional Minister, acting with urgency, orchestrated a meticulous plan to prepare the designated space in Adjen Kotoku for the ‘onion sellers’, by making donations, constructing pavilions, and providing essential amenities to facilitate their smooth transition. Reflecting on this situation, the interim leadership of ASDA expressed their concerns:

*...You see, if such a thing was going to happen, at least we should have been informed and given a timeline to work towards. Everybody around knows that one day, someday, we would not be here. So, we started preparations to see whether we could find a place that was conducive for us to operate. We were preparing for that before they took us by surprise. Ehr... so, from that angle we thought it was unfair. (Research Interview, October 2022).*

Workers in a focus group discussion expressed their perception of the demolition and eviction, describing it as an unfavourable action. They highlighted the lack of adequate consultation by both their leadership and government officials prior to the demolition, emphasising the profound impact on their operations. This situation has resulted in a loss of income and posed considerable challenges related to their current business location. One individual involved in scrap dealing remarked:

*This has affected us. See the way we are suffering here. At the old place, we had a place where we could keep our 'irons' for months, but here, even one week is hard. Something will just come and carry them away, like rain or this river. So, it has affected us. If it rains right now and the river is full, it will carry the 'irons' away. (Focus Group Discussion, December 2022).*

Another participant echoed this sentiment, noting:

*It has affected our business very much. You know that here we do not have a place to keep the parts or even a place where we will sit and dismantle because there is not even space here. Initially, at 'Sickens', if you found some valuable parts, you could put them around, and someone would come and buy them. But here, we do not have space for that. The generator plant there is mine; if it were at 'Sickens', it would have been sold a long time ago. But here, there are no customers, and I have a lot of money tied up in that too. (Focus Group Discussion, December 2022).*

The absence of consultation highlights a significant disjunction between policy intent and the Minister's actions, ultimately undermining the objectives outlined in state policies, such as the GAMA Structure Plan. This plan emphasises the importance of involving informal e-waste collectors to address their concerns and promote environmentally sustainable e-waste management practices. Furthermore, it advocates for enhancing capacity development within the framework of the Hazardous and Electronic Waste Control and Management Act, 2016 (ACT 917), to support informal sector workers in effectively managing e-waste.

The failure to adhere to these guiding principles contradicts the overarching policy objectives, hinders progress toward sustainable e-waste management practices, and reinforces the revanchist

approach inherent in the Regional Minister's decision to evict workers. This approach, characterised by its aggressiveness and impulsivity, has been described by some scholars as 'machoistic', reflecting an unwavering and confrontational stance toward informal sector workers (Obeng-Odoom, 2011).

#### ***4.4.5. Lack of a Structured Plan for the Demolition and Eviction Procedures***

The 'Let's Make Accra Work Again' (LMAWA) campaign (see Fig. 21 for its design) serves as the main anchor programme propelling the AMA's urban development strategy, aimed at modernising and sanitising the city of Accra. Led by the former Greater Accra Regional Minister, the LMAWA campaign was positioned as a key instrument for the city's transformation and served as the primary framework for the demolition of Agbogbloshie scrapyards and the subsequent eviction of its workers. Despite its prominence, a revealing interview with a senior executive at the Greater Accra Regional Coordinating Council exposed a critical flaw: the initiative lacks a clear, cohesive blueprint to guide its ambitious goals, leaving its execution largely unstructured.

In our critical analysis of the LMAWA campaign, we applied Atkinson's (2003) strands of revanchism (see Table 9) to unravel the revanchist undertones embedded within the programme. First, revanchist policies serve as a mode of governance to control the public realm and dictate acceptable uses of such spaces. This is clearly observable, as it has been embraced by the various Metropolitan, Municipal, and District Assemblies (MMDAs), reinforcing state control over urban spaces. Second, such policies often masquerade as beautification efforts aimed at securing public spaces. The LMAWA, spearheaded by the former Greater Accra Regional Minister, epitomises this, using the banner of urban beautification of Accra to justify the forceful eviction of informal e-waste workers from Agbogbloshie. Third, revanchist policies frequently draw on a dystopian narrative of social decay, portraying marginalised groups as contributors to a downward spiral. By disregarding the livelihoods of e-waste workers and branding them as 'undesirable' elements, the LMAWA positions them as unfit for the city's future. Finally, revanchist policies are often tied to economic objectives, though the LMAWA, strikingly, lacks any coherent set of goals or a comprehensive strategic framework to effectively guide its implementation.

<b>Revanchist Strand</b>	<b>Let's Make Accra Work Again (LMAWA) Initiative</b>	<b>Policing in Accra</b>
A mode of governance	Yes. Implemented by MMDAs to bring sanity and orderliness to the local region.	Yes. Based on 5 pillars, namely security, health, education, sanitation, and indiscipline.
A set of programmes	Yes. Sole declaration by the Minister to make Accra a cleaner city.	Yes. A clear political direction to bring order and sanity to the region.
A prophetic and dystopian image	Yes. Fails to accommodate the livelihoods of the urban informal economy.	Yes. Demolition activities targeted at informal work.
A reference to economic objectives	No. Yet, no definite plan to guide the execution of the project.	Yes. Eradication of slum communities and informal sector livelihoods.

*Table 9. Strands of Revanchism.  
Source: Adapted from Atkinson, 2003.*



*Figure 21. An image of the LMAWA campaign on the wall opposite the old Agboghloshie scrapyards.  
Source: Photograph by author, 2021.*

Indeed, Obeng-Odoom (2010), in his influential work on ‘urban twist to politics in Ghana’, emphasised the importance of the physical beautification of urban spaces as an intrinsic component of urban development plans, often prominently featured in the political manifestos and agendas of Ghana’s ruling parties (Obeng-Odoom, 2010). Previous initiatives, like the Millennium Cities Initiative (MCI), followed a similar trajectory, championing the beautification of Accra as a marker of modernisation (Gillespie, 2015). Yet, these schemes, created under the pretext of urban modernisation, often inadvertently target informal communities and informal workspaces, often deeming their activities incompatible with the ideal urban environment (Gillespie, 2015).

This raises critical questions about the practicalities of implementing urban interventions and programmes, including the cited ones. Many urban transnational policies and programmes, despite their lofty goals, appear to be largely rhetorical in nature, as they lack clearly defined operational frameworks for effective execution. As Atkinson (2003) points out, such programmes often serve as tools of governance aimed at controlling public space, particularly in areas occupied by marginalised groups.

The LMAWA epitomises this trend, spearheaded by the former Greater Accra Regional Minister, yet contradicts the inclusive approach advocated in governmental policies and frameworks, as discussed earlier. Although the government’s overarching policies do not label the informal sector as a burden or urban nuisance, the initiatives and actions undertaken by the city authorities, particularly through the LMAWA, reveal significant contradictions. The failure to incorporate the livelihoods of informal e-waste workers into the city’s development plans highlights a fundamental disconnect between policy rhetoric and on-the-ground execution. This divide between policy discourse and the operational actions of city authorities underscores the deeper, revanchist impulses driving Accra’s urban transformation.

#### ***4.4.6. Redevelopment of the Reclaimed Land in Agbogbloshie***

In the ongoing redevelopment of Agbogbloshie, stakeholders have overwhelmingly expressed satisfaction with the site’s transformation. However, a significant concern has emerged: the blatant exclusion of e-waste workers from the redevelopment agenda. A detailed analysis of the proposed plans for the area reveals that most projects are oriented towards serving the interests of the elite, with little to no consideration for the needs of the informal sector. This pattern of exclusion aligns

with Obeng-Odoom's (2013) observation that urban redevelopment in Ghana tends to disproportionately favour affluent households and corporate interests, while displacing marginalised populations and small-to-medium-scale enterprises.

In an interview with a representative from the Environmental Protection Agency, the necessity of redeveloping the Agbogbloshie scrapyards was emphasised, describing the previous state of the area as a blight in the heart of Accra. Nevertheless, he promptly added that this redevelopment ought to be inclusive. He remarked as follows:

*...Development should put in context, a development that promotes people's livelihood and all that, not just development. (Research Interview, November 2022).*

Similarly, in an interview with a representative from the Land-Use and Spatial Planning Authority, he critiqued the hasty nature of the redevelopment, describing it as insufficiently thought out:

*...It is good. But I will say that it is an intervention that can be considered abrupt; it is an abrupt decision and a plan. It has not been fully and carefully thought through. It is good, but I don't think the intervention as currently being implemented offers a win-win option to all. When I say win-win, the one being removed must win, and the one removing which is the state authority must win. When I say win, maybe our interest is to see a much nicer environment, less crime, less pollution, and fewer heavy metals. We all know how these things work. The activities that go on are very chaotic. But must this heavy cocktail of informality also be considered merely a nuisance rather than an attempt for a segment of our population to survive? That is why most of our people see them as a nuisance rather than as partners in development. (Research Interview, September 2022).*

A representative from GIZ endorsed the idea of redevelopment but keenly pointed out that the site presents formidable challenges. Therefore, if the site is to be redeveloped, its accompanying flooding-related issues must be addressed:

*...That entire enclave and stretch is a flood-prone area. (Research Interview, September 2022).*

The representative from Peoples' Dialogue reaffirmed their organisation's support for the redevelopment initiative but highlighted a recurring pattern of exclusion, noting that such actions often prioritise the affluent, as observed in previous cases. Additionally, he stated that it would have been desirable for a portion of the space to be designated for a slum upgrading programme. He remarked:

*"...Because whenever such actions are taken, they are selling the land to the rich. But sometimes, when 'Akwasi' (referring to the interviewer) has kept a place and you want to take it, at least you give 'Akwasi' a share, that is our point. We are saying that when people squat on land, whether you agreed with them or not, at least for you take it back, perhaps because of their presence, the land has remained intact. Without them, it would have been shredded into pieces, and you wouldn't have anything. So, compensate them a little and give them something. If an acre or two could be allocated to the squatters, it would help reduce the dense population at the Old Fadama slum." (Research Interview, October 2022).*

Likewise, the interim leadership of ASDA expressed support for the redevelopment of the site, citing the unsuitability of their operations in the heart of the city. A key concern raised was the overall outcome of the demolition process. One leader noted that, had they been relocated like the 'onion sellers', they would not have encountered significant challenges. Unlike the scrap dealers, the 'onion sellers' were afforded ample time to vacate the premises at Agbogbloshie, and arrangements were made for their resettlement at Adjen-Kotoku with government assistance. Frequent engagements with top officials, including the President of Ghana, Nana Addo Dankwa Akufo-Addo, and the former Greater Accra Regional Minister, ensured a smooth transition for the onion sellers (Arhinful, 2021). In stark contrast, the scrap dealers received no equivalent support, with one ASDA leader stating:

*...The real issue wasn't the redevelopment; it was the manner in which they handled us. We felt sidelined and disrespected throughout the process. It wasn't just about losing our space; it was about the lack of communication and support from the authorities. While others, like the 'onion sellers', were given adequate notice and*

*assistance, we were left in the dark, forced to navigate the uncertainties without any guidance or help from the authorities. (Research Interview, October 2022).*

Insights from the workers, drawn from focus group discussions, suggest that they do support the redevelopment of the site and initiatives earmarked for it, particularly the fact that the land has been taken from them. Despite their apparent support, they expressed growing frustration over the land's stagnation, remaining underutilised and underdeveloped even years after the demolition. Notably, in relation to the redevelopment, they proposed that a portion of the land could be developed to enable them to sustain their operational activities, a proposition congruent with Cross's (2000) argument, which posits the possibility of zoning specific areas to accommodate informal workers and allowing them to continue working within the rapidly evolving urban environment.

Amidst the ongoing developments, doubts linger about the potential success of the entire redevelopment, especially given the failure of the previous administration to deliver on similar commitments (Gillespie, 2013). On May 6, 2022, the Chief of Staff at the Presidency inaugurated a Technical Committee, led by the Land-Use and Spatial Planning Authority, to propose land use zoning plans for the reclaimed land. During the committee's deliberations, significant concerns emerged regarding the susceptibility of the area to severe flooding and its proximity to an earthquake zone, casting a shadow over its suitability for various land uses.

In response to these challenges, the technical team, following extensive consultations, proposed three scenarios for evaluation to determine which land use plan would be most appropriate for the site. Scenario 1 – Existing Plan – embodies the Accra Korle Lagoon Recreational Area Planning Scheme, featuring parks, botanical gardens, bird aviaries, sports facilities, a boat racing track, restaurants, and light commercial activities. Scenario 2 – Compromise – offers a mix of the green recreational concept of the original plan and urban mixed uses such as civic and cultural spaces, green spaces and recreational areas, and commercial development. Finally, Scenario 3 – Built-Up Mixed Use includes high-and-medium-rise buildings, with mixed-use residential and commercial development along with civic and cultural activities. After careful consideration of the proposed

land use scenarios, the Compromise land use plan (Scenario 2) was found to be the most appropriate (see Figure 22).

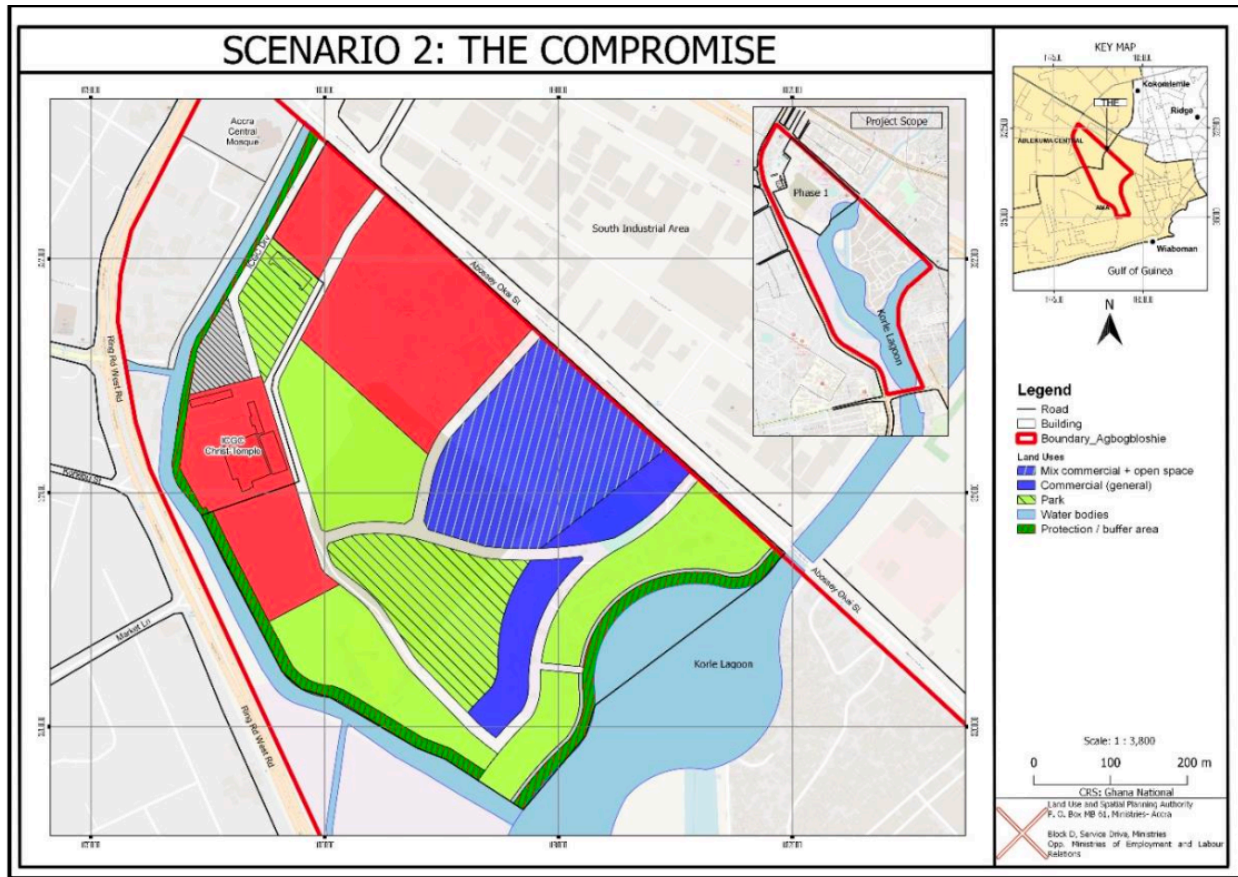


Figure 22. Scenario 2: The compromise land-use redevelopment plan for Agboghloshie site  
Source: Land-Use and Spatial Planning Authority

With this decision in mind, plans for the redevelopment of the reclaimed Agboghloshie land were formally presented to the Greater Accra Regional Coordinating Council. These plans envision a multifaceted infrastructure development, including facilities for entertainment, healthcare, housing, transportation links, the existing church, entrances, public spaces, commercial areas, education, and technology hubs (see Fig. 23 for an artistic impression of the reclaimed land).



*Figure 23. Artistic impression of the redevelopment plan for the demolished Agboglobhie site. Source: Courtesy a key informant, 2022.*

#### **4.4.7. Present day Agboglobhie scrapyard in focus**

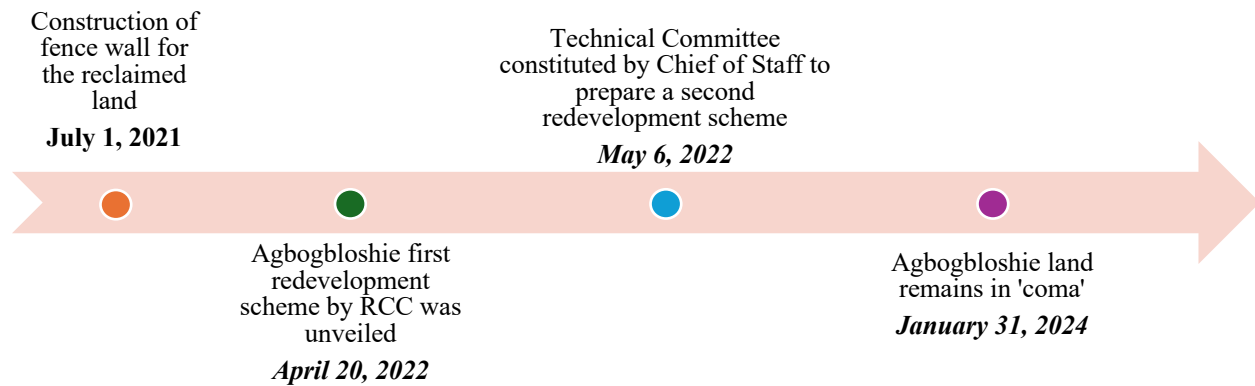
Instructively, nearly three years after the demolition of the Agboglobhie scrapyard in 2021, the condition of the site remains concerning and worrisome. The expansive 80-acre parcel of land remains under-developed, with no visible attempt at repurposing or redeveloping the space. In a follow-up site visit during the fieldwork in March 2024, the only notable change to the landscape was the erection of a perimeter wall, ostensibly to protect the land from further encroachment. Yet, the site's entrances remain ungated, leaving the area vulnerable to unrestricted access and illicit activities. In addition to this limited physical infrastructural development, discussions were also rife surrounding the appropriate land use redevelopment plan(s) and proposals for the site (see Fig. 24 for a series of events regarding the site's redevelopment), with no end in sight.

Meanwhile, some pressing issues continue to baffle onlookers. In one of the key informant interviews, an opinion leader lamented the increased instances of open defecation on the site, as well as illegal garbage scattered across the site, which is being used as an unauthorised dumpsite.

Further complaints were made about the persistent roaming of cattle in the vicinity. Even more troubling is the occasional unauthorised return of a segment of scrap dealers, who invade the site to clandestinely perpetuate their hazardous practices, including the open burning of wires to harvest copper. These acts contribute to the increasing acrid smoke that cloaks the area, rekindling the environmental and health threats that once defined Agbogbloshie's notoriety. These observations were corroborated by a three-day investigation conducted by *Daily Graphic*, Ghana's leading newspaper, on January 31, 2024, which underscored the area's worsening environmental challenges (Koomson, 2024).

In an interview with a representative from the National Youth Authority, the original custodians of the land, it was revealed that the site currently falls under the jurisdiction of the Regional Security Council, which is responsible for its oversight and management. Further inquiries with a representative from the Land-Use and Spatial Planning Authority (LUSPA), the principal agency responsible for spatial planning in Ghana, uncovered deeper complexities. According to the LUSPA representative, redevelopment efforts have stalled due to internal rancor and disputes among key public sector stakeholders, with each promoting competing visions for the site's future. For instance, while LUSPA advocates for the creation of a green recreational space in line with the original development blueprint, the Regional Minister is advocating for more commercially oriented projects, such as hotels and high-rise residential complexes. Meanwhile, the Chief of Staff has proposed using the space for the construction of one of the government's Agenda 111 hospitals for the region.

Suffice to add, these contestations and tensions are being perpetuated at the back of many cautions from researchers regarding the suitability of the site for human habitation. According to Grant et al. (2024), "no substantial development can proceed until a thorough and comprehensive toxicity assessment of the area or site is conducted", a critical and necessary step that remains outstanding, leaving the planned redevelopment of Agbogbloshie locked in uncertainty.



*Figure 24. Timeline of post-demolition activities in the redevelopment of Agbogbloshie.*

*Source: Author's construct, 2022.*

#### **4.5. Conclusion**

As Accra's urban landscape undergoes rapid transformation, a development predominantly perceived as positive, a persistent challenge remains: the relentless marginalisation of the informal sector, a vital source of livelihood for many urban dwellers. The adoption of assertive strategies, often directed at this sector, epitomises the drive behind these transformations, a subject extensively studied but lacking critical scrutiny regarding the use of state institutions as a mechanism to perpetuate a neoliberal agenda aimed at reclaiming urban spaces. This article addresses this gap by examining the state-led displacement of informal e-waste workers at the Agbogbloshie scrapyards, using the revanchist framework as an analytical lens to demonstrate how Accra's restructuring reveals the city's deepening neoliberal tendencies.

Our research exposes a significant disconnect between the progressive intent of state policies and the punitive practices carried out by city authorities, particularly regarding the informal economy in the context of urban redevelopment. Through rigorous document analysis, we find that state policies explicitly advocate for the integration of informal workers and outline detailed strategies to sustain this sector, devoid of punitive measures. Yet, despite substantial provisions for the informal sector, the actions and inactions of city authorities, exemplified by the forced eviction and retaliatory displacement of e-waste workers from Agbogbloshie, persistently cast a shadow of stigma and marginalisation on the activities of informal workers, portraying them as 'undesirables' within the urban environment. This, we argue, represents a clear manifestation of revanchism, as conceptualised by Smith (1996).

The official narrative justifying the demolition and eviction of workers is rooted in concerns about health and environmental risks associated with the e-waste trade, as well as perceived threats to the Agbogbloshie area and its environs. While this rationale holds some merit, our analysis reveals deeper, concealed motives behind the clearing of workers, ostensibly in the name of environmental concerns, but more likely driven by the city authorities' pursuit of valuable land for redevelopment. This aligns with Fält's (2016) findings, which highlight market-driven rationalities as a prominent influence in justifying forced evictions by the state. Notably, after the demolition, the purported grounds for the displacement persist. Many of the workers have moved their operations to the Old Fadama settlement near the demolished site and continue to engage in the same occupational activities as before. The question remains: if public safety was truly at stake, what prevents the city authorities from pursuing them once more? The redevelopment agenda for the area corroborates our contention, as it neglects to consider the livelihoods of informal workers, instead prioritising projects tailored to elite preferences. This process of 'spatial purging', as Aalbers (2010) aptly terms it, underscores the displacement of certain groups to accommodate others.

Tensions among stakeholders regarding the intended use of the land further complicate the narrative. The former Greater Accra Regional Minister has advocated for the development of a modern cityscape, while the Chief of Staff has proposed the construction of a hospital, and the LUSPA has endorsed the creation of a green recreational space. These conflicting visions, along with the justifications provided for the demolition, sharply diverge from established state provisions that propose concrete strategies for integrating the e-waste sector into formal regulatory frameworks. This raises a critical question: Why were demolition and eviction prioritised over the formalisation and integration of the e-waste trade? As Klopp & Paller (2019) argue, city authorities often default to demolition and displacement rather than pursuing innovative upgrading strategies.

The unilateral decision and actions of the Regional Minister to bulldoze Agbogbloshie, devoid of substantive consultations with key stakeholders within the industry and among e-waste workers, coupled with the absence of a comprehensive framework guiding the eviction and demolition processes, paint a vivid picture of revanchism in action, an aggressive reclamation of space that prioritises elite agendas while erasing the marginalised groups.

This study highlights three significant implications. Firstly, it exposes a disconnect between the intentions of state policies aimed at integrating the informal sector and the practical actions implemented by city authorities. Despite policy provisions designed to support informal workers, the actual implementation often results in their marginalisation and expulsion. This dissonance points to a fundamental failure in policy implementation, sparking urgent questions about the efficacy of current frameworks. Secondly, it underscores the neoliberal and revanchist logics driving Accra's urban transformation. The displacement of informal sector workers, without due consultation or consideration for their livelihoods reflects the revanchist inclination of city authorities, indicative of a broader pattern of prioritising elite interests over others. Lastly, the study emphasises the potential consequences of the influx of e-waste workers into urban and residential spaces, as their continued operations create new environmental, health, and regulatory challenges for city planners.

Ultimately, this paper makes a significant contribution on two main fronts. First, it enriches the ongoing discourse on urban neoliberalism and revanchism in the Global South, highlighting how Accra's redevelopment strategies are shaped by these dynamics. The study demonstrates how neoliberal and revanchist forces, often analysed in the context of cities in the Global North, resonate in the Global South. While both scenarios may share a common objective of displacing marginalised groups deemed 'undesirable' in urban spaces, the approaches differ significantly. In the Global North, displacement typically adopts more legitimate (legal) processes, including adherence to ethically legal due processes, such as providing formal notifications and the payment of legitimate compensations to those affected. On the contrary, in the Global South, the *modus operandi* often relies on the use of agency and political connectedness to perpetuate the intended objectives and actions.

The case of Agbogbloshie e-waste workers' experiences serves as a stark example of how the Global South's urban revanchism is shaped by neoliberal interests to perpetuate the intended objective under the pretext of sanitising the urban environment. The authorities' complacency is manifested in the speed with which the cleared land was redesigned for luxury housing or high-end commercial development.

Instead of investing in the formalisation or integration of these workers, authorities engage in what Albers (2010) terms ‘spatial purging’, prioritising elite preferences over inclusive development strategies. Second, it highlights the experiences of informal e-waste workers, one of the city’s most vulnerable and marginalized populations, revealing how the revanchist policies and actions of city authorities have exacerbated their precarious position within the urban fabric.

To this end, we argue that while the drive to modernise the city is laudable, urban development strategies must adopt sustainable approaches that align with broader state policies addressing the informal economy. These strategies should transcend the conventional methods of urban demolition and redevelopment of the urban fabric of the city to advocate for the reintegration of this segment of informal workers in the urban transformation agenda, rather than their marginalisation or erasure. Future research should consider a comparative analysis of urban redevelopment initiatives across the Global South to identify common patterns of revanchism and exclusion, and their impacts on informal sector workers.

## **CHAPTER 5: BEHIND THE DEMOLITION**

## 5. Behind the Curtain of Agbogbloshie's Demolition: A Victim's Perspective Beyond Revanchism<sup>2</sup>

### Chapter Summary

In many cities across the Global South, urban redevelopment initiatives have long been synonymous with large-scale demolitions that obscure the true objectives of city authorities under the guise of sanitising the city. These interventions, steeped in revanchist ideologies, disproportionately target informal economies and yield evictions that devastate livelihoods. Despite these stark realities, academic discourse highlighting these phenomena remains limited, particularly within the Ghanaian context. Using the demolition of the Agbogbloshie scrapyard as an entry point, we empirically examine the socio-economic impacts of such interventions on the livelihoods of e-waste workers. Based on surveys of 350 workers and qualitative engagements, the findings reveal severe consequences of the demolition work, including substantial financial losses, destruction of physical assets, detrimental health impacts, and disruptions to essential working relationships. Yet, amid this upheaval, the resilience of these workers shines through as they adapt with grit, securing new workspaces, forming robust leadership structures, and formalising their association to advocate for their rights and welfare. This resilience challenges their marginalisation and forges new pathways to empowerment in the face of future evictions. Ultimately, the study calls for a rethinking of urban redevelopment – one that moves beyond demolition and embraces inclusive strategies that safeguard the livelihoods of informal workers.

**Keywords:** Demolition, E-waste Workers, Informal Sector, Livelihoods, Revanchism, Urban Redevelopment

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<sup>2</sup>This chapter (5) is based on a peer-reviewed article published in International Journal of Urban and Regional Research (IJURR). Received 22 October 2024; Revised 19 February 2026; Accepted 27 February 2026. *Citation:* Sarpong, A.O., Müller-Mahn, D., Amankwaa, E.F. and Mensah, P. (2026). Behind the Curtain of Agbogbloshie's Demolition: A Victim's Perspective Beyond Revanchism. *Int. J. Urban Reg. Res.* <https://doi.org/10.1111/1468-2427.70106>. *Copyright:* © 2026 The Author(s). Published by Wiley Online Library. This is an open access article under the Creative Commons Attribution License. *Credit Statement:* Akwasi Owusu Sarpong: Writing – original draft, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualisation. Detlef Müller-Mahn: Conceptualisation. Ebenezer Fukuo Amankwaa: Writing – review & editing, Validation. Peter Mensah: Review & editing.

## 5.1. Introduction

Urban redevelopment, globally, has increasingly manifested through state-sanctioned demolitions and evictions targeting informal settlements and marginalised livelihoods, often justified as measures to restore urban order, mitigate pollution, and enhance competitiveness (Bhan, 2009; Huchzermeyer, 2011; Swanson, 2007). Grounded in neoliberal logics, such practices frame informality as “blight,” legitimising its removal to create sanitised, investor-friendly cityscapes (Harvey, 2008; Okwei et al., 2025). Within this logic, informality, evident in unregulated housing, informal trade, and unauthorised land use, has become a crucial arena for contestations over the right to the city (Galdini, 2023).

In African cities, this global trend of urban redevelopment is reflected in state-led demolition and eviction campaigns aimed at “sanitising” urban spaces, often targeting informal settlements and economies (Azunre & Boateng, 2023; Fält, 2016). Despite its significance to African economies, where it provides much of the continent’s employment and housing, it is routinely cast as incompatible with modern urban ideals, prompting revanchist interventions that privilege order, aesthetics, and elite consumption over inclusivity (Bandauko & Arku, 2024b; Mensah, 2021). In cities such as Lagos, Nairobi, and Addis Ababa, efforts to rebrand as world-class hubs have displaced street vendors, slum dwellers, and informal workers under the guise of environmental protection, public health, and urban renewal (UN-Habitat, 2005). Comparative evidence from 60 cities across the Global South further demonstrates that such displacement is particularly pronounced in African contexts (VanOostrum, 2025). Table 10 presents selected cases of these campaigns, highlighting their scale and socio-spatial consequences.

<b>Year</b>	<b>Description of Demolition Campaign</b>	<b>Impact</b>	<b>Sources</b>
May 1990	The Muoroto informal settlement in Nairobi, Kenya, was demolished by municipal authorities.	Approximately 2,500 residents were forcibly displaced.	Klopp, 2008
September 2002	The Mayor of Addis Ababa, in collaboration with the City Council and national police, conducted a large-scale demolition and eviction operation.	An estimated 10,000 individuals lost their sources of livelihood.	Ocheje, 2007
Between 2001 and 2003	The Angolan police carried out the demolition of informal dwellings in Luanda.	About 5,000 residents were rendered homeless and left without recourse.	Amnesty International, 2003
2005	The Government of Zimbabwe implemented a widespread demolition and eviction campaign targeting informal settlements and traders in Harare.	Approximately 700,000 families were forcibly displaced from their homes.	Lombard & Horn, 2024; UN-Habitat, 2005;
March 2016	Officials of the Lagos State Government carried out the forced eviction of residents from the Otodogbame waterfront community.	More than 4,000 residents were displaced, and several sustained injuries due to the disproportionate use of force by law enforcement officers.	Amnesty International, 2017
January 2022	Nigerian security forces executed a demolition exercise targeting informal dwellings in Port Harcourt.	Around 15,000 families were displaced.	Adedinni, 2022

*Table 10. Selected instances of state-led demolitions and forced evictions in African cities. Author's compilation, 2025.*

As illustrated in Table 8, similar patterns are evident in Accra, where state and municipal authorities, often in collaboration with private actors, have demolished thousands of structures housing informal workers and residents of precarious settlements (Afenah, 2012; Little, 2021; Okwei et al., 2025). These operations target not only spaces deemed illegal or unsightly but also the everyday infrastructures of informality that sustain urban life, such as markets, kiosks, makeshift dwellings, and informal e-waste hubs. Official narratives invoke land tenure regulations,

environmental concerns, urban transformation agendas, and aesthetic considerations to justify these actions (Afenah, 2012; Azunre & Boateng, 2023; Little, 2021). Beneath these narratives lies a revanchist logic, which, as Smith (1996) describes, the punitive reclamation of urban space from marginalised groups. This logic legitimises the displacement of informal populations in pursuit of a globally competitive, orderly city (Gillespie, 2015; Neethi, 2020).

This revanchist logic was starkly demonstrated in July 2021 when the Greater Accra Regional Coordinating Council (RCC), under the *Let's Make Accra Work Again* (LMAWA) initiative, demolished the Agbogbloshie e-waste site as part of a broader campaign to “beautify” the city (Grant et al., 2024; Sarpong et al., 2025). Framed as urban redevelopment, the demolition displaced thousands of informal e-waste workers, who are key actors within Accra’s informal economy, erasing both their livelihoods and silencing their presence in the city. This study critically examines the socio-economic consequences of the Agbogbloshie demolition, exploring how the displacement reshaped livelihoods and prompted adaptive strategies among affected workers.

Since 2008, Agbogbloshie has been recognised as West Africa’s largest e-waste scrapyards (Amankwaa et al., 2017), where workers informally recover metals through scavenging, manual dismantling, segregation, and open-air burning (Amankwaa, 2014; Ameyaw-Osei et al., 2011; Grant & Oteng-Ababio, 2012). Extensive research highlights the use of rudimentary tools, the absence of protective equipment, and unsafe processing methods (Akormedi et al., 2013; Asante et al., 2012; Brigden et al., 2008; Caravanos et al., 2011; Fobil et al., 2018; Kyere et al., 2018; Oteng-Ababio, 2012b), which expose workers to toxic pollutants and heavy metals. These conditions pose significant implications for “One Health” framework, which emphasises the interconnected well-being of humans, animals, ecosystems, and the broader food chain (Grant & Oteng-Ababio, 2016; Prakash et al., 2010).

Due to these hazardous recycling practices, Agbogbloshie has gained notoriety as one of the world’s most polluted sites, earning comparisons to some of the world’s most polluted sites, including “Sodom and Gomorrah” and Ukraine’s Chernobyl (Blacksmith Institute, 2013; Little, 2019). Such portrayals, reinforced by evidence of crude recycling methods that release toxins into

the soil, waterways, and the atmosphere (Chama et al., 2014; Grant & Oteng-Ababio, 2012), have cemented the site’s infamy for decades (Grant & Oteng-Ababio, 2016).

These prevailing narratives surrounding Agbogbloshie, often perpetuated by the media, non-governmental organisations (NGOs), and state actors, have played a significant role in its vilification and subsequent clearance (see Figures 25 and 26 for aerial comparisons before and after the demolition). Despite depictions of environmental degradation and criminality, the Agbogbloshie functioned as a vital hub within Accra’s informal economy, sustaining livelihoods and demonstrating community resilience (Owusu-Sekyere et al., 2022; Prakash et al., 2010). Such portrayals of “blight” and “danger” are frequently mobilised to rationalised “greenwashed dispossession”, displacing vulnerable populations in the name of environmental improvement and urban modernity.



*Figure 25. Aerial view of the Agbogbloshie site prior to the 2021 demolition.  
Source: Chasant, 2021a.*



*Figure 26. Aerial view of the Agbogbloshie site following the 2021 demolition.  
Source: Photograph by author, 2022.*

Previous scholarship emphasises how state-led urban transformation disproportionately target the informal economy. Crentsil & Owusu (2018) illustrate how city authorities employed bulldozing tactics against street vendors and slum dwellers to reduce congestion in Accra. Similarly, Oteng-Ababio & Grant (2019) highlight the use of decongestion exercises, informal settlement demolitions, and relocation threats as mechanisms for enforcing urban order. Okwei et al. (2025) examine the impacts of “bulldozer urbanism” across three informal settlements in Accra. More recently, Sarpong et al. (2025) foreground the revanchist logic underlying these interventions, showing how the forced expulsion of informal e-waste workers in Accra advances broader redevelopment agendas legitimised through discourses of modernisation and environmental sanitation.

Despite these insights, empirical research remains limited on the broader socio-economic consequences of such interventions, often framed by revanchist urban agendas, on informal

workers in Global South cities. Addressing this gap, this study examines the large-scale demolition of the Agboglobshie scrapyard and the eviction of its workers. It demonstrates how state-led interventions not only reshape urban geographies but also produce new forms of socio-economic precarity among informal workers. In so doing, it contributes empirical depth to theoretical discussions of revanchist urbanism in rapidly transforming contexts of the Global South. We pursued this investigation with two primary objectives:

1. To assess the socioeconomic consequences of the scrapyard demolition on e-waste workers.
2. To analyse the adaptive strategies devised by workers to navigate their current circumstances.

We strongly assert that understanding the demolition of the Agboglobshie scrapyard offers critical insights into the health, social, and economic consequences of state-led demolitions and evictions carried out under urban redevelopment initiatives. This paper advances scholarship on the intersection of urban redevelopment, revanchism, and the displacement of marginalised informal workers in Accra and similar cities in the Global South.

The paper is structured as follows: Following the introductory exposition, the subsequent section reviews the existing literature, tracing Agboglobshie's historical evolution and the events leading to its demise. The third section articulates the theoretical framework, while the fourth provides details on the study site and methodology. In the fifth section, we present our findings, exploring both the immediate and subsequent impacts of the demolition on workers' livelihoods, as well as the coping strategies adopted in its aftermath. Finally, the concluding section discusses broader implications and offer policy recommendations.

## **5.2. Agboglobshie Scrapyard: A historical context and tracing the road to its death**

The transformation and eventual demolition of the Agboglobshie scrapyard in Accra offer a compelling entry point into the contradictions of contemporary urban governance in rapidly growing African cities. As an emergent site of informal e-waste processing, Agboglobshie became emblematic of the tensions between informality, environmental risk, and state-driven development agendas. This literature review situates Agboglobshie within broader scholarly debates

on informal urbanism (Roy, 2005), revanchist urbanism (Smith, 1996), and neoliberal urban restructuring (Peck & Tickell, 2002). Its evolution from a planned recreational zone to a dense, contested site of informal activity illustrates the adaptive spatial logics that arise from exclusionary planning. Drawing on academic and grey literature, this review traces the historical, political, and socio-environmental dynamics surrounding Agbogbloshie, framing its erasure as part of a neoliberal urban project that privileges aesthetic order and market-led redevelopment over social inclusion.

The Agbogbloshie e-waste site in Accra operates within an informal urban workspace, a dynamic mix of commercial, industrial, and informal residential activities. Central to this landscape is the Agbogbloshie scrapyards, where primarily young adults adopt rudimentary techniques to process e-waste (Caravanos et al., 2011). Adjacent to the scrapyards lies the Agbogbloshie market, the largest open-air food market in Accra, renowned for its trade in tomatoes, yams, and onions (Grant & Oteng-Ababio, 2012). To the east lies Old Fadama, an informal settlement predominantly housing e-waste workers, separated from the scrapyards by the meandering Odaw River and the headwaters of the Korle Lagoon. Westward, along Abossey Okai Road, a light industrial zone accommodates a variety of enterprises, ranging from warehouses and bottling plants to banks and informal businesses (Grant, 2006; Little, 2021).

Legally, the land on which Agbogbloshie sits is state-acquired property with a Certificate of Title. Records from the Lands Commission indicate that a portion of this state-acquired land (approximately 64.01 acres) was formally allocated to Ghana's National Youth Council (NYC), now the National Youth Authority (NYA). The NYA operates under the Ministry of Youth and Sports, which was recently restructured as the Ministry of Sports and Recreation. The NYC granted scrap dealers temporary permission to use the land for their operations, with the understanding that the government could reclaim it whenever deemed necessary (Amankwaa et al., 2016; Amoyaw-Osei et al., 2011).

Originally, the land was designated for youth activities and sports. The then Town and Country Planning Division of the Physical Planning Department developed a local plan, known as the "Accra Korle Lagoon Recreational Area Planning Scheme," which received government approval in 1970 (Farouk & Owusu, 2012). This scheme envisioned the area as a recreational enclave that

would integrate green and blue infrastructure to support sports and tourism. However, over subsequent decades, the site deviated substantially from this intended purpose, evolving into a dense landscape filled with informal economic activities, unauthorised settlements, and large-scale scrap processing operations, developments that directly contradicts its original function (Amankwaa et al., 2016).

Agbogbloshie's emergence as a scrapyards trace back to urban development initiatives associated with the 1991 Non-Aligned Movement (NAM) Conference (Amankwaa, 2013a). To prepare Accra for the Conference, the Accra Metropolitan Assembly (AMA), as part of its urban development agenda, implemented decongestion measures aimed at reducing street hawkers and improving pedestrian mobility and vehicular flow (Amuzu, 2018; COHRE, 2004; Davis et al., 2019). Consequently, these actions resulted in the relocation of hawkers to Agbogbloshie's outskirts, particularly along Abossey Okai Road. Following this, by 1993, the wholesale yam market also relocated to Agbogbloshie, transforming the area into a major wholesale food distribution centre serving Accra and its surrounding areas (Amuzu, 2018). This development fuelled a high demand for labour, particularly in the areas of providing security for food products, loading personnel, and maintenance of food transport vehicles (Afenah, 2012; COHRE, 2004). As a result, a range of ancillary activities emerged, such as vehicle repair, auto parts trading, welding, and tyre servicing, to meet the demands of the booming food market. As the population of Agbogbloshie continued to grow, the provision of vehicle repair and other related services evolved and expanded into a major scrap market (Afenah, 2012).

These developments positioned Agbogbloshie as Ghana's primary hub for e-waste processing (Davis et al., 2019). The site rapidly evolved into a dumping ground for obsolete and discarded electronics such as computers, old televisions, and other household waste imported from Europe (Amankwaa, 2014). The population of Agbogbloshie saw a significant increase after the 1995 ethnic conflict in northern Ghana between the Kokomba, Nanumba, Dagomba, when the Ministry of Interior facilitated the relocation of displaced individuals to the area for protection (Amuzu, 2018; Farouk & Owusu, 2012).

Agbogbloshie emerged as a central hub for e-waste recycling activities, evolving into a complex ecosystem of waste collectors, dismantlers, incinerators (burners), refurbishers, middlemen, and

scrap dealers, each performing specialised roles within the value chain (Amankwaa, 2013a, 2014). Collectors traverse Accra and its environs, either individually or in teams, to source recyclable materials, primarily metals and plastics, for processing at the scrapyards (Amankwaa, 2014; Caravanous et al., 2013; Grant & Oteng-Ababio, 2021). Dismantlers manually disassemble electronics using rudimentary tools such as hammers and machetes, extracting valuable components including aluminium heat exchanger fins, copper wiring from large cables, and copper windings from cathode ray tubes found in older televisions and computer monitors (Asante et al., 2012). Burners utilise open fires to recover gold and copper from electronic components, creating thick black plumes that engulf the entire area (Asante et al., 2012; Chama et al., 2014). Additionally, skilled refurbishers masterfully salvage and repurpose functional components from discarded electronics, restoring them for reuse (Oteng-Ababio & Amankwaa, 2014).

Yet these informal techniques, while economically generative, played a critical role in sustaining the livelihoods of thousands of Ghana's most vulnerable populations, including unemployed youth and rural-urban migrants (Amankwaa et al., 2016; Oteng-Ababio et al., 2014a; Sovacool, 2019). Estimates suggest that between 4,500 and 6,000 individuals are directly employed in Agbogbloshie, with an additional 30,000 engaged in related activities across the broader value chain (Oteng-Ababio & Amankwaa, 2014; Prakash et al., 2010).

Beyond employment creation, the sector addresses critical gaps in Accra's waste management infrastructure, contributing to an informal circular economy that minimises material waste and extends the lifecycle of electronic products (Grant & Oteng-Ababio, 2012). Notably, between 40% and 60% of Ghana's e-waste is processed informally at Agbogbloshie (Grant & Oteng-Ababio, 2012; Oteng-Ababio & Amankwaa, 2014). Workers at Agbogbloshie demonstrate considerable technical ingenuity, with informal e-waste actors exhibiting entrepreneurial skills in dismantling, repairing, and repurposing of discarded electronics for resale and reuse (Amankwaa, 2013a).

Despite their significant contributions, the processing methods employed, particularly open-air burning and rudimentary dismantling, have resulted in severe environmental and health impacts (Brigden et al., 2008). These include toxic emissions, contamination of the Korle Lagoon and the Odaw River, and the infiltration of toxins into soil (Brigden et al., 2008), sediments (Chama et al., 2014), and vegetables (Oteng-Ababio et al., 2014b). These alarming conditions have drawn

sustained attention from policymakers, urban authorities, and researchers, leading to repeated demolitions efforts and eviction threats directed at e-waste workers (Little, 2019).

A comprehensive review of literature from 2000 to 2017 (see Fig. 27) reveals the persistent threat of eviction faced by Agbogbloshie e-waste workers, driven by widespread concerns about the site's adverse environmental and health impacts (Crentsil & Owusu, 2018; Farouk & Owusu, 2012; Oteng-Ababio & Grant, 2019). These eviction threats were not mere rhetoric; but formed the basis for sustained litigative and administrative confrontations between the state, mainly through the AMA, and scrap dealers, with authorities repeatedly engaging in what Bandaiko & Arku (2024a) describe as a relentless “cat-and-mouse” pursuit of informal workers (see also Amankwaa & Mensah, 2025).

One notable eviction threat occurred in 2002, when the AMA sought to evict over 30,000 residents and workers to make way for the construction of the Korle Lagoon Ecological Restoration Project (KLERP) (Farouk & Owusu, 2012). This project was funded by the Kuwait Fund for Arab and Economic Development, the Arab Bank for International Development, and the OPEC Fund for International Development (Farouk & Owusu, 2012). Another significant event followed the June 3, 2015, disaster, where fire and flooding claimed over 150 lives and destroyed property. In this harrowing incident, city authorities, supported by military and police forces, violently dispersed the residents of Agbogbloshie (Lepawsky & Akese, 2015).

Despite these threats, residents undertook initiatives to resist eviction, including conducting census exercises to document key demographic profile, assess infrastructure needs, and advocate for their right to remain (Farouk & Owusu, 2012; Lepawsky & Akese, 2015). Ultimately, on July 1, 2021, following weeks of public discourse spearheaded by the former Greater Accra Regional Minister, a mass eviction of workers and the demolition of Agbogbloshie scrapyards were carried out under the LMAWA campaign. This marked the demise of the site as Ghana's primary e-waste hub (see Fig. 28).

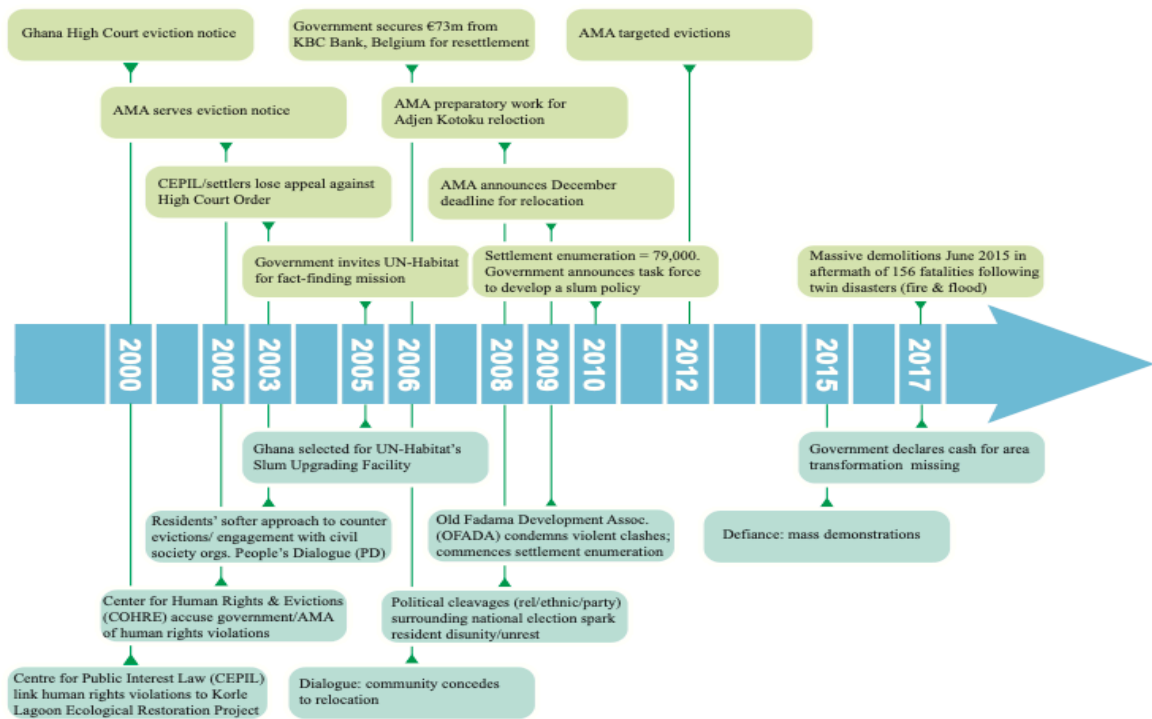


Figure 27. Temporal mapping of eviction incidents and associated threats in Agbogbloshie between 2000 and 2017.

Source: Oteng-Ababio & Grant, 2019.



Figure 28. Image capturing the demolition of the Agbogbloshie site, as published in Daily Graphic, July 2, 2021.

Source: Daily Graphic, 2021.

### 5.3. Theoretical Framing

This study employs the revanchist framework, coined by Neil Smith in the 1990s, as its core analytical lens. Associated with the political and spatial logics of urban neoliberalism, revanchism emerged in response to the spatial and economic exclusions prevalent in New York City towards the late twentieth century (Neethi & Kamath, 2022; Smith, 1996). While not a formal policy, nor confined to New York, revanchism manifests in laws, ordinances, and urban governance strategies (Smith, 1996). These include aggressive policing, anti-homeless legislation, and urban renewal schemes (Künkel, 2016; Neethi & Kamath, 2022; Slatter, 2017). These measures advance neoliberal principles of market-driven development, privatisation, and the sanitisation of public space (Neethi, 2020).

The term “revanchism”, derived from the French word “revanche”, meaning “revenge”, describes the aggressive reclamation of urban spaces from marginalised groups, including ethnic minorities, the working class, women, the homeless, sexual minorities, immigrants, and other disenfranchised populations (DeVerteuil, 2006; Slater, 2017). Within this framework, city authorities systematically label certain populations as “undesirables” and expel them from urban spaces under the guise of sanitising the city (Neethi, 2020). Such actions push these vulnerable groups into increasingly precarious conditions. These exclusionary strategies parallel Harvey’s (2003) notion of “accumulation by dispossession”, whereby urban development projects displace the poor.

Building on Smith’s pioneering work, Atkinson (2003) identified three distinct strands of revanchism. First, governance modes that regulate public spaces and dictate their approved uses. Second, programmes designed to secure public spaces or manage the behaviour of users of such spaces. Third, a prophetic and dystopian conception of public spaces and the city as sites of urban malaise and distress, which justifies vengeful policies presented as ameliorative measures (Atkinson, 2003). Johnsen & Fitzpatrick (2010) expanded on these ideas through four mechanisms: legislative (criminalisation of street lifestyles), physical (manipulation of urban space to exclude undesirable groups or activities), surveillant (increased surveillance and policing of public or quasi-public spaces), and discursive (portrayal of homeless people as dirty or dangerous).

Critics of revanchism, such as DeVerteuil (2006), argue how social welfare responses to homelessness counteract the revanchist logic, which primarily focuses on expulsions. More pointedly, Slater (2017) critiques revanchism for its reductionist determinism, presenting urban transformations as inevitable and monolithic outcomes of neoliberalism. This perspective underestimates the complexity, contingency, and contestations inherent in urban processes (Slater, 2017). Slater notes that such deterministic views risk ignoring spaces of resistance, negotiation, and alternative urban practices that can arise even in heavily revanchist conditions (Slater, 2017). More broadly, the concept has been critiqued as being ‘simplistic’, ‘dystopic’, ‘incomplete’, ‘narrow’, and ‘inaccurate’ (Slater, 2017).

Despite these critiques, revanchism has been widely applied across diverse urban contexts (Neethi, 2020; Slater, 2017). For instance, Smith’s seminal work (1996; 2002) demonstrated how revanchist ideas have infiltrated municipal legislation in the United States, particularly through laws targeting begging, panhandling, and sleeping in public spaces. In Cusco, Macki et al. (2014) examined the evolution and ramifications of revanchist policies targeting informal traders. Similarly, Swanson (2007) explored how revanchist policies embedded in urban regeneration projects in Ecuador, displaced informal workers and marginalised groups such as beggars and street children. Neethi (2020) further delves into the experiences of revanchist urban transitions among street-based sex workers in Bangalore. In Harare, Bandaiko & Arku (2024a) documented how urban authorities targeted the livelihoods of street traders.

In Accra, Ghana, revanchist tendencies are evident in city authorities’ use of urban beautification initiatives to forcibly displace marginalised groups (Gillespie, 2015). These actions are not isolated incidents; they are deeply rooted in the political manifestos of various political parties, with each new administration launching ambitious urban development projects that perpetuate this cycle of exclusion (Obeng-Odoom, 2010). Historical examples include the Millennium Cities Initiative (MCI) by the erstwhile National Democratic Congress (NDC) and the Capital City Modernisation Project by the New Patriotic Party (NPP) (Gillespie, 2015). Consequently, these state-led urban renewal programmes have collectively resulted in widespread demolitions of slums and informal settlements in the city centre, often conducted without compensation or relocation (Crentsil &

Owusu, 2018). A striking example is the demolition of Mensah Guinea informal settlement for the Marine Drive Development Project, a modern inner-city beachfront redevelopment (Fält, 2016).

While state institutions typically lead displacement efforts, non-state actors such as private developers, corporate entities, formal retail establishments, waste management firms, and certain community groups also advance revanchist urban agendas by leveraging political influence to prioritise commercial property development over the interests of the urban poor (Lombard & Horn, 2024). In Ghana, non-state actors have played a significant role in shaping exclusionary urban processes, often aligning with or reinforcing state-led revanchist agendas. For instance, the increasing privatisation of urban land, particularly in Accra's prime areas, has led to the displacement of informal workers and settlers. As previously mentioned, the 2015 eviction of residents from the Mensah Guinea settlement near the Central Business District (CBD) was partly driven by private real estate interests seeking to redevelop the land for commercial purposes (Fält, 2016). While the Accra Metropolitan Assembly (AMA) justified the eviction on environmental and public health grounds, real estate developers emerged as key beneficiaries of the clearance (Fält, 2016). Similarly, formal market associations in Accra have sometimes played a role in the exclusion of informal vendors. For instance, in the relocation of street vendors to the Odorna market following evictions from the CBD in 2010 to free up the site for the Octagon project, competitive associations within the market influenced the reordering of space and access (Spire & Choplin, 2018). This led to divisions and reinforcing socio-spatial hierarchies among traders (Spire & Choplin, 2018).

This paper employs the revanchist framework to examine the exclusion of informal e-waste workers in Accra under the 2021 LMAWA campaign, initiated by former Greater Accra Regional Minister Henry Quartey, under the erstwhile NPP administration (Grant et al., 2024). This campaign aimed to enforce urban order through decongestion, sanitation, and land reclamation (Grant et al., 2024). The campaign positioned itself as a pragmatic response to the perceived disorderliness of Accra's urban landscape, particularly informal markets and settlements. However, its ideological underpinnings align with broader neoliberal urban governance practices that prioritise aesthetic and infrastructural modernisation at the expense of informal livelihoods (Little & Akese, 2019). This approach culminated in the forceful demolition of the Agbogbloshie

scrapyard and the eviction of its workers, echoing the systematic erasure of marginalised communities from the urban landscape (Grant et al., 2024). Consequently, displaced workers relocated to peripheral areas such as Kwabenya, Amasaman, and Ashongman Estate (Sarpong et al., 2025).

## **5.4. Study Site and Methodology**

### ***5.4.1. Study Site***

The research was conducted at the Agbogbloshie scrapyard (Fig. 29), a prominent site for informal e-waste recycling in Ghana (Asante et al., 2012). Located in central Accra, near key landmarks like the Odaw River and Abossey-Okai Road (Oteng-Ababio & Grant, 2019). The scrapyard is adjacent to the bustling Agbogbloshie Market, which is the city's largest open-air food market. To the east lies the Old Fadama, a densely populated informal settlement home to many e-waste workers (Amankwaa et al., 2016; Caravanos et al., 2011; Little, 2021).

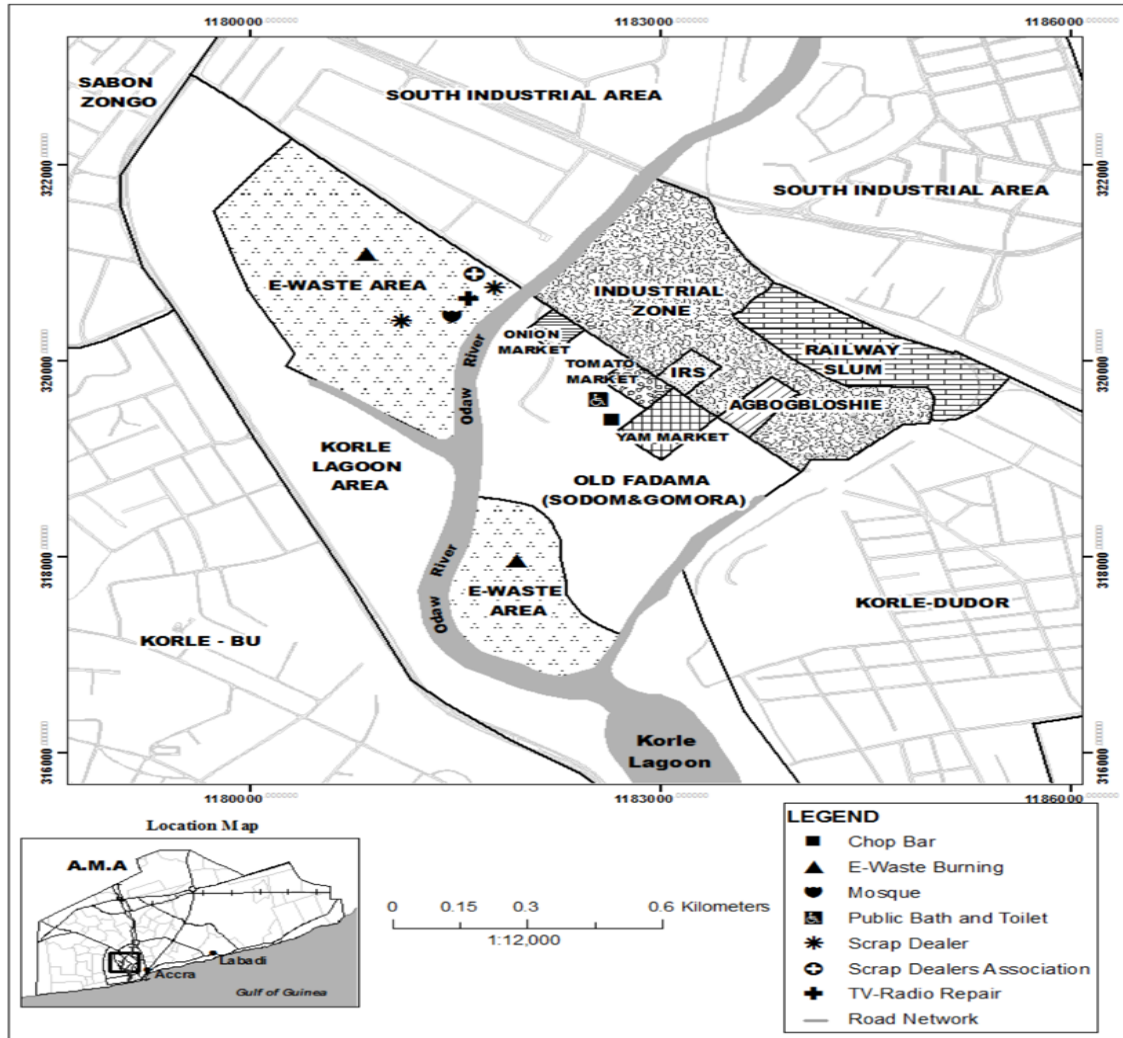


Figure 29. Spatial map of Agbogboshie showing land-use distribution.  
 Source: Oteng-Ababio, 2012b.

#### 5.4.2 Research Design

The research spanned five months, from August to December 2022, as part of a larger PhD project. Our initial step involved a reconnaissance survey of Agbogboshie and other emerging e-waste sites in the metropolis, in collaboration with leaders of the now-defunct Agbogboshie Scrap Dealers Association (ASDA).

This preliminary survey provided insights into the seismic shifts within the e-waste trade following the July 2021 demolition. We identified two distinct groups of displaced workers and their newly

established operational territories. The first group became integrated into Old Fadama, a dense informal settlement primarily occupied by Agbogbloshie workers and their families (see Fig. 30, indicated on the map as the new e-waste working zone). The second group dispersed across various strategic locations throughout the Accra (see Fig. 31) (Owusu-Sekyere et al., 2022).



*Figure 30. Integration of e-waste activities within the Old Fadama settlement*

*Source: Field data, 2025*

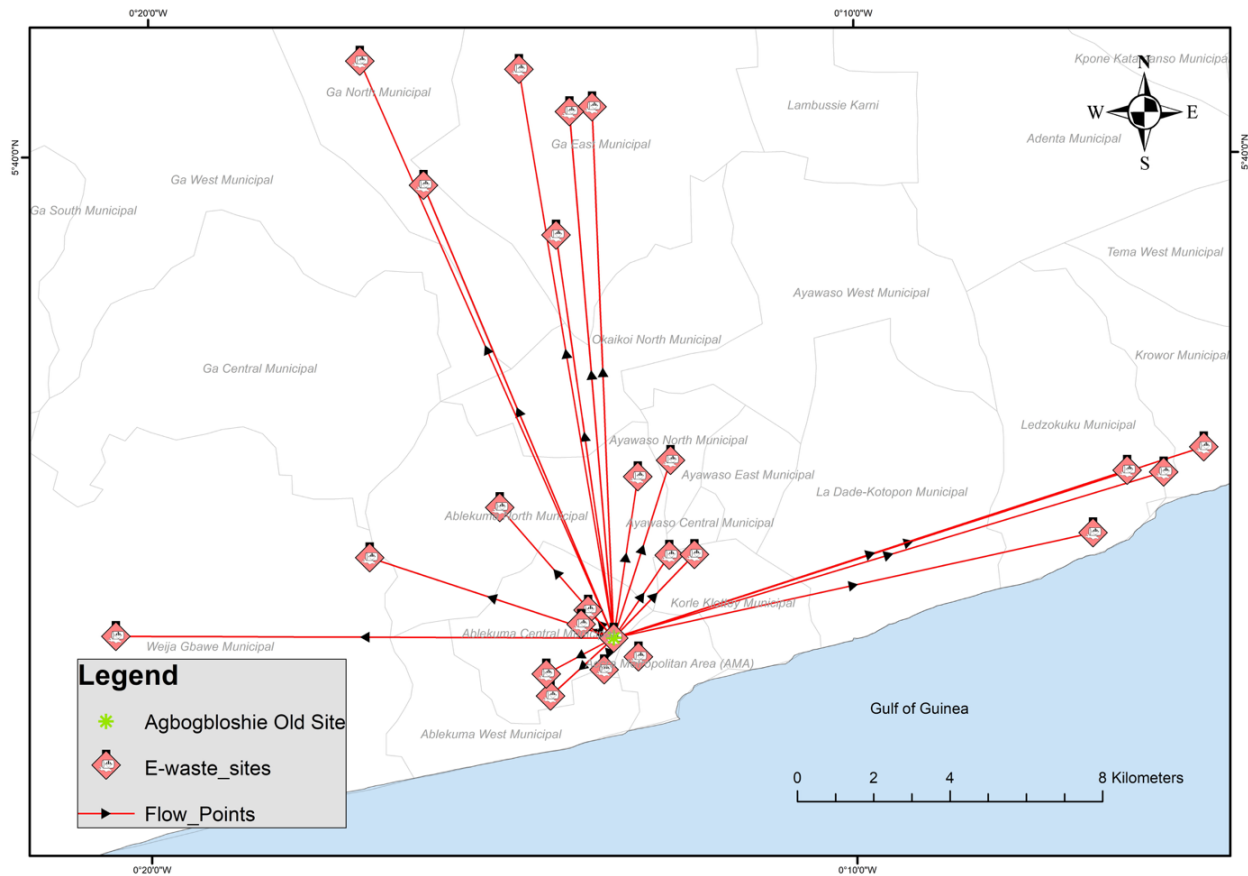


Figure 31. Emerging e-waste sites in Accra after the Agbogbloshie demolition.  
 Source: Field data, 2022, processed and mapped using ArcGIS.

### 5.4.3 Data Sources

To address the research objectives, a mixed-methods design integrating quantitative and qualitative data was employed to examine the complex dynamics of urban informal livelihoods and the impacts of demolition and eviction on e-waste recyclers. Primary data were collected through structured questionnaires (see Appendix 4 for the questionnaire) administered to 350 e-waste workers across the value chain, including collectors, dismantlers, middlemen, repairers, burners, ancillary service providers, and scrap dealers. This classification follows the framework established by Amankwaa et al. (2016).

Given the fragmented nature of the informal e-waste business and the absence of a reliable sampling frame, coupled with the widespread dispersal of e-waste workers across the metropolis, snowball sampling was employed to identify and recruit participants. This process was facilitated by community leaders who acted as gatekeepers. The survey captured various aspects, including workers' socioeconomic characteristics, the impact of demolition on their livelihoods, their perceptions of the demolition, and the coping strategies they adopted.

While snowball sampling was necessary given the informality and fluidity of the population, it has its limitations. These include reliance on gatekeepers and the potential risk of participant homogeneity, which may constrain the range of perspectives captured. To mitigate these biases, the study engaged multiple gatekeepers from different locations where displaced e-waste workers had relocated, including Old Fadama, Weija, and Ashongman Estate. The sample included both senior scrap dealers (“masters”) and their assistants (“boys”). Although the findings are not statistically generalisable, this approach provided a rich, contextual understanding of the impacts of demolition and the adaptive strategies employed, offering insights relevant to broader urban policy discussions.

To complement the survey, fifty-nine participants were engaged, comprising forty-eight e-waste workers and eleven ancillary service providers, through focus group discussion (FGDs) and in-depth interviews. Six FGDs were conducted with e-waste workers from diverse segments, including collectors, dismantlers, scrap dealers, recyclers, middlemen, and repairers, each comprising eight male participants. The FGDs were held at the Technical Training Centre (TTC) near the demolition site, a strategically chosen location to enhance accessibility, reduce apprehension, and encourage candid discussion. Sessions were primarily conducted in Dagbani, with translation provided.

Purposive in-depth interviews were conducted with eleven ancillary service providers affected by the demolition. This group included two food vendors, two recycling firm operators, two operators of microfinance schemes locally known as “Susu” (an informal savings system in which individuals make regular contributions to accumulate or withdraw funds over a set period; Alabi et al., 2007), a representative from the Old Fadama Clinic, two representatives from the Gesellschaft Für Internationale Zusammenarbeit (GIZ) Technical Training Centre, and two

executives from ASDA. These interviews provided detailed insights into the demolition's socio-economic impacts. Ethical clearance was obtained from the Centre for Development Research (ZEF) at the University of Bonn, Germany.

#### ***5.4.4 Data Processing and Analysis***

Quantitative data were analysed using Stata version 13, focusing on the human, social, financial, and physical dimensions of the demolition's impact. A binary logistic regression model was employed to assess factors affecting the post-demolition livelihood status of e-waste workers. Qualitative data from FGDs and interviews were processed using NVivo, with transcripts transcribed verbatim, reviewed, coded, and organised thematically, incorporating quotes to enrich interpretive depth.

##### *Binary logistic regression model*

A binary logistic regression model was employed to examine the relationship between e-waste workers' post-demolition livelihood status and predictor variables. This model was chosen for its reliability in handling binary outcomes and its ability to mitigate biases associated with linear probability models (Maddala, 1983). The logit model is expressed below.

$$P_i = F(Z_i) = F\left(\alpha + \sum \beta_i X_i\right) = \frac{1}{1 + e^{-Z_i}}$$

In this notation, 'e' represents the base of natural logarithms (~2.718). 'P<sub>i</sub>' denotes the probability of an individual's livelihood status after the demolition, whether it has improved or deteriorated. 'X<sub>i</sub>' denotes a set of independent variables, and 'β' represents their coefficients (Pindyck & Rubinfeld, 1998). Consequently, the dependent variable reflects the likelihood of an e-waste worker experiencing either an improved or deteriorated livelihood, based on the explanatory variables.

#### ***5.4.5 Ethical Consideration***

Informed consent was obtained in two ways. First, for e-waste workers, verbal consent was secured prior to surveys and FGDs using an oral consent script. This approach was necessary due to high illiteracy rates among workers. The script outlined the study objectives and interview protocols,

including the recording and participants' right to withdraw from the study without repercussions. Communication during this process was primarily conducted in Dagbani, reflective of the predominant ethnic background of the labour force, many of whom hailed from Northern Ghana. Participants who consented indicated their agreement by marking a 'cross' on the consent form. For ancillary service providers, such as representatives from GIZ TTC, Old Fadama Clinic, ASDA, recycling firms, and selected food vendors, written consent was obtained, ensuring full comprehension of the study prior to participation.

## **5.5. Results and Discussions**

### ***5.5.1. Overview of the Socio-Demographic Characteristics of E-waste Workers***

Table 11 provides a summary of the demographic characteristics of e-waste workers, highlighting gender, age, education, ethnicity, and average monthly income levels. The data reveal a male-dominated enterprise, with 91% of workers identifying as male. This finding is consistent with previous research indicating that e-waste work, which is physically demanding, is less appealing to women (Asibey et al., 2022; Oteng-Ababio et al., 2014b). While the sector offers important economic opportunities for marginalised populations, it simultaneously reproduces entrenched gendered exclusions within the urban informal economy and sustains the spatial and occupational marginalisation of women within the waste management hierarchy.

The analysis reveals a predominantly youthful workforce, with 56% of workers aged 30-49, and 36% between 19-29. This observation aligns with Asante et al.'s (2012) study, affirming the predominance of young individuals in e-waste activities. It further reinforces the sector's role as a critical livelihood space for Ghana's growing urban youth population. Educational attainment among workers is low, with 70% lacking formal education and 21% having only basic qualifications, as indicated in Table 11. This aligns with findings from Amankwaa et al. (2016). Most workers come from northern Ghana, particularly the Dagomba ethnic group, which comprises 47% of the workforce. This mirrors the findings of Grant & Oteng-Ababio (2021). Additionally, there is a significant representation of Nigerians in the workforce, constituting 22%, which supports earlier assertion of the notable presence of non-Ghanaians, including Nigerians and Liberians, in Ghana's informal e-waste business (Amankwaa et al., 2016). Income distribution

shows that 35% of workers earn Gh¢1,000 (\$69) or less, which is relatively close to the average income for waste pickers at Gh¢1,300 (\$89). However, it falls significantly below the 2023 monthly living wage in Ghana, which is GH¢2,922 (\$200). This disparity underscores the precariousness nature of informal labour in Ghana, where e-waste workers often find themselves trapped in a cycle of low earnings despite the hard and hazardous work they perform. Their marginal incomes restrict their ability to assert spatial rights, participate in formal planning processes, or access institutional protections against eviction.

<b>Variable</b>	<b>Number of respondents</b>	<b>Percentage (%)</b>
<b><i>Gender</i></b>		
Male	332	91
Female	18	9
<b><i>Age, years</i></b>		
0-18	7	2
19-29	126	36
30-49	196	56
50-59	21	6
60+	0	0
<b><i>Educational Level</i></b>		
No Formal Education	245	70
Primary	74	21
Secondary	28	8
Technical	3	1
Tertiary	0	0
<b><i>Ethnicity</i></b>		
Dagomba	165	47
Nigerians	77	22
Akan	49	14
Gonja	21	6
Ewe	17	5
Moshi	12	3
Ga	3	1
Kokomba	3	1
Bono	3	1
<b><i>Average monthly income (GH¢)</i></b>		
1-1000	123	35
1000-2000	63	18
2001-3000	56	16

3001-4000	28	8
4001-5000	24	7
Above 5000	42	12
Don't know	3	1
Refused	11	3

Table 11. Socio-demographic characteristics of e-waste workers.  
Source: Field, data, 2022.

**5.5.2. Impact of Demolition on E-waste Workers**

*Immediate Impacts*

This section examines the immediate consequences of the Agbogbloshie demolition, with a focus on the lived experiences and multifaceted challenges encountered by e-waste workers. Fig. 32 illustrates the myriad health-related issues experienced by these workers during the demolition. According to survey results, 51% of workers reported health complications such as psychological distress, depression, accidents and injuries. This aligns with the findings of Lombard & Horn (2024) regarding the impacts of demolitions on informal workers. Notably, 43% of workers reported experiencing psychological distress, while 35% exhibited symptoms of depression, underscoring the deep emotional trauma induced by displacement and the abrupt loss of livelihoods. These statistics highlight the extent to which forced evictions destabilise livelihoods, not only through economic dispossession but also through emotional and psychological suffering. Furthermore, 15% of respondents reported physical injuries, such as cuts, black eyes, and bruises, which indicate the broader harassment and physical abuse frequently endured, as documented by Crentsil & Owusu (2018). Additionally, 7% reported persistent feelings of anxiety. These injuries suggest that the demolition was executed with force, coercion, and a disregard for the dignity of those affected. In a poignant interview, Afanasiru, a participant who bore the brunt of the demolition, recounted his personal experience, stating:

*I was cut by the soldiers. I don't know what I did. I went through severe beatings. They beat me mercilessly, put me on the road, and made me roll while they caned me. So, I was admitted at the hospital afterwards, and up till now, I have not fully recovered.*

Similarly, another interviewee, Issifu, recounted his ordeal:

*...I was beaten and caned by the police. But as for slaps and kicks, I can't count them.*

These personal accounts illustrate the brutalisation of workers by security forces. The study recorded instances of workers and residents being lashed, slapped, and forced to crawl as they resisted the destruction of their livelihoods. Video evidence corroborating these claims is available in the comprehensive report by CitiTube (2021). The physical violence inflicted upon e-waste workers, including beatings, caning, and harassment, demonstrates how state authorities criminalised their presence in Agbogbloshie. The security forces' excessive force suggests that these workers were treated as offenders rather than as informal labourers engaged in survival economies. This criminalisation justifies their exclusion and reinforces the revanchist logic aimed at purging "undesirable" populations from strategic urban spaces (Johnsen & Fitzpatrick, 2010).

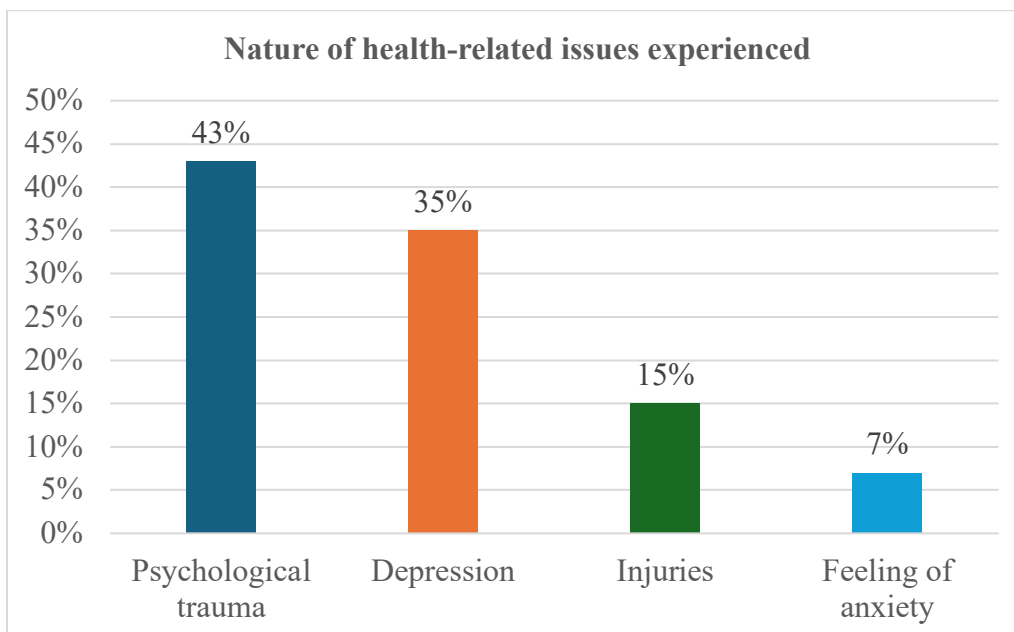


Figure 32. Reported health-related issues among e-waste workers.  
Source: Field data, 2022.

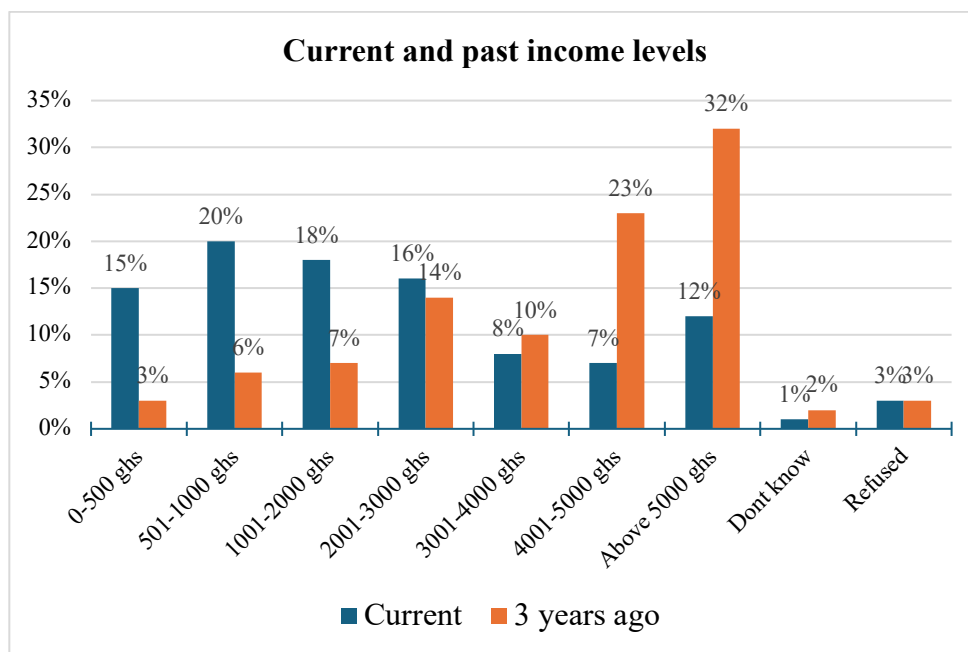
Beyond the immediate violence, the results expose a stark institutional void: there has been no documented state intervention to provide medical care, psychological support, or alternative livelihoods for displaced workers. This suggests that the demolition was carried out with little regard for the welfare of those affected, reinforcing the exclusionary governance approach that defines Accra's urban restructuring. In the absence of structured post-eviction support, displaced workers were left to navigate their trauma and injuries alone, further deepening their precarious situation.

Given the prevailing narratives that often portray the informal e-waste business as a lucrative enterprise for its workers, our study sought to assess the impact of the demolition on workers' income levels by comparing their current income to that recorded three years prior. The data revealed notable disparities between current and past income levels (see Fig. 33). Specifically, the percentage of workers earning between Gh¢0 and Gh¢500 increased from 3% to 15%, while those earning between Gh¢501 and Gh¢1,000 increased from 6% to 20%. The rise in income among lower-income groups is linked to the predominance of scavengers and collectors in the e-waste trade (Amankwaa, 2013b), whose activities, characterised by mobility and the collection of recyclable electronics, were less severely disrupted by the demolition. Their inherently mobile and informal nature of work allowed them to adapt more effectively to the disruptions, thereby softening the negative impact on their income levels.

Conversely, there was a stark decline in the proportion of workers earning higher incomes. The percentage of workers earning above Gh¢5,000 dropped from 32% to 12%, while those earning between Gh¢4,001 and Gh¢5,000 decreased from 23% to 7%. This decline in income among higher-income workers is attributable to the fact that this group primarily comprises the leaders, or "masters", in the e-waste business, who owned the physical structures and assets at the Agbogbloshie site, most of which were destroyed during the demolition. Their subordinates, commonly referred to as "boys", typically work under the direction of these "masters" and are compensated for collecting e-waste across the city. These workers also experienced income losses in the aftermath of the demolition. The interim secretary of ASDA offered additional insight into these dynamics, stating:

*Every master had at least two, three, or four boys working for them. Therefore, when the masters were affected, it also impacted their ‘boys’. Collectors are not bringing in as much e-waste as they used to because the site is demolished, which is affecting the quantity of e-waste in their possession; hence, their income.*

This statement emphasises the interdependence between the “masters” and their “boys”. The income losses experienced by the “masters” due to the destruction of their infrastructure had a ripple effect throughout the workforce, impacting the lower-income workers who relied on the “masters” for employment and direction. Consequently, the loss of infrastructure at Agbogbloshie not only impacted the earnings of the “masters” but also led to a cascading effect on the lower-income workers. This situation highlights the intricate and interconnected nature of informal sector.



*Figure 33. Comparison of current and past income levels among e-waste workers. Source: Field data, 2022.*

Savings methods among workers mirror the broader informality characterising the sector. Approximately 59% of e-waste workers rely on a traditional savings mechanism known locally as ‘susu’. In this informal yet widely trusted method, individuals contribute regularly to ‘susu’ operators to build their savings. This arrangement is preferred because it aligns well with the

informal structure of their informal e-waste businesses. Additionally, 19% of workers opt to save their money in private banks, 11% utilise mobile money centres, and approximately 9% prefer to stash their funds with friends. These findings corroborate the observations made by Amankwaa et al. (2016), who noted the growing use of informal and semi-formal financial platforms for saving, remitting, and receiving money among workers in Agbogbloshie.

The forced eviction and demolition of Agbogbloshie profoundly disrupted the income streams for e-waste workers, compelling 74% of them to rely on their savings for financial survival. This heavy dependence on savings highlights the informal nature of the work and the absence of institutional safety nets available to workers in the informal sector. Unlike their counterparts in the formal economy, who may have access to severance packages, unemployment benefits, or state-sponsored social protection, informal e-waste workers were left without such support mechanisms, forcing them to deplete personal savings to cope with the economic fallout. Only a minority of workers, 26%, reported not having to rely on their savings during the crisis.

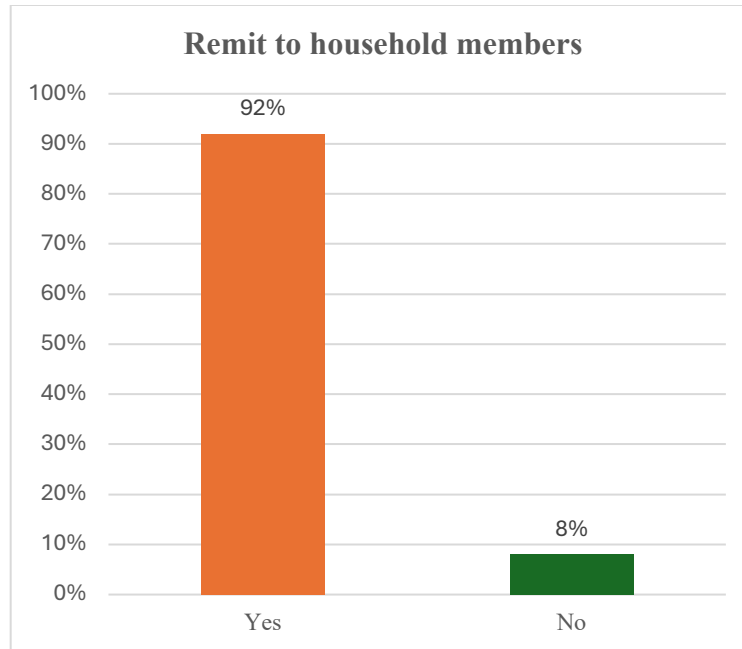
This financial instability also affected workers' ability to remit money and goods to families in northern Ghana, a common practice among e-waste workers, as noted in prior research (Amankwaa, 2013a). The data shed light on this situation, as they reveal that 92% of workers intermittently send remittances to their households (see Fig. 34). However, 70% of them reported a sudden reduction in the volume of remittances, both money and goods, sent to their families in the north following the demolition (see Fig. 35). The demolition seriously hampered the income-generating activities of e-waste workers, which in turn affected their financial resources and savings available for remittances. Testimonies from affected workers vividly illustrate these cascading socio-economic effects. In an interview, one of the scrap dealers shared his personal experience regarding the decline in household remittances:

*My old lady is there in the North. Every month, I have to send her like 400 cedis, and I have other sisters that I take care of. I was not giving them monthly, but depending on their problems at the time, I could give them 500 cedis at once. I have four children that I take care of. The boys used to get 300 cedis, and the girls 200 cedis each. Now, the situation has changed. The boys get 150 cedis, and the girls 100 cedis.*

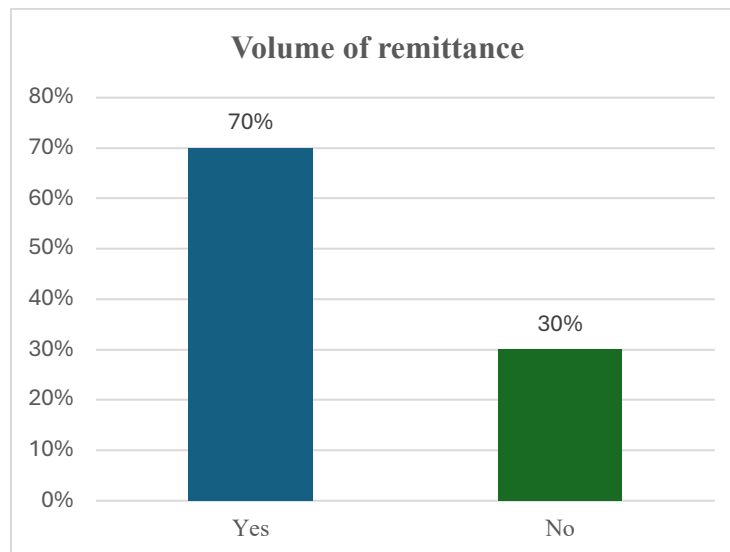
Another scrap dealer elaborated:

*Before the demolition, I was sending my mother 400 cedis every month without fail. I would also help my sisters whenever they needed something, sometimes as much as 600 cedis, depending on their situation. They rely on the money for their small farm activities back in the North, buying seeds, fertilizers, and other essentials. I also made sure my children's education was covered. But now everything is different; it is hard for me to render this support.*

These narratives exemplify the cascading socio-economic effects of the demolition, demonstrating how the disruption of informal livelihoods undermines familial support systems that are often sustained by remittances. In Ghana's north-south migratory context, many e-waste workers in Accra remit funds to households in northern regions, where remittances serve not merely as economic transfers but also as critical lifelines that support education, healthcare, subsistence farming, and other essential needs. The marked reduction in remittance flows post-demolition suggests not only a decline in workers' disposable income but also a ripple effect that extends to rural households that depend on income from urban informal economies for their survival.



*Figure 34. Remittances to household members.  
Source: Field data, 2022.*



*Figure 35. Decline in remittance flows among e-waste workers.  
Source: Field data, 2022.*

Table 12 presents an assessment of the inventory of physical assets owned by e-waste workers before and after the demolition. This assessment utilises a modified Physical Asset Categorisation (PAC) framework, adapted from the Ghana Statistical Service (GSS, 2007), incorporating assets

directly relevant to e-waste operations. Through a collaborative effort with the leadership of ASDA, workers were engaged to inventory the assets they owned, record any losses sustained during the demolition, and estimate the financial value of those losses.

Results indicate significant losses across four main asset categories: household items, e-waste collection resources, old electronic devices and components, and e-waste resources. Household assets comprise items owned by workers residing in the demolition area; e-waste collection resources include equipment used for transporting e-waste both on-site and off-site; old electronic devices and components refer to obsolete electronics handled by workers; and e-waste resources denote the essential components used in e-waste processing activities.

Within the household assets category, items such as electric fans, refrigerators, and air conditioners had a relatively low ownership rates and minimal financial impact. In contrast, e-waste collection resources, including tricycles (locally termed ‘Aboboyaa’, a three-wheeled vehicle used for transporting goods) (Awuni et al., 2023) and motorcycles, both essential for transporting e-waste, suffered substantial financial losses – Gh¢100,000 (\$6,874) for tricycles and Gh¢50,000 (\$3,437) for motorcycles. These losses emphasise the significant economic value of these resources for workers, as their destruction undermines the mobility and operational autonomy of scrap dealers. As essential infrastructure for the day-to-day collection and transportation of scraps, their destruction disrupts not only livelihood practices but also the larger logistics chain within Accra’s informal recycling economy. These are not merely tools but vital extensions of labour, mobility, and economic viability in an ecosystem largely neglected by state support.

Significant losses were also recorded for old electronic devices and components, particularly computers and TVs, valued at Gh¢2,000 (\$137) and Gh¢5,000 (\$343), respectively. These losses underscore the economic significance of these items for recycling and refurbishment. E-waste resources, including scrap materials and container shop structures, were extensively owned and experienced substantial losses, with Gh¢300,000 (\$20,623) lost in scrap materials and Gh¢350,000 (\$24,060) in container structures. These findings highlight the profound economic consequences of the demolition exercise on critical resources within the scrap industry. Notably, copper, a primary component in e-waste, experienced particularly high ownership and incurred substantial financial losses of Gh¢200,000 (\$13,748).

As articulated by the interim secretary of ASDA, copper remains the most sought-after material, followed by brass, aluminium, and iron. The financial losses associated with these metals highlight broader economic implications, impacting both individual scrap dealers and the larger economic ecosystem due to the extensive utility of copper. An interview with a representative from People’s Dialogue sheds light on the demolition’s impact and the reasons behind the reason behind the significant losses in scrap materials:

*The goods or scraps are typically accumulated until they reach a sellable weight. They don’t weigh it on-site; instead, they buy and store it. Once enough has been gathered, they arrange for a truck to transport them to the Tema Steel factory, where it is weighed and sold. At the time of the demolition, the scraps had not yet reached the required weight for collection and sale, so most of the workers had no place to take them. Had the workers been given prior notice before the demolition, most of them could have transported their scraps instead of leaving them to be smashed by bulldozers and carried away.*

Vehicle engines, though owned by fewer workers, incurred substantial financial losses amounting to Gh¢175,000 (\$12,030), underscoring their economic importance to scrap dealers, particularly in providing access to copper wires. These losses highlight the detrimental effects of demolition activities on the livelihoods of workers. During a focus group discussion, one participant vividly detailed the extensive physical consequences:

*People had public toilets, washrooms, and stores. As for the physical losses, I can’t quantify them. As for bicycles, they are just minor things. We were talking about heavy, heavy machinery including caterpillar parts and large trucks, as well as generators and electric generators that we buy from companies. At times, you bring the generator, and two cranes are needed to lift and place it down, so you can see the amount of weight involved. Yet, everything was demolished and taken away.*

<b>Category of Assets</b>	<b>Assets owned by scrap dealers</b>	<b>Ownership (%)</b>	<b>Losses from demolition (%)</b>	<b>Value of losses (Gh¢)</b>
Household Assets	Electric fan	17	0	0
	Refrigerator	11	0	0
	Electronic iron	3	2	1,000
	Washing Machine	0.20	0	0

	Air Conditioner	2	0	0
E-waste Collection Resources	Tricycle (Aboboyaa)	94	4	100,000
	Motorcycle	16	5	50,000
	Truck	3	0	0
	Bicycle	6	2	2,500
	Pushcarts	95	0	0
	Old Electronic Devices and Components	Computer	2	3
TV		9	9	5,000
Radio player		12	4	3,000
Digital camera		1	0	0
Cell phone		52	6	2,000
DVD or CD player		3	2	1,500
E-waste Resources	Scrap materials	76	56	300,000
	Container shop structures	54	45	350,000
	Copper	75	27	200,000
	Vehicle Engines	34	14	175,000

*Table 12. Asset impact analysis: Demolition losses*  
Source: Field data, 2022.

### **5.5.3. Unveiling the Fallout on Ancillary Services within the Urban Space Economy**

#### *Post-Demolition Impact*

The demolition of the Agboglobshie scrapyards had profound and far-reaching effects, extending beyond e-waste workers to disrupt ancillary industries and support services essential to the urban scrap trade. These services, as noted by Grant & Oteng-Ababio (2012), are essential to the functioning of the informal e-waste sector, particularly in locations such as Agboglobshie, where workers rely heavily on them to meet the sector's diverse and evolving needs (Davis et al., 2019). Amankwaa et al. (2016) further highlight the sector's interconnectedness within the urban economy, showing how it supports multiple facets of citywide economic activity.

A key player addressing the challenges of the e-waste sector is GIZ, which has been leading efforts to promote sustainable e-waste management in Ghana since 2016. This pivotal role was reinforced by a €5 million technical and economic cooperation agreement between GIZ, the Government of Ghana, and the Federal Republic of Germany. This agreement supported the establishment of the Environmentally Sound Disposal and Recycling of Electronic Waste (E-waste Programme)

project, aimed at transforming the Agbogbloshie scrapyards from an informal recycling hub into a sustainable recycling park (Grant & Oteng-Ababio, 2021). The initiative encompassed community engagement, technical and performance support for scrap dealers, organisational development for ASDA, urban planning interventions, and comprehensive training workshops that offered both basic and advanced courses to workers.

A notable outcome of this programme was the establishment of the TTC in 2019, which provided training to scrap dealers on environmentally sound dismantling and recycling practices. The TTC team comprised nineteen contractors, five permanent staff members, and one security guard, who were tasked with conducting fieldwork, organising workshops, and mobilising participants. Regrettably, the TTC's activities were abruptly halted due to demolition, resulting in staff layoffs and leaving the GIZ infrastructure languishing in disuse (see Fig. 36). Reflecting on this disruption, a senior worker from the now-defunct TTC expressed regret:

*In my estimation, the GIZ programme was very beneficial and made a huge impact on scrap dealers. The training modules, characterised by their practical orientation, received positive feedback and engendered a palpable shift in behaviour among scrap dealers. Regular inspections by TTC staff showed an increase in adherence to safety protocols, evidenced by the increasing use of protective gear when handling e-waste. Unfortunately, subsequent developments have nullified the gains achieved through these initiatives, resulting in a lamentable regression in the observed trends.*

Aligned with GIZ initiatives, a dedicated healthcare facility was established to address the health needs of workers and nearby residents (see Fig. 37). Initially, the facility experienced substantial patronage, predominantly managing cases of malaria, urinary tract infections, respiratory tract infections, anemia, and an array of work-related injuries. However, observations during the fieldwork revealed a significant decline in the utilisation of the facility. A representative from People's Dialogue noted that the once-bustling centre has become significantly underutilised, effectively turning it into a "white elephant". This decline prompted further investigation. An in-depth review of case reports from 2021 to December 2023 reveals a striking decline in patient

numbers, dropping from 262 cases in 2021 to 151 cases in 2022, and plunging further to just 56 cases in 2023. This downward trend was starkly emphasised by a GIZ representative:

*...For us, it has been quite a bit difficult in the sense that the German government has 'pumped' quite a lot of substantial amounts of money into that space, particularly in the informal sector. As a matter of fact, that part of the pillar received quite a chunk of our funding, looking at how we can support them in all the ways I have mentioned. Now, having done this for three (3) years and then we are in our second (2nd) phase, not too long ago, it went down the drain overnight. Because once you move these stakeholders (scrap dealers) out of Agbogbloshie, you are telling us that, your activities in Agbogbloshie also end. Because the TTC is there all right, the health post is still there, but where are the stakeholders to work with? They are no longer there.*

In a corresponding interview with the head of the health facility, she expressed her concerns and frustrations with striking candor:

*We are troubled by the decline in patronage at the facility. Currently, there is very little activity; we come to work and remain idle because our primary clients have been relocated following the demolition, leading to a significant decrease in attendance. Although, the health facility itself was not part of the assets demolished at the yard and remains operational, access to the main premises of the demolished Agbogbloshie yard has been fenced off and blocked. This obstruction is further contributing to the reduced patronage we are currently facing.*



*Figure 36. Technical Training Centre for the capacity development of e-waste workers.  
Source: Photograph by author, 2022.*



*Figure 37. Old Fadama Clinic serving workers and residents.  
Source: Photograph by author, 2022.*

The demolition also had far-reaching consequences for steel manufacturing and recycling firms in Accra and Tema, which had long relied on the site for essential raw materials such as aluminium, iron ore, and copper. Studies by Amankwaa et al. (2016; 2017) and Grant & Oteng-Ababio et al. (2021) have documented the considerable contributions of the informal e-waste sector to these firms, as it provides vital components for their production processes and significantly boosted scrap metal exports.

In this study, we investigated the impact on two prominent formal recyclers in the Accra Metropolis that had established operations close to the scrapyards. These firms include N.N.EST Metals, an Indian enterprise, and Lambda Metals, formerly known as Blancomet Recycling Factory, a UK-based company. Both firms previously benefited from supplies sourced from Agbogbloshie but faced operational disruptions, reduced supplies and rising costs following the

demolition. The Operations Manager of Lambda Metals in an interview described how the demolition had escalated their business costs, resulting in production slowdowns and workforce reductions. Hitherto, scrap dealers had to spend less on transporting goods to the steel factory because of its proximity to Agbogbloshie. Now, with the scrapyards gone and logistics stretched across Accra, expenses have surged. He remarked:

*Our major supplies, consisting of copper, brass and used batteries, have reduced from 15 tons per week to 6 tons. This reduction significantly disrupted our production schedules and strained the company's ability to meet client demands. The operational disruptions resulting from the supply shortfall have also forced the company to lay off some workers to realign the workforce with our revised production capabilities (In-depth interview, Operations Manager).*

Similarly, N.N.EST. Metals Company Ltd acquired a parcel of land at Agbogbloshie from National Youth Authority (NYA) to establish a new branch, with the objective of expanding its operations and providing local scrap dealers with direct access to a marketplace. However, following the demolition, the company experienced a decline in metal supplies, which disrupted both its planned business expansion and the supply chain that local scrap dealers depended on. In an interview with the Operations Manager, he stated that the property in question was among those demolished at the scrapyards. He elaborated:

*...Within 6 months, we were receiving approximately 850 tons of scrap materials, but after the demolition took place, we observed a significant reduction: it dropped to 550 tons. This situation significantly affected our production capacity and revenue generation. (In-depth interview, Operations Manager).*

The financial sector also experienced difficulties, as many scrap dealers who had secured loans or participated in savings schemes with banks like Republic Bank relocated, leaving behind inactive accounts and unpaid loans. A “*susu*” operator recounted how many of his colleagues in the collection business were laid off, while others absconded with the money they had collected:

*...the demolition had a significant impact on our operation. Many colleagues engaged in the “susu” collection business were subsequently laid off by the bank due to the reduced presence of scrap dealers within the vicinity.*

Studies have shown that informal e-waste recycling is a highly gendered enterprise, with men predominantly overseeing the collection, dismantling, and incineration of waste, while women typically provide various ancillary services, such as selling food, water, as well as other items (Oteng-Ababio et al., 2015). Amankwaa et al. (2016) emphasise the substantial impact of e-waste recycling on ancillary businesses, such as food vending and retail establishments. Notably, those involved in food vending and retail were severely impacted by the demolition, experiencing substantial disruptions and losses. One food vendor recounted her experience:

*We lost money. We were not made aware of the demolition on time. Lost our containers, and now we do not have a space to operate our business. We are forced to conduct business in the sun. In those days, we used to make sales of 70 cedis a day but now is difficult to make even 20 cedis a day and cover the cost of our workers. (In-depth interview, Adams Salina – 20 years of experience).*

The Agbogloboshie Scrap Dealers Association (ASDA), the body overseeing scrap dealer operations, also disintegrated due to dissatisfaction with its leadership’s failure to anticipate the demolition. The interim secretary conveyed the following sentiments:

*...Because members felt that they were not up and doing. No matter what, they should have obtained the necessary information ahead of time. You know, when an association is active, especially for matters like this, at the very least, you should have some insight. But they were just sitting and waiting for the information to come to them. You have to go out and look for information, like I did on the 30th. I went and then came and told them. So, those who were smart enough and believed me were able to remove their valuable items. But those who did not believe me relied on the old association, which failed to act. (In-depth interview, Interim Secretary, ASDA).*

During a FGD with scrap dealers to gather their opinions on the dissolution of their association, many members criticised the literacy levels of the leadership, which hindered effective communication with city authorities. They argued that authorities had failed to engage effectively with both the association's leadership and the scrap dealers regarding the Regional Minister's demolition plans. One participant expressed his frustration:

*Our leadership was run by illiterates. The secretary was illiterate and highly greedy. He did not understand our language. How can you become a secretary of an association where about 98% of the members belong to one tribe, and you can't speak their language? Many members lost interest in working with the association because they did not trust them.*

In summary, the demolition of the Agbogbloshie scrapyards not only disrupted the informal e-waste sector but also crippled ancillary services, impacting industries, health services, and financial operations across the urban informal economy.

#### ***5.5.4. Binary Logistic Analysis of Agbogbloshie's Demolition on E-waste Workers' Livelihoods***

This study applied a binary logistic regression model to examine how the demolition of the Agbogbloshie scrapyards in Accra impacted the livelihoods of informal e-waste workers. The primary aim was to assess how various socio-economic factors shaped the probability of workers experiencing either improvements or declines in their livelihoods following the demolition. For analytical purposes, the workforce was classified into two distinct outcome categories: individuals whose livelihoods improved and those whose conditions deteriorated.

The selection of specific independent variables, such as income changes, marital status, years of work experience, education, access to savings, and remittance flows, was theoretically anchored in established urban livelihoods frameworks. These frameworks highlight that access to both tangible and intangible assets (human, financial, and social capital) shapes an individual's capacity to respond to shocks (Chambers & Conway, 1992; Moser, 1998; Rakodi, 2002). In the context of informal economies, factors such as work experience and social obligations (e.g., marital status)

often influence resilience or vulnerability more than formal credentials (Mitlin & Satterthwaite, 2012).

The statistical model exhibited strong internal validity, with a log-likelihood of -56.02 and a likelihood ratio chi-square ( $\chi^2$ ) value of 59.91, which surpassed the critical value at the 1% significance level (see Table 13). These results affirm the collective explanatory power of the selected socio-economic predictors in accounting for variations in post-demolition livelihood outcomes. Furthermore, the model's pseudo  $R^2$  value of 0.39 indicates that nearly 40% of the variance in livelihood outcomes was explained by the model, a considerable achievement, given the inherent complexity of the urban informal economy.

A notable finding regarding workers' years of experience in the e-waste sector reveals a statistically significant negative association between the length of experience and the likelihood of reporting a positive livelihood outcome. Specifically, the analysis showed that for each additional year of experience, the probability of experiencing a positive impact decreased by 0.03. This negative association suggests that workers with longer periods in informal e-waste recycling were more vulnerable to the adverse effects of the demolition. This vulnerability may stem from a narrowing adaptive capacity, an increased dependence on dismantled spatial infrastructures, or reduced access to alternative livelihoods. This highlights the paradox of informal resilience: the survival strategies that support basic needs can, over time, reinforce precarious conditions.

Equally noteworthy is that formal education did not significantly affect how workers navigated the aftermath of the demolition. This underscores the limited value of educational attainment in an informal economy, where survival relies more on physical labor, local knowledge, and social networks than on formal credentials. Conversely, marital status did have a significant effect; married e-waste workers were 0.11 times more likely to report a negative impact on their livelihoods compared to unmarried workers. This likely reflects the additional economic pressures associated with family responsibilities, making household heads more vulnerable to shocks.

The financial impact of the demolition was particularly pronounced. Changes in income and remittances clearly demonstrated this, as workers reporting declines in these areas were much more likely to experience negative effects on their livelihoods. The analysis also emphasised the

importance of financial preparedness. While having savings alone did not guarantee protection from hardship, those who actively relied on their savings after the demolition were 0.07 times more likely to report improved outcomes. This suggests that, although savings may not eliminate vulnerability, they provide a critical short-term buffer that enables some degree of resilience in the face of disruption.

<b>Independent Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>Marginal Effect</b>
Years of experience	-0.67***	0.17	-0.03
Education	0.05	0.58	0.00
Marital status	-2.49***	0.75	-0.11
Regular income	0.42	0.79	0.02
Experienced health problem	-0.64	0.61	-0.03
Demolition affected income	-3.35***	0.70	-0.14
Household remitting money	-2.37**	0.77	-0.10
Household has savings	-2.70**	0.96	-0.11
Household relies on savings	1.73**	0.79	0.07
Housing status affected	-0.56	0.59	-0.02
Constant	6.89	1.55	-

*Table 13. Binary Logistic Regression Model*

*Source: Field data, 2022.*

**Model summary:** *LR Chi-square = 59.91; Prob > Chi square = 0.00; Log-likelihood = -56.02; Pseudo R<sup>2</sup> = 0.39; Number of observations = 348.*

*NB: \*\* and \*\*\* denote 5% and 1% significance levels, respectively.*

### **5.5.5. Coping Strategies Adopted by the Workforce**

The demolition of the Agbogbloshie scrapyards marked a significant moment in Accra's urban redevelopment process, highlighting the tensions between state-led spatial transformation and the survival strategies of workers in the informal economy. This abrupt removal of one of West Africa's largest informal e-waste hubs disrupted the livelihoods of hundreds of informal sector workers who depended on continued access to that space for their socio-economic survival. However, in response to this disruption, displaced workers quickly reorganised, showcasing both their adaptability and the structural precarity that characterises informal economic life in the face of exclusionary redevelopment practices.

Rather than relocating far from the original site, a significant proportion of the displaced labour force resettled within the adjoining informal settlement of Old Fadama, which has since evolved

as a key locus for ongoing e-waste activities. In this area, several residents with frontage spaces have permitted other workers to conduct e-waste processing, resulting in a dense concentration of operations. The cramped conditions have even led some individuals to share living accommodations. This settlement, which has long been a hub for informal sector activities, continues to host a significant portion of Accra's e-waste operations. The choice of Old Fadama as a site for resettlement underscores the vital role that informal settlements play in the lives of marginalised urban populations. These spaces, though often overlooked by formal urban planning initiatives, serve as crucial economic nodes for the informal economy. They provide not only the physical space but also the socio-economic infrastructure necessary for sustaining livelihoods in informal sectors, such as e-waste recycling.

In response to these spatial adjustments brought about by the demolitions, displaced workers took proactive steps to reorganise and reassert their collective presence within the informal economy. The demolition not only dismantled physical infrastructure but also disbanded the association that had previously coordinated e-waste activities. This rupture in organisational structure highlights the vulnerability of informal workers to state-led redevelopment initiatives, which often overlook or undermine the informal mechanisms that sustain workers' livelihoods.

In reaction to this setback, the workers established a new association to oversee the interests of e-waste workers following the dissolution of the previous one (see Fig. 38 for the registration certificate). An interview with the interim secretary detailed steps taken to register the new organisation with the Registrar General's Department. A significant development was the decision to rebrand the association as the "Gbewaa Scrap Dealers Association" – a name that honours the cultural heritage of the Northern Region, where "Gbewaa" carries deep traditional significance, while also fostering a sense of Northern identity and remaining geographically neutral regardless of future disruptions in the e-waste trade.

The decision to register the new Association with the Registrar General's Department further demonstrates the workers' commitment to formalising their presence in the informal economy. Through this registration process, e-waste workers seek to gain legal recognition, which could open doors to accessing institutional support, advocacy, and potential engagement with governmental bodies. Despite operating within an informal economic framework, workers' efforts

to institutionalise their activities and engage with the formal sector highlight the potential for bridging the divide between the informal economy and state structures, especially when the latter's redevelopment agendas overlook the needs and realities of informal workers.



Figure 38. Certificate of incorporation of the newly established Gbewaa Scrap Dealers Association.

Source: Photograph by author, 2022.

In parallel with the reorganisation efforts, the interim executive committee has been actively pursuing the acquisition of new land for e-waste operations (refer to Fig. 39 and 40 for

documentation of the new land). This initiative arises from the strong opposition from scrap dealers regarding the government-designated relocation site at Kofi Quaye. Interviews with scrap dealers revealed that the government-designated site in Kofi Quaye suffers from severe constraints, including insufficient space and inadequate infrastructure access. As an alternative, the association has identified a prospective 50-acre parcel in Teacher Mante, located in Ghana's Eastern Region, as a suitable site for resettlement. To finance this acquisition, members are being levied a fee of 2,000 Ghana cedis, payable in two installments. The interim secretary of ASDA detailed the unsuitability of the government-allocated land, stating:

*The land allotted to us by the government is too small, about six acres. It is too small, considering our numbers; the place would not contain all of us. Again, the location where the land is situated is also not ideal because of the poor condition of the roads leading to the area. The most annoying thing is that there is a narrow bridge we need to cross. Given the heavy loads we carry, that bridge poses a safety risk.*

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Name: GREATER ACCRA SCRAP DEALER ASSOCIATION Date: 13/07/2021  
Address: (GASDA), P.O. BOX 818, ACCRA  
L.P.O No: 001

QTY.	DESCRIPTION	UNIT PRICE	AMOUNT
(50)	COST OF FIFTY ACRES OF LAND AT TEACHEMUNTA	40,000,000	2,000,000,000
	Less 50% Discount Allowed		1,000,000,000
		<b>TOTAL Ghc</b>	<b>1,000,000,000</b>

Amount in words: One Million Ghs. Credit

Customer's Signature: [Signature] 13-07-2021  
Manager's Signature: [Signature]

Figure 39. Receipt of land purchase by scrap dealers for future e-waste operations. Source: Photograph by author, 2022.

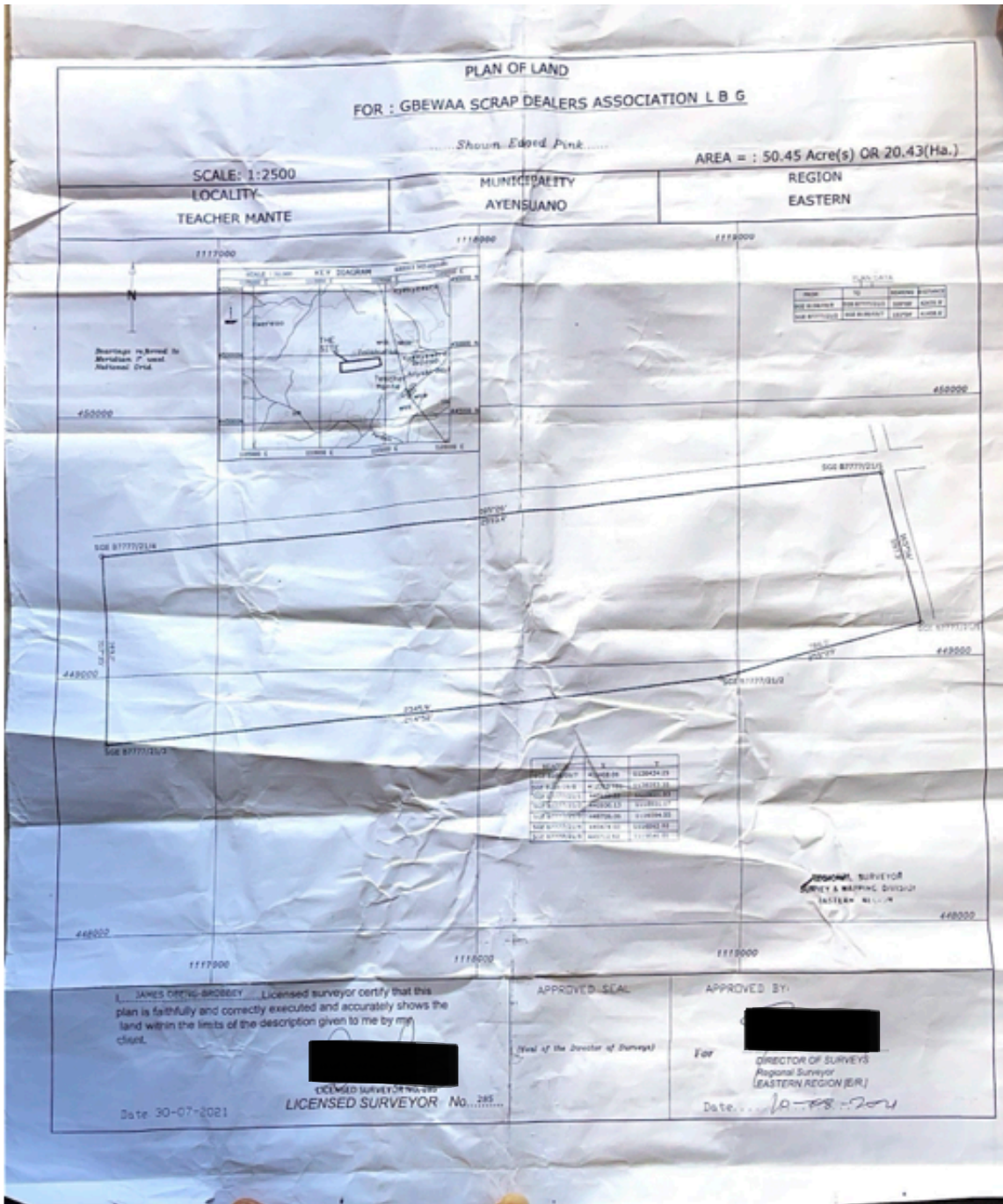


Figure 40. Approved cadastral layout plan for the 50-acre land acquired by scrap dealers  
 Source: Photograph by author, 2022.

## 5.6. Conclusion and recommendations

This study contributes to critical urban scholarship by examining the socio-economic consequences of state-led demolitions targeting informal livelihoods within Accra's e-waste economy. Building on the case of Agbogbloshie, the analysis highlights the lived experiences of informal workers who were forcibly displaced under the LMAWA campaign, an archetypal instance of revanchist urbanism (Atkinson, 2003). While revanchist tendencies in African cities have been widely noted, the empirical granularity of their effects on informal economies and everyday life remains underexplored. This study addresses that lacuna by situating informal recyclers not simply as victims of state violence but as agents navigating coercive urban transformations through adaptation, resistance, and collective reorganisation.

The demolition of Agbogbloshie revealed the multidimensional vulnerabilities produced by revanchist urban strategies. Beyond merely excluding people from certain spaces, informal e-waste workers experienced acute disruptions to livelihoods, health, and socio-economic stability. Notably, more than half of respondents reported significant health complications, such as psychological problems (like depression and anxiety) and physical injuries (such as cuts and bruises) inflicted by security forces. Financially, e-waste workers experienced a sharp decline in income following the demolition. The brunt of this upheaval severely impacted the leaders in the scrap business, who owned most of the destroyed assets and structures, along with their employees, referred to as "boys". The demolition also strained savings, with more than two-thirds of workers tapping into their reserves to sustain their trade. This situation disrupted their ability to send remittances to households in the North, compounding the financial losses caused by the destruction of critical resources, including tricycles, motorcycles, and valuable e-waste materials.

The repercussions of the demolition extended to ancillary services crucial to the e-waste sector, disrupting financial and technical support services for institutions such as the GIZ Technical Training Centre, the GIZ healthcare facility, and local businesses, including steel manufacturing and recycling companies, the Scrap Dealers Association, and financial institutions. In response to these adverse impacts, workers have employed various coping strategies, including relocating to the Old Fadama settlement and forming the *Gbewaa Scrap Dealers Association* to better advocate

for their interests. Additionally, efforts are also underway to secure a more permanent relocation site in Koforidua to mitigate future disruptions.

Informed by Atkinson's (2003) framework, the state's approach exhibits all three strands of revanchism. First, the deployment of coercive governance mechanisms to dictate legitimate uses of urban space is evident in the militarised clearing of Agbogbloshie, which forcibly erased informal economic activities without any consultation. Second, targeted securitisation strategies aimed at "cleansing" the area, such as deploying armed personnel, using tear gas, and firing warning shots, reflect state programmes designed to discipline and regulate the behaviour of specific urban populations. Third, and most significantly, the prophetic and dystopian conception of public spaces invoked by the state in the Agbogbloshie case aligns with Atkinson's third strand of revanchism. The demolition was justified by invoking narratives of public health risks and environmental degradation, portraying the scrapyard as a site of urban decay that needed to be eradicated for the betterment of the city. This negative framing positioned the informal e-waste sector as a contaminant in the urban landscape, whose removal was deemed essential for the city's regeneration.

The study's findings carry profound implications for urban governance, planning, and social justice in rapidly transforming cities of the Global South. The Agbogbloshie demolition demonstrates how revanchist urbanism, often justified through discourses of environmental health and public order, produces layered, enduring harm to marginalised populations. The physical, economic, and psychological burdens faced by informal e-waste workers highlight the stark disconnect between state-led urban transformation efforts and the realities of those who sustain the city's informal economy. These exclusions are not only spatial but also deeply social and economic, resulting in fragmented livelihoods, weakened support systems, and long-term vulnerabilities that affect both individuals and broader networks essential for urban survival.

Yet, the findings challenge a deterministic interpretation of revanchism, particularly Slater's (2017) critique that the framework risks "reductionist determinism" by depicting state interventions as uniformly punitive and ideologically consistent. While the findings affirm key dimensions of the revanchist thesis, such as the state's aggressive displacement practices, the privileging of elite-centric urban visions, and the socio-economic dislocation of informal workers,

they also complicate this narrative. Rather than portraying displaced populations as passive victims of state violence, the study highlights the agency of e-waste workers. This is evidenced by their collective organising such as the formation of the Gbewaa Scrap Dealers Association, their adaptive relocation strategies, and their negotiated claims to new operational spaces. These dynamics suggest that, although state interventions were coercive and exclusionary, the resulting socio-spatial transformations were not entirely predetermined or uncontested. In doing so, the study contributes to broader theoretical debates by demonstrating how revanchist urbanism, despite its material violence, can also create spaces for negotiation, resilience, and subaltern political resurgence.

The findings of this study underscore the critical imperative for inclusive and participatory urban planning processes that meaningfully integrate the perspectives and livelihoods of informal sector workers, particularly those engaged in the e-waste economy, which constitute the main lifeblood of urban economies in Global South cities like Accra (Bandauko & Arku, 2024b). First, we advocate for the institutionalisation of co-design workshops (Rosenberger et al., 2024) as an essential element of participatory planning processes. These workshops should create interactive spaces where displaced e-waste workers, now spatially dispersed across Weija, Nungua, Ashongman, and other sites, can engage with city authorities, planners, researchers, and environmental agencies. Co-design workshops can help identify the specific infrastructure needs of these communities, ensure compliance with environmental and occupational health standards, and bridge the planning-policy gap that often renders informal actors invisible (Amankwaa & Danquah, 2025; Ward et al., 2018). Table 14 provides an overview of the proposed composition and roles of the co-design team, encompassing stakeholders from scrap associations, planning institutions, health services, academia, and the private sector.

Second, the formation of worker-led committees should be encouraged as a mechanism of ensuring collective representation and sustained engagement with urban authorities. These committees can act as intermediaries in planning negotiations, advocate for occupational protections, and institutionalise worker voices in policymaking processes (Xhafa & Serrano, 2024).

Third, the government must develop a comprehensive compensation framework based on the principles of Total Economic Value (TEV) (Museleku, 2021). This framework should systematically assess both tangible and intangible losses incurred during forced evictions, including asset destruction, income loss, and psychological trauma. Additionally, transitional support funds targeted at skill retraining, equipment recovery, or relocation should accompany this compensation system to help reduce long-term vulnerability.

<b>Stakeholder Group</b>	<b>Specific members</b>	<b>Role in the co-design process</b>
Displaced E-waste Workers	Representatives from Old Fadama, Weija, Mallam, Nungua, Ashongman Estate, and other emerging sites within the Accra Metropolis	Share lived experiences, propose infrastructure needs, validate design proposals
Scrap Dealers Association Leaders	Executives from Gbewaa Scrap Dealers Association or local trade unions	Represent organised informal networks, negotiate interests, mobilise participation
Urban Planning Authorities	Accra Metropolitan Assembly (AMA), Land-Use and Spatial Planning Authority (LUSPA), National Development Planning Commission (NDPC)	Provide technical planning input, coordinate spatial plans, align with policy frameworks
Environmental Agencies	EPA Ghana, Ministry of Environment, Science, Technology and Innovation	Ensure environmental safeguards, advise on sustainable waste handling in design
Social Welfare and Health Officers	Representatives from GIZ Health Clinic, MoGCSP, and local health units	Advise on public health impacts, recommend facilities for mental and physical well-being
NGOs / Development Partners	GIZ, Pure Earth, WIEGO, local CBOs	Provide facilitation support, capacity building, fund pilot initiatives
Academic/Research Institutions	Researchers from universities, Centre for Scientific and Industrial Research (CSIR)	Conduct needs assessments, monitor outcomes, and document process for policy learning
Local Assembly Members/Traditional Leaders	Community chiefs, unit committee members in affected areas	Offer local legitimacy, support communication and trust-

		building among dispersed workers
Private Sector Actors	Steel companies, recycling firms, tech refurbishers	Explore public-private partnerships, co-develop collection and processing infrastructure

*Table 14. Proposed composition and roles of the co-design team.*

*Source: Author’s compilation, 2025.*

Fourth, it is essential to provide advance notice and consultation prior to any demolition. In the Agbogbloshie case, neither the leaders of the scrap dealer association nor the workers were consulted or adequately informed beforehand, leading to surprise demolitions. This lack of communication was largely due to the illiteracy of the leaders, resulting in neglect by city authorities (Grant et al., 2024). This situation underscores the need for meaningful participation, where city authorities, urban planners, and policymakers engage informal worker leaders in decision-making processes. The absence of such participation can further marginalise these workers and increase their perceptions of injustice, potentially triggering resistance and lowering acceptance of future plans.

Fifth, we strongly oppose to use of brute force in demolitions, as it frequently results in injuries and fatalities among vulnerable populations. The Agbogbloshie demolition starkly illustrates this, with security forces employing excessive measures, including tear gas and warning shots (Grant et al., 2024). These tactics endanger lives, erode community trust, and escalate tensions. It is crucial to prioritise safety and adopt humane methods to prevent unnecessary suffering and ensure the well-being of affected populations.

Finally, targeted psychological assessments and long-term mental health support should be institutionalised for populations affected by demolitions. There is an urgent need for tailored interventions to address the trauma experienced by displaced groups.

Future research should continue to trace these trajectories by systematically examining the experiences of informal workers before and after demolition in the Global South, to provide a more nuanced understanding of the consequences of exclusionary urban transformation processes.

## **CHAPTER 6: CHANGING GEOGRAPHIES OF E-WASTE**

## 6. From Demolition to Dispersion: Navigating Changing Geographies, Insecurity, and the Environmental Injustice in Ghana's E-waste Industry<sup>3</sup>

### Chapter Summary

This study critically examines the aftermath of the 2021 demolition of Agbogbloshie, once Ghana's largest informal e-waste processing site, through an environmental justice lens. The findings reveal that the forced eviction failed to eliminate ecological and public health risks, instead spatially dispersing them across the Greater Accra Metropolitan Area (GAMA). The research traces how this dispersion has intensified precarious working conditions, fragmented supply chains, and deepened systemic inequalities in waste governance. Drawing on fieldwork, interviews, and site visits, the study highlights how displaced workers have reclaimed urban spaces, navigating shifting geographies shaped by political transitions, economic survival, and exclusionary urban policies. It argues that state-led interventions, framed as environmental and public health improvements, often reproduce or exacerbate environmental injustices when they fail to address root socio-economic conditions. The findings call for inclusive and participatory urban governance frameworks that formalise and support informal e-waste workers, rather than marginalise them. Ultimately, the study underscores that sustainable and equitable solutions to urban e-waste challenges require recognising the resilience of informal actors and addressing the broader political economy shaping environmental vulnerability. By doing so, Ghana can move toward more just, sustainable, and inclusive urban futures.

**Keywords:** E-waste, environmental (in)justice, informality, spatial dynamics, urban displacement

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<sup>3</sup>This chapter (6) is based on a peer-reviewed article currently under second review in *Heliyon*. The manuscript is provisionally cited as: Sarpong, A.O., Müller-Mahn, D., Amankwaa, E.F., Mensah, P., and Osei, E.O. From Demolition to Dispersion: Navigating Changing Geographies, Insecurity, and the Environmental Injustice in Ghana's E-waste Industry. Submitted to *Heliyon*, published by Elsevier. *Credit Statement:* Akwasi Owusu Sarpong: Writing – original draft, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualisation. Detlef Müller-Mahn: Conceptualisation. Ebenezer Fukuo Amankwaa: Writing – review & editing, Validation. Peter Mensah: Review & editing. Onallia Esther Osei: Review & editing.

## 6.1. Introduction

E-waste is now the world's fastest-growing waste stream, surpassing all other categories of waste (Andeobu et al., 2023; Liu et al., 2023). This exponential growth is fuelled by rapid advancements in Information and Communication Technologies (ICTs) and the ubiquitous use of electronic and electrical equipment (EEE) globally (Lee et al., 2024). Compounding this problem is the increasingly short lifespan of electronic devices, which significantly accelerates the waste generation (Fawole et al., 2023). Despite growing global initiatives to formalise and sustainably manage this complex and valuable waste stream, these efforts remain inadequate, with most e-waste not entering formal recycling channels (Sthiannopkao & Wong, 2013). As a result, the informal recycling of obsolete electrical and electronic equipment continues to thrive in many regions.

This unregulated e-waste landscape has evolved into a critical environmental and public health issue, with far-reaching consequences for human, animal, and ecological well-being (Asante et al., 2019; Goyal & Gupta, 2024). The 2024 Global E-waste Monitor Report underscores the scale of this challenge, revealing that 62 billion kilogrammes of e-waste were generated globally in 2022 alone – yet only 22% was formally collected and treated using environmentally sound practices (Balde et al., 2024). Alarming, the remaining 78% was processed through informal and often hazardous methods, reflecting stark inequalities in global recycling infrastructure and capacity (Balde et al., 2024).

In Africa, the e-waste management landscape mirrors these global challenges, but with unique complexities and local deficiencies. Weak or non-existent regulatory frameworks, insufficient infrastructure, and a chronic lack of technical expertise and capacity exacerbate the crisis (Asante et al., 2019; Ondiek & Onyango, 2024). Compounding these glaring systemic gaps is the continent's entanglement in global e-waste flows, where illicit transboundary movements of used electronics have created complex circuits of reuse, repair, and informal recycling that many informal workers rely on for their livelihoods (Andeobu et al., 2023). Unfortunately, a significant portion of this waste ends up in unregulated dumpsites and landfills, where marginalised informal workers dismantle and recycle discarded electronics using rudimentary techniques, often without basic health and safety protections (Andeobu et al., 2023; Asante et al., 2019; Oteng-Ababio &

Amankwaa, 2014). According to the 2020 UN Global E-waste Atlas Report, Ghana, along with Nigeria, Egypt, Kenya, and South Africa, is a major recipient of the world's e-waste (Asante et al., 2019). These countries are home to extensive informal recycling economies that, while economically vital, are also associated with environmental degradation and serious health risks for both workers and nearby communities (Maes & Preston-Whyte, 2022).

In Ghana, this stark reality is exemplified by the Agbogbloshie scrapyards in Accra, which has long been recognised as one of the largest hubs for informal e-waste recycling in West Africa (Amoyaw-Osei et al., 2011). Nestled within the heart of the city's Central Business District (CBD), Agbogbloshie has for decades served as a critical economic lifeline, providing livelihoods for a predominantly youthful, male migrant population from northern Ghana (Amankwaa, 2014; Oteng-Ababio, 2012b). Here, workers engage in crude dismantling, open burning, and scavenging to extract valuable metals, processes that are both physically hazardous and environmentally destructive (Amankwaa, 2014; Amoyaw-Osei et al., 2011; Oteng-Ababio, 2012b).

These crude and unregulated operations have unleashed a toxic cascade of pollutants into the air, water, and soil, contaminating the nearby iconic Korle Lagoon and infiltrating the food chain through local markets (Chama et al., 2014; Kyere et al., 2018; Prakash et al., 2010). Mounting concerns over these undoubtedly significant health risks and environmental degradation (Amankwaa et al., 2016; Caravanos et al., 2011; Grant & Oteng-Ababio, 2016) culminated in the demolition of the Agbogbloshie scrapyards in July 2021 – an event that marked a pivotal moment in the city's e-waste governance (Grant et al., 2024). While the demolition was presented by state actors as a necessary public health and environmental measure, it resulted in the displacement of thousands of informal workers (Sarpong et al., 2025). Furthermore, it led to the spreading out of recycling activities across Accra's urban landscape (Sarpong et al., 2025).

Following demolition, informal e-waste operations have relocated to diverse sites, including the Old Fadama settlement, residential neighbourhoods, and open urban spaces. These new hubs present fresh intricate socio-environmental challenges that remain largely underexplored in contemporary scholarship (Sarpong et al., 2025). Environmental degradation, occupational risks, and social marginalisation have re-surfaced in different forms, raising urgent questions about justice, inclusivity, and the unintended consequences of urban environmental interventions.

This paper examines the evolving geographies of e-waste work in Accra following the demolition of Agbogbloshie. We argue that non-inclusive demolition policies have not eliminated environmental risks; instead, they displaced and redistributed these risks across more fragmented and less-regulated spaces. These changes reflect broader patterns of environmental injustice and urban marginality.

Using the case of Ghana's informal e-waste economy, this paper aims to contribute to the scholarly discussions on environmental justice and urban informality. It also offers policy-relevant insights for improving e-waste governance in low- and middle- income countries. The paper addresses the following questions:

- a. How has the demolition of Agbogbloshie reshaped the spatial dynamics of e-waste recycling in Accra?
- b. What new environmental and social risks have emerged in the aftermath?
- c. How are policymakers and regulatory institutions responding to these dispersed e-waste activities?

The paper is structured as follows: following the introduction, the next section provides a critical review of the literature on e-waste geographies and informal urban economies. The subsequent section presents the theoretical framework, leveraging environmental justice theory to interrogate the spatial and ecological dimensions of e-waste activities and their broader implications. Section 4 outlines the research methodology, followed by the study findings and discussion. The paper concludes with policy and practice-oriented recommendations, synthesising key insights into actionable strategies that promote more equitable and sustainable e-waste governance in urban Ghana.

## **6.2. Shifting Geographies of E-waste Management in Accra**

The demolition of the Agbogbloshie scrapyards stands as a stark example of environmental injustice, revealing how state-led urban interventions can inadvertently reinforce systemic marginalisation under the guise of urban renewal (Fawole et al., 2023). The forced eviction of informal e-waste workers from this long-established site has led to a significant shift in the layout of recycling activities across Accra. Instead of reducing environmental risks, which was cited as the reason for the action, the displacement has worsened these risks by spreading informal

operations from the city's centre (Agbogbloshie) to outer areas like Teshie-Nungua, where oversight is limited and environmental dangers are more severe (Grant & Oteng-Ababio, 2021). As Grant et al. (2024) caution, this spatial fragmentation of informal e-waste work risks generating unregulated environmental consequences across multiple neighbourhoods.

While the demolition was officially framed as a public health and urban beautification effort, its outcomes have, in practice, exacerbated socio-environmental vulnerabilities. Far from resolving longstanding risks, the intervention has pushed informal workers into more precarious conditions with fewer protections. This situation underscores a paradox frequently seen in state-led redevelopment: interventions designed to “clean up” urban spaces often deepen inequalities and reinforce the marginalisation of vulnerable groups. These outcomes align with the broader literature on environmental justice, including the foundational work of Bullard (1990) and further elaborated by Schlosberg (2007) and Scott (2014), which document how environmental risks and benefits are unevenly distributed, and how decision-making processes often exclude those most affected.

Drawing on this body of work, we argue that the demolition exemplifies the persistent exclusion of informal workers and marginalised communities from urban governance processes in low- and lower-middle-income countries like Ghana. Rather than engaging these groups in participatory planning, city authorities enacted a top-down policy that perpetuates cycles of dispossession and ecological harm. This case, thus, exemplifies how non-inclusive urban policies can reproduce the very injustices they purport to eliminate.

In the aftermath of the Agbogbloshie eviction, displaced e-waste workers have faced intensified land insecurity and severe operational constraints. In response, organised groups such as the Agbogbloshie Scrap Dealers Association (ASDA) have mobilised to secure alternative workspaces. A particularly notable development is the collective acquisition of a 50-acre parcel of land in Teacher Mante, located in Ghana's Eastern Region. This effort aims to reestablish a consolidated recycling hub (Grant et al., 2024). This initiative reflects both the resilience of the displaced community and the broader economic restructuring that often follows state-led displacements. However, the absence of institutional support in facilitating this relocation

underscores an ongoing governance gap, that neglects the realities and needs of informal economies within urban development frameworks (Grant et al., 2024).

### **6.3. Environmental (In)Justice: A Theoretical Lens**

#### ***6.3.1. Social movements underpinning Environmental Justice (EJ)***

This study adopts environmental justice (EJ) theory as its core analytical framework. The origin of EJ can be traced to grassroots mobilisations in the United States during the 1970s and 1980s, that protested the disproportionate siting of environmental hazards in predominantly Black and marginalised communities, particularly in the U.S. South (Bullard, 1990; Gilio-Whitaker, 2021).

Key moments in the early EJ movement include the Love Canal crisis in New York, where residents protested severe health risks arising from toxic chemical waste buried by the Hooker Chemical Company, and the 1982 protests in Warren County, North Carolina, where African American communities opposed a hazardous waste landfill containing polychlorinated biphenyls (PCBs) (Shrader-Frechette, 2002). These events galvanised both social movements and academic inquiry, laying the groundwork for EJ discourse and resistance against racialised and class-based environmental harms.

#### ***6.3.2. EJ in global discourse: Evolving perspectives in the Global South***

Robert Bullard, often referred to as the “father of environmental justice,” was instrumental in conceptualising the systemic nature of environmental racism (Bullard, 1990). His seminal research revealed that all city-owned landfills in Houston, Texas, were located in Black neighbourhoods, even though Black residents constituted only a quarter of the city’s population (Bullard, 1990). Since then, EJ has evolved into a global, multidisciplinary field that addresses unequal environmental burdens across racial, socioeconomic, and geographical lines (Schlosberg, 2013).

EJ scholarship has expanded internationally, informing debates on urban governance, public policy, and environmental regulation. Dedicated journals, such as *Environmental Justice and Local Environment*, provide platforms for examining the complex interrelationships between justice, policy, and sustainability. However, the concept remains theoretically fluid, with no universally accepted definition or measurement standard (Amuzu, 2018; OECD, 2024). As numerous scholars have observed, EJ means many things to many people. Schlosberg (2007) advances a

multidimensional model of EJ that incorporates three dimensions: distributive justice (the equitable distribution of environmental benefits and burdens), procedural justice (meaningful participation in decision-making), and recognition justice (respect for diverse identities, values, and local knowledge).

Scott (2014) further expands EJ's dual nature as both a grassroots movement and a normative framework that seeks fairness in environmental governance processes. From this viewpoint, advancing environmental justice necessitates amplifying the voices of low-income, racialised, and indigenous communities in environmental and natural resource policymaking venues—spaces that have historically produced decisions imposing a disproportionate share of environmental harms on these marginalised groups (Scott, 2014). The U.S. Environmental Protection Agency (EPA) similarly defines EJ as the fair treatment and meaningful involvement of all people, regardless of race, colour, sex, national origin, or income, in shaping environmental laws, policies, and enforcement. Holifield (2001) also adds a spatial dimension, focusing on how environmental risks disproportionately impact specific geographical areas, often inhabited by low-income or minority populations.

In Ghana, Oteng-Ababio (2013), in his seminal work *Unscripted (In)Justice: Exposure to Ecological Hazards in Metropolitan Accra*, underscores the spatial dynamics of environmental injustice and their implications for urban health disparities. Drawing on cholera outbreak data, he shows that approximately 85% of cholera cases were concentrated in densely populated, low-income sub-metros such as Ablekuma and Aseidu–Keteke. Notably, deprived inner-city neighbourhoods including Korle Gonno, Agbogbloshie, and Old Dansoman registered over 200 to 300 cases each, while more affluent areas such as Airport Residential Area, Cantonments, and East Legon had virtually no reported incidents of the disease (Oteng-Ababio, 2013).

These striking disparities exemplify the distributive dimension of environmental injustice, where impoverished and marginalised communities disproportionately bear the burdens of inadequate sanitation systems, poor waste management practices, and institutional neglect (Oteng-Ababio, 2013).

Such spatial injustices form a critical backdrop to the present study, which examines how the forced displacement of informal e-waste workers from Agbogbloshie has altered the geography of

environmental vulnerability in Accra. By foregrounding the lived experiences of affected communities, the study situates itself within the broader EJ tradition, emphasising the need to interrogate how environmental interventions, however well intentioned, can reproduce or intensify existing forms of exclusion.

### ***6.3.3. Applying Environmental Justice to e-waste work in Accra***

This study operationalises EJ through its three core dimensions, distributive, procedural, and recognition justice, to examine the lived experiences of informal e-waste workers in Accra and the systemic injustices they face (Heffron & McCauley, 2017; Schlosberg, 2004; Urkidi & Walter, 2011; Williams & Doyan, 2019).

Distributive (in)justice pertains to the unequal distribution of environmental risks and economic benefits across different groups. Informal e-waste workers at Agbogbloshie have historically borne the brunt of pollution, toxic exposure, and occupational hazards, while middlemen, dealers, and exporters disproportionately reap financial rewards (Amuzu, 2018). The workers who are most exposed to danger such as dismantlers, collectors, and burners, often receive the lowest wages and have minimal protections. Procedural (in)justice is evident in the exclusion of informal workers from planning and decision-making processes. Despite their central role in the waste recovery economy, these workers are rarely consulted in policy discussions, and their relocation after the Agbogbloshie demolition occurred without formal engagement. Furthermore, the Accra Metropolitan Assembly's has long refused to provide basic services, such as water, sanitation, and electricity, at the site, fearing that doing so would legitimise informal operations (Oteng-Ababio et al., 2017). This institutional neglect highlights broader failures in participatory urban governance.

Recognition (in)justice emphasises how informal e-waste workers suffer from systemic misrecognition. Their work is often stigmatised, leading to stereotypes that portray them as criminals or social deviants. Collectors, for instance, frequently face harassment, wrongful accusations, and even violence from law enforcement and the public (Amuzu, 2018). Despite their contributions to recycling and material recovery, they remain invisible in formal policy frameworks and are excluded from mainstream urban development initiatives. This erasure

compounds their vulnerability and deepens their marginalisation within Accra's urban fabric (Asibey et al., 2020).

In terms of occupational health and safety risks, the physical dangers faced by informal e-waste workers are severe and diverse. Collectors, in particular, travel long distances on foot while pushing heavy carts in harsh weather conditions, which leads to physical exhaustion and increases vulnerability to traffic-related accidents. Some of these accidents result in serious injuries or even death (Fobil et al., 2021). Dismantlers often work without protective gear, making them susceptible to cuts, lacerations, and exposure to sharp or hazardous materials (Fobil et al., 2021). Similarly, burners who extract metals through open-air combustion are regularly exposed to toxic fumes, significantly heightening their risk of respiratory diseases, burns, and chronic health issues (Acquah et al., 2021). A study by Fobil et al. (2021) highlights these occupational stresses, showing that 87% of collectors walk long distances, 82% of dismantlers sit for extended periods handling hazardous equipment, and 60% of burners remain standing for many hours, often inhaling toxic emissions. These findings emphasise the extreme physical demands and cumulative health dangers that informal workers face without proper regulations or occupational safety measures.

## **6.4. Methodology**

### ***6.4.1. Introduction***

This paper employs a qualitative research methodology that allows participants to express and interpret their lived experiences in their own words (Cohen et al., 2011). This approach is particularly effective for capturing the perspectives of those most directly affected by the demolition of Agbogbloshie, foregrounding their voices in an urban landscape marked by exclusion and precarity (Amankwaa et al., 2020; Esson et al., 2021). The ensuing sections provide a detailed overview of the study area, the data collection process, encompassing participant recruitment strategies, ethical considerations, and the use of semi-structured interviews and field observations, and the analytical framework employed to interpret the data and analyse participants' narratives.

#### ***6.4.2. Study area***

The Greater Accra Metropolitan Area (GAMA) serves as the spatial focus of this study, offering a critical lens for examining the forced displacement and reconfiguration of e-waste activities following the demolition of the Agbogbloshie scrapyards. Although GAMA lacks formal political demarcation, it consists of a collection of metropolitan, municipal, and district assemblies within the Greater Accra Region, excluding the Adangbe districts. Understanding this broader metropolitan context is crucial for analysing the spread of informal e-waste operations following demolition (Sarpong et al., 2025).

Unlike onion traders, another displaced group from Agbogbloshie who were allocated new sites in Adjen Kotoku, e-waste workers did not receive institutional support or resettlement assistance. They had to find ways to survive on their own, scattering their activities throughout GAMA. They operated in high-income neighbourhoods such as East Legon, as well as middle-income areas like Achimota and Dansoman, and low-income settlements such as Korle Bu and James Town. Their choices of relocation sites were primarily influenced by the availability of discarded electronics and the affordability of rental spaces or access to free operational turf.

#### ***6.4.3. Data collection procedure***

Data collection spanned three months, allowing for flexibility to accommodate the busy schedules of e-waste workers and state officials. Ethical protocols were rigorously followed, which included obtaining ethical clearance (see Appendix 1) from the Centre for Development Research (ZEF), securing informed consent, maintaining participant confidentiality, and addressing potential power imbalances between researchers and participants.

The primary method of data collection involved one-on-one semi-structured interviews, complemented by direct field observations. The interviews provided an in-depth exploration of participants' perspectives, while the field observations allowed for detailed documentation of the material and spatial practices associated with e-waste work, such as sorting, dismantling, transporting, and burning discarded electronics to extract valuable materials. Observational data were meticulously recorded in field notes and later triangulated with interview findings.

Participant recruitment began with a preliminary reconnaissance survey in Agbogbloshie, where key informants revealed that a significant portion of displaced e-waste workers had transitioned to alternative livelihoods. These included operating mini provision shops or working as motorbike (okada) and tricycle (aboboya) drivers. Others had migrated back to their hometowns in northern Ghana, to seek economic opportunities in the informal agricultural sector (Chasant, 2021b).

Following initial interactions with identified leaders of the Agbogbloshie Scrap Dealers Association (ASDA), who themselves were displaced by the demolition, we generated a list of potential participants. Attempts to reach participants via telephone yielded mixed results: while some agreed to participate, others were unreachable due to disconnected lines, highlighting the precarious nature of their circumstances after the demolition.

Ultimately, 20 former e-waste workers consented to participate. Interviews were conducted at their new workplaces to contextualise discussions within their current economic and spatial realities. This approach illuminated critical themes, including relocation patterns, the spatial reorganisation of e-waste operations, perceptions of emerging environmental hazards, and shifts in recycling practices. The interviews lasted approximately 25 minutes each, were audio-recorded with participants' oral consent, and were conducted in multiple languages – Akan, Hausa, Dagbani, and Mamprusi – to ensure linguistic inclusivity.

To enrich the dataset, additional interviews were conducted with six Environmental Health and Sanitation Officers from selected Metropolitan, Municipal, and District Assemblies (MMDAs) across GAMA, namely Accra Metropolitan Assembly, Ga East Municipal, Ablekuma West Municipal, Krowor Municipal, La Dade-Kotopon Municipal Assembly (LaDMA), and Ledzokuku Municipal Assembly. Officers were interviewed at their offices to ensure convenience. The discussions centered on their observations of emerging e-waste hubs, assessments of associated health and environmental risks, and evaluations of current policy frameworks and regulatory capacities.

Additionally, ten residents living within approximately two metres of active e-waste operational sites were purposively selected and interviewed. The sample consisted of five landlords and five tenants, drawn from five different communities: Ashongman Estate, Kwabenya, Nungua, Weija Gbawe, and Dansoman, with each locality contributing two participants (one landlord and one

tenant). These sites were selected not only for their spatial diversity, capturing northern, western, and coastal zones of Accra, but also because field observations revealed visible signs of informal e-waste activity, including open-air dismantling, metal storage, and burning operations in close proximity to inhabited dwellings. The interviews explored residents' perceptions of the environmental and social risks posed by such activities. Landlords typically reflected on issues related to land-use changes, informal rental arrangements with scrap dealers, and broader concerns about neighbourhood transformation. Additionally, tenants shared their personal experiences of environmental exposure, highlighting issues like air pollution, noise, and social tensions within shared residential compounds. These qualitative insights were complemented by continuous field observations, which documented resident–scrap dealer interactions, visible environmental hazards, and the spatial dynamics of informal recycling practices throughout the selected communities.

#### ***6.4.4. Data analysis***

All recorded interviews were transcribed verbatim into English. The transcripts were then imported into NVivo, a qualitative data analysis software, to facilitate a systematic and structured coding process. Key themes and sub-themes were iteratively identified, refined, and consolidated to ensure thematic coherence. Thematic analysis was employed to uncover recurring patterns, variations, and nuanced insights that directly addressed the study's research questions. This iterative analytical approach ensured the depth and rigour of the findings. The main themes discussed in this paper include the demolition and subsequent dispersal of e-waste businesses, as well as the post-demolition realities, which encompass perceived threats to the informal e-waste economy across GAMA.

### **6.5. Results and Discussion**

#### ***6.5.1. Mapping the evolving geographies of informal e-waste activity in GAMA***

The demolition of Accra's Agbogbloshie scrapyards in July 2021 triggered the dispersal of hundreds of informal e-waste workers across GAMA as they sought new locations to continue their livelihood activities. Once the epicenter of e-waste recycling and processing, Agbogbloshie's destruction shattered this centralised network, scattering workers and fragmenting operations across a wide range of residential landscapes within the metropolis.

Recent mapping conducted by the research team identified 26 new sites where displaced workers have regrouped into loosely organised processing hubs of varying sizes. These locations include Ofankor Barrier, Teshie Traffic Light, Nungua Goil, Nungua Cold Store, Teshie Krobo 1, Maamobi High Tension, Kokomlemle ATC, Central Mosque, Abosokai Traffic Light, Alajo, Weija, Malam Overhead, Darkoman Cables and Wireless, Paloma, Soko Junction Laterbiokorshie, Mortuary Road, Mamprobi Sempe 1, Dansoman Kakari park, Bortianor, Odumase, Pokuase, Dome Railways, Dome Pillar 2, Ashongman Estate 1, Ashongman 2, and Kwabenya (see Figures 41 and 42). These newly emerging sites now function as fully operational centres. Much like the hazardous conditions that characterised Agbogbloshie, these new hubs involve workers engaging in environmentally harmful practices, particularly the open burning of e-waste to recover valuable metals. Such practices continue to be significant contributors to environmental pollution (Brigden et al., 2008; Caravanos et al., 2011).

Each site typically consists of small groups of workers engaged in the collection, sorting, and dismantling of electronic waste using rudimentary tools. Despite the spatial and organisational variations, these newly emerging e-waste processing sites share a set of common physical and infrastructural characteristics that reflect their informal and precarious nature. These sites are typically situated on marginal or underutilised urban land parcels, including vacant lots, ecological buffer zones, the peripheries of uncompleted buildings, narrow alleyways, roadside shoulders, and areas adjacent to open drains or large gutters. The physical environment of these spaces is notably exposed, often situated on bare, sandy or unpaved ground, without any permanent shelter, fencing, or structural demarcation. Infrastructure is minimal and improvised, usually consisting of a single manual weighing scale elevated on a makeshift platform composed of wooden pallets and concrete blocks, scattered piles of discarded electronic devices, and one or two pushcarts or handcarts for transporting materials. The working environment is marked by the absence of basic infrastructure and sanitation, with debris and fragmented e-waste components strewn across the processing area (see Figure 43).

MAP OF E-WASTE HOTSPOTS IN ACCRA - GHANA

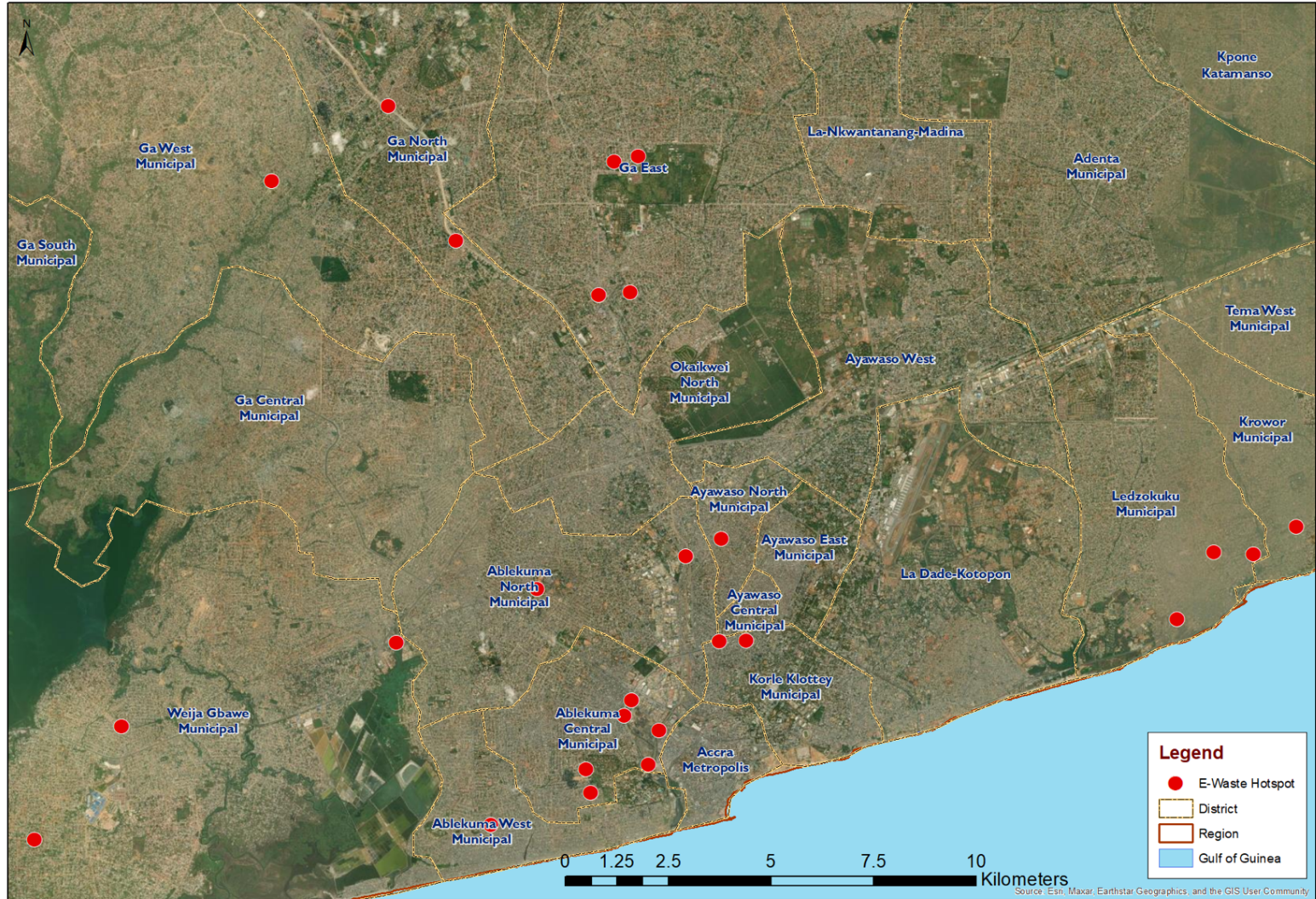


Figure 41. Spatial distribution of emerging e-wastes within the studied metropolis.  
Source: Field data, 2022.



*Figure 42. Newly emerging e-waste within a residential zone of Ashongman Estate.  
Source: Photographs by author, 2022.*

Later sections of this paper demonstrate how the demolition, intended to promote environmental justice, paradoxically exacerbates social, economic, and environmental injustices for vulnerable urban populations.

The emergence of these 26 informal processing sites highlights critical issues of distributive, procedural, and recognition justice – the three foundational tenets of environmental justice (Bullard, 1990; Schlosberg, 2007). Scholars in the field of Environmental justice consistently argue that marginalised communities disproportionately bear the ecological burdens of industrial and waste-processing activities (Bullard, 1993). The state-led eviction of e-waste workers from Agbogbloshie, justified on the grounds of pollution control and public health, has not eliminated environmental risks but rather redistributed them across GAMA. This spatial dispersion has given rise to new geographies of environmental vulnerability, exposing a broader segment of the urban population, particularly those in low-income neighbourhoods, to hazardous waste accumulation, deteriorating air quality, and soil contamination (Grant et al., 2024; Niyobuhungiro et al., 2025). As Eswari (2022) notes, proximity to informal e-waste processing sites significantly heightens residents' exposure to environmental hazards, reinforcing socio-environmental inequalities in Accra's urban landscape.

From the perspective of procedural justice, the demolition of Agbogbloshie and the subsequent displacement of workers occurred with minimal consultation with the affected workers and communities now burdened by the environmental consequences of their relocation (Chadambuka, 2025; Shrader-Frechette, 2002). This lack of participatory decision-making underscores significant deficiencies in Accra's environmental governance, where affected populations are systematically excluded from urban planning processes that directly impact their livelihoods and well-being (Gough et al., 2015; Vicario et al., 2025).

The relocation of e-waste activities to unregulated residential areas further exposes the shortcomings of Accra's urban environmental planning. The government's failure to provide designated, well-regulated processing centres has compelled informal recyclers to operate under precarious conditions. Meanwhile, affected communities struggle to access effective environmental protections due to weak regulatory enforcement (Paller, 2021). This situation mirrors broader patterns across urban Africa, where informal workers and low-income residents are consistently marginalised in urban governance (McDonald, 2003). Rather than promoting inclusive planning, some city authorities have pursued revanchist governance strategies, using environmental concerns as justification for mass evictions without providing viable alternatives for displaced populations (Smith, 1996).



*Figure 43. Typical layout and physical characteristics of emerging e-waste site in Accra.  
Source: Photographs by author, 2022.*

## **6.5.2. Navigating the perils and pressures of urban work: the case of e-waste workers on the social margins**

### **6.5.2.1. Spatial constraints and land tenure challenges in e-waste workspaces**

The relocation of e-waste workers following the demolition of Agboghloshie has introduced significant challenges in their search of scrap materials within new and unfamiliar urban environments. As these workers adapt to emerging landscapes within Accra, they encounter persistent tensions between seizing economic opportunities and navigating the obstacles inherent in less accommodating environments.

One of the most pressing issues they encounter is the acute shortage of adequate space for sorting, storing, and processing scrap materials. Many workers now operate on small, informally acquired plots, often without any formal agreements with landowners, leaving them vulnerable to eviction due to the absence of secure tenure (Singh & Singh, 2024). Field observations reveal that these spaces are frequently overcrowded, forcing multiple workers to share limited resources such as weighing scales and storage facilities. Such overcrowding not only constrains operational efficiency but also deepens the structural precarity of their livelihoods. As one scrap dealer recounted:

*The small land we are occupying is not ours. However, the owner is aware that we are here, and we have been occupying it for some time now. We have not formalised any agreement with him. We know that one day he will ask us to leave, but for now, we continue with our business.*

Interviews with key informants, supported by fieldwork, indicate that most of the sites currently occupied by e-waste workers were previously vacant lands, predominantly under private ownership. Many workers opportunistically seized these spaces, justifying their occupation by citing the prolonged idleness of the land. Others accessed land through informal negotiations, securing tenure through verbal agreements and monthly rental payments. However, the infrastructural conditions of these sites vary considerably. While some workers have erected makeshift shelters from salvaged materials, providing minimal protection from environmental

hazards, others operate entirely in open-air spaces without any cover. A few, however, have managed to secure relatively structured environments. Another e-waste worker echoed the uncertainty characterising these arrangements:

*This land does not belong to us. We came to settle here because we get most of the scraps from this neighbourhood. We saw this vacant land lying idle and decided to ply our trade here. So far, nobody has asked us to leave.*

This sentiment underscores the persistent uncertainty and vulnerability faced by workers who rely on informal land tenure, whose continued occupancy largely depends on the goodwill—or indifference, of landowners. In contrast, some scrap dealers have successfully negotiated more stable rental agreements, which provide them with a degree of operational security. As one worker explained:

*We are not occupying this land for free. Every month, we pay GhC250 to the landowner. We have signed a one-year rental agreement, which provides us with a level of stability to plan and operate our business effectively.*

Similarly, another scrap dealer noted:

*For us, we are renting the land. The landowner met with us, and we negotiated a monthly payment of GhC150. We mobilise money among ourselves and make the payment.*

These contrasting experiences highlight the broader issue of spatial insecurity within the informal e-waste sector. While some workers have managed to secure rented spaces, many continue to operate under precarious conditions, exposing them to the constant threat of displacement. This spatial instability, coupled with the lack of formal recognition of their activities, underscores the broader challenges facing e-waste workers as they navigate new urban environments.

#### **6.5.2.2. The decline of e-waste materials in emerging urban environments**

Beyond spatial constraints, the availability of e-waste materials has significantly declined across many neighbourhoods, posing a substantial threat to the sustainability of scrap dealers' livelihoods. Many workers report a sharp reduction in the volume of materials they can collect, particularly

when compared to the abundant supply that characterised Agbogbloshie before its demolition. Workers attribute this decline to increased awareness among residents regarding the value of e-waste materials. Previously, residents disposed of e-waste without hesitation, but now many are seeking monetary compensation for it, which has fundamentally changed the dynamics of access. Amankwaa (2013a) points out that, as public awareness of the economic value of e-waste has increased, informal scrap collectors are experiencing greater challenges in accessing discarded items. Many residents are either selling their e-waste independently or opting to keep it for themselves. As one scrap dealer reflected:

*Our business is going down. We are not getting enough goods like before because people are becoming aware of the value of their e-waste and are not giving it away as they used to in the past.*

Another leader in the scrap business shared a similar perspective:

*People are holding on to their old electronics now or selling them themselves. In Agbogbloshie, it was different—there was always a steady supply. But here, it feels like everyone wants to keep their scraps, and we struggle to keep up with the demand.*

This sentiment was echoed by another recycler:

*Before, we could go to different places and collect a lot of e-waste in a single day. Now, when we visit, people tell us they have already sold their old electronics or want to keep them for later.*

A scrap dealer operating in a newly established e-waste hub added:

*We used to have buyers bring us materials in bulk. Now, we have to go searching. It takes more time and effort, and sometimes we come back with nothing.*

Another worker described how these shifts have disrupted the informal networks that once facilitated scrap collection:

*In Agbogbloshie, we did not have to struggle this much. There was always something to work on. But now, even when we make rounds in the neighbourhoods, we come back empty-handed. People know the value of what they have and won't just give it away.*

Furthermore, workers also linked the decline in e-waste material availability to the shrinking of their operational turf. They recounted that in many instances, upon arriving in a locality to collect scrap, they encountered other groups of scrap dealers already operating in the area. Such overlaps often resulted in territorial conflicts and redundancy, hindering their ability to conduct effective collection and further intensifying competition over limited resources. As one scrap dealer in Weija Gbawe explained:

*Nowadays, you cannot go anywhere without finding another group already there. Once they see you are not from the area, they drive you away. It is not like Agbogbloshie, where everyone had space.*

A similar concern was echoed by a worker in Nungua, who remarked on the growing territorial tensions among collectors:

*Every area is full now. Sometimes we arrive at a place, and before we even start, someone tells us, 'this zone is ours'. If you insist, it can even lead to fighting.*

Another interviewee from Ashongman Estate added:

*It feels like we are chasing each other from place to place. The work is no longer smooth because we keep bumping into others trying to survive just like us.*

As the operational landscape grows increasingly saturated and competitive, access to e-waste materials has become contingent upon the cultivation of social networks and alliances among scrap collectors, rather than the open and unmediated access that once characterised the trade.

These reflections illustrate the mounting challenges faced by informal e-waste workers in the wake of the demolition of Agbogbloshie. As competition for materials intensifies and discarded electronics become harder to obtain, scrap dealers must navigate an increasingly constrained and uncertain operational environment. These shifting dynamics raise important questions about the

future viability of informal e-waste recycling and highlight the urgent need for policy interventions that ensure equitable access to materials while integrating informal workers into broader waste management and urban planning frameworks.

### ***6.5.2.3. Host communities' perspectives on the hazards and risks of emerging e-waste landscapes***

Despite the significant hardships faced by informal e-waste workers, they continue to be perceived as a nuisance in the emerging sites where they have relocated. Their presence in these emerging operational spaces remains uncertain, raising concerns about potential future evictions. Residents of these newly affected neighbourhoods have expressed strong dissatisfaction with the presence of informal e-waste activities, primarily citing environmental hazards and public health risks. Many community members reflected on both the immediate and long-term consequences of informal e-waste activities, particularly their impact on environmental quality, public health, and overall neighbourhood liveability. The concerns of host communities are further exacerbated by feelings of helplessness, as residents emphasised that they had played little to no role in the proliferation of these activities. As Njoku & Sampson (2023) observe, those who bear the brunt of e-waste contamination globally are often those who have contributed least to the problem.

Residents drew attention to the intrusive and pervasive nature of e-waste activities within their communities, citing practices such as open-air burning, manual dismantling of electronic devices, improper disposal of hazardous substances, and the uncontrolled accumulation of scrap materials. These environmentally deleterious practices have become deeply entrenched in areas now occupied by former Agbogboshie workers.

Open-air burning, a common method for extracting valuable metals, releases harmful pollutants such as heavy metals, particulate matter, and dioxins. These emissions significantly compromise air quality and pose serious health risks. Residents frequently reported intensified smoke emissions and unpleasant odours, resulting in a marked deterioration of local air quality and the creation of persistent environmental nuisances. Prolonged exposure to such airborne contaminants raises serious concerns regarding respiratory ailments, skin irritations, and long-term health implications, especially for vulnerable populations such as children and the elderly. In an interview in Bortianor,

a peri-urban settlement of Accra, a resident expressed deep distress over the proximity of open-air burning activities to their house.

*My main issue with the scrap dealers is the burning of materials. Usually, around 4 to 5 p.m., they burn scraps, and smoke and bad odour drift into our homes. Sometimes they even forget to put out the fire after burning, and I once had to put it out myself to prevent a disaster.*

Similarly, a resident of Dansoman Kakari Park lamented:

*The boys are constantly burning scraps here. The smoke and smell get worse during burning periods and linger all night. I live with my elderly mother, and I constantly worry about her breathing in this air. This is not ordinary smoke; it has something toxic in it.*

Another resident from Nungua also expressed frustration, stating:

*...For me, the troubling part is that the burning happens every day. Metals and wires are burned, and we are forced to live in a haze of pollution. The authorities must act before it gets out of hand.*

These narratives vividly capture the escalating tensions between displaced e-waste workers striving to rebuild their livelihoods and host communities grappling with the attendant environmental degradation. If these grievances remain unaddressed, local residents could mobilise to demand the removal of informal recyclers, mirroring precedents such as the Kosmos informal settlement in South Africa. As documented by Kekana et al. (2023), residents there, overwhelmed by firewood burning, successfully pursued legal action leading to the eviction of informal settlement dwellers.

Notably, while residents in these new sites voice strong objections to e-waste activities, similar concerns were largely muted in Agbogbloshie prior to its demolition. This divergence can be attributed to socio-economic differences: in Agbogbloshie, many residents were economically tied to the e-waste economy, while in these new communities, e-waste activities are seen as external disruptions rather than economic lifelines. This contrast underscores the extent to which

environmental justice concerns are deeply entangled with broader socio-economic realities and livelihood dependencies.

Beyond the issue of open-air burning, residents also raised concerns about the accumulation of scrap materials. These heaps were viewed not only as environmental hazards but also as eyesores that diminish the appeal of their neighbourhoods. Heaps of e-waste debris, often left unattended, disrupt the visual landscape of residential areas and contribute to a sense of urban neglect. During fieldwork in Dansoman, the research team observed large piles of scrap materials close to homes, underscoring the scale of the problem (see Figure 44). One resident remarked:

*Every day, we see piles of old electronics and scrap materials just sitting there. They don't belong in our neighbourhood. It feels like our area has become a dumping ground for scraps.*

In Kwabenya, another residential enclave in Accra, a resident echoed similar sentiments:

*We take pride in our neighbourhood, but it's hard to feel that way when there are mountains of scrap everywhere. This is not what Kwabenya used to look like.*

Beyond aesthetic concerns, residents also emphasised public health risks associated with the accumulation of scrap materials. As one resident in Weija narrated:

*These accumulations of scrap materials attract rats, mosquitoes, and other pests. It is dangerous, especially for children who play nearby. We feel like we are living in a dumping site. Authorities must step in and regulate where these activities occur. We cannot keep living with this mess—it affects us all.*

Interviews with scrap dealers in Kwabenya highlighted two important factors: first, unlike in Agbogbloshie, they currently lack stable, designated spaces for storing materials; second, they now take advantage of any available open space to temporarily accumulate scraps, which is subsequently transported in bulk to the Tema shipping harbour.



*Figure 44. Accumulation of e-waste materials in Dansoman.*  
*Source: Photographs by author, 2022.*

Another significant concern raised by residents pertains to the relentless noise pollution stemming from the dismantling activities associated with e-waste processing. The dismantling process, which often involves the use of hammers, chisels, and other tools to break apart waste electrical and electronic equipment, produces frequent and intrusive noise. According to residents, this constant disruption interferes with their daily routines and contributes to an atmosphere of discomfort and unease within the neighbourhood. A resident who operates a provision shop attached to his residence in Weija lamented:

*It feels like having construction work right outside your door, but it never ends. The noise emanating from their activities is unbearable and inescapable. We used to have a peaceful neighbourhood, but now it is difficult to enjoy a moment of quiet. Even conversations in my own home are sometimes drowned out by the hammering.*

Another Weija resident similarly described the impact of noise pollution on their ability to work and relax:

*I work from home, and it is nearly impossible to concentrate with the relentless hammering outside. Even in the evenings, when you would expect some peace, the noise continues.*

Echoing these sentiments, a resident from Nungua shared:

*...The noise from their activities wears on you. Sometimes, when we complain, people do not understand. It might seem like a small thing, but when you are surrounded by it every day, it feels like there is no escape. Even closing the windows and doors does not help; the noise seeps through everything.*

#### **6.5.2.4. Environmental Health Officers' perspectives on the dispersal of e-waste activities**

Shifting focus to institutional actors, this section highlights how the demolition of urban informal e-waste sites, and the subsequent dispersal of related activities, has introduced persistent and new challenges for sustainable and equitable urban management. A first set of perspectives comes from Metropolitan, Municipal, and District Environmental Health and Sanitation Officers, who are charged with enforcing environmental health regulations. These officials have expressed growing concern over the rapid proliferation of e-waste activities within their jurisdictions. Their observations point not only to the escalating scale of these operations but also to the intensifying exposure of vulnerable residents to toxic hazards.

A particularly striking account came from a Bortianor Environmental Health Officer, who stated:

*We have observed a rise in practices such as open burning of scrap materials and crude dismantling of electronic waste, which release toxic chemicals into the environment. We anticipate a significant increase in respiratory illnesses, skin disorders, and other health complications directly tied to these unsafe practices. If unaddressed, these trends could trigger a severe public health crisis, particularly among vulnerable groups such as children and the elderly.*

Other officers expressed concern for the well-being of the scrap dealers. Although emerging hubs primarily focus on accumulating, weighing, and selling scrap materials rather than burning them, officers worry about the risks that scrap dealers face due to the pervasive issue of improper household waste segregation. One officer explained:

*Most households in Ghana do not segregate waste. As a result, scrap dealers may encounter mixed waste, including fecal matter, when collecting materials. This exposes them to a high risk of contracting germs and infectious diseases.*

Beyond environmental and health risks, officers also highlighted operational challenges, particularly the spatial dispersion of e-waste activities across multiple communities. This spatial fragmentation severely hampers effective monitoring and regulation. An officer from the Ledzokuku-Krowor Municipal Assembly (LEKMA) emphasised:

*...Tracking the activities of scrap dealers is our biggest challenge. If they were concentrated in one location, it would be much easier to monitor and regulate them.*

Compounding this problem are systemic limitations in institutional capacity. Chronic underfunding and a lack of political will at both local and national levels hinder the ability to regulate the e-waste sector effectively (Canavati et al., 2022). A February 11, 2025, article in *Ghanaian Times* highlighted these struggles, noting severe shortages in logistical resources such as GPS equipment and operational vehicles, both essential for assessing, mapping, and monitoring e-waste activities (Ghanaian Times, 2025). An Environmental Health Officer from the La Dade-Kotopon Municipal Assembly (LaDMA) echoed this concern, stating:

*We want to map and regulate the activities of scrap dealers, as their numbers have increased significantly. However, we are seriously challenged by logistics, which hinder our ability to act swiftly to control and regulate their operations.*

Moreover, Environmental Health Officers reported a rise in theft-related complaints allegedly implicating scrap dealers who, under the guise of collecting e-waste, illicitly appropriate valuable household items. These incidents, particularly in neighbourhoods experiencing heightened e-waste activities, have exacerbated mistrust between residents and scrap dealers, thereby complicating community relations and undermining ongoing regulatory and enforcement efforts.

This blurring of lines between informal economic activity and criminal conduct threatens to erode public trust and heightens social tensions within affected communities. To mitigate these emerging challenges, Environmental Health Officers stressed the necessity of establishing regulatory mechanisms to clearly delineate legitimate e-waste activities from illicit activities. They also

highlighted the need for public awareness campaigns to educate communities on how to safely interact with scrap collectors, as well as the necessity for improved collaboration between local authorities, law enforcement, and environmental health officers.

Despite these concerns, Environmental Health and Sanitation Officers also acknowledged the critical role that scrap dealers play in waste management and the national economy. An officer from the LEKMA Municipal Assembly noted:

*Scrap dealers remove a significant amount of waste, especially e-waste, from communities. If we had another group managing plastics and general garbage as effectively as scrap dealers do, we would see much less filth in our communities.*

Echoing this sentiment, an officer from the Ablekuma West District Assembly described scrap dealers as a “necessary evil”, highlighting that, while their operations present environmental and regulatory challenges, they remain indispensable actors in the city’s waste reduction efforts. The officer concluded:

*They are helping the system. Their activities should be formalised and integrated into a broader waste management framework. We must also provide targeted education and training programmes to strengthen their capacity and improve operational safety.*

#### ***6.5.2.5. Reclaiming “their urban land under a favourable government”: the reoccupation of the demolished Agboghloshie by e-waste workers***

The evidence suggests that the demolition of Agboghloshie was driven more by political considerations than by a genuine effort to achieve environmental justice for the city and its dwellers. This became apparent when, shortly after a change in Ghana’s political leadership, informal e-waste workers began reoccupying the demolished site. Building on earlier findings, this section contends that state-led interventions framed as environmental justice initiatives must involve the participation of all stakeholders, particularly those labelled as the very perpetrators of environmental harm. Otherwise, such interventions risk backfiring, with the state ultimately suffering greater losses over time. In the Global South, this raises the question: is environmental justice destined to remain a cyclical struggle of simultaneous victories and defeats?

Following the inauguration of Ghana's newly elected president, informal e-waste workers returned to the demolished Agbogbloshie site and began reconstructing their workspaces on land originally earmarked for the construction of a municipal hospital. This pattern of reoccupation mirrors observations by Crentsil & Owusu (2018), who noted that displaced street traders often resume their activities almost immediately after clearance operations. Similarly, even where slum demolitions are initially deemed successful, displaced populations frequently resettle on undeveloped urban lands.

The unexpected reoccupation of Agbogbloshie attracted significant local and international media coverage, prompting a follow-up field visit. Site observations corroborated these reports: the perimeter wall surrounding the demolished land had been broken, and informal e-waste workers were actively rebuilding wooden sheds, reminiscent of the pre-demolition layout (see Figures 45 and 46). Interviews with returning workers offered deeper insights into the motivations and rationalities underpinning their actions. As one participant, visibly engaged in reconstructing his workspace, defended his actions by asserting:

*This is our land, and we are only reoccupying what was forcefully taken away from us. We worked here for years, and when we were forced out, we lost our jobs and struggled to survive. Now that the land has been sitting empty for so long, we do not see why we cannot come back and continue our work.*

Another informant echoed this sentiment, explicitly linking the reoccupation to the political transition:

*...If our party had been in power, we would not have been kicked off the land. Now that our party is back in power, we are coming back to take what is rightfully ours.*

A key figure leading the reoccupation effort elaborated on the group's intentions:

*We are setting up temporary structures for now because we plan to move in later. We are not here to stay permanently. These structures are just for the time being while we wait for the government to appoint a new Municipal Chief Executive (MCE) for Ablekuma Central. Once the MCE is in place, we will talk to him and try to get permission to stay on the land.*

In stark contrast, a former Greater Accra Regional Minister, who had spearheaded the 2021 demolition and eviction, staunchly defended the state's actions, framing them as necessary interventions to safeguard public health and urban order. As he asserted:

*This is government land, and I acted in the territorial interest of the country. We faced numerous challenges in the area, including crime, environmental hazards, and health risks. I made sure we addressed these issues to protect humanity, and we should not return to the old order.*

Reflecting on the long-term outcomes of the 2021 demolition, the former Minister pointed to a range of perceived urban improvements, reduced flooding, diminished toxic emissions from open burning, and eased traffic congestion, as evidence of policy success. However, he cautioned that the ongoing reoccupation threatens to undo these hard-won gains and undermine broader efforts to formalise and regulate urban spaces.



Figure 45. Picture of Agbogbloshie reclaimed land under siege as reported in Ghana's foremost Newspaper.  
Source: Daily Graphic Archives, 2025.



*Figure 46. Drone capture showing the reoccupation of the demolished Agbogbloshie site by scrap dealers.*

*Source: Photograph by author, 2025.*

## **6.6. Conclusion and Recommendations**

This study critically examines the evolving geographies of e-waste activity in Ghana through an environmental justice lens, revealing the profound socio-environmental consequences of the Agbogbloshie scrapyards demolition. Findings demonstrate that the forced eviction and displacement of informal e-waste workers did not mitigate the environmental risks cited by authorities; instead, these risks were redistributed across Accra, reinforcing systemic inequalities in waste governance and spreading environmental vulnerabilities. By tracing these emerging patterns, the research underscores the paradox of state-led interventions that, while framed as public health and environmental improvements, often exacerbate marginalisation and deepen environmental injustices.

The 2021 demolition fragmented the previously centralised e-waste network, intensifying hazards, such as hazardous waste accumulation, air pollution, and soil contamination, across multiple low-, middle-, and high-income neighbourhoods in GAMA. Findings underscore that the demolition failed to address the underlying environmental concerns, merely relocating issues rather than

resolving them. Furthermore, the exclusion of affected workers and residents from decision-making processes exemplifies procedural injustices, whereby the most impacted by state interventions are systematically marginalised. Community perspectives reveal severe air pollution, respiratory health risks, noise pollution, and hazardous material accumulation in residential spaces. Vulnerable groups, particularly children and the elderly, face heightened risks, while e-waste workers continue to grapple with precarious conditions, including insecure land tenure, lack of suitable workspaces, disrupted supply chains, and declining access to materials due to increasing public awareness of the economic value of e-waste and intensified competition.

The reoccupation of the Agbogbloshie site by e-waste workers in early 2025 exemplifies the persistence of contestations over urban space and the shortcomings of exclusionary redevelopment initiatives (Iddris et al., 2025; Vicario et al., 2025). The failure to effectively repurpose the cleared land, coupled with the economic precarity of displaced workers, has fuelled its reclamation, underscoring the resilience of informal economic actors. Moreover, the reoccupation reveals the political dimensions of land governance, as workers framed their return both as an act of survival and a political assertion linked to regime change. This development reinforces the argument that urban policies targeting informal labour are deeply embedded in broader political and economic dynamics, rather than being merely technical or environmental interventions. Thus, it underscores the political dimensions of urban space, where informal labour is not merely an economic issue but also a battleground for political power, survival, and autonomy. Ultimately, the study highlights the inadequacy of state-driven redevelopment policies focused on demolition rather than addressing the root causes of environmental degradation and socio-economic marginalisation. Instead of reducing risks, the spatial displacement of e-waste activities exacerbated inequalities and created new environmental hazards, particularly in low-income areas.

The findings point to the urgent need for more equitable environmental governance frameworks. They also highlight the pressing public health crises emerging from unregulated e-waste burning and accumulation in residential areas, with significant implications for urban health planning (Blay et al., 2023). The heightened vulnerability of children and the elderly in these communities emphasises the need for more comprehensive public health policies that consider the environmental hazards of the informal economy and protect the well-being of the urban poor.

To address these challenges, we recommend that policymakers develop frameworks that support the formalisation of informal economic sectors such as e-waste recycling. City authorities should establish designated spaces within each Metropolitan, Municipal, and District Assembly (MMDA) to serve as centralised hubs for scrap-related activities. These hubs would provide structured and regulated environments where scrap dealers can operate in compliance with environmental and health standards, thereby reducing the risks associated with the current dispersed and unregulated practices. Moreover, such centralised spaces would also facilitate institutional collaboration between scrap dealers and local authorities, creating opportunities for capacity-building initiatives focused on safe waste handling, material segregation, and sustainable environmental management. Through this formalisation process, MMDAs could promote safer working conditions, strengthen oversight and coordination within the sector, and reduce the broader environmental and public health risks associated with informal e-waste activities.

In addition, we propose the introduction of a mandatory registration and spatial mapping system for scrap dealers within the each MMDA. Such a formalised registration framework would integrate informal e-waste actors into the regulated waste management system, build a comprehensive database of operators and thereby enhancing monitoring, policy coordination, and accountability. Registration could also provide pathways to operational permits and guidelines, ensure compliance with environmental and public health standards, and eventually enable systematic tracking of e-waste flows across the urban landscape.

Complementing these regulatory measures, capacity-building initiatives should be developed to support scrap dealers through access to training on safe waste handling, business development, and environmentally sustainable practices. Financial and institutional support mechanisms could further strengthen the capacity of scrap dealers to operate safely and sustainably. Finally, it is essential to foster stronger partnerships between scrap dealers and local governments. Structured platforms for dialogue and collaboration would ensure that interventions are co-designed with those most affected, promoting more inclusive and sustainable urban development and environmental governance.

By adopting these strategies, Ghana can better navigate the shifting geographies of e-waste work, reduce livelihood precarity, and advance a more just and environmentally sustainable approach to urban waste management.

## **CHAPTER 7: CONCLUSION AND RECOMMENDATIONS**

## **7. Conclusion and recommendations**

This study set out to critically examine the socio-economic and spatial implications of the large-scale demolition of the Agbogbloshie scrapyard, with particular attention to its impact on the livelihoods of displaced e-waste workers and its broader role in shaping the urban transformation of Accra. To address these complexities, the study adopted a mixed-methods research design, integrating both qualitative and quantitative approaches. Primary data were generated through semi-structured interviews with institutional stakeholders and community residents, focus group discussions with displaced e-waste workers, and structured surveys administered to workers across multiple relocation sites within GAMA. These empirical engagements were complemented by systematic field observations and an advanced documentary analysis of relevant urban policy and planning frameworks. Additionally, Geographic Information Systems (GIS) mapping techniques were utilised to capture the spatial reorganisation of e-waste activities across GAMA. This methodological triangulation provided a robust foundation for interrogating the socio-economic vulnerabilities induced by forced displacement, the redistribution of environmental risks, and the governance logics underpinning Accra's contemporary processes of urban transformation.

The sections that follow synthesise the key findings of the study, drawing on insights from the empirical investigations conducted around the demolition of Agbogbloshie, as presented in the three peer-reviewed papers that constitute the core of this dissertation (see Chapters 4–6). The discussion is structured around eight subsections, each addressing a distinct dimension of the research objectives.

Section 5.1 outlines the study's contribution to understanding the logics and mechanisms underpinning the state-led demolition of Agbogbloshie, with particular emphasis on the extent to which occupational and environmental health concerns associated with the e-waste trade were mobilised to legitimise the clearance of informal spaces. Section 5.2 highlights the study's insights into the socio-economic consequences of the demolition on e-waste workers, focusing on disruption of livelihoods, "working relationships", and social networks. It further illuminates the coping and adaptive strategies adopted by displaced workers, thereby contributing to broader discussions on resilience and survival in contexts of forced urban displacement. Section 5.3 examines the evolving practices of the e-waste trade in post-demolition Accra, shedding light on

their attendant environmental and public health risks for e-waste workers, host communities, and the broader set of stakeholders involved in waste management governance. Section 5.4 considers how the demolition of the Agbogbloshie scrapyards offers broader lessons for understanding the dynamics of social and economic transformation in Accra, situating the case within wider debates on urban restructuring, informality, and the politics of exclusion. Section 5.5 summarises the study's main empirical and conceptual contributions. Section 5.6 articulates key policy recommendations aimed at promoting more equitable and sustainable forms of urban governance. Section 5.7 reflects on study's methodological limitations and researcher's positionality within the field. Finally, Section 5.8 gestures towards future direction, highlighting how the findings can contribute to ongoing discourses in urban studies, environmental governance, and the politics of informality.

## **7.1. Key Findings**

### ***7.1.1. State Logics and Justificatory Narratives in the Demolition of Agbogbloshie***

This section addresses the central research question: to what extent were the occupational and environmental health implications of the e-waste trade a motivation for the demolition of Agbogbloshie? The analysis demonstrates that, while environmental and occupational health concerns were consistently foregrounded in state rhetoric, they functioned less as genuine motivations and more as justificatory narratives that masked deeper political, economic, and spatial logics underpinning the demolition. These findings reveal how the state mobilised selective narratives of health and environmental protection to legitimise exclusionary urban interventions, a practice characteristic of revanchist urbanism (Atkinson, 2003; Smith, 1996).

Agbogbloshie had, for decades, been portrayed as one of the world's most toxic landscapes. The site became internationally infamous for its open-air burning of wires, which released carcinogenic fumes, and for unsafe dismantling practices that exposed workers to high levels of lead, cadmium, and mercury (Grant & Oteng-Ababio, 2016). Scientific reports repeatedly confirmed contamination of the soil, water, and food chain, while NGOs and media outlets framed Agbogbloshie as emblematic of environmental injustice (Brigden et al., 2008). Against this backdrop, state actors readily deployed public health and environmental degradation as the leading rationale for the July 2021 demolition.

The LMAWA campaign, under which the intervention was executed, cast the demolition as an act of environmental remediation and public health protection. Officials argued that dismantling the scrapyards was necessary to eliminate pollution, protect vulnerable populations, and restore ecological integrity to the Odaw river catchment. In this framing, the state positioned itself as a rational and benevolent protector of health, deploying the language of occupational safety and environmental stewardship to garner legitimacy and public support.

Yet, the credibility of this justification unravels when assessed against the state's actions before and after the demolition. While health and environmental concerns were central in rhetoric, there was little evidence of substantive interventions to mitigate the risks faced by e-waste workers themselves or at addressing the broader hazards their activities posed to the environment. Notably, no meaningful consultation or participatory dialogue was undertaken with those most directly affected, particularly the thousands of scrap dealers whose livelihoods were inseparably tied to the Agbogbloshie economy. Equally significant, no coherent relocation strategy or alternative livelihood programme was advanced to support displaced workers. Instead, scrap dealers were compelled to disperse across the urban landscape, with many re-establishing operations in Old Fadama informal settlement, adjacent to the demolished site, and in other precarious urban enclaves. In these new locations, their exposure to hazards not only persisted but, in some cases, intensified, as dismantling and burning activities continued. This spatial reconfiguration paradoxically exacerbated the very public health and environmental risks that the demolition was ostensibly intended to resolve.

Moreover, the state's failure to implement any substantive environmental remediation at the demolished site further undermines the argument that environment health was the central motivation for the operation. Nearly three years after the eviction, the 80-acre parcel largely remains underdeveloped, with no clear redevelopment agenda and the persistence of environmental hazards, such as unauthorised waste dumping, open defecation, and sporadic wire-burning activities by returning scrap dealers. If occupational and environmental health were the true drivers of the demolition, such post-intervention neglect would be difficult to reconcile with the stated objectives.

A closer examination reveals that the demolition was embedded within broader state logics of urban governance that extend beyond the stated environmental rationale. Interviews with institutional actors suggest that the scrapyard's location, situated on strategically valuable land adjacent to Accra's central business district and key transport corridors, rendered the area highly attractive for prospective redevelopment. Various state institutions advanced competing visions for its transformation. For instance, LUSPA proposed the development of a recreational green space consistent with the area's long-standing land-use designation. Similarly, the Greater Accra Regional Minister's office circulated a master-plan visualisation, encountered by the research team, which depicted a dense urban precinct integrating contemporary office complexes, high-end hotels, high-rise residential towers, recreational amenities, and expansive green spaces. In parallel, the then Chief of Staff advocated for the construction of a hospital under national Agenda 111 initiative. These overlapping claims underscore the significant economic and spatial stakes that underpinned the demolition process.

Here, the health and environmental narrative emerge as a strategic device – what Miraftab (2007) terms an “invited justification”, that cloaked an exclusionary project in the language of benevolence. From a revanchist perspective, the demolition of Agbogbloshie reflects a punitive reclaiming of urban space from marginalised populations. As Smith (1996) argues in his theorisation of revanchist urbanism, the state often mobilises moralistic discourses, centered on cleanliness, order, and health, to legitimise the displacement of poor populations from spaces targeted for capital investment and urban revalorisation.

While the environmental and occupational health risks posed by informal e-waste activities were real and documented, their selective mobilisation by the state functioned less to address hazards than to justify urban cleansing. The demolition effectively removed a visible population of informal workers whose activities conflicted with the aesthetic of a “modern” capital and opened the way for speculative contestation over strategically valuable land. In this sense, the health narrative was instrumentalised to obscure a deeper agenda: the revanchist reclaiming of urban space for elite-driven urban transformation.

These findings indicate that health and environmental concerns were secondary to broader drivers tied to urban order, land revaluation, and the pursuit of sanitised aesthetics aligned with neoliberal

urban projects. The selective framing of health as a justification, coupled with the absence of follow-up interventions, exemplifies how revanchist strategies operate: by deploying seemingly benevolent logics to justify punitive actions against marginalised populations.

### ***7.1.2. Socio-economic impacts and adaptive strategies of displaced e-waste workers after the demolition of the Agbogbloshie scrapyards***

This study investigated the socio-economic consequences of the Agbogbloshie demolition on e-waste workers and the coping strategies they employed in its aftermath. The findings indicate that, contrary to official narrative of mitigating occupational and environmental risks, which was underpinned by revanchist ideologies of reclaiming urban spaces, the demolition precipitated profound disruptions to livelihoods. It fractured long-standing “working relationships” and destabilised the institutional and economic infrastructure that had long sustained Accra’s informal recycling economy.

The evidence presented reveals that the socio-economic consequences of expelling informal workers were multifaceted, cutting across several dimensions of their lives and livelihoods. Health-related vulnerabilities became increasingly pronounced, as displaced workers reported heightened psychological distress, depression, and anxiety, coupled with increased incidences of accidents and injuries during and after the demolition. Personal testimonies further exposed the brutalities meted out by security agencies during the clearance exercise, laying bare the violence embedded within state-led projects of urban restructuring and the exclusionary practices that shape Accra’s urban governance.

Economically, the demolition of the Agbogbloshie scrapyards substantially undermined the income security of displaced workers, with stark disparities between pre- and post-demolition earnings. Particularly affected were those at the upper end of the income spectrum, predominantly the “masters” within the informal e-waste economy, who had previously owned and managed a significant share of the site’s physical structures and productive assets. The destruction of these productive assets translated into acute financial losses and eroded their capacity to sustain dependents. Field interviews underscored this dynamic: many respondents reported a marked reduction in the flow of remittances, goods, and material support to households in northern Ghana,

where such transfers had long served as crucial economic lifelines. In addition, the demolition destroyed critical productive resources, including containers, dismantling equipment, tricycles, motorcycles, and accumulated scrap stockpiles owned by workers at the site.

The intervention also destabilised both institutional and associational structures. The Agboglobshie Scrap Dealers Association (ASDA), previously regarded as the central body coordinating scrap-related activities, collapsed amid internal conflicts and accusations of illiteracy, poor leadership, and lack of foresight. This situation highlighted the fragility of collective organisation at a moment of acute crisis. Parallel disruptions reverberated through the wider ecosystem: development partners such as GIZ, with its Technical Training Centre and health initiatives, lost their operational anchor, while recycling firms including Lambda Metals and N.N.E.S.T. Metals were left with diminished visibility in an increasingly dispersed and fragmented recycling landscape.

Yet, amid these ruptures, the study uncovered the ingenuity and resilience of displaced workers. Many of them regrouped within the dense informal settlement of Old Fadama, forging new networks and re-establishing operational bases under constrained conditions. The formation of the Gbewaa Scrap Dealers Association represents an important attempt to reconstitute organisational representation, re-engage with the state, and re-anchor collective identity in an increasingly hostile urban environment. Concurrently, the mobilisation of funds for the acquisition of a 50-acre parcel of land in Teacher Mante highlights workers' determination to secure spatial autonomy and resist dependence on the government-designated relocation site at Kofi Quaye, which they perceived as inadequate due to spatial and infrastructural constraints.

In sum, the demolition of Agboglobshie not only dismantled the socio-economic stability of thousands of e-waste workers but also destabilised the wider ecosystem of support systems, financial networks, and institutional relationships that had coalesced around the site. Although workers have responded with ingenuity through spatial relocation, collective reorganisation, and resource pooling, these adaptive strategies remain embedded in heightened vulnerability.

### *7.1.3. Evolving Geographies of E-waste work in Accra and Associated Risks*

This dissertation set out to interrogate the socio-spatial transformations, environmental consequences, and governance challenges that have unfolded in Accra following the 2021 demolition of the Agbogbloshie scrapyards. The findings revealed that, at least twenty-six informal processing sites have emerged across GAMA since the demolition. These new sites – scattered across areas such as Weija, Nungua, and Old Fadama and other parts of the city of Accra, are markedly more precarious than Agbogbloshie. Workers now operate on insecure parcels of land, often leased informally or shared with other vulnerable groups. Such arrangements leave them susceptible to renewed eviction threats, landlord disputes, and volatile rental conditions.

The findings further reveal that the redistribution of e-waste activities has paradoxically deepened socio-environmental vulnerabilities. Whereas Agbogbloshie once concentrated environmental hazards within a single site, identifiable zone, their dispersal has embedded informal dismantling, open-air burning, and hazardous waste accumulation directly into residential neighbourhoods. Residents in host communities report deteriorating air quality, persistent smoke and odour nuisances, and accumulations of scrap debris that compromise environmental aesthetics and threaten public health. Noise pollution from incessant dismantling activities further erodes neighbourhood well-being. The health risks associated with unsafe recycling practices, once borne primarily by workers themselves, now extend to local residents, particularly children and the elderly, who have limited capacity to shield themselves from daily exposure. What was formerly a contained environmental hazard has evolved into a widespread public health crisis with profound implications for distributive and recognition justice in Accra.

At the governance level, policymakers and regulatory institutions have struggled to adapt to this new geography of dispersal. Environmental Health and Sanitation Officers report severe monitoring challenges arising from the spatial fragmentation of operations, compounded by chronic underfunding, weak logistical capacity, and limited political will. Regulatory gaps are further complicated by growing social tensions, including allegations of theft that blur boundaries between informal work and criminality. Yet, even as officials underscore the environmental and health risks of informal recycling, they also acknowledge the indispensable role of scrap dealers in waste recovery, describing them as a “necessary evil” in the urban waste economy. This

ambivalent stance, oscillating between containment and reluctant recognition, underscores the enduring policy vacuum surrounding informal recycling and the absence of coherent frameworks for integration, secure tenure, or designated operational hubs.

A recent and striking development further illuminates the cyclical nature of urban governance and political contestation in Ghana. In January 2025, displaced e-waste workers forcibly reoccupied the demolished Agbogbloshie site, explicitly linking their return to the political transition following the inauguration of the NDC administration. This act of reclamation not only reveals the enduring centrality of Agbogbloshie to the livelihoods of e-waste workers but also underscores how struggles over urban land, environmental justice, and political power remain deeply intertwined. The reoccupation illustrates how state-led attempts at environmental restructuring, when divorced from inclusive planning and participatory governance, risk producing short-lived outcomes that are readily undone by shifts in political opportunity structures.

#### ***7.1.4. Broader Lessons: Agbogbloshie and the Dynamics of Urban Transformation in Accra***

The demolition of the Agbogbloshie scrapyard offers a critical lens for understanding the dynamics of urban transformation in Accra and, by extension, African cities more broadly. Far from representing a singular episode of eviction, it exemplifies how environmental discourse, urban restructuring, and political power intersect in shaping African cities. It reflects the contradictory logics of urban governance in Accra, which oscillate between two competing imperatives: on one hand, the pursuit of globalised imaginaries of “modern” and “clean” cities (Watson, 2014); and on the other, the persistence of deeply embedded informal economies that provides livelihoods and socio-economic resilience for significant segments of the urban population (Roy, 2005).

Within this contradiction, Agbogbloshie has become central to wider debates on urban informality, exclusion, and environmental governance. Informal e-waste recycling, long criminalised within policy discourse and stigmatised in public imagination, was cast by state actors not as a livelihood that deserves regulation, support, or integration into formal urban planning, as envisaged in urban policy frameworks, but as an environmental “nuisance” to be eradicated. This framing reflects what Smith (1996) characterises as revanchist urbanism: the punitive reclamation of urban space from marginalised groups under the banner of order, modernity, and environmental justice. The

2021 demolition exemplifies this revanchist impulse, seeking to cleanse the city of perceived disorder while simultaneously masking the socio-political and economic interests underpinning urban redevelopment.

However, as this study demonstrates, such interventions rarely eradicate informality. Instead, they displace and reconfigure it across new geographies of risk and vulnerability. The dispersal of e-waste activities across Accra following the demolition redistributed environmental hazards into residential neighborhoods, peri-urban spaces, and roadside sites, thereby embedding new socio-environmental risks within the everyday fabric of the city (Sarpong et al., 2025). These fragmented and dispersed activities not only intensified insecurities for affected communities but also stretched already limited regulatory oversight, undermining the capacity of municipal and environmental authorities to monitor and mitigate associated hazards.

Crucially, evidence gathered during fieldwork reveals that the demolition was executed with little to no planning around workers' livelihoods or the broader socio-economic implications of displacement. Stakeholder testimonies consistently pointed to the absence of meaningful engagement with affected groups, the prioritisation of land reclamation over livelihood protection, and the absence of any coherent resettlement or compensation framework. Positioned under the ill-conceived "*Let's Make Accra Work Again*" agenda, the demolition was less an environmental intervention than a spatial reclamation exercise serving elite-driven visions of urban restructuring. Rather than mitigating ecological risks, the intervention displaced them onto new communities while exacerbating the socio-economic precarity of displaced workers and their dependents.

Perhaps the most striking development, however, lies in the reoccupation of the Agboghloshie site by e-waste workers in early 2025. For more than three years, the land cleared by the demolition remained bare and underutilised, symbolising the state's inability to translate eviction into meaningful redevelopment. The political transition following the inauguration of President John Dramani Mahama provided the conditions for workers to reclaim the site, underscoring the limits of eviction-led governance. The return of workers to Agboghloshie demonstrates that in the absence of viable livelihood alternatives, structured relocation strategies, or compensation mechanisms, cycles of displacement and return are not only predictable but inevitable.

The reoccupation signifies more than a failure of state-led redevelopment; it reflects the resilience, agency, and political negotiation capacities of informal workers who refuse to be permanently excluded from urban space. This outcome highlights the futility of clearance-driven approaches to urban governance and demonstrates how such policies reproduce, rather than resolve, urban precariousness. By prioritising spatial clearance over inclusive planning, Accra's urban authorities have deepened the very socio-environmental vulnerabilities they sought to eliminate, while simultaneously undermining trust between state institutions and affected communities.

In this sense, the Agbogbloshie case crystallises broader lessons for urban transformation in Accra. It demonstrates the limitations of punitive, revanchist strategies that privilege elite-driven spatial reclamation over socially inclusive and environmentally sustainable interventions. More importantly, it underscores the necessity of reframing urban restructuring around principles of procedural justice, livelihood protection, and participatory governance. Without such shifts, urban policies will continue to reproduce cycles of dispossession, fragmentation, and resistance, perpetuating rather than transforming the precarious conditions of African urbanism. This concern is not abstract: a recent field observation revealed a newly installed sign marking the area as a “proposed site for the construction of a Youth Village”, a development that signals the strong possibility of renewed displacement and suggests that scrap dealers may once again be targeted for removal in the future (see Figure 47 for the signpost for the proposed Youth Village).



*Figure 47. Proposed Agbogbloshie site designated for the construction of a Youth Village  
Source: Photograph by author, 2025.*

The experience of Agbogbloshie calls for a fundamental rethinking of how urban transformation is conceptualised and practiced in Ghana and across African cities. Too often, urban restructuring in Accra has been driven by short-term political agendas, elite spatial visions, and punitive logics of clearance, often occurring in the absence of a comprehensive urban development framework. These processes have resulted in the displacement of vulnerable populations and the perpetuation of socio-environmental risks. Such approaches not only undermine the sustainability of urban interventions but also erode public trust in governance and exacerbate existing inequalities.

An alternative trajectory is possible – one that views informality not as an aberration to be eliminated, but as a dynamic and integral component of African urbanism. Urban transformation must therefore be guided by principles of inclusivity, social and environmental justice, and ecological sustainability. Achieving these, requires centering the voices of affected communities

in planning processes, designing livelihood-sensitive policies, and creating institutional frameworks that regulate and support, rather than repress informal economic activities.

Building on this perspective, Figure 48 presents a conceptual framework that captures the dynamics of Accra's urban transformation agenda. The framework highlights how neoliberal and exclusionary logics have produced revanchist urban outcomes, while also highlighting potential pathways toward more sustainable and inclusive urban futures.

At the apex of the framework, Accra's Urban Transformation Agenda is driven by a set of top-down rationalities. These include a neoliberal city agenda emphasising modernisation, privatisation, and aesthetic upgrading; environmental discourses that frame informal e-waste recycling as inherently hazardous; elite spatial visions that prioritise commodified urban spaces; and exclusionary governance practices characterised by ad-hoc enforcement and campaign-driven interventions, exemplified by initiatives such as "Let's Make Accra Work Again." Collectively, these rationalities produce a punitive, top-down model to urban transformation that, as Maharaj (2023) and Sinwell (2012) note, marginalises key stakeholders and communities while privileging the interests of select elite actors.

These exclusionary logics materialise in the form of revanchist urbanism – a process of "vengeful reclamation" in which urban spaces are reclaimed from marginalised populations, particularly informal e-waste workers. In the Ghanaian context, this revanchist impulse operates through three interrelated mechanisms: the stigmatisation of informality by framing informal actors as "urban undesirables," the criminalisation of informal economic activities, and the deployment of punitive state interventions, including evictions and demolitions, with the 2021 clearance of the Agbogbloshie scrapyard serving as a prominent example (Adamu et al., 2025).

The outcomes of such state-led clearances are both socio-spatial and environmental. On one hand, affected communities experience economic and physical losses, the dispersal of informal activities across Accra, the redistribution of environmental hazards, and heightened spatial tensions among urban stakeholders. On the other hand, informal actors exhibit resilience and resistance, as evidenced in the reoccupation of cleared Agbogbloshie land, the formation of new e-waste clusters, collective negotiation with state authorities, and the assertion of agency in response to displacement.

Crucially, the lower segment of the framework foregrounds bottom-up pathways that offers a progressive departure from punitive and exclusionary urbanism. These pathways signal a paradigm shift in conceptualising Accra's urban transformation – one that repositions informal actors not as obstacles to modernisation but an active partners in development. Institutional structures and planning instruments guiding Accra's urban transformation must therefore be reoriented to support participatory, bottom-up approaches (Adamu et al., 2025). Central to this vision are several interrelated strategies; the development of a coherent, long-term urban modernisation/development framework; the institutionalisation of participatory planning processes that meaningfully incorporates informal workers and communities, the formal recognition and integration of informal economies into broader urban development framework; and the targeted upgrading of environmental and infrastructural conditions within informal workspaces. Such an approach foregrounds the voices and priorities of informal actors, echoing the arguments advanced by Bandaiko & Arku (2025) in their study *A Tale of Two Harare(s)*. Moreover, as Perera & Amin (1996) demonstrate, the provision of appropriate and well-deserved business premises for informal enterprises constitutes an effective strategy for mitigating environmental externalities associated with informal sector activities. Collectively, these bottom-up strategies articulate a transformative alternative to punitive and exclusionary urban governance, charting a pathway toward a more equitable, inclusive, and environmentally sustainable urban future for Accra.

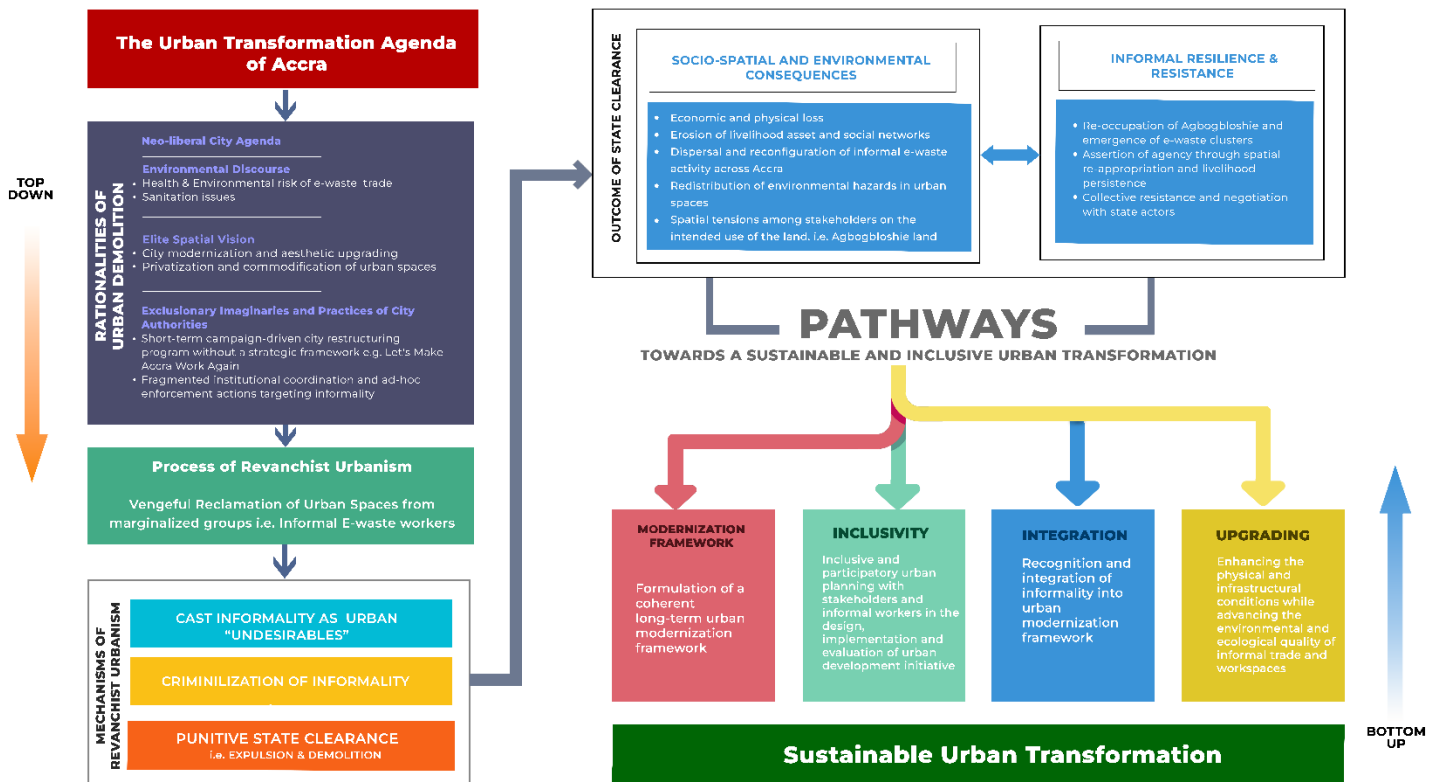


Figure 48. Pathways to sustainable urban transformation.  
Source: Author's construct, 2025.

## **7.2. Summary of main contributions to knowledge**

This research makes several key contributions to the study of urban transformation, environmental governance, and informality in African cities, using the case of the Agbogbloshie demolition and its aftermath as a critical analytical lens.

### *Academic relevance*

#### ***7.2.1. Advancing theoretical understandings of revanchist urbanism in the African context***

While the concept of revanchist urbanism (Smith, 1996) has been widely applied to cities in the Global North, this study extends its application to the context of Africa urbanism. By examining the demolition of the Agbogbloshie scrapyards, the research demonstrates how punitive urban strategies, framed under discourses of order, modernity, and environmental justice, are mobilised to displace marginalised populations. Crucially, it illustrates how revanchism manifests in hybrid forms within Accra, where environmental rationales and elite-driven redevelopment agendas converge to justify exclusionary urban restructuring. Furthermore, it broadens the scope of discussions by examining the socio-economic impact of such approaches on the livelihoods of informal workers.

#### **7.2.2. Unpacking the socio-spatial reconfiguration of e-waste economies after forced eviction**

A major empirical contribution of this study lies in documenting the post-demolition geographies of e-waste activity in Accra. Rather than eliminating environmental challenges, the demolition reconfigured it, dispersing e-waste activities into residential neighbourhoods and other urban spaces. The study maps these new e-waste geographies and highlights the environmental, health, and social risks associated with this spatial dispersal. This provides fresh insights into the unintended consequences of eviction-led governance and enriches scholarship on the resilience and adaptability of informal economies in the face of displacement.

#### ***7.2.3. Highlighting the lived experiences of workers in the displacement***

A central contribution of this study is its detailed illumination of the lived experiences of e-waste workers following the Agbogbloshie demolition. Whereas existing scholarship on urban displacement in Accra has often focused on macro-level policy discourses and the structural dynamics of land use change, this research brings to the fore the perspectives of those most directly affected. By foregrounding the narratives of displaced e-waste workers, the study captures how

the demolition disrupted not only their income-generating activities but also their social networks, working relationships, and collective strategies that underpinned their livelihoods.

The findings demonstrate that displacement from Agbogbloshie did not merely represent a spatial dislocation, but a profound rupture in the socio-economic fabric of workers' everyday lives. Workers were compelled to navigate new and precarious environments, often situated in residential neighbourhoods and other open spaces where they faced heightened risks of harassment, tenure insecurity, and tensions with host communities. In these challenging contexts, survival required constant adaptation, the renegotiation of social ties, and new strategies to access e-waste materials in an increasingly competitive landscape.

#### ***7.2.4. Documenting the coping strategies of displaced e-waste workers***

Another key contribution of this research lies in its documentation of the coping strategies devised by e-waste workers in the aftermath of the Agbogbloshie demolition. While previous studies on informality have largely centered on narratives of individual resilience and survival tactics, this study underscores the emergence of collective innovations that redefine what adaptation means under conditions of forced displacement and exclusion.

Two strategies are particularly noteworthy. First, displaced workers mobilised to establish the “Gbewaa Scrap Dealers Association”, a representative body formed to amplify their collective voice, coordinate activities across dispersed scrapyards, and strengthen their bargaining power in negotiations with city authorities, landowners, and host communities. This organisational initiative marked a decisive break from the more loosely structured networks that had characterised the Agbogbloshie scrapyard prior to its demolition.

Second, and even more transformative, the association pursued formal registration with state authorities in an effort to obtain legal recognition and institutional legitimacy. This process of formalisation functioned both as a strategy of survival and as a political act: by codifying their collective identity, workers repositioned themselves not merely as marginalised actors on the urban periphery but as legitimate stakeholders whose labour and enterprise are integral to Accra's evolving urban economy.

### ***7.2.5. Methodological contributions of the Research***

This research makes significant methodological contributions by advancing a mixed-methods approach that bridges quantitative and qualitative inquiry in the study of urban transformation, informal livelihoods, displacement, and environmental justice. The complexity of the Agbogbloshie case required a research design that could capture not only the structural and spatial dynamics of demolition and relocation but also the lived experiences and coping strategies of affected workers, as well as the perspectives of various stakeholders that shape these processes.

Following the work of Cohen et al. (2011) and Kanbur et al. (2001), the adoption of a mixed-methods approach offers a comprehensive analytical framework for generating a deeper understanding of governance dynamics and the everyday politics of urban life. The quantitative strand of the study offered broad analytical insights, systematically examining the socio-economic consequences of displacement on workers. In contrast, the qualitative strand provided interpretative depth by uncovering the institutional logics behind the demolition, as well as the narratives, negotiations, and power relations that underpin Accra's urban transformation.

## **7.3. Synthesis of key recommendations – policy and practice**

### ***7.3.1. Aligning Urban Governance with Existing Policy Frameworks***

It is important to emphasise that Ghana possesses a robust set of policy frameworks that recognise the value of inclusive urban development. Key documents, including the Strategic Plan for the Greater Accra Metropolitan Area, the National Urban Policy Framework, the Ghana Infrastructure Plan, the Ghana@100 Development Framework, Ghana Spatial Development Framework, Long-term National Development Plan, and the Structure Plan for the Greater Accra Metropolitan Area, explicitly highlight the integration of informal workers into urban development processes. These frameworks advocate for supportive rather than punitive approaches to managing informality. Yet, as the Agbogbloshie case demonstrates, city authorities often sidestep these progressive frameworks, opting instead for exclusionary interventions such as demolitions and forced evictions.

In light of these findings, the study recommends that policy implementation and urban development interventions be realigned with the existing frameworks. Such alignment would

ensure that commitments to inclusion, livelihood protection, and environmental sustainability are not merely rhetorical but operationalised in practice. Strict adherence to these frameworks would provide a necessary roadmap for balancing urban modernisation with social equity, while reducing reliance on ad hoc clearance exercises that exacerbate vulnerability.

### ***7.3.2. A Push for a Sustainable Urban Transformation Framework for Accra***

This study directly challenges the “Let’s Make Accra Work Again” campaign as an effective model of sustainable urban development and calls for the formulation of a coherent, long-term framework for urban modernisation in Accra. While the campaign was presented as a transformative initiative to modernise the city, its implementation was not anchored in a coherent policy framework and strategic roadmap. The demolition of the Agbogbloshie scrapyards, executed under this campaign, laid bare these institutional deficiencies, revealing the absence of stakeholder consultation and long-term strategies for integrating displaced workers into the Accra’s formal urban economy.

By exposing these gaps, the study advances debates on urban governance in Ghana, demonstrating that eviction-driven strategies implemented without coherent planning or participatory engagement not only fail to achieve their intended developmental outcomes but also exacerbate socio-economic vulnerability among marginalised populations.

### ***7.3.3. Shift from Eviction-Led Governance to Inclusive Urban Planning***

The demolition of the Agbogbloshie scrapyards demonstrates the profound limitations of punitive, eviction-led approaches as a tool for managing urban informality. While framed as an environmental and public health intervention, the demolition ultimately displaced vulnerabilities rather than resolving them, dispersing informal e-waste activities into residential neighborhoods, wetlands, and other marginal spaces where environmental and social risks were intensified. This episode underscores the urgent need for a paradigm shift from exclusionary clearance exercises toward more inclusive and participatory planning frameworks.

Inclusive urban planning requires policymakers to acknowledge the dual realities of African cities: the pursuit of modernity, order, and environmental cleanliness on the one hand, and the persistence

of informal economies that sustain large sections of the urban population on the other. Rather than treating informality as a nuisance to be eradicated, city authorities must engage it as a structural component of urban life that demands regulation, support, and integration into broader developmental agendas. This involves reorienting governance approaches toward co-production, whereby state institutions, local communities, and informal workers collaboratively design and implement solutions that balance environmental objectives with livelihood protection.

In practice, this means that evictions should be considered only as a last resort and never as a default governance tool. Where relocation is deemed necessary, it must be embedded within comprehensive frameworks that include viable livelihood alternatives, properly planned resettlement sites, and compensation mechanisms that mitigate economic losses. Additionally, relocation strategies should be transparent and participatory, ensuring that affected groups are meaningfully consulted and involved in decision-making processes.

#### ***7.3.4. Environmental and Public Health Safeguards***

The dispersal of e-waste activities across Accra following the demolition of Agbogboshie has intensified risks for host communities, manifesting in localised pollution, congestion, and land-use conflicts. These dynamics highlight the urgent need for systematic environmental monitoring and targeted public health interventions. Without structured oversight, the relocation of informal recyclers into residential neighbourhoods and marginal urban spaces generates fragmented zones of vulnerability that remain difficult for regulators to manage.

Addressing these challenges requires metropolitan, municipal, and district assemblies (MMDAs) to establish designated and regulated e-waste hubs. These hubs should provide safer recycling environments equipped with basic infrastructure for dismantling, waste segregation, and controlled disposal. Such an approach would mitigate the environmental and health hazards associated with dispersed recycling while reducing tensions between displaced workers and host communities that often perceive e-waste recycling as a threat to public health and neighbourhood stability.

Policy reform must therefore move beyond punitive evictions toward evidence-based governance frameworks that balance environmental protection with livelihood security. This entails the

institutionalisation of systematic monitoring, including air quality assessments, soil and water testing, and community health surveys, to track the cumulative impacts of informal recycling. Data generated through these processes would provide a robust scientific foundation for interventions that are both politically credible and responsive to the lived realities of workers and residents.

Equally critical is the development of a dynamic spatial database to map and register evolving e-waste sites across the metropolis. By integrating Geographic Information Systems (GIS) with participatory mapping tools, MMDAs could monitor the scale, location, and intensity of recycling activities in real time, enabling early identification of high-risk sites and more effective allocation of regulatory resources. Mandatory registration of informal e-waste actors would not only provide visibility and recognition for workers but also facilitate training in safer recycling practices and extend access to social protection schemes. These measures would promote inclusive governance, reduce socio-environmental vulnerabilities, and lay the foundation for a more sustainable e-waste management system in Accra.

### ***7.3.5. Foster Multi-Stakeholder Collaboration in Urban Restructuring***

Urban restructuring processes must not be monopolised by state institutions, as the concentration of decision-making authority within bureaucratic hierarchies often reinforces exclusionary practices and undermines the legitimacy of urban governance. Instead, meaningful collaboration among city authorities, scrap dealer associations, civil society organisations, and international development partners is essential to ensure that interventions are participatory, transparent, and sustainable.

Findings from stakeholder interviews underscore the negative consequences of exclusionary decision-making. Respondents repeatedly highlighted their lack of involvement in the planning and execution of the Agbogloboshie demolition, noting that the initiative was largely driven by the former Greater Accra Regional Minister. This unilateral approach left affected workers and other relevant stakeholders without a platform to articulate their concerns or contribute to shaping the outcomes of the intervention. Notably, formal consultation occurred only after the demolition, when a limited number of stakeholders were convened to discuss redevelopment plans for the cleared site.

This sequence of events illustrates how consultation, when deferred to post-demolition stages, becomes tokenistic rather than transformative. Such practices erode trust between state institutions and affected communities while constraining opportunities for innovative, inclusive, and context-sensitive solutions to urban environmental challenges. A more balanced governance framework, grounded in early stakeholder engagement, co-production of knowledge, and shared responsibility, would not only enhance the effectiveness of urban redevelopment initiatives but also mitigate the socio-environmental injustices that often accompany large-scale evictions in rapidly transforming cities such as Accra.

### ***7.3.6. Recognise and Support Collective Worker Organisations***

The research identifies collective innovation among informal workers as a critical resource for policy design. The establishment and formal registration of the “Gbewaa Scrap Dealers Association” illustrate how displaced workers adapted to heightened precarity by creating new organisational structures. These developments show that informal workers are not passive victims of policy but active agents capable of institutionalising their collective presence.

For policymakers, such organisational capacity presents an entry point for engagement. Associations can serve as intermediaries for dialogue, negotiation, and the co-production of regulatory frameworks that balance livelihood security with environmental objectives. Therefore, policymakers should formally recognise and integrate such associations into urban governance processes. Institutional engagement with worker organisations has the potential to enhance regulatory compliance, as registered associations can provide a clear framework for accountability, record-keeping, and coordination of recycling activities. Moreover, structured dialogue between city authorities and organised scrap dealers could reduce conflict, foster trust, and ensure that interventions are co-designed rather than imposed.

Beyond regulatory concerns, such partnerships can facilitate the co-production of sustainable waste management solutions, in which local knowledge of e-waste recovery complements technical expertise and policy frameworks. This approach not only strengthens environmental management but also safeguards the livelihoods of thousands of urban poor, rather than undermining them.

### ***7.3.7. Ensure Social Protection and Livelihood Security***

The study underscores the urgent need for a robust social protection framework, such as a National Informal Sector Recovery Plan, to safeguard informal workers navigating urban environmental interventions (Ntseane & Solo, 2023). The demolition of Agbogbloshie precipitated profound socio-economic hardships, including widespread loss of livelihoods, depletion of income and savings, destruction of assets, and heightened vulnerability among e-waste workers. Implemented without livelihood alternatives, relocation strategies, or compensation mechanisms, the intervention left workers acutely exposed to socio-economic precarity, highlighting the limitations of eviction-driven urban policies that prioritise environmental objectives while neglecting the social and economic realities of marginalised informal workers.

### **7.4. Recommendations for further research**

This study has examined the demolition of the Agbogbloshie scrapyard and its aftermath, tracing the spatial reconfiguration of e-waste activities, the socio-environmental consequences of displacement, and the political dynamics of exclusionary urban governance in Accra. While these findings make significant empirical and theoretical contributions, they also underscore important avenues for future research.

First, the reoccupation of Agbogbloshie by displaced workers in early 2025 underscores the cyclical and unfinished nature of eviction-led governance in Accra. This development challenges the state's assumption that demolition represents a definitive solution to informality and environmental degradation. Instead, it reveals how urban displacement often unfolds as a recursive process in which exclusion is followed by re-entry, and eviction is met with forms of resistance and reclamation. Future studies should therefore move beyond immediate post-eviction impacts to trace the long-term trajectories of this reoccupation. Key questions remain: Will the site consolidate into a stable hub of e-waste activity reminiscent of its pre-2021 form? Will its reactivation provoke renewed confrontations with the state, potentially reproducing cycles of demolition and resistance? Alternatively, could the site become the locus of new negotiations among e-waste workers, city authorities, and private developers seeking to capitalise on the land's strategic location?

Second, there is considerable scope for comparative inquiry across African cities that are experiencing similar patterns of punitive eviction and environmentally framed displacement. While the case of Agbogbloshie provides a critical entry point for examining the entanglement of environmental discourse, urban restructuring, and political power in Accra, its dynamics are far from unique. Across the continent, cities such as Lagos, Nairobi, and Dar es Salaam have witnessed large-scale clearances of informal settlements, markets, and waste economies in the name of modernisation, environmental protection, or urban order. Placing Accra's Agbogbloshie case in dialogue with these parallel processes would enrich theoretical debates on revanchist urbanism, informality, and neoliberal restructuring, demonstrating how exclusionary urban strategies are mobilised in diverse African contexts, yet they often reproduce remarkably similar outcomes of displacement, vulnerability, and socio-environmental injustice.

Third, while this study foregrounded residents' perceptions of environmental and health risks associated with newly dispersed scrapyards, more systematic and quantitative analyses are urgently needed. The qualitative accounts gathered here highlight concerns about air pollution from open-air burning, noise from dismantling activities, and the accumulation of hazardous residues in residential neighbourhoods. Yet, these concerns remain largely perceptual, leaving important empirical gaps regarding the actual scale and distribution of environmental and health impacts. Future research could employ scientific and epidemiological methods, including air quality monitoring, soil and water testing, and biomarker-based health assessments, to generate robust datasets on exposure to heavy metals, particulate matter, and toxic emissions.

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# **APPENDICES**

## Appendix 1: Ethical Clearance from ZEF



ZEF Bonn, Genscherallee 3, D-53113 Bonn, Germany

Dr. Silke Tönsjost  
 Head ZEF Research Ethics Board  
 University of Bonn  
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### Ethical Clearance

The following research has been pre-reviewed for ethical standards by the ZEF Research Ethics Board. The researcher named below applied for ethical clearance before commencing the research. The application was independently reviewed by two reviewers of the Board and found to be ethically sound. The ZEF Research Ethics Board includes senior researchers from ZEF and the Institute for Food and Resource Economics (ILR), both University of Bonn. The Ethical Clearance is based on the ZEF Ethics Policy<sup>1</sup>.

Registration code:	22c_22Akwas Sarpong
Title of the research study:	Urban Transformation and Migrants' Livelihoods: Perspectives of E-Waste Recycling Sites in Accra, Ghana.
Location(s) of field research	Ghana
If applicable, name of a larger project:	
Name of the researcher:	Akwasi Sarpong
Department / affiliated institute:	ZEFc / One Health Graduate School
Source of funding:	Scientific Staff of One Health Graduate School via NRW MKW
Date of approval of the ethical clearance:	27.07.2022

Rheinische Friedrich-Wilhelms-Universität  
 Zentrum für Entwicklungsforschung (ZEF)  
 Center for Development Research  
 Bonn International Graduate School for  
 Development Research (BIGS-DR)  
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 Germany

<sup>1</sup> [https://www.zef.de/fileadmin/webfiles/downloads/doc-program/Website\\_2014\\_various/ZEF\\_ethic\\_policy-web.pdf](https://www.zef.de/fileadmin/webfiles/downloads/doc-program/Website_2014_various/ZEF_ethic_policy-web.pdf)

## **Appendix 2: Exemplary Consent Form for Research Participants**

This appendix provides the model consent forms that were used for the doctoral research project. To accommodate the diverse backgrounds of the participants, two versions of the consent form were developed. The first is a written consent form intended for stakeholders engaged in urban development, informal sector governance, and e-waste management. The second is an oral consent script specifically adapted for e-waste workers, many of whom have limited literacy skills. This ensures that the principles of informed participation, voluntariness, and ethical integrity are upheld for all participants.

### **A. Written Consent Form for Stakeholder Participants**

#### *Introduction*

You are invited to participate in a doctoral research project that explores the intersections of urban development, informal sector dynamics, and e-waste management in the Greater Accra Metropolitan Area (GAMA). This study aims to generate a deeper understanding of the rationales underpinning the demolition of the Agbogbloshie scrapyards and its socioeconomic consequences for e-waste workers. Additionally, it seeks to address the governance challenges associated with informal e-waste activities.

#### *Participation and Procedures*

Should you agree to participate, you will be asked to take part in a semi-structured interview lasting approximately 40 minutes. You have been selected for this study because of your expertise and experience in matters relevant to the study. Your perspectives are expected to significantly contribute to achieving the research objectives.

#### *Voluntary Participation*

Participation is entirely voluntary. You may decline to participate, refuse to answer specific questions, or withdraw from the study at any time without facing any repercussions. No compensation will be provided for participation.

### *Confidentiality and Data Management*

All information shared during the interview will remain strictly confidential. Only the researcher and academic supervisors will have access to interview recordings and transcripts. With your consent, the interview may be audio-recorded. However, no identifying information will be included in the transcripts or recordings unless you grant explicit permission.

Data will be securely stored on a password-protected computer and backed up in an encrypted OneDrive repository accessible only to the researcher. Upon completion of the research, you may request the deletion of your audio recordings and interview transcripts.

### *Anonymity and Use of Data*

Your identity will be protected throughout the research process. Unless you explicitly permit the use of your name, you will be assigned a unique participant code for analysis, publication, and presentation purposes. Only the research team will have access to the code key.

Rest assured that nothing you share will be disclosed to individuals outside the research team. A summary of the study's findings will be made available to you upon completion. At the conclusion of the interview, you will have the opportunity to review your statements and request modifications or removal of any material that misrepresents your views.

Should you have any questions, concerns, or comments regarding the study, you are encouraged to contact the principal investigator or the academic supervisor.

Thank you!

Akwasi Owusu Sarpong (researcher)

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+49 1573 6078201

Prof. Dr. Detlef Müller-Mahn (supervisor)  
Geographical Institute  
Meckenheimer Allee 176, 53115 Bonn, Germany  
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This research proposal has been reviewed and approved by the ZEF Research Ethics Board, a committee that ensures research participants are protected from harm. For further information, please contact: zef.ethics@uni-bonn.de

**Consent Statement for Stakeholders**

*Please tick all boxes that apply*

I confirm that I have read and understood the details of the research outlined in the participant information sheet.

I understand that my participation is voluntary and that I may withdraw at any time without explanation.

I understand who will access my information, how it will be stored, and what will happen to it after the project ends.

I consent to being video/audio recorded and having my photo taken.

I understand how to raise a concern or make a complaint.

I agree to take part in your research.

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name of Researcher

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

**B. Oral Consent Script for E-waste Workers (to be read aloud to participants)**

Given that many e-waste workers in Accra cannot read or write, oral consent was obtained using the script below, which the researcher read aloud in the participant’s preferred language before the interview.

I have read aloud the information about this study to the participant. I explained that:

- The study focuses on the demolition of the Agbogbloshie scrapyards and its impact on e-waste workers.
- Participation is entirely voluntary, and participants may withdraw or decline to answer any question at any time without consequence.
- All responses will be kept confidential. Personal identifiers will not be used unless explicit permission is granted.
- With the participant’s permission, the interview may be audio- or video-recorded to ensure accurate data collection.
- While there are no direct benefits or financial incentives for participation, the information provided will contribute to a broader understanding of e-waste livelihoods and may inform policy development.

Following this explanation, I asked the participant if they understood the information, had any questions, and whether they consented to participate.

**Participant response:** *“Yes, I understand and agree to participate.”*

**Researcher statement:** I confirm that the participant has voluntarily provided oral consent to participate in this study.

**Participant Confirmation**

Date	Participant Name (if applicable)	Signature/Thumbprint
_____	_____	_____

**Researcher Confirmation**

Date	Researcher Name	Signature
_____	_____	_____

### Appendix 3: Time series analysis of long-term state policies and programmes

No.	Name of Document	Month/Year	State's position on the informal sector/economy	GAMA's Position
1.	Strategic Plan for the Greater Accra Metropolitan Area	1991	<p>The long-term strategy for the informal sector is to transition more of the working population into the formal sector. This approach aims to strengthen the tax revenue base, capitalise on business assets, and provide greater employment stability. To achieve these objectives, the strategy for the informal sector requires:</p> <p>i) Recognition of the contribution of the informal sector by local governments through institutional and other forms of support. This can be achieved by: a) formalising the informal sector by making it part of the formal state organisational structure, for example, establishing a dedicated unit within local government responsible for safeguarding the interests of informal sector members; b) making the informal sector part of local government planning and management processes; c) assisting in the organisation of the informal sector; d) coordinating available assistance programmes; e) regulating the activities of the informal sector.</p> <p>ii) Pursuing programmes which maximise the informal sector's production and employment potential. This can be accomplished by: a) ensuring further integration with the formal sector, which supplies over 36 percent of the inputs used in informal sector activities; b) developing economic cooperation among informal sector members; c) providing security of tenure,</p>	<p>The Greater Accra Metropolitan Area (GAMA) aligns with the state policy of recognising the contribution of the informal sector and supporting its overall growth. To this end, GAMA aims to establish a dedicated division within its institutional framework to coordinate, regulate, monitor, and assist the sector.</p>

			including serviced land, work premises, utilities, and related services; d) providing financial, technical, and managerial assistance; e) allocating land and buildings for small start-up enterprises with the potential to develop into larger businesses.	
2.	National Urban Policy Framework	May 2012	<p>The foundational premise of the framework is that, in Ghana, the state—through the Ministry of Finance—prioritises national economic policy, while the District Assemblies lack the necessary structures for local economic development. This situation results in a lack of formal policy direction and support, particularly for the urban informal sector.</p> <p>In line with this premise, Section 3.3 outlines strategies to achieve Objective 3: Facilitating Urban Economic Development. These strategies involve changing the official attitude towards the informal enterprises from neglect to recognition and policy support, ensuring that urban planning accommodates informal economic activities, enhancing the operational capacities of informal enterprises, and improving funding mechanisms to support the informal economy.</p>	GAMA aligns with the National Urban Policy, recognising that many informal workers earn subsistence wages due to limited state recognition. Encouraging incentives for formal manufacturing could help transition informal workers to higher wages and improved livelihoods.
3.	Ghana National Spatial Development Framework (2015–2035)	February 2015	***Focuses on informal settlements upgrading projects	***
4.	Long-term National Development Plan (2018–2057)	September 2017	Section 4.8.5, Special Focus: Formalising the Informal Sector, this emphasises the importance of formalising the informal sector by the state. The	GAMA ties in with the long-term National Development Policy, in particular Objective 7.1, which

			<p>realisation of the ambitious transformation agenda outlined in the long-term plan is contingent upon the implementation of a deliberate policy framework and a strategic roadmap aimed at the formalisation and transformation of the informal sector.</p>	<p>seeks to support, regularise and integrate the informal economy. This is consistent with the objectives of GAMAPLAN2040, which outlines strategic action points to facilitate the smooth integration of informal economic activities into the broader socio-economic framework. These strategic action points include:</p> <ul style="list-style-type: none"> <li>• Action 7.1.a: Support informal sector workers in reducing their commuting time and distance to work.</li> <li>• Action 7.1.b: As in waste collection - based on AMA, where informal service providers cover 90 percent of area, collect 90 percent of waste, and recycle 18 percent, saving AMA over \$5 million in annual operating costs.</li> <li>• Action 7.1.c: Develop a GAMA trading plan for informal and formal trading to define separate areas, prescribe management, and offer guidance, support, and development services.</li> <li>• Action 7.1.d: Consider enacting a law similar to Cape Town’s 2009 Informal Trading</li> </ul>
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				<p>By-law. This by-law is an example of an open declaration about the positive contributions of informal traders to the city.</p> <ul style="list-style-type: none"> <li>• Action 7.1.e: Recognise that informal trade contributes to poverty alleviation, income generation and entrepreneurial development.</li> <li>• Action 7.1.f: Support the growth of businesses in the informal trading sector.</li> <li>• Action 7.1.g: Facilitate a balanced and integrated relationship between informal and formal trading sectors to promote social and economic development.</li> <li>• Action 7.1.h: Collaborate with informal groups to collect data on the demographics, needs, capacities, and vulnerabilities of informal workers.</li> <li>• Action 7.1.i: Integrate informal service economies with public service systems.</li> </ul>
5.	Ghana Infrastructure Plan (GIP) 2018–2047	November 2018	***Focuses on informal housing	***

6.	Ghana@100 framework	November 2019	<p>The central strategy articulated by the state in this framework, as detailed in Section 4.2 on the <i>Strategic Economic Pillar</i>, is the formalisation of the informal economy. This strategy is further reinforced by Section 5.6, which focuses on human capital development and efficient productivity—key drivers of transformation within the framework. The aim is to strengthen the formal economy while reducing the informal economy to a minimum. It is emphasised that the formalisation of the substantial informal economy as highlighted in Section 7.1 (Tax Revenue) under <i>Potential Sources of Financing</i>, is expected to greatly augment tax revenues.</p>	<p>GAMA is strategically oriented towards the formalisation of the informal economy, with particular emphasis on Section 5.6 of the framework, which underscores the imperative of human capital development and efficient productivity. Objective 14.2 of GAMAPLAN 2040 framework seeks to improve solid waste management across GAMA. One of its strategic action lines, under this objective, 14.2.hh, seeks to enhance the operations of informal workers—specifically informal e-waste workers who manually dismantle and separate waste materials to extract valuable resources like copper, aluminium, and printed wiring boards.</p> <p>In line with this objective, there is an attempt to engage informal e-waste collectors to understand their concerns and manage e-waste in an environmentally friendly manner. A central component of this objective involves strengthening the capacity development component of the Hazardous and Electronic Waste Control and Management</p>
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				Act, 2016 (Act 917), to support informal sector actors in managing e-waste more sustainably and with reduced environmental harm.
7.	Structure Plan for Greater Accra Metropolitan Area (GAMAPLAN 2040)	December 2022	The state acknowledges that 70 percent of current jobs in Ghana are located within the informal sector, which encompasses a diverse range of economic activities, enterprises, occupations and workers that operate outside the scope of government regulation.	GAMA acknowledges and aligns with the view that one of its foremost challenges lies in ensuring equitable access to decent employment, especially for workers in the informal sector.

## Appendix 4: Survey Questionnaire for E-Waste Workers

### UNIVERSITY OF BONN

I am Akwasi Owusu Sarpong, a doctoral candidate at the Centre for Development Research (ZEF), University of Bonn, Germany. My research focuses on examining the socio-economic consequences of the recent large-scale demolition of the Agbogbloshie scrapyards in the Greater Accra Metropolitan Area (GAMA). Specifically, the study investigates the effects of the demolition on the livelihoods of displaced e-waste workers, their perceptions of the rationale and broader urban redevelopment agenda underlying the clearance of the site, as well as the associated health and environmental risks linked to the ongoing e-waste trade activities. Furthermore, the research explores the coping strategies adopted by affected workers in response to these disruptions.

All data collected will be used solely for academic purposes and handled with strict confidentiality. Prior to the commencement of each interview, the full consent script will be read to participants, and verbal consent will be obtained.

### Part 1: Survey Information

Name of Locality:

---

Interview Date: Day: \_\_\_\_ Month: \_\_\_\_ Year: 20\_\_\_\_

Enumerator Code \_\_\_\_\_

Interview Start Time: \_\_\_\_: \_\_\_\_ am/pm

Verbal Consent Obtained Yes  No

### Part 2: Demographic and Socio-Economic Characteristics of E-waste Workers

S/N	Description of Survey Questions	Responses	Codes
Q1.	The Gender of the Respondent is?	<input type="checkbox"/> Male	1
		<input type="checkbox"/> Female	2
Q2.	Age of Respondent	<input type="checkbox"/> >18	1
		<input type="checkbox"/> 19 – 29	2
		<input type="checkbox"/> 30 – 49	3
		<input type="checkbox"/> 50 – 59	4
		<input type="checkbox"/> > 60	5

Q3.	What is your highest level of education?	<input type="checkbox"/> No Formal Education	1
		<input type="checkbox"/> Primary/Junior High School (JHS)	2
		<input type="checkbox"/> Senior High School (SHS)	3
		<input type="checkbox"/> Technical Vocational Education Training (TVET)	4
		<input type="checkbox"/> Tertiary	5
		<input type="checkbox"/> Don't know	6
Q4.		What is your marital status?	<input type="checkbox"/> Single
	<input type="checkbox"/> Married		2
	<input type="checkbox"/> Separated		3
	<input type="checkbox"/> Divorced		4
	<input type="checkbox"/> Widowed		5
	<input type="checkbox"/> Other		6
	Please specify _____		
Q5.	What is your ethnicity/tribe background?	<input type="checkbox"/> Dagomba	1
		<input type="checkbox"/> Sissala	2
		<input type="checkbox"/> Kokomba	3
		<input type="checkbox"/> Gonja	4
		<input type="checkbox"/> Nanumba	5
		<input type="checkbox"/> Akan	6
		<input type="checkbox"/> Ewe	7
		<input type="checkbox"/> Ga	8
		<input type="checkbox"/> Other	9
		Please specify _____	
Q6.	Which region did you live before moving to settle in Accra?	<input type="checkbox"/> Upper East	1
		<input type="checkbox"/> Upper West	2
		<input type="checkbox"/> North East	3
		<input type="checkbox"/> Savannah	4
		<input type="checkbox"/> Northern	5
		<input type="checkbox"/> Brong Ahafo	6
		<input type="checkbox"/> Bono East	7
		<input type="checkbox"/> Ahafo	8
		<input type="checkbox"/> Ashanti	9
		<input type="checkbox"/> Western North	10
		<input type="checkbox"/> Western	11
		<input type="checkbox"/> Eastern	12
		<input type="checkbox"/> Oti	13
		<input type="checkbox"/> Volta	14
		<input type="checkbox"/> Greater Accra	15

		<input type="checkbox"/> Central	16
Q7.	Why did you decide to live and settle in Accra? ( <i>Check all that apply</i> )	<input type="checkbox"/> For employment	1
		<input type="checkbox"/> Escape of conflict	2
		<input type="checkbox"/> Better education	3
		<input type="checkbox"/> Family issues	4
		<input type="checkbox"/> Don't know	5
		<input type="checkbox"/> Refused	6
		<input type="checkbox"/> Other	7
		Please specify _____	
Q8.	Which is your religious affiliation?	<input type="checkbox"/> Christian	1
		<input type="checkbox"/> Islam	2
		<input type="checkbox"/> Traditionalist	3
		<input type="checkbox"/> Don't Know	4
		<input type="checkbox"/> None	5
		<input type="checkbox"/> Refused/Undisclosed	6
		<input type="checkbox"/> Other	7
		Please specify _____	
Q9.	Do you have a regular source of income?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
		<input type="checkbox"/> Don't know	3
		<input type="checkbox"/> Refused	4
Q10.	Indicate your current job role in the e-waste chain that serves as your primary income source.	<input type="checkbox"/> Collector	1
		<input type="checkbox"/> Dismantler	2
		<input type="checkbox"/> Burner	3
		<input type="checkbox"/> Repairer	4
		<input type="checkbox"/> Middlemen	5
		<input type="checkbox"/> Scrap dealer	6
		<input type="checkbox"/> Ancillary service provider	7
		<input type="checkbox"/> Other	8
		<input type="checkbox"/> Please specify _____	
Q11.	What is your average monthly income? ( <i>income earned in your current role</i> )	<input type="checkbox"/> 0 - 500ghc	1
		<input type="checkbox"/> 501 - 1000ghc	2
		<input type="checkbox"/> 10001 - 2000ghc	3
		<input type="checkbox"/> 20001- 3000ghc	4
		<input type="checkbox"/> 30001 - 4000ghc	5
		<input type="checkbox"/> 40001 - 5000ghc	6
		<input type="checkbox"/> 50001 and above	7
		<input type="checkbox"/> Don't know	8

		<input type="checkbox"/> Refused	9
Q12.	How long have you been working? (Reference to the defined role)	<input type="checkbox"/> Less than One Year	1
		<input type="checkbox"/> One Year	2
		<input type="checkbox"/> Two Years	3
		<input type="checkbox"/> Three Years	4
		<input type="checkbox"/> Four Years	5
		<input type="checkbox"/> Five Years and above	6
Q13.	How many hours do you work in a day? (Reference to the defined role)	<input type="checkbox"/> < 5hrs	1
		<input type="checkbox"/> 5 - 6hrs	2
		<input type="checkbox"/> 6 - 7hrs	3
		<input type="checkbox"/> 7 - 8hrs	4
		<input type="checkbox"/> More than 8hrs	5
Q14.	How many days in a week do you work? (Reference to the defined role)	<input type="checkbox"/> 1 day	1
		<input type="checkbox"/> 2 days	2
		<input type="checkbox"/> 3 days	3
		<input type="checkbox"/> 4 days	4
		<input type="checkbox"/> 5 days	5
		<input type="checkbox"/> 6 days	6
		<input type="checkbox"/> 7 days	7

### **Part 3. Impact of Demolition on Livelihoods of E-waste Workers**

#### *Human Impact*

S/N	Description of Survey Questions	Responses	Codes
Q15.	Overall, how would you rate your current health status?	<input type="checkbox"/> Excellent	1
		<input type="checkbox"/> Very Good	2
		<input type="checkbox"/> Good	3
		<input type="checkbox"/> Fair	4
		<input type="checkbox"/> Poor	5
Q16.	Did you ever experience any health-related issues due to the recent demolition?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
		<input type="checkbox"/> Don't know	3
		<input type="checkbox"/> Refused	4
Q17.	Indicate the type(s) of health-related issue you experienced.	<input type="checkbox"/> Depression	1
		<input type="checkbox"/> Feeling anxious	2
		<input type="checkbox"/> Injuries, cuts	3
		<input type="checkbox"/> Psychological trauma	4
		<input type="checkbox"/> Accident-related	5
		<input type="checkbox"/> Other	6
		Please specify _____	

Q18.	In recent times, how frequently have you been affected by any these health-related issues?	1=Never	2=Rarely	3=Sometimes	4=Often	5=Always	
	<b>Health Issue</b>						
	Depression	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
	Feeling anxious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2
	Psychological trauma	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
	Accident-related	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4
	Injuries/cuts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5

Financial Impact

Q19.	In your opinion, on average, what was your total monthly income 3 years ago?	<input type="checkbox"/> 0 to 500 ghc	1
		<input type="checkbox"/> 501 to 1000 ghc	2
		<input type="checkbox"/> 1001 to 2000 ghc	3
		<input type="checkbox"/> 2001 to 3000 ghc	4
		<input type="checkbox"/> 3001 to 4000 ghc	5
		<input type="checkbox"/> 4001 to 5000 ghc	6
		<input type="checkbox"/> 5001ghc and above	7
		<input type="checkbox"/> Don't know	8
		<input type="checkbox"/> Refused	9
Q20.	How would you evaluate your total income over the past 2 years?	<input type="checkbox"/> Changed	1
		<input type="checkbox"/> Remained the same	2
		<input type="checkbox"/> Reduced	3
Q21.	Has the demolition of the scrapyard impacted your financial situation?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
		<input type="checkbox"/> Don't know	3
Q22.	In what ways did it impact you?	_____	
		_____	
Q23.	Do you have any household member(s) currently living with you?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q24.	If yes, how many?	<input type="checkbox"/> One	1
		<input type="checkbox"/> Two	2
		<input type="checkbox"/> Three	3
		<input type="checkbox"/> Four	4

		<input type="checkbox"/> Five	5
		<input type="checkbox"/> More than five	6
Q25.	What is the nature of their relationship with you?	<input type="checkbox"/> Father	1
		<input type="checkbox"/> Mother	2
		<input type="checkbox"/> Wife	3
		<input type="checkbox"/> Son	4
		<input type="checkbox"/> Daughter	5
		<input type="checkbox"/> Uncle	6
		<input type="checkbox"/> Aunt	7
		<input type="checkbox"/> Other, please specify _____	
Q26.	Did you ever send or remit for the upkeep of this household?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q27.	In what form did you send or remit the support?	<input type="checkbox"/> Cash	1
		<input type="checkbox"/> Goods	2
		<input type="checkbox"/> Both Cash and Goods	3
		<input type="checkbox"/> Other	4
Q28.	On average, how much <u>cash</u> did you send or remit?	<input type="checkbox"/> 0-200 ghc	1
		<input type="checkbox"/> 201- 400 ghc	2
		<input type="checkbox"/> 401- 600 ghc	3
		<input type="checkbox"/> 601- 800 ghc	4
		<input type="checkbox"/> 801-1000 ghc	5
		<input type="checkbox"/> 1001 ghc and over	6
Q29.	How frequently did you send or remit support?	<input type="checkbox"/> Daily	1
		<input type="checkbox"/> Weekly	2
		<input type="checkbox"/> Monthly	3
		<input type="checkbox"/> Bi-monthly	4
		<input type="checkbox"/> When the need arises	5
		<input type="checkbox"/> Don't know	6
		<input type="checkbox"/> Other	7
		Please specify _____	
Q30.	What were the reason(s) for which cash was used.	<input type="checkbox"/> Farming/agricultural purposes	1
		<input type="checkbox"/> Construction and purchase of building materials	2
		<input type="checkbox"/> Purchase of food for household sustenance	3
		<input type="checkbox"/> For trading	4
		<input type="checkbox"/> Pocket money for siblings	5
		<input type="checkbox"/> Don't know	6

		<input type="checkbox"/> Other	7
		Please specify _____	
Q31.	In case you remitted goods, identify the common items.	_____	
Q32.	On average, what was the total monetary value of the goods you sent?	_____	
Q33.	How frequently did you send or remit these goods?	<input type="checkbox"/> Weekly	1
		<input type="checkbox"/> Monthly	2
		<input type="checkbox"/> Bi-monthly	3
		<input type="checkbox"/> When the need arises	4
		<input type="checkbox"/> Don't know	5
		<input type="checkbox"/> Other	6
		Please specify _____	
Q34.	Have there been any changes in your remittances since the demolition of the scrapyards?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q35.	If yes, indicate the extent of the impact.	<input type="checkbox"/> Insignificant	1
		<input type="checkbox"/> Minor	2
		<input type="checkbox"/> Moderate	3
		<input type="checkbox"/> Major	4
		<input type="checkbox"/> Severe	5
Q36.	Do you have any form of savings that you rely on?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q37.	Indicate your primary mode of saving.	<input type="checkbox"/> Through the bank	1
		<input type="checkbox"/> "Susu" scheme	2
		<input type="checkbox"/> Keep money with someone	3
		<input type="checkbox"/> Keep money with me	4
		<input type="checkbox"/> Mobile money wallet	5
		<input type="checkbox"/> Don't know	6
		<input type="checkbox"/> Other	7
		Please specify _____	8
Q38.	Indicate the purpose of your savings.	<input type="checkbox"/> Emergencies	1
		<input type="checkbox"/> Family support	2
		<input type="checkbox"/> Personal support	3
		<input type="checkbox"/> Unforeseen expenses	4
		<input type="checkbox"/> Don't know	5
		<input type="checkbox"/> Other	6
		Please specify _____	

Q39.	Did the demolition compel you to fall back on your savings?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q40.	What were the primary reasons for relying on your savings?	<hr/> <hr/> <hr/>	

Social Impact

Q41.	Have you ever been a member of any association or group in your community?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q42.	Which of the following associations or groups were you a member of at the scrapyard?	<input type="checkbox"/> Agboglobshie Scrap Dealer Association (ASDA)	1
		<input type="checkbox"/> Religious Group	2
		<input type="checkbox"/> Youth Organisation	3
		<input type="checkbox"/> Co-operative Credit Union	4
		<input type="checkbox"/> Network of Collectors	5
		<input type="checkbox"/> Don't know	6
		<input type="checkbox"/> Other	7
		Please specify	
Q43.	Indicate the forms of support you obtained from the associations or groups you mentioned.	<hr/> <hr/>	
Q44.	Did the demolition of the scrapyard affect your membership in any of these associations or groups?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q45.	Describe the nature of the impact. e.g., physical, social, or financial	<hr/>	

Physical Impact

Q46.	Did you ever own a house at the demolished site?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q47.	If yes, what type of house did you own and live in at the demolished site?	<input type="checkbox"/> Wooden shacks	1
		<input type="checkbox"/> Corrugated metal sheets	2
		<input type="checkbox"/> Cement blocks	3
		<input type="checkbox"/> Other	4
		Please specify	
Q48.	Were you living in rented accomodation?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q49.	Has the demolition of the scrapyard had an effect on your housing status?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q50.	If yes, do you currently consider yourself homeless?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q51.		<input type="checkbox"/> Kokomba Market	1

	Where do you presently reside?	<input type="checkbox"/> Scrapyard	2
		<input type="checkbox"/> Sabon Zongo	3
		<input type="checkbox"/> Old Fadama	4
		<input type="checkbox"/> Agboglobshie	5
		<input type="checkbox"/> Timber Market	6
		<input type="checkbox"/> Other	7
		Please specify	
Q52.	What was the main reason you decided to settle in this community?	<input type="checkbox"/> Close to place of work	1
		<input type="checkbox"/> Affordability of housing	2
		<input type="checkbox"/> Provided by Government	3
		<input type="checkbox"/> Family owned	4
		<input type="checkbox"/> Other	5
		Please specify	

Q53.	Did you own any of the following assets at your former residence or workspace at the demolished site? <i>(Indicate Yes/No for each item)</i>	Yes	No
	Electric Fan	<input type="checkbox"/>	<input type="checkbox"/>
	Working Refrigerator	<input type="checkbox"/>	<input type="checkbox"/>
	Electric Iron	<input type="checkbox"/>	<input type="checkbox"/>
	Washing Machine	<input type="checkbox"/>	<input type="checkbox"/>
	Air Conditioner	<input type="checkbox"/>	<input type="checkbox"/>
	Car	<input type="checkbox"/>	<input type="checkbox"/>
	Tricycle	<input type="checkbox"/>	<input type="checkbox"/>
	Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>
	Truck/KIA	<input type="checkbox"/>	<input type="checkbox"/>
	Bicycle	<input type="checkbox"/>	<input type="checkbox"/>
	Computer (Desktop/Laptop)	<input type="checkbox"/>	<input type="checkbox"/>
	Television	<input type="checkbox"/>	<input type="checkbox"/>
	Radio Player	<input type="checkbox"/>	<input type="checkbox"/>
	Digital Camera	<input type="checkbox"/>	<input type="checkbox"/>
	Cell Phone	<input type="checkbox"/>	<input type="checkbox"/>
	DVD/CD Player	<input type="checkbox"/>	<input type="checkbox"/>
	Container Shops/Structures	<input type="checkbox"/>	<input type="checkbox"/>
	Copper	<input type="checkbox"/>	<input type="checkbox"/>
	Engines	<input type="checkbox"/>	<input type="checkbox"/>

Q54.	Which of the following assets at your former residence or workspace did you lose? <i>(Indicate Yes/No for each item)</i>	Yes	No
	Electric Fan	<input type="checkbox"/>	<input type="checkbox"/>
	Working Refrigerator	<input type="checkbox"/>	<input type="checkbox"/>
	Electric Iron	<input type="checkbox"/>	<input type="checkbox"/>

Washing Machine	<input type="checkbox"/>	<input type="checkbox"/>
Air Conditioner	<input type="checkbox"/>	<input type="checkbox"/>
Car	<input type="checkbox"/>	<input type="checkbox"/>
Tricycle	<input type="checkbox"/>	<input type="checkbox"/>
Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>
Truck/KIA	<input type="checkbox"/>	<input type="checkbox"/>
Bicycle	<input type="checkbox"/>	<input type="checkbox"/>
Computer (Desktop/Laptop)	<input type="checkbox"/>	<input type="checkbox"/>
Television	<input type="checkbox"/>	<input type="checkbox"/>
Radio Player	<input type="checkbox"/>	<input type="checkbox"/>
Digital Camera	<input type="checkbox"/>	<input type="checkbox"/>
Cell Phone	<input type="checkbox"/>	<input type="checkbox"/>
DVD/CD Player	<input type="checkbox"/>	<input type="checkbox"/>
Container Shops/Structures	<input type="checkbox"/>	<input type="checkbox"/>
Copper	<input type="checkbox"/>	<input type="checkbox"/>
Engines	<input type="checkbox"/>	<input type="checkbox"/>

Q55. Estimate the value (in Ghana Cedis) of each of the following **key e-waste assets** destroyed in the demolition.

	<b>Core E-waste Asset</b>	<b>Estimated Value (GHS)</b>
<b>a.</b>	Scrap materials	
	Container shops/structures	
	Copper	
	Engines	

**Part 4: Assessment of E-waste Exposure Pathways and their associated Health and Environmental Risks**

Q56. observe	Where are you currently conducting your e-waste activities?	<input type="checkbox"/> Close to informal settlement	1
		<input type="checkbox"/> Outside the yard	2
		<input type="checkbox"/> Close to river (Odaw river)	3
		<input type="checkbox"/> Don't know	4
		<input type="checkbox"/> Other	5
		Please specify	
Q57.	What influenced your decision to conduct your activities at this new location?	<input type="checkbox"/> Lack of space	1
		<input type="checkbox"/> Evicted from the previous site	2
		<input type="checkbox"/> Don't know	3
		<input type="checkbox"/> Other	4
		Please specify _____	
Q58.	How long have you been	<input type="checkbox"/> One month	1
		<input type="checkbox"/> Two months	2

	working here?	<input type="checkbox"/> Three months	3				
		<input type="checkbox"/> Four months	4				
		<input type="checkbox"/> Five months	5				
		<input type="checkbox"/> More than five months	6				
Q59.	How did you acquire this land?	<input type="checkbox"/> Rented	1				
		<input type="checkbox"/> Squatting	2				
		<input type="checkbox"/> Purchased	3				
Q60.	How many people are you working with?	<input type="checkbox"/> One	1				
		<input type="checkbox"/> Two	2				
		<input type="checkbox"/> Three	3				
		<input type="checkbox"/> Four	4				
		<input type="checkbox"/> Five and more	5				
Q61.	Are you aware of the various exposure pathways of e-waste contamination?	<input type="checkbox"/> Yes	1				
		<input type="checkbox"/> No	2				
Q62.	Rate your level of knowledge on the various exposure routes of e-waste contamination	<b>Not Knowledgeable about=1</b> <b>Somewhat Knowledgeable about =2</b> <b>Knowledgeable about=3</b> <b>Very Knowledgeable about=4</b> <b>Very much Knowledgeable about=5</b>					
	<b>Exposure Pathway</b>	<b>Not Knowledgeable about</b>	<b>Somewhat Knowledgeable about</b>	<b>Knowledgeable about</b>	<b>Very Knowledgeable about</b>	<b>Very much Knowledgeable about</b>	
	Inhalation of Contaminated Air	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
	Ingestion of contaminated food, water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2

	Leaching of toxins into the soil and groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
	Skin infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4
Q63.	Do you wash your hands before eating or drinking, after handling e-waste?	<input type="checkbox"/> Yes				1	
		<input type="checkbox"/> No				2	
Q64.	How frequently do you wash your hands before eating after handling e-waste?	<input type="checkbox"/> Always				1	
		<input type="checkbox"/> Sometimes				2	
		<input type="checkbox"/> Never				3	
Q65.	How frequently do you wash your hands before drinking water after handling e-waste?	<input type="checkbox"/> Always				1	
		<input type="checkbox"/> Sometimes				2	
		<input type="checkbox"/> Never				3	
Q66.	Where do you usually obtain your food?	<input type="checkbox"/> From on-site vendor				1	
		<input type="checkbox"/> From nearby residence				2	
		<input type="checkbox"/> Other				3	
		Please specify					
Q67.	Where do you usually obtain your drinking water?	<input type="checkbox"/> From on-site vendor				1	
		<input type="checkbox"/> From nearby residence				2	
		<input type="checkbox"/> Other				3	
		Please specify					
Q68.	Do you use any Personal Protective Equipment (PPE)?	<input type="checkbox"/> Yes				1	
		<input type="checkbox"/> No				2	
Q69.	Do you know that PPE usage reduces exposure to hazards?	<input type="checkbox"/> Yes				1	
		<input type="checkbox"/> No				2	
		<input type="checkbox"/> Don't know				3	
Q70.	How frequently do you use PPE in your work?	<input type="checkbox"/> Always				1	
		<input type="checkbox"/> Sometimes				2	
		<input type="checkbox"/> Never				3	
Q71.	Which of the following PPE do you use in your work?	<b>Yes=1 No=2</b>					
	<b>Type of PPE Used</b>						
	Eye protective equipment (safety glasses, face shield)	<input type="checkbox"/>	<input type="checkbox"/>		1		
	Safety boots/ work boot	<input type="checkbox"/>	<input type="checkbox"/>		2		

	Hand gloves	<input type="checkbox"/>	<input type="checkbox"/>	3	
	Ear plugs	<input type="checkbox"/>	<input type="checkbox"/>	4	
	Dust mask	<input type="checkbox"/>	<input type="checkbox"/>	5	
Q72.	How frequently do you use the following PPE in your work?	<b>1= Never, 2= Very Rarely, 3= Occasionally, 4= Frequently, 5= Very Frequently</b>			
	<b>Type of PPE Used</b>	<b>Never</b>	<b>Very Rarely</b>	<b>Occasionally</b>	
	Eye Protective Equipment (safety glasses, face shield)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Safety boots/work boots	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Hand gloves	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Ear plugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Dust mask	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Q73.	What are the reasons you do not use PPE in your work?	<input type="checkbox"/> Not comfortable with work		1	
		<input type="checkbox"/> Expensive to buy		2	
		<input type="checkbox"/> Don't know		3	
		<input type="checkbox"/> Other		4	
		Please specify			
Q74.	Do you think your handling of e-waste can be detrimental/harmful to your health?	<input type="checkbox"/> Yes		1	
		<input type="checkbox"/> No		2	
		Don't Know			
Q75.	Have you experienced any of the following health issues due to your work with e-waste?	Yes=1		No=2	
		<b>Health Issue</b>			
		Headache	<input type="checkbox"/>	<input type="checkbox"/>	1
		Cough	<input type="checkbox"/>	<input type="checkbox"/>	2
		Liver disease	<input type="checkbox"/>	<input type="checkbox"/>	3
		Kidney disease	<input type="checkbox"/>	<input type="checkbox"/>	4
		High blood pressure	<input type="checkbox"/>	<input type="checkbox"/>	5
		Body pain	<input type="checkbox"/>	<input type="checkbox"/>	6
		Dizziness	<input type="checkbox"/>	<input type="checkbox"/>	7
		Other	<input type="checkbox"/>	<input type="checkbox"/>	8
	Please specify				

Q76.	How would you rate your level of knowledge on the severity of health issues.	<b>Level of Severity:</b> (1=Very Low, 2=Low, 3=Medium, 4=High, 5=Very High)				
	Headache	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Cough	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Liver disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Kidney disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	High blood pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Body pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Dizziness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Please specify					

Q77.	Do you know about the dangers that improper e-waste recycling poses to the environment?	<input type="checkbox"/> Yes	1	
		<input type="checkbox"/> No	2	
		<input type="checkbox"/> Don't know	3	
Q78.	Are you aware that electronic devices contain hazardous substances?	<input type="checkbox"/> Yes	1	
		<input type="checkbox"/> No	2	
		<input type="checkbox"/> Don't know	3	
Q79.	Indicate aspects of the environment affected by unsafe recycling methods.	Yes	No	
	Effect on land	<input type="checkbox"/>	<input type="checkbox"/>	1
	Effect on animal rearing	<input type="checkbox"/>	<input type="checkbox"/>	2
	Effect on air	<input type="checkbox"/>	<input type="checkbox"/>	3
	Effect on groundwater	<input type="checkbox"/>	<input type="checkbox"/>	4
	Effect on market	<input type="checkbox"/>	<input type="checkbox"/>	5

Q80.	If yes, rate your level of knowledge on the effect on the environment.	<b>Level of Effect:</b> (1=No Effect, 2= Minor Effect, 3=Neutral, 4= Moderate Effect, 5=Major Effect)	
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<b><i>Environmental Aspect</i></b>							
Effect on land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1
Effect on animal rearing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2
Effect on air	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3
Effect on groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4
Effect on market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5

**Part 5: Perception of the Demolition and Redevelopment of the Agboglobshie Scrapyard**

Q81.	What is your perception of the demolition and eviction process?	<input type="checkbox"/> Positive	1
		<input type="checkbox"/> Negative	2
		<input type="checkbox"/> Don't know	3
Q82.	In your opinion, would you have wished for the site to be demolished?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
		<input type="checkbox"/> Don't know	3
Q83.	What were some of the benefits enjoyed at your previous working location?	<input type="checkbox"/> Larger working space	1
		<input type="checkbox"/> Availability of shelter	2
		<input type="checkbox"/> Other	3
		Please specify	
Q84.	Do you have any knowledge of the reason for the demolition of the scrapyard?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
		<input type="checkbox"/> Don't know	3
	What were the main reasons, in your view?	_____	
Q85.	In your view, were you given sufficient time to prepare before the demolition?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q86.	Are you aware of the urban redevelopment plans for the Agboglobshie scrapyard?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
		<input type="checkbox"/> Don't know	3
Q87.	In your opinion, how relevant is the urban redevelopment of the scrapyard to you personally?	<input type="checkbox"/> Not Relevant	1
		<input type="checkbox"/> Extremely Relevant	2
		<input type="checkbox"/> Relevant	3
		<input type="checkbox"/> Moderately Relevant	4
		<input type="checkbox"/> Slightly Relevant	5

Q88.	What would you have wished for the site to be used for?	<input type="checkbox"/> Reconstruction of housing units for scrap dealers	1
		<input type="checkbox"/> Reconstruction of a new scrapyard	2
		<input type="checkbox"/> Other	3
		Please specify	

**Part 6: Compensation and Relocation**

Q89.	Did you receive any form of support or compensation from the Government?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q90.	If yes, indicate type(s) of support or compensation received.	<input type="checkbox"/> Monetary	1
		<input type="checkbox"/> Clothing	2
		<input type="checkbox"/> Food	3
		<input type="checkbox"/> Shelter	4
		<input type="checkbox"/> Other	5
		Please specify	
Q91.	If it was monetary, how much did you receive?	_____	
Q92.	Rate your level of satisfaction with the amount of compensation received.	<input type="checkbox"/> Satisfied	1
		<input type="checkbox"/> Dissatisfied	2
		<input type="checkbox"/> Indifferent	3
Q93.	Were you relocated by the Government to a different place?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q94.	If yes, state the new location.	_____	
Q96.	Did you move to settle and work in this new location?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q95.	Indicate the availability of the following basic facilities in this new location.	(Yes =1, No = 2)	
	<b>Facility</b>	<b>Yes (1)</b>	<b>No (2)</b>
	Workspace	<input type="checkbox"/>	<input type="checkbox"/> 1
	Water	<input type="checkbox"/>	<input type="checkbox"/> 2
	Electricity	<input type="checkbox"/>	<input type="checkbox"/> 3
	Storage Facility	<input type="checkbox"/>	<input type="checkbox"/> 4
	Transport	<input type="checkbox"/>	<input type="checkbox"/> 5
	Proximity to the city	<input type="checkbox"/>	<input type="checkbox"/> 6
	Shelter for workers	<input type="checkbox"/>	<input type="checkbox"/> 7
	Other	<input type="checkbox"/>	<input type="checkbox"/> 8

Q96.	If no, state the reason for not relocating to your new location.	_____	_____
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**Part 7: Livelihood and Coping Strategies of Workers**

Q97.	How do you assess your current livelihood status in the e-waste business?	<input type="checkbox"/> Changed	1
		<input type="checkbox"/> Remained the same	2
		<input type="checkbox"/> Deteriorated	3
Q98.	What benefits do you gain from your livelihood activities in the e-waste business.	<input type="checkbox"/> Economic gains	1
		<input type="checkbox"/> Job security	2
		<input type="checkbox"/> Other	3
		Please specify	
Q99.	What challenges do you encounter in your work?	_____	
Q100.	Where are you currently conducting your work following the demolition?	<input type="checkbox"/> Agbogbloshie (close to the Old Fadama informal settlement)	1
		<input type="checkbox"/> New location (Adjen Kotoku)	2
		<input type="checkbox"/> Other	3
		Please specify	
Q101.	In your opinion, how does your current location affect your work operations.	_____	
Q102.	How do you manage the impacts (shocks) of the demolition on your livelihood in the e-waste business?	_____	
Q103.	What measures do you think could improve your livelihood in the e-waste business?	_____	
Q104.	Are there new ways you have adopted to cope with your current circumstances?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q105.	If yes, what new strategies have you adopted for your work?	_____	
Q106.	Do you think e-waste workers are being forced to shift to other forms of trade or livelihood?	<input type="checkbox"/> Yes	1
		<input type="checkbox"/> No	2
Q107.	What alternative livelihood strategies are being pursued?	_____	

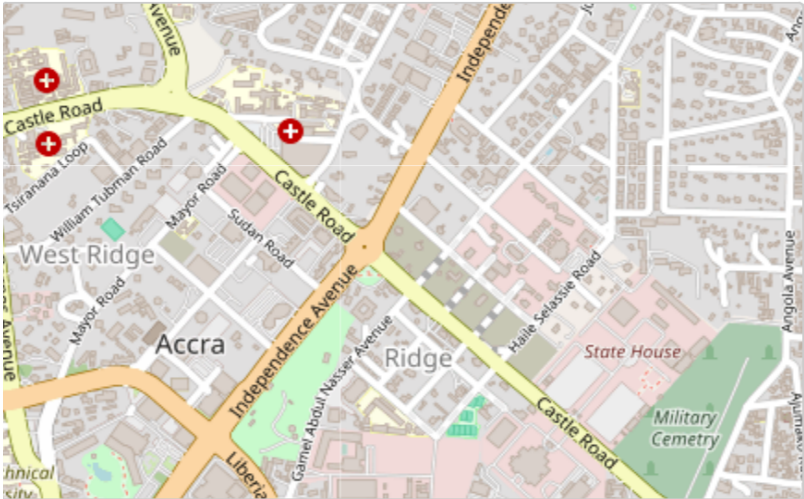
Q108. Please record the geographic coordinates (geolocation point)

latitude (x.y °)

longitide (x.y °)

altitude (m)

accuracy (m)



## Appendix 5: INTERVIEW GUIDE FOR IN-DEPTH INTERVIEWS

### Institutional Actors: Government Officials, City Authorities, and Non-Governmental Organisations

Name of Institution:

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Please indicate your name and position in this organisation \_\_\_\_\_

#### **1. Institutional Roles, Responsibilities, and Contributions to Informal E-waste Recycling in Accra.**

- **Mandate and Governance Role**
  - What is your institution's mandate with respect to e-waste management in Accra and, more broadly, in Ghana?
- **Contributions to the Sector**
  - How has your organisation contributed to e-waste management in Accra to date?
  - What specific interventions or initiatives has your organisation implemented over the years in addressing e-waste challenges?
- **Engagement with Informal Recycling**
  - What role does organisation play in the informal e-waste recycling in Accra?
  - What targeted interventions, if any, have been deployed to support or regulate the informal e-waste sector?
- **Challenges and Institutional Responses**
  - What challenges has your organisation encountered in fulfilling its mandate within the waste sector?
  - What measures or strategies have been adopted to address these challenges?
- **Future Contributions and Prospects**
  - In what ways can your organisation further contribute to addressing the needs and challenges of informal e-waste recycling in Accra?

#### **2. Dynamics of Urban Transformation and Redevelopment in Accra**

- **Vision and Policy Orientation**
  - What is your organisation's overarching vision, development plan, or policy framework guiding the transformation and redevelopment of Accra?
  - In what ways do urban design principles and specific state-led initiatives, such as the "*Let's Make Accra Work Again*" campaign, align with and operationalise the broader vision of urban transformation in Accra?
- **Position of the Informal Economy**

- Within this vision or policy framework, how is the informal economy conceptualised and position?
- What interventions or strategies has your organisation introduced to support and promote the livelihoods of workers in the informal economy?
- To what extent are these interventions sustainable, both socially and economically, in the long term?

### **3. Redevelopment of Agboglobshie Scrapyard**

- **Awareness and Background**

- To what extent is your organisation aware of the redevelopment agenda concerning the Agboglobshie scrapyard following its demolition?
- How would you describe the background, rationale, nature of the redevelopment projects proposed for the site?

- **Pre-Demolition Context**

- From your perspective, what were the major benefits and challenges associated with the scrapyard prior to its demolition?

- **Organisational Position and Support**

- What is your organisation's view of the urban redevelopment of the former Agboglobshie site (demolished area)
- Does your organisation support the redevelopment agenda, and if so, why?

- **Vision for the Demolished Site**

- What is known about the intended or planned uses of the demolished area?
- From your perspective, what would you have wished for the Demolished Area to be used for?
- How do you envision the site's transformation once the redevelopment process is completed?

- **Guidelines and Planning Frameworks**

- Are there institutional guidelines or planning frameworks that shape the redevelopment of the demolished Agboglobshie site?
- What is the plan for the redevelopment of the Agboglobshie site?

- **Environmental Concerns**

- What are your organisation's views on the environmental implications of redeveloping the former scrapyard site, particularly in relation to the area's toxic soil, polluted water bodies, and other ecological risks?

### **4. Logics/Rationalities behind Demolition Agboglobshie Scrapyard**

- **Institutional Rationalities and Justifications**

- How does your organisation view the demolition and eviction of e-waste workers?
- In your opinion, what were the main justifications or rationales behind the demolition and eviction process (e.g., environment health, security, developmental)?
- **Planning, Implementation, and Actor Roles**
  - How was the demolition and eviction process planned and carried out?
  - Which actors were central to the demolition exercise, and what roles did they play?
  - What specific role did your organisation play in this process?
- **Engagement and Communication with Affected Workers**
  - What was the mode of engagement between your organisation and other state actors involved in the demolition process?
  - To what extent were workers and their Association engaged before, during, or after the demolition?
  - What forms did this engagement take (e.g., meetings, media announcements, representative dialogues)?
  - What were the details of the engagement (modalities of the demolition, including relocation, compensation, or counseling service etc.)
  - Were any additional support services or livelihood assistance programmes provided to e-waste workers?
  - Did e-waste workers express concerns or demands during the process? If so, what were they, and how were they addressed?
  - How was information about the demolition communicated to workers (e.g., directly through representatives, media channels)?
  - Were workers informed in advance of the demolition?
- **Legal and Regulatory Frameworks**
  - What legal and regulatory frameworks guide your organisation's approach to evictions and demolitions, and how these frameworks applied in practice?
  - In your view, were the laid-down procedures for eviction and demolition followed in this case?
  - Are there specific laws, policies, and programmes in place to protect against forced eviction and demolition?
- **Implications, Aftermath, and Challenges**
  - Was an inventory of properties, goods, or equipment destroyed during the demolition exercise taken?
  - What challenges did your organisation encounter as a result of the demolition?

- What are the likely implications of the Agbogbloshie demolition for other informal recycling sites located on contested or unauthorised lands in the metropolis?

## **5. Compensations and Support Mechanisms**

- Were e-waste workers provided with any form of compensations or support following the demolition?
- If so, what forms of compensation or support were offered (e.g., financial payments)?
- How adequate and effective were these compensations or support mechanisms in addressing the needs of the displaced workers?
- Were there formal guidelines or criteria that structured the design and implementation of compensation measures?
- To what extent were e-waste workers involved in decision-making processes related to compensation and support?
- Which actors or institutions were responsible for providing or facilitating the compensation?
- How transparent and accountable was the compensation process, particularly in terms of disbursement and allocation of resources?
- What modalities were used to distribute compensation or support (e.g., direct payments, through associations, via state agencies)?

## **6. Relocation and Post-Demolition Transitions**

- Were e-waste workers relocated by the government or any other organisation after the demolition?
- How would you evaluate the effectiveness or success of the relocation process?
- To what extent were you or your organisation involved in planning and decision-making concerning relocation?
- Were adequate consultations undertaken with workers and their associations prior to relocation?
- How would you assess the conditions at the relocation site(s)?
- What is the situation regarding access to shelter, water, electricity, healthcare, markets, transportation, and operational space for e-waste activities?
- Were any provisions or safeguards put in place by the government to ensure the sustainability of workers' livelihoods after relocation?
- Are there specific strategies or plans for the redevelopment and long-term use of the relocation site(s)?
- Where are workers currently conducting their e-waste activities following the demolition and relocation?

## **7. Impact of the Demolition**

- **Overall Perspectives**
  - How does your organisation assess the consequences of the demolition, particularly with respect to the livelihoods of e-waste workers?
- **Economic Impacts**
  - In what ways did the demolition affect the financial situation of workers?
  - Are workers still able to remit income to support their households and families?
  - To what extent did displaced workers rely on savings as a coping mechanism?
- **Physical Impacts**
  - What forms of assets were lost during the demolition (e.g., container shops, structures, scrap materials, tools, and equipment such as televisions, computers, radio, engines, trucks, motorcycles, bicycles, tricycles)?
  - Was an inventory of destroyed assets, goods, or materials compiled by your organisation?
- **Human Impact**
  - To what extent did the demolition generate health-related consequences for workers (e.g., injuries, cuts, accidents, psychological trauma, anxiety, depression)?
  - Did your organisation receive reports or documentation of such health impacts?
  - Approximately how many workers were directly affected by the demolition.
  - Was any formal eviction impact assessment undertaken to quantify losses, costs, or damages incurred by workers? If so, who conducted it, and when?
- **Social and Organisational Impacts**
  - What has been the effect of the demolition on the operation of the scrap dealers association?
  - In what ways has the demolition influenced association membership and collective organisation?

## 8. Perceptions of Informal E-waste Recycling

- How would you characterise the informal e-waste sector as practiced in Agbogbloshie and other locations within the capital?
  - Social dimension** (involve marginalised or vulnerable groups)
  - Economic dimension** (income and employment opportunities for individuals through collection, dismantling, and recycling activities)
  - Physical dimension** (e.g., informal structures, open burning, dismantling sites)?
  - Environmental dimension** (how activities such as open burning contribute to pollution of air, soil, and water resources)?
- What is your assessment of the health and environmental risks associated with informal e-waste recycling, particularly the pathways of exposure?

**Land:** Soil contamination through leaching

**Air:** Pollution from open burning

**Water:** Contamination of surface and groundwater

**Food systems:** Ingestion of contaminated food, water, or beverages

**Human health:** Exposure through inhalation, skin contact, or other health-related effects

## 9. Livelihood Strategies of Informal E-waste Workers

- **Historical Assessment**
  - How would you describe the evolution of the informal e-waste economy over the past years (improved, remained stable, or declined)?
- **Livelihood Opportunities and Shifts**
  - To what extent are e-waste workers being pushed into alternative forms of livelihood?
  - What are the different strategies workers adopt in response to changing conditions?
  - How sustainable are these alternative livelihood strategies?
- **Prospects for Improvement**
  - What measures can be introduced to strengthen the informal e-waste economy?
  - How might the livelihoods of e-waste workers be enhanced within and beyond the sector?
  - What new strategies or innovations do you envisage for improving workers' livelihoods?
- **Institutional Roles and Support Mechanisms**
  - What interventions are currently in place to support e-waste workers and the sector more broadly?
  - How sustainable are these provisions or interventions?
  - What role do you expect government and non-governmental institutions to play in improving livelihoods and regulating the sector?
  - Are there ongoing efforts to formalise or regularise informal e-waste recycling? If so, what are their implications for workers' livelihoods?
- **Agency and Contributions**
  - What role do you believe e-waste workers themselves can play in improving their livelihoods and strengthening the sector?
  - What contributions have you, in your professional or institutional capacity, made toward enhancing the livelihoods of e-waste workers?
  - Following the demolition of the Agbogbloshie scrapyards, what new strategies have you or others developed to help workers cope with their current circumstances?

## **Appendix 6: Guide for Focus group Discussion with E-Waste Workers**

### **1. General Information: Work Practices and Dynamics**

- How would you describe your current operations and daily activities in the e-waste sector?
- In your view, how can the e-waste business be characterised in its social, economic, physical, and environmental dimensions?
- What are the major benefits and challenges associated with your work?

### **2. Impact of the Demolition on E-waste Workers**

- Can you describe the demolition process? What events took place before, during, and after the exercise?
  - When did it occur, and how long did the exercise last?
  - What reasons, in your opinion, motivated the government or city authorities to carry out the demolition?
  - Who were the main actors involved (e.g., police, military, city authorities)?
  - How was the demolition executed? Was there any use of violence or confrontations between authorities and workers?
  - Were properties destroyed, and if so, which types (e.g., structures, tools, scrap metals)?
  - How was information about the demolition communicated to you? Did you receive prior notification?
  - What alternatives would you have preferred to demolition?
  - How was this demolition different from previous ones in the area?
- How has the demolition affected workers across different dimensions?
  - Social: networks of support (e.g., Scrap Dealers Association, saving groups, social cohesion).
  - Economic: employment opportunities, income, savings, indebtedness, ability to remit to households.
  - Human: skills loss, health concerns (psychological trauma, depression, injuries, mortality).
  - Physical: shelter, access to infrastructure, operational space for e-waste activity.

### **3. Compensation and Relocation**

- Were workers compensated following the demolition?
- How transparent and fair was the disbursement of funds?
- Were workers relocated by government or city authorities?
- Were you involved in planning or decision-making regarding relocation?
- How do you assess the relocated area in terms of:
  - Access to shelter, water, electricity, healthcare, markets, transportation

- Availability of space for e-waste operations.

#### **4. Livelihoods**

- How would you assess the trajectory of your livelihood strategies (e-waste business) over the past years (improved, stable, or deteriorated)?
- What benefits are derived from the e-waste business, particularly within specific stages of the recycling chain?
- What are the major impediments to sustaining your work?
- What measures or interventions do you think could improve your livelihoods and the e-waste business)?

#### **5. Perceptions of Health and Environmental Risks**

- What do you perceive as the main health and environmental risks associated with your work?
- How do you understand the exposure pathways of these risks? (e.g., inhalation, ingestion, skin exposure)?
- Are you aware of the broader consequences of dismantling and open burning on:
  - Soil (contamination)
  - Air (toxic emissions)
  - Water bodies (e.g., Odaw River)
  - Livestock and food systems (market produce, cattle rearing at the site)
  - Nearby communities (e.g., Old Fadama, Agboglobshie market).

#### **6. Redevelopment of Agboglobshie**

- What are your perceptions of the government's urban redevelopment agenda for Agboglobshie?
- What do you think of the site in its current state after demolition?
- Do you have any knowledge of proposed future uses of the site?
- What would you have preferred as a redevelopment option for the site?
- What challenges do you face at your new work locations, and what strategies would improve these conditions?
- Have you been informed of any government plans to improve working conditions for e-waste workers under redevelopment schemes?
- In your view, what should be done to ensure sustainable and inclusive improvements in working conditions?

## 7. Coping Strategies

- What new coping or survival strategies have e-waste workers adopted following the demolition?

## 8. Conclusion

- How do you envision the future of the e-waste business in Accra and beyond. If possible, rate how likely you think each of the following future scenarios is, using the scale: 1 = Very

Unlikely | 2=Unlikely | 3 = Neutral/Unsure | 4=Likely | 5= Very Likely

<b>Future Visions of the E-waste Sector</b>	<b>Rating (1-5)</b>	<b>Notes/Comments (Why?)</b>
Formalisation and government regulation of the e-waste sector		
Establishment of designated e-waste hubs with proper infrastructure		
Continued dominance of informal recycling with improved safety measures		
Strengthening of worker cooperatives and associations		
Technological innovation reshaping recycling practices		

## Appendix 7: Interview Guide with Residents in Emerging E-waste Sites

Name of Institution:

---

Please indicate your name and position in this organization \_\_\_\_\_

### 1. Awareness of Emerging E-waste Activities

- Are you aware of any e-waste-related activities that have emerged in your community over the past three years?
  - Yes/No
  - If yes, please describe the nature of these activities.
- In your experience, how has the scale or intensity of e-waste handling changed over the period?

### 2. Spatial Location and Practices

- Where do you see most of the e-waste activities taking place in your community?
- From your observations, what kinds of e-waste practices are being carried out in these sites?
  - Open burning of e-waste
  - Manual dismantling (e.g., hand-breaking of electronics)
  - Dumping in unauthorised areas
  - Recycling

### 3. Perceived Health and Environmental Risks

- What kinds of health risks do you think are linked to these emerging e-waste sites?
- Have you noticed any increase in health complications (e.g., respiratory illness, skin rashes) in the community since the rise of these activities?
- How do you perceive the environmental impacts of these activities?
  - Soil contamination
  - Air pollution from open burning
  - Water contamination
  - Loss of biodiversity

### 4. Regulation and Enforcement

- Have you seen or experienced any regulatory or enforcement actions in relation to e-waste activities in your community (e.g., inspections, fines, confiscation of equipment, shutdown of operations)?
- How effective do you feel these actions have been?

## **5. Expectations and Recommendations**

- In your opinion, what should city authorities or the national government do to better address the challenges posed by emerging e-waste activities?
- What kinds of support or interventions would you like to see for both communities and workers involved in these activities?

## **Appendix 8: Interview Guide for Environmental Health and Sanitation Officers**

Name of Metropolitan/Municipal/District Assembly: \_\_\_\_\_

Please indicate your name and position in this Assembly \_\_\_\_\_

### **1. Awareness and Monitoring of Emerging E-Waste Activities**

- From your professional perspective, how have e-waste activities evolved in the Greater Accra Metropolitan Area since the demolition of Agbogbloshie?
- How do you monitor or track e-waste-related activities in communities under your jurisdiction?
- To what extent do you think these activities are becoming more dispersed or concentrated in particular areas?

### **2. Spatial Distribution and Practices**

- Which areas or neighbourhoods under your jurisdiction are most affected by e-waste activities?
- What types of practices have you observed in these sites (e.g., open burning, manual dismantling, unauthorised dumping, recycling)?
- How do these practices differ from what was previously happening at Agbogbloshie?

### **3. Public Health and Environmental Concerns**

- In your assessment, what are the most pressing public health risks associated with emerging e-waste activities.
- Have you observed or recorded any increase in health-related complaints that can be linked to e-waste exposure in these areas?
- How do you evaluate the environmental impacts of these activities (soil, air, water contamination, biodiversity loss)?

### **4. Regulation, Enforcement, and Institutional Constraints**

- What kinds of enforcement or regulatory measures have been implemented in response to e-waste activities (e.g., inspections, fines, shutdowns)?
- How effective do you think these measures have been in addressing environmental and health risks?
- What challenges or constraints does your office face in regulating and monitoring these activities (e.g., lack of resources, legal gaps, political interference, community resistance)?

### **5. Expectations and Recommendations**

- In your professional view, what should city authorities and the national government prioritise in order to reduce the environmental and public health risks of e-waste?

- What specific interventions would strengthen your office's capacity to manage these challenges effectively?
- How do you think informal e-waste workers could be better engaged or integrated into formal waste management systems?

## Appendix 9: International Conferences and Stakeholder Workshops

I participated in the International Conference on Urban Affairs (ICUA 2024), held in New York from April 24–27, 2024. The conference brought together scholars, practitioners, and policymakers from diverse contexts to deliberate on pressing urban challenges. Within this forum, I presented my first publication, *“Decoding the Logics Behind the Demolition and Redevelopment of the Agbogbloshie Scrapyard, Accra, Ghana.”* This opportunity allowed me to disseminate early findings from my doctoral research and to receive valuable feedback that refined the framing and analytical depth of the study.



Figure 49. Akwasi Sarpong at the International Conference on Urban Affairs in New York

The ICUA 2024 experience was instrumental in positioning my research within broader debates on urban governance, socio-environmental transformation, and the politics of redevelopment. The conference also fostered networks with scholars working on parallel themes, which proved pivotal

for shaping the comparative dimensions of my subsequent work.

Building upon this trajectory, I participated in the 2025 International Conference on Urban Affairs in Vancouver, Canada (April 15–19, 2025). There, I presented my second paper, *“Behind the Curtain of Agbogbloshie’s Demolition: A Victim’s Perspective Beyond Revanchism.”* This engagement not only consolidated the visibility of my research within international scholarly circles but also provided a platform to advance a critical dialogue on revanchist urbanism and the lived experiences of displaced communities.



Figure 50. Akwasi Sarpong at the International Conference on Urban Affairs in Vancouver

In addition, as part of the One Health Graduate School requirements at the Centre for Development Research (ZEF), I co-organized a stakeholder workshop in Accra on April 17, 2025, in collaboration with the Institute for Statistical, Social and Economic Research (ISSER), University of Ghana. This workshop provided a platform to disseminate research findings to a broader stakeholder community, including policymakers,

academics, and civil society actors. The feedback received during this event was instrumental in contextualising the research within local governance debates and ensuring that the study addressed both scholarly and practical concerns.

Collectively, these academic conferences and stakeholder engagements represent significant milestones in the scholarly development of this dissertation. They facilitated intellectual exchange, expanded international and local research networks,

and contributed to the academic recognition, practical relevance, and validation of the research.



*Figure 51. Akwasi Sarpong at the One-Health Stakeholder Workshop*





zef

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Universität Bonn



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University of Applied Sciences



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Institute for Environment  
and Human Security



Ministerium für  
Kultur und Wissenschaft  
des Landes Nordrhein-Westfalen



Figure 52: Poster on Urban Transformation and Informal Livelihoods

## Appendix 11: Data Collection Exercise with Stakeholders and Informal workers



Figure 53. Interview Session with E-Waste Workers



Figure 54. Interview session with stakeholders



### Appendix 12: Statistical Analysis of E-waste Workers Survey Data

Independent Variable	Coefficient	Std. Error	Marginal Effect
Years of experience	-0.67***	0.17	-0.03
Education	0.05	0.58	0.00
Marital status	-2.49***	0.75	-0.11
Regular income	0.42	0.79	0.02
Experienced health problem	-0.64	0.61	-0.03
Demolition affected income	-3.35***	0.70	-0.14
Household remitting money	-2.37**	0.77	-0.10
Household has savings	-2.70**	0.96	-0.11
Household relies on savings	1.73**	0.79	0.07
Housing status affected	-0.56	0.59	-0.02
Constant	6.89	1.55	-

*Binary Logistic Model estimation of factors influencing livelihood status of e-waste workers after the demolition. Source: Field Data, 2022.*

**Model summary:** LR Chi-square = 59.91; Prob > Chi square = 0.00; Log-likelihood = -56.02; Pseudo R<sup>2</sup> = 0.39; Number of observations = 348.

NB: \*\* and \*\*\* denote 5% and 1% significance levels, respectively.