

**Retrieving Resources from E-Waste: Living Income for Informal E-waste Pickers in
Accra, Ghana**

Eline Mateboer (7824580)

Master of Science in International Development Studies

Faculty of Geosciences, Utrecht University

Department of Human Geography and Planning

GEO4-3509: Master Thesis

Prof. dr. Kei Otsuki

June 2024

15.260 words

Abstract

This thesis is concerned with the livelihood and income of waste pickers in Ghana. As Ghana imports vast amounts of (e-)waste, an industry has emerged around waste picking. This thesis is concerned with the bottom rung of the e-waste chain, the waste pickers, as they often live in extreme poverty, specifically researching ways in which the Dutch phone company Fairphone can help improve the waste pickers' income to a living income level. Using a living income framework, the thesis attempts to answer the following research question: “How can Fairphone enable waste pickers to earn a living income?”. The question is answered by conducting fieldwork interviews with waste pickers in Ghana, a literature review and interviews with key informants on e-waste. The thesis shows that the main challenges waste pickers face are that there is not enough work, they do not earn enough, the income they receive is very volatile, and they have to walk very long distances to collect scraps. The thesis provides recommendations to actors on three levels, to private actors, at the public national level and at the public international level. The private actor recommendations focus on capacity building through offering training, providing technical equipment and setting up a capital fund, and by giving technical input for government legislation. Recommendations to the national level are setting up a formal/informal hybrid organisation of waste management, engaging waste pickers in legislations and encouraging waste pickers associations. Recommendations to international level organisations are improving the Extended Producer Responsibility framework, establishing a clear definition of e-waste; and reducing the waste streams to the Global South.

Key words: Ghana, e-waste, waste pickers, living income, recommendations

Acknowledgements

I would like to express my gratitude to my supervisor in writing this thesis, prof. dr. Kei Otsuki, for helping me in keeping the right course and giving valuable feedback while writing the thesis over the past months. I am extremely grateful to Lisa Minère and Abdel Addouti, from Fairphone and Argo360 respectively. Their expertise, academic input and practical support in the fieldwork are invaluable to this research. I also could not have undertaken this endeavour without Matah Osabutey and Jasper Joachim, who have been immense support while conducting fieldwork. They were incredibly valuable in navigating a foreign environment, finding participants for the research and providing smiling company.

Many thanks to the participants of the interviews in Ghana. Their lived experiences add tremendous value to this thesis and show a human side to an otherwise abstract and high level issue. I am also very grateful to the key informants who were kind enough to give their time and expertise to this thesis: Selase Adanu Ph.D., dr. Gordon Akon-Yamga Ph.D., Ebenezer Amankwaa Ph.D., Michael Asibey Ph.D., Kees Baldé Ph.D., Jakob Franke, and Thomas Maes Ph.D. . The interviews gave a great foundation of years of experience that I could not have achieved in these past months only.

Lastly, I would like to show my deepest gratitude to my partner, my parents and close friends for the moral support they have given while I was writing my thesis. It has been exceptional support, without which I could not have finished this thesis.

Table of Contents

List of Figures	6
Retrieving Resources from E-Waste: Living Income for Informal E-waste Collection in Accra, Ghana	7
Problem Statement.....	7
Knowledge Gap	8
Relevance.....	9
Partner Organisation Fairphone	10
Literature Review	11
Global E-waste Stream	11
Urban Mining	13
Informality	14
Theoretical Framework	15
Geographical Contextual Framework	17
Industry	17
Overview of Actors in E-waste Chain	18
Consequences of E-waste Recycling in Accra	19
E-waste Regulations	20
Methodology	22
Data Collection	23
Fieldwork Interviews.....	23
Key Informant Interviews	25
Limitations and Risks	27
Positionality	27
Results	28
How Do Waste Pickers Make a Livelihood?	28
Characteristics of the Waste Pickers.....	28
Livelihoods of the Waste Pickers	29
Factors Affecting Livelihoods	33
To What Extent is There a Living Income Gap for Waste Pickers?	34
Living Income in Ghana.....	34
(Living) Income of Waste Pickers	35
Volatile Incomes	37
What Challenges Do Waste Pickers Experience in Earning a Living Income?.....	38

Explicitly Mentioned Challenges	38
Implicitly Mentioned Challenges	39
What Interventions Can Be Implemented by Private Actors and/or Public Actors to Combat Challenges Waste Pickers Face?	40
Solutions to Challenges	40
Private Level	42
National Level	46
International Level	50
Discussion	53
The Income Drivers Scheme and Living Income	53
Input for Living Income Theory	54
Contributions to E-waste Management Literature.....	55
Biases and Omissions	56
New Avenues of Research	56
Connection to the Field of Development Studies	57
Conclusion.....	58
References	61
Appendix A	70
Appendix B	71
Appendix C	73
Appendix D	119
Appendix E.....	120

List of Figures

Figure 1	16
Figure 2	17
Figure 3	19
Figure 4	25
Figure 5	30
Figure 6	32
Figure 7	33
Figure 8	41
Figure 9	41

Retrieving Resources from E-Waste: Living Income for Informal E-waste Pickers in Accra, Ghana

As electronic waste (e-waste) has been increasing for the past years, it is a growing polluting risk for the environment (Borthakur, 2020). Borthakur (2020) gives different reasons for increased e-waste, such as rapid technological advancements, increased consumption, reduced lifespan of electronic devices and economic growth. Though it was initially considered an issue of affluent countries, e-waste management is increasingly becoming an issue for developing countries as well (Borthakur, 2020). Sovacool et al. (2019) argue that there is an unevenness in production and import, e-waste is often exported from developed countries, as labour is cheaper in developing countries, even though developing countries often lack recycling and disposal technologies (Shumon et al., 2014).

Problem Statement

E-waste poses great risks to the environment and human health as well due to its hazardous components (Nnorom, & Osibanjo, 2008). As the waste breaks down in landfills, toxins are released into the soil and water (Shumon et al., 2014), harming both e-waste workers and local residents (Sovacool et al., 2019). Reasons for the continued e-waste processing in such an unsafe, polluting way can be explained by the fact that it is not well regulated. There is little oversight, leading to a survivalist race to the bottom (Daum et al., 2017). Considering e-waste is the fastest growing waste stream (Njoku et al, 2023) resulting in negative consequences for environment and human health, there is an urgency to study this topic. E-waste ought to be paid attention to in light of the negative consequences and the positive effects, such as livelihood opportunities (Amankwaa, 2014) and resource recovery (Sovacool et al., 2019).

An important location in e-waste processing is Accra, Ghana. The capital city has become important for disassembly of e-waste (Grant & Oteng-Ababio, 2012; Maes &

Preston-Whyte, 2022). Each year, an estimated 40.000 tonnes of e-waste are imported to Ghana (Bimpong et al., 2023). Especially the infamous landfill in Agbogloshie, which is “described as the biggest e-waste site in sub-Saharan Africa” (Maes & Preston-Whyte, 2022, p.6), receives over 15% of the globally produced e-waste, making it the world’s most toxic site (Maphosa & Maphosa, 2020). According to Asibey, the rush of importing (e-)waste to Ghana started in the late 1990s, in order to have more technology (personal communication, May 21, 2024). As technology is expensive, e-waste was a cheaper way to introduce technology in Ghana. Grant and Oteng-Ababio (2012) reiterate this. They explain that in an attempt to bridge the digital divide, the Ghanaian government implemented a policy in 2004 which reduced the import duty to zero for e.g. used computers, thereby attracting vast amounts of e-waste.

In addition to the environmental and health hazards related to e-waste, people working in the e-waste recycling sector in Ghana are living in extreme poverty (Prakash et al., 2010). Income is generated based on output produced per day, so for e-waste pickers their income is based on the amount and value of e-waste collected and sold to recyclers. This means that their income is highly volatile (Prakash et al., 2010). A concept that actively opposes this insufficiency and insecurity in income is living income. Fair Circularity Initiative (FCI) and Systemiq (2023) argue that a living income could reduce pressure of e-waste workers to dismantle waste crudely and instead could work more sustainably.

Knowledge Gap

Living income is often defined along the lines of “enabling meaningful participation in society beyond mere survival” (Yao et al., 2017, p. 876). It is an income sufficient to afford a decent standard of living in a particular place (Khan et al., 2022). Looking into living income literature, one may find a plethora of literature available. However, the literature on living income is often focused on the agricultural sector, see Smith and Sarpong (2018); van Vliet et

al. (2021); Tyszler et al. (2018); Boysen et al. (2023). The literature covers a wide range of topics within living income, such as the effects of living income on agricultural productivity and well-being; the living income gap (i.e. the difference between the living income benchmark and the actual income of farmers); the effectiveness of policies aimed at improving income of farmers.

There is increasing literature available on e-waste, focussing for example on management (see Herat (2007); Nnorom & Osibanjo (2008); Lu et al. (2015)). A few studies have been done into livelihoods of e-waste workers (see Amankwaa (2013); Amankwaa (2014)), but a clear base for studies looking into living income and e-waste workers is lacking. Only recently, FCI and Systemiq have studied living income in the context of plastic waste pickers (FCI & Systemiq, 2023). Nevertheless, there is a gap in the literature concerning living income and e-waste. There is little information available on the (living) income of waste pickers and how to increase their income. This thesis aims to fill this gap.

This thesis aims to answer the following research question and sub-questions:

Main question: How can Fairphone enable waste pickers to earn a living income?

Sub-question 1: How do waste pickers make livelihoods?

Sub-question 2: To what extent is there a living income gap for waste pickers?

Sub-question 3: What challenges do waste pickers experience in earning a living income?

Sub-question 4: What interventions can be implemented by private actors and/or public actors to combat challenges waste pickers face?

Relevance

This research adds to scientific literature as it contributes to the living income literature, specifically by exploring the living income of waste pickers in Ghana. It seeks to map out different facets of their livelihoods, challenges and opportunities for improving the living income of these waste pickers. This is also beneficial for future research endeavours as they can bear these facets, challenges and opportunities in mind.

Additionally, this research is relevant for development aims, as the e-waste stream is the fastest growing waste stream and poses a great challenge to manage (Njoku et al, 2023). Moreover, for the energy transition vast amounts of valuable minerals will be required and e-waste recycling could be a great source of metals (e.g. cobalt, lithium) and minerals (e.g. gold, copper) (Sovacool et al., 2019). Finally, it informs the agenda of private organisations interested in improving working conditions of urban miners, as well as making urban mining less environmentally polluting. Fairphone is interested in setting up a project to improve working conditions and this research could inform the next steps they undertake.

Partner Organisation Fairphone

Fairphone is a Dutch phone company, active in different parts of the phone cycle, from responsible and fair material sourcing; worker wellbeing and human rights; to waste reduction and recycling. To provide transparency, they publish a map of the entire supply chain of their phones (Fairphone, n.d.b). They make phones designed to last, ensuring longevity attempting to make the environmental footprint smaller to mitigate climate change (Fairphone, n.d.a).

As mentioned above, this thesis is in collaboration with Fairphone, who are aiming to act on their Extended Producer Responsibility (EPR). Extended producer responsibility is defined as producers taking “responsibility for all stages of a product life cycles” (Grant & Oteng-Ababio, 2021, p.74). Fairphone is already involved in recycling and taking back old phones to repair or recycle components of the phone (Impact Innovation, 2021), yet now

wants to go one step further to actively work to improve working conditions in urban mining (L. Minere, personal communication, December 21, 2023).

This thesis is concerned with how Fairphone can enable waste pickers to earn a living income. First, a literature review follows in which e-waste streams, urban mining and informality as a mode of work are discussed. Second, a theoretical framework of living income is presented, in which living income is defined. Third, a geographical contextual framework is presented, in which the industry of waste picking, the actors in the e-waste chain, the consequences of e-waste and the regulations for waste management in Ghana are discussed. Fourth, the methodology of this thesis is presented. Fifth, the results and findings from the fieldwork conducted are presented, structured along the four research sub-questions. Sixth, a discussion about the findings is presented. Finally, the conclusion for the thesis is presented.

Literature Review

In the literature review, three topics will be discussed. First, the Global e-waste stream is presented. This is followed by a discussion on urban mining. The section is concluded by discussing informality and its benefits and downsides.

Global E-waste Stream

The e-waste stream is the fastest growing waste stream globally, presenting a real concern for the environment and human health (Njoku et al., 2023). Looking at the global chain of e-waste management and processing, there seems to be a clear divide between the Global North and the Global South. The Global North produces the majority of the e-waste stream, which is exported to the Global South, who is then responsible for the processing of the hazardous waste, bearing the negative consequences and externalities. This divide can be called the decarbonisation divide, or toxic colonialism (Sovacool et al., 2019; Njoku et al.,

2023). Baldé et al. (2022) name the Global South “the graveyard of the global North’s luxury products” (p.4).

Essentially, though developing countries contribute marginally to the global e-waste stream, the majority ends up in landfills in these countries. E-waste is often collected in developed countries to be recycled, which is then (often illegally) exported to developing countries such as Ghana (Njoku et al., 2023). The majority of the states receiving e-waste are low- and middle-income states which do not have adequate e-waste management infrastructure, which exacerbates the mismanagement of e-waste (Baldé et al., 2022). The major exporters of e-waste are Europe, East Asia and North America, exporting mainly to Africa, Southeast Asia, Central America and South America (Baldé et al., 2022). North and West Africa are the main importers of waste. This waste primarily originates from Europe and in lesser degree from West Asia (Baldé et al., 2022). When waste enters Ghana, valuable parts are cherry picked from the waste after which the less valuable parts are burned or end up in landfills (Baldé et al., 2022).

Concerning the negative effects of e-waste, there are multilateral agreements to regulate the waste flow (Bisschop, 2016). An example of this is European law which prohibits countries from exporting e-waste to countries with lower standards for processing of e-waste (Bisschop, 2016). However, Bisschop (2016) explains that challenges in legal definitions, policy-making, implementation and underfunding of government actors make regulating e-waste difficult.

There are multiple reasons for exporting e-waste, which Bisschop (2016) outlines in her article. The most important reason she explains is that exporting waste to a different country is cheaper than treating and processing the waste in the country (Bisschop, 2016). Reflecting a power imbalance between the Global North and the Global South, developing

countries often do not have sufficient means to manage e-waste effectively or reject import of e-waste (Njoku et al., 2023). However, at the same time there is a demand for e-waste in the importing countries, as there is value to the e-waste. The waste can be refurbished or recycled. Collecting the waste for these valuable parts or for recycling, is an important income generating activity (Baldé et al., 2022).

Urban Mining

As this thesis will discuss e-waste recycling and urban mining, it is important to elaborate upon what landfill mining and urban mining entail. Krook and Baas (2013) define landfill mining as “the excavation, processing, treatment and recovery of deposited materials situated in informal waste dumps and in structured landfills” (p. 2) and urban mining as recycling e-waste flows and extracting secondary minerals for reuse. This is supported by Xavier et al. (2023), who define urban mining as “the value recovery of secondary raw materials from anthropogenic sources” (p. 1). Finally, in Fairphone’s research, urban mining is defined as the practice of “collecting, sorting, preprocessing, treating and disposing of compounds and elements recovered from waste products” (Fairphone, 2022, p.2).

Cossu and Williams (2015) explain the increased interest in urban mining with multiple arguments. First, growing concern for the depletion and growing global consumption of non-renewable sources. Second, the growing e-waste stream and limited space to dispose of e-waste. Third, the need to reduce the volumes of generated waste. Fourth, growing concern for the environmental damage done by e-waste. Fifth, the changing attitude toward waste-management.

Although literature is often concerned with the issues e-waste and urban mining pose, there are benefits to urban mining as well. As Maes and Preston-Whyte (2022) explain, urban mining alleviates the depletion of natural resources and thereby reduces pressure on mining.

Baldé et al. (2022) argue that e-waste offers opportunities to extract minerals which are embedded in e-waste. Akon-Yamga et al. (2021) even claim that e-waste could be “transformed into a secondary resource of precious metals” (p.390). Moreover, enabling the refurbishing of second hand electronic materials, makes technology more accessible for Ghanaians and provides sustainable livelihood opportunities by repurposing second hand electronics (Amankwaa, 2014; Baldé et al., 2022).

Informality

Though the processing of e-waste is often done in an environmentally harmful way and unsafe for human health, the e-waste stream in developing countries is of great economic importance, it is estimated that 64 million people in developing countries earn their income from e-waste collection (Grant & Oteng-Ababio, 2012).

E-waste scavenging has become an informal livelihood strategy for many people living in Ghana, especially since formal employment opportunities have declined due to economic decline (Oteng-Ababio, 2012). Rather than earning a living in formal employment, e-waste collectors make a living by creating their own work (Grant & Oteng-Ababio, 2012), thereby excluding them from the world and protection of law (Khan, 2018). Important to note, there is a difference between informal work and illegal work, as informal work is often understood as not being registered with the government, whereas illegal work is against the rule of law (Ram et al., 2017).

Ghana’s informal e-waste sector is quite effective in and important for collection, as 97% of e-waste is collected, of which 80% is collected by informal e-waste collectors (Fairphone, 2022). This shows that informal e-waste workers play an important role in e-waste recycling and a just energy transition, which requires a vast amount of minerals (Sovacool et al., 2019).

Thus, on the one hand, informal work is vital for the energy transition and e-waste processing, as the vast majority of e-waste is collected and processed by the informal sector (Fairphone, 2022). Moreover, e-waste collection provides a livelihood for many people which is important for their continued survival (Amankwaa, 2014). On the other hand, informal work is unregulated and leaves people outside the protection of law (Khan, 2018). This leaves them without social protection and unrecognised in their work, even though they add tremendously to the economic activity (Khan, 2018). Additionally, as formal e-waste recycling is more expensive (Njoku et al., 2023), informal workers often resort to hazardous ways of dismantling e-waste such as acid leaching and burning, which poses great health risks for informal workers and leads to environmental degradation (Sovacool et al., 2019)

Theoretical Framework

The following section provides the theoretical framework employed in this thesis, namely a Living Income framework. First, several definitions of living income are presented. This is followed by a conceptual framework based on a living income model for agriculture is presented translated to the context of waste pickers.

Living income is a difficult concept to define, which is why it is often not used in practice by employers (Anker, 2011). Anker (2011) defines living wage as a wage with which workers and their families can afford a basic lifestyle and enabling participation in social and cultural life. The Global Living Wage Coalition gives the following definition:

...the remuneration received for a standard workweek by a worker and the income necessary for the household, in a particular place sufficient to afford a decent standard of living. Elements of a decent standard of living include food, water, housing, education, health care, transportation, clothing, and other essential needs including provision for unexpected events. (Khan et al., 2022, p. 6)

Yao et al. (2017) offer a definition, namely as living wage enabling “meaningful participation” (p. 876) in society. Notably, living income encompasses more than mere subsistence, but empowers households to flourish, provide economic security and reduce poverty (FCI & Systemiq, 2023). Though definitions vary, they all have in common that living income is very context specific. Dawani et al. (2019) also argue that living wage should be updated annually to correct for inflation.

To note, a living wage differs from a minimum wage, as Van de Ven et al. (2021) explain that a minimum wage can be considered to be a political instrument based on the economic situation at that time. States may not have the means to sustain living wages, meaning that a minimum wage can be below a living wage (Van de Ven et al., 2021), showing that living wages have a normative basis (Anker, 2006).

In this thesis, the frame of living income as a human right is adopted. The right to a living income can be founded in the right of living, which Przetacznik (1994) defines as “an appropriate standard of life” (p.204), which is remarkably close to the definition of living income. The human right of living is established in Article 25 of the UDHR Universal Declaration of Human Rights and article 11 of the International Covenant on Economic, Social and Cultural Rights (Gneiting, 2021). As Gneiting (2021) argues, companies should follow due diligence processes to ensure all actors in their production chains can earn a living income and they should “recognise living income as a human rights issue” (p.6).

One means to improve incomes is global organisation Initiatief Duurzame Handel’s (IDH) income drivers overview, see below in figure 1, which they use to establish possible avenues for improvement. When one has collected data for each of these drivers, that data can be used to inform an action plan to improve the income (IDH, n.d.).

Figure 1

Income drivers overview



Income Drivers Overview by IDH (n.d.)

Though IDH is not necessarily concerned with e-waste collection and recycling, it would be of interest to translate this agricultural scheme of income drivers to an e-waste collector's income overview. The scheme created below is based on the overview above and may be used in the research to study where improvement is possible to establish a living income for e-waste collectors.

Figure 2

Constructed Income Drivers Overview E-waste Collectors, adapted from IDH, constructed by author



Geographical Contextual Framework

Industry

E-waste work is a major source of income for many Ghanaians and generated 105-268 US\$ in 2014 (Maes & Preston-Whyte, 2022). The e-waste activities contribute approximately 0,55% of the GDP of Ghana (Grant & Oteng-Ababio, 2021). It provides employment for 200.000 people in Ghana nationwide (Maes & Preston-Whyte, 2022). Grant and Oteng-Ababio (2021) also argue that informal e-waste activities are an important source of livelihoods for many. Amankwaa (2014) argues that e-waste provides livelihood security and human prosperity and wellbeing that should not be overlooked when discussing e-waste management. E-waste offers livelihoods to people who might be without an income without e-waste work (Amankwaa, 2014).

Overview of Actors in E-waste Chain

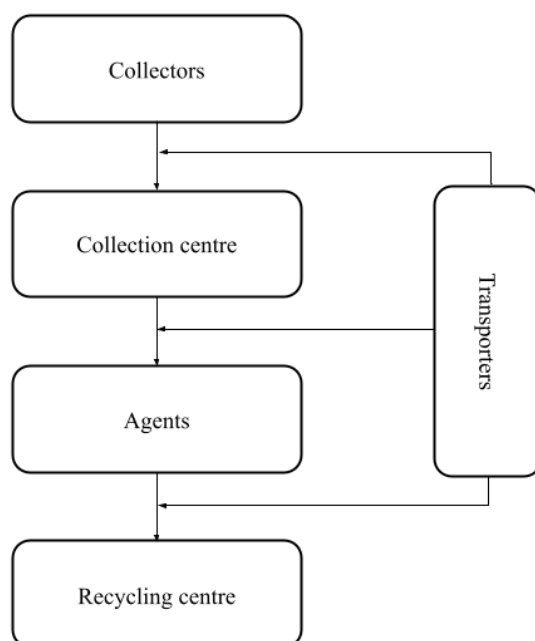
Of the imported e-waste, approximately 70% is still in working condition, 20% is repairable and 10% is non-functional (Canavati et al., 2022). The import of second-hand electronics is actually a great source of electronics for Ghana, as Ghanaians usually cannot afford new electronics and this stream of electronics can bridge the digital divide between developed and developing countries (Canavati et al., 2022).

The process of recycling non-functional e-waste starts with (informal) e-waste pickers, who buy up e-waste from households or scavenge for e-waste in dump sites (Fairphone, 2022). The collected e-waste is then either sold to collection centres (or scrap dealers) or dismantled to increase their income (Prakash et al., 2014). The collection centres buy up e-waste from collectors or from formal institutions. Unless they are registered with the Environmental Protection Agency (EPA), the collection centres are officially not allowed to dismantle or burn e-waste (Fairphone, 2022). Next are transporters, who transport e-waste or other recycled equipment from one location to another. These transporters are required to register with EPA (Fairphone, 2022). Next, agents act as a mediator between the collection centres and the recycling companies. Agents often have capital and therefore can offer scrap

dealers at collection centres some liquidity (Fairphone, 2022). There is no access for collection centres to recycling centres, which can lead to price manipulation of agents (Fairphone, 2022). Next in the process are the recycling centres, who dismantle, recycle, repair/refurbish and recover materials from e-waste. Almost all the informal recycling centres are illegal, with negative consequences for their health and safety. After recycling, the retrieved materials are sold to be used again (Njoku et al., 2023).

Figure 3

Schematic overview of actors involved in the e-waste processing chain, constructed by author



Consequences of E-waste Recycling in Accra

There are many risks and negative consequences related to e-waste processing as mentioned above. First, negative human health impacts through the release of toxins endanger both the urban miners as well as the local population (Daum et al., 2017). Higher concentrations of heavy metals have been found in blood and urine samples of e-waste

workers in Agbogbloshie, and there are concerns for maternal health as elevated levels of toxins have been found in breast milk samples (Daum et al., 2017). In addition, these elevated levels of heavy metals pose a great risk to foetuses and infants, as their bodies are still in primary developmental processes (Daum et al., 2017). Second, e-waste processing poses risks to environmental health. Polluted water and soil affects marine life and livestock close to Agbogbloshie, increasing the risk of cancer via consumption by humans (Daum et al., 2017).

E-waste Regulations

Continued e-waste processing in such an unsafe, polluting way can be explained by the fact that it is not well regulated. Although Ghana has environmental legislations in place, regulations for e-waste management are ineffective (Daum et al., 2017).

The 1992 Constitution of Ghana is the foundation for environmental legislation in Ghana, which states that international cooperation is required for environmental protection and that it is the government's duty to ensure welfare safety and health of employed people (GIZ & MESTI-PIU, 2022).

In 2016, the Ghanaian government adopted the Hazardous and Electronic Waste Control and Management Act 2016 (Act 917) and the Legislative Instrument was adopted (GIZ & MESTI-PIU, 2022). This is the first e-waste specific legislation Ghana has adopted (Bimpong et al., 2023). It provided a legal framework for sustainable e-waste management, in response to the concerns for the consequences of the growing (e-)waste stream (GIZ & MESTI-PIU, 2022). The act is principally divided into two parts (Bimpong et al., 2023). Part one is concerned with general hazardous waste and how to regulate it considering international treaties. Part two is more specifically focused on e-waste, aiming to collect e-waste by incentivising informal workers and formalising the informal sector. This is done by ensuring registration of all actors by means of permits (Bimpong et al., 2023). However, Act

917 has proven to be ineffective and little improvement has been achieved due to ineffective implementation (Maphosa & Maphosa, 2020).

Finally, two international conventions concerned with e-waste are the Basel Convention and the Bamako Convention. The multilateral Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted in 1989 and came into force in 1992 (Kahn, 2016). The aim is to address the risks hazardous waste poses to human health and the environment (Kahn, 2016). The Convention provides guidelines for international transfers of hazardous waste, to reduce the flows of hazardous waste from developed to developing countries. States ratifying the Convention are obliged to treat hazardous waste safely and as closely to their origin as possible, reducing international movement (Kahn, 2016).

The Bamako Convention takes a similar stance as the Basel Convention by aiming to reduce the effects of hazardous waste that lower-income African countries suffer (Daum et al., 2017). The Bamako Convention is an African e-waste regulatory framework enacted in 1998 and prohibits the import of hazardous waste into Africa by states that ratify the Convention (Daum et al., 2017). 25 African states have signed the Convention (Daum et al., 2017). Importing waste by ratifying states that has been prohibited by the Convention will be considered illegal and a criminal act (Traverso et al., 2024). Although the Convention is ambitious with banning all hazardous waste imports, implementation and monitoring is lacking and obliges and relies on nation-states to adopt national legislation (Olowu, 2012).

Although Ghana has signed both the Basel and the Bamako Conventions, non-compliance has been the status quo in the country (Daum et al., 2017).

Finally, moving away from e-waste regulations and towards income, Ghana has minimum wage policies in place since 1957 (Kumah, 2017). However, a vast share of workers

earn below the legal minimum wage, due to enforcement failing to keep up with regulations (Kumah, 2017).

Methodology

In order to answer the research questions, multiple methods of data collection have been employed. First, fieldwork was conducted in Accra, Ghana. During the fieldwork, semi-structured interviews were conducted with e-waste workers. This method was used to answer the first three sub-questions. The interview guide for these interviews can be found in Appendix A. The focus was on interviewing waste pickers, but other actors in the chain were interviewed too (e.g. scrap dealers). This was conducted to be able to get a more holistic picture of the e-waste chain and the relationships waste pickers have with scrap dealers. Participants for the interviews were found while they are working and requested whether they would be willing to be interviewed. The interviews have been conducted in different areas of Accra to increase the validity of the data. For the duration of the fieldwork, as many participants as possible were interviewed, by moving around Accra, seeking out participants. In total, 47 participants were interviewed of which 22 waste pickers. The fieldwork interviews took approximately fifteen minutes. While interviewing the participants, the researcher took notes. These were then later digitised, processed and elaborated upon. The coding tree for the processing of the interviews can be found in Appendix D.

Moreover, semi-structured interviews have been conducted with key informants on (e-waste management, livelihoods and living income. This method was used for answering the fourth sub-question. The interview guide for these interviews can be found in Appendix B. Participants were found through a literature search, which will be elaborated upon below. The authors of the papers were contacted, requesting an interview. In the end, seven key informants were interviewed. The interviews took approximately 45 minutes each. The

interviews were recorded, with the consent of the key informants. The coding tree for the processing of the interviews can be found in Appendix E.

In addition to the key informant interviews, secondary data analysis has been performed. The integrative literature review (Torraco, 2005) allowed for critiquing, reviewing and synthesising literature, thereby supplementing the key informant interviews. Literature was first found via Google Scholar, using search terms such as “e-waste”, “Ghana”, “policy”. Additional literature was found via references in the initial papers found. The literature analysed were secondary sources, mainly articles and papers presenting and/or evaluating e-waste policies and management.

Data Collection

Fieldwork Interviews

Between February 13 and March 4, a total of 43 interviews have been conducted in which 47 participants were interviewed. In total 22 waste pickers, 17 scrap dealers, 4 producers (i.e. manufacturing goods from scraps) and two dismantlers have been interviewed¹. Among the interviewees were 44 males and one female. The findings are mainly based on the data collected in the interviews with the 22 waste pickers, as this research is aimed at improving the income of waste pickers. At least 15 waste pickers were from outside of Accra, which will be elaborated upon below. As e-waste work is male dominated and the majority of e-waste workers in Accra have migrated from Northern and Eastern Ghana (Akon-Yamga et al., 2021; Yang et al., 2020), the participants are representative of the greater population of waste pickers. However, this thesis only includes pickers that collect waste from the street and buying from people as opposed to picking waste in landfills, which decreases

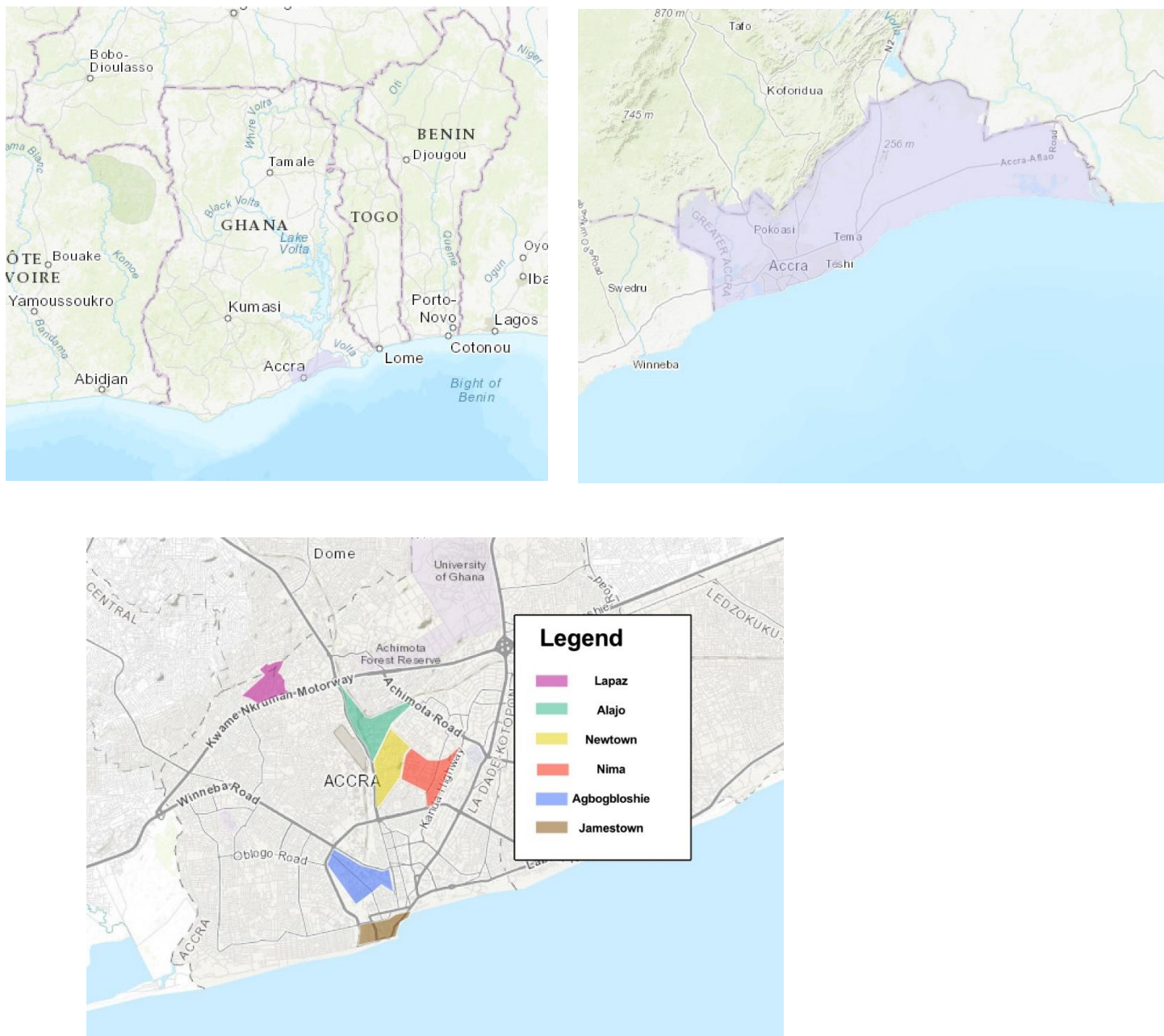
¹ As one interview was with a school teacher and one with an ‘Okada’ (motor taxi driver), a total of 45 interviews relevant to this thesis have been conducted.

the representativeness the sample. There was no information found in literature on the ratio of landfill pickers and street pickers.

Additionally, due to time constraints, the sample size is quite small for the greater population, as approximately 4.500-6.000 individuals work at Agbogbloshie alone (Prakash et al., 2010). Yet, reliability is attempted to be increased by interviewing in different parts of Accra. The interviews took place in Accra or in the Greater Accra Region. Specifically, participants were interviewed in the areas Agbogbloshie, Alajo, Nima, Afuaman, Newtown, Lapaz, Jamestown, Oduma and Nsakina. Nima, Newtown and Jamestown are low-class neighbourhoods, yet Nima and Newtown have a relatively big migrant community (from e.g. Northern Ghana, but also Nigeria) compared to Jamestown which has a bigger indigenous community (i.e. the original settlers of Accra) (Agyei-Mensah & Owusu, 2010). Agbogbloshie and Alajo are neighbourhoods dominated by slums and vulnerable to floods (Dekongmen et al., 2021; Abubakari & Twum, 2019). Afuaman is a peri-urban area located in the Greater Accra Metropolitan Area and is a farming community (Flynn-Dapaah, 2001). Nsakina lies in the Ga district, 15 kilometres removed from downtown Accra (Maxwell et al., 1999). The inhabitants were originally involved in farming (Kofie et al., 2008). No relevant information for the remaining neighbourhoods could be found. In short, most of the researched areas are low-income areas.

Figure 4

Map of Ghana, the Greater Accra Region and the specific neighbourhoods the research has been conducted, constructed by author



Note. The areas of Afuaman, Oduma, and Nsakina were not specifiable, hence the missing area marking for these locations in figure 4.

Key Informant Interviews

A total of seven key informant interviews were conducted, who are introduced in this section. Selase Adanu is a senior lecturer at the Ho technical university in Ghana. He works at the department of environmental science. His research is focused on waste management and the social and economic issues related to waste management.

Gordon Akon-Yamga is a research scientist at the Council for scientific and industrial research. He focuses his research on sustainability issues and the circular economy and does policy related research.

Ebenezer Amankwaa is a senior lecturer at the university of Ghana, working at the department of Geography and Resource Development. His research focuses on tension between development and global sustainability, climate change adaptation in communities, hospitals and schools. His master was on e-waste and the economic and environmental challenges related to e-waste.

Michael Asibey is a lecturer at Kwame Nkrumah University of Science and Technology in Kumasi, Ghana. He is an expert in urban development, environmental policy and sustainability. His focus is on governance, management, climate change adaptation strategies and development planning.

Kees Baldé works at United Nations Institute for Training and Research (UNITAR) for approximately a decade now. He works on quantifying e-waste issues on a global and national level. These data sets are used to give policy advice to national governments and the United Nations (UN).

Jakob Franke works at Systemiq, which is a non-governmental for-profit organisation that works for system change. The aim is to work towards the Paris agreement and the Sustainable Development Goals. They works a wide range of projects and systems, e.g.

energy, materials, nature, development. Franke works on materials and specifically circular economy topics.

Thomas Maes has worked on waste and its management for almost two decades. He focuses on marines, litter and plastics. He was the principal scientist at the centre for Environment, Fisheries, and Aquaculture Science. He started a consultancy in 2020 and still works there to give advice to e.g. the European Commission, UN Environment Programme, and different universities.

Limitations and Risks

As this research is qualitative, the answers given in interviews are subjective and speak of the collectors' experiences and perceptions. Due to the subjective nature of the thesis, generalisations may be difficult to make. Moreover, the research has been carried out in a timespan of a few months. As living income is a complex concept, it is difficult to fully comprehend and apply in such a short time span. Nevertheless, the key informant interviews may solve for this issue, utilising their expertise. Finally, a limitation this thesis faces is the informal and often illegal nature of the work of the collectors. This may make them reluctant to speak their mind to a researcher. However, the interviews have been anonymous.

A risk involved in this thesis is the expectation of participants that the thesis may directly affect their livelihood and living income. It is vital that expectations are accurately set, that this thesis will study their livelihoods, challenges and possible solutions to the challenges, but cannot directly guarantee improvement in their income.

Positionality

As a researcher, my positionality may affect how the research is carried out and how participants respond to me as a researcher. Being a young, affluent, white woman, people may feel uncomfortable talking to me as we lack a shared understanding. I may therefore fail to

understand their challenges and livelihood strategies. It is vital for the quality of the research, that I may have an open mindset to their experiences and perceptions and to overcome my own ideological and cultural boundaries.

In the next section results are presented and analysed. The notes and summaries of fieldwork interviews can be found in Appendix C. Here one can also find an overview of the interviews with the specific interview numbers referenced to in the following paragraphs.

Results

How Do Waste Pickers Make a Livelihood?

This section answers the first sub-question and is divided in three sections. First, this section attempts to provide an overview of the characteristics of the waste pickers and provide context to their livelihoods. Second, the work of the waste pickers is presented, i.e. their livelihoods. Third, two factors affecting livelihoods are presented.

Characteristics of the Waste Pickers

Place of Origin. Only three of the waste pickers stated they are from Accra, meaning the other waste pickers have moved Accra to work in the scraps business. At least five of the waste pickers have moved from Northern Ghana and six of the waste pickers moved from Niger. One waste picker explained he is from Tamale. One waste picker has moved from a Zongo, which can be understood as an informal, temporary settlement, often home to migrants from Northern Ghana (Mensah & Teye, 2021). He did not state where the Zongo is located, only that he is from a Zongo. Two waste pickers stated they are from Konkomba. The Konkomba is an ethnic group residing in Northern Ghana (Awedoba, 2006). It is not known for four waste pickers where they are from.

Taking Care of Family. The vast majority of waste pickers also take care of family, whether that is their wife/wives and children or also their parents and the families of siblings. Fifteen of the waste pickers stated to provide for family. Of the waste pickers taking care of family, at least six are the only ones earning an income for the family. Five waste pickers did not need to provide for family and two waste pickers did not specify.

Alternative Sources of Income. For some waste pickers, waste picking is not the only source of income. At least seven waste pickers have alternative sources of income. Five waste pickers move home seasonally to farm and stay in Accra only for periods of time. Four of these have said to farm in Northern Ghana, one did not specify. One waste picker said he works as an Okada (a motor taxi) at night. One waste picker said he takes any opportunity to make a profit, e.g. buying a bag and selling it elsewhere for a profit. For eleven waste pickers this is their only source of income. There was no information for four waste pickers.

Eight waste pickers said they want a different source of income (some of which already have one). Three waste pickers said they want to have their own business and one waste picker wishes to have his own farm. Three waste pickers proposed no specific alternative, but wanted to have any other work, because they do not earn enough currently. The reason people cannot pursue an alternative source of income is the lack of funds. They either need the money for their survival or they do not have enough capital to establish their other source of income.

One interviewee used to be a waste picker and has studied Public Administration, but cannot find employment in her field of study and is currently unemployed (interview 19).

Livelihoods of the Waste Pickers

Collecting and Buying Scraps. The waste pickers collect scraps, either roaming around picking for free or buying scraps from people. The waste pickers in this thesis collect scraps by walking the streets, as opposed to picking waste from landfills. A waste picker explained that people dump their rubbish outside and burn it (interview 19). She said it was not the waste pickers who set fire to the waste but the people who had to get rid of their waste. Waste pickers, in turn, can pick useable scraps from the piles.

Figure 5

Smouldering pile of waste to be picked from, photographed by author



Another practice waste pickers use to collect scraps and make an income is going around to buy scraps from people, which they in turn sell to a scrap dealer. At least 17 waste pickers said to buy scraps from people. A waste picker explains that he goes around to buy scraps from people, with whom he negotiates the price (interview 28). Therefore, prices can

vary based on with whom the negotiations take place and the value of the scraps. It is unclear whether it is expensive for the waste pickers to buy the scraps from people, as one waste picker said the scraps are not expensive (interview 30) and another waste picker said he could sell the scraps for double the price he bought them for, making them profitable (interview 20). However, other waste pickers said the scraps are expensive (interview 40) and one waste picker said he needs money from his scrap dealer to buy scraps (interview 25). In conclusion, it is not clear whether this practice is always profitable for waste pickers.

Going Out to Collect. The waste pickers often cover great distances when collecting scraps and will walk at random through different neighbourhoods. Some waste pickers have specific neighbourhoods they will walk, walking the surrounding areas where they were interviewed (interview 40, 41). There seems to be little patterns in this, but rather based on wherever they can collect scraps.

There was great variability among the waste pickers in the amount of times they went out to collect and buy waste. Some waste pickers only go once in the morning. There were multiple waste pickers who go up to three times a day. The most times a waste picker would go out is five to six times a day and one waste picker saying he goes out seven times a day. The waste pickers cover big distances when working (interview 19, 21, 24, 39). One waste picker said he walks from Afuaman to Agbogbloshie, which is approximately 20 kilometres.

Selling Scraps. The waste pickers go to different markets to sell the scraps. The waste pickers of this thesis go to Kantamanto, Tema, Agbogbloshie and Jamestown. The scrap dealers are often situated along the road and can be recognised by the scrapyards, which are pictured below in figure 6. Some of them operate on government land, which they occupied for their business. Because of this, two scrap dealers are worried what would happen if the government would claim the land (interview 6 and 32).

When the waste pickers sell scraps, the scrap dealers weigh the scraps with scales, see figure 7. The prices waste pickers receive per kilo of scraps differs per scrap dealer and due to market changes. Two scrap dealers explained that they set the price according to the US dollar, which fluctuates and thereby the prices for scraps too (interview 27 and 38). Moreover, prices for materials as metals and plastics also differ. Participants have reported prices of 0,5; 1; 1,5; 2; 3 GHC² per kilo and a waste picker stated he could earn 2 cedi for a phone and 3 to 4 cedi for a smartphone. The fluctuating prices make buying and selling difficult, as the price may be higher when buying than selling (interview 22).

Figure 6

Photographs of scrap yards, with the scraps scrap dealers have bought, photographed by author



² At the time of data collection, 1 Euro is equivalent to approximately 13 GHC.

Figure 7

Photographs of scales used by scrap dealers to weigh scraps waste pickers sell, photographed by author



Factors Affecting Livelihoods

When earning a livelihood with collecting, buying and selling scraps, there are some factors that affect how much one can earn. In this section, the materials and prices received for scraps are discussed.

The Materials Collected. All waste pickers interviewed collected all different kinds of materials, as opposed to focussing on e-waste only. The pickers collect plastics, metals and e-waste. Plastics may come from for example buckets or old chairs, metals may be aluminium or iron rods, among other items. Many waste pickers confirmed collecting all different materials (interview 9, 14, 19, 20, 21, 40). One waste picker explained that the waste pickers

will buy up or collect all kinds of materials and sell it to scrap dealers, who will then sort it per material (interview 19). Grant and Oteng-Ababio (2021) confirm this finding, saying workers often mix e-waste with other scraps. This finding has consequences for the research, as one cannot isolate e-waste from other waste streams as easily as previously assumed.

Prices. The opinion of the fairness of the price received for scraps diverges among the waste pickers. Some waste pickers said the prices are fair and okay (interview 21, 28, 30). However, others did not think so (interview 9, 22). One explained that the price is incorrect sometimes, but he could do nothing about it (interview 9). When asked whether he believes the prices he receives are fair, he said that the buyers cheat the price sometimes, but he could not do anything about it either (interview 22). He has to take their price. Due to the volatile nature of the prices, one waste picker said that the prices are sometimes good and other times not (interview 23). Yet, one waste picker said that for the scraps one picked off the street, the price is fair. However, pickers should demand a higher price for scraps they had to buy from people, to make up the difference (interview 19).

The previous section has provided descriptive information about the livelihoods of waste pickers, i.e. the work they engage in to earn an income. The next section will focus on the question to what extent the income of waste pickers previously described is (in)sufficient to support their way of living.

To What Extent is There a Living Income Gap for Waste Pickers?

This following section is concerned with answering the second sub-question. The section is divided into three parts. First, a living income in Ghana is discussed. Second, the (living) income of the waste pickers is presented. Third, living income is discussed in light of volatile incomes.

Living Income in Ghana

Determining a living income is a complex process and highly context dependent. Therefore, an external study is used to define a living income in Ghana. Recently, FCI and Systemiq (2023) have conducted an innovative study to establish what a living income in Ghana looks like. They argue that an income should be 4.800 GHC per month to qualify as a living income and to provide people with decent living conditions. This is per household, which they average at two adults and two children, with 1,78 full time working adults per household. This number is calculated by assessing the costs of living in a specific place, in which they included diet, housing, healthcare and education (FCI & Systemiq, 2023).

(Living) Income of Waste Pickers

When asking how much the waste pickers earn, most did not have a clear answer on how much they earn, because their income changes daily. The waste pickers were asked whether they earn enough money, which the waste pickers could answer with their own frame of reference. Nine waste pickers answered they earn enough. The waste picker from interview 19 was more nuanced, saying that for a single person, you earn enough to pay your bills while working as a waste picker. However, the income is not enough if you also have to provide for a family according to her. A living income is defined per household. Eleven waste pickers stated they do not earn enough money to pay for their bills. Important to note, the baseline for earning enough is very subjective, as some waste pickers have stated earning approximately the same amount, where one says he earns enough and another states not earning enough. For example, the waste pickers from interview 40 said they do not earn enough but the waste picker from interview 31 states he does earn enough, even though they said to earn around 50 GHC per day. The waste picker from interview 31 even provides for his family, while the waste pickers from interview 40 do not have to take care of family. This shows that waste pickers cannot be easily compared, as their personal standards, living conditions and family situation may affect how they perceive sufficiency.

The question whether they earn enough may not offer an objective measure for whether people earn enough. Therefore, the self-reported income of waste pickers is compared to the required living income in Ghana. For those who could answer the question, the numbers vary greatly. One waste picker stated she would sometimes earn only 5 GHC and other days 20 to 30 GHC. Three waste pickers answered that they earn around 50 GHC per day. The four waste pickers from interview 40 earn around 50 to 60 GHC. One waste picker earns 80 to 100 GHC per day and another earns around 100 GHC. Taking the average of these numbers, the waste pickers earn around 57,75 GHC per day³. On average, they therefore earn 1.505,54 GHC per month⁴. The gap in living income for the waste pickers in this thesis is $4.800 - 1.505,54 = 3.294,46$ GHC per month. For the waste pickers to earn a living income, they require at least triple the income they earn now⁵, assuming they are the only one earning money for their household.

Two comments on this finding: even though e-waste workers do not nearly earn a living income, they do earn considerably more than other Ghanaians and other informal workers (Maphosa & Maphosa, 2020; Amankwaa, 2014). The daily minimum wage was set at 13,53 GHC in 2022 (Ali, 2022), which is significantly lower than the daily income of 57,75 GHC found in this thesis. Moreover, the average income found in this thesis is significantly higher than other studies found. For example, Amankwaa (2014) found in his study that the average daily income was 15 GHC. However, at the time of the study, the minimum wage was also set lower than in 2022, with minimum wage being 4,482 GHC. This shows that

³ The mean is taken from the daily incomes reported by the waste pickers: (participant 9 = 50 GHC) + (participant 14 = 100 GHC) + (participant 19: 5 to 30 GHC, average = 17,5 GHC) + (participant 28 = 50 GHC) + (participant 30: 80 to 100 GHC, average = 90 GHC) + (participant 31 = 50 GHC) + (participants 40: 50 to 60 GHC, average = 55*4 GHC, because the interview was with four waste pickers) = 577,50 GHC. $577,50/10 = 57,75$ GHC.

⁴ It is most common for waste pickers to work six days per week, taking Sunday off. On average, there are 4,345 weeks in a month, therefore the waste pickers in this thesis earn on average $57,75 * 6 * 4,345 = 1.505,54$ GHC per month.

⁵ $4.800/1.505,54 = 3,19$

minimum wages have gone up since the study by Amankwaa in 2014 was published, which may mean that wages earned by waste pickers also have gone up since.

As the aim of this thesis is to improve the income of waste pickers to a living income, it is important to understand their spending habits and priorities. Therefore, the question what the waste pickers spend most of their income on was posed during the fieldwork interviews. Different answers were given. At least four waste pickers said they spend most on food. Two waste pickers mentioned they spend most on rent. Two waste pickers said it is difficult to find a room and one said he did not have a place to stay in Accra. One supervisor explained that seeing groups of people sleeping in the street happens regularly because people move from Northern Ghana to Accra to earn money, however, cannot find a place to stay because it is too expensive (H. Joachim, personal communication, February 7, 2024). One waste picker said he spends most of his income on farming in Northern Ghana. Although they did not mention it as the biggest cost, at least eleven waste pickers also send remittances to family.

Volatile Incomes

In addition to the income level of waste pickers, living income is concerned with economic security as well (FCI & Systemiq, 2023). However, the majority of the waste pickers of this thesis reported not having a steady income. Seventeen waste pickers have stated their income often changes. When asked about challenges, many of them reported the lack of stability in income. There are multiple reasons for this volatility in income. First, income is highly dependent on how many scraps one can collect in a day. Some days one may simply not be able to find or buy any scraps. Second, the price for scraps fluctuates as well. The price waste pickers receive for the scraps collected can therefore change regularly. Third, some waste pickers choose to wait to sell the scraps they collect until their cart is completely full. Though this was not further elaborated upon, it can be assumed this to be due to the

distances waste pickers have to walk to sell the scraps. As economic security is a part of living income, the volatility in income described above poses a threat to the living income of the waste pickers of this thesis.

What Challenges Do Waste Pickers Experience in Earning a Living Income?

In this section, the challenges the waste pickers in this thesis reported are presented. First, the challenges which the waste pickers explicitly reported when asked are presented. Second, other challenges are presented which the waste pickers did not explicitly state as challenges, but are deduced from the interview. These challenges are either based on the definition of living income or on challenges other people explicitly mentioned.

Explicitly Mentioned Challenges

Only two waste pickers stated they face no challenges. The most commonly mentioned challenge is that there is too little work for them to earn enough money. There is one waste picker who specifically said there is enough work in scraps, yet has other work as an Okada (interview 30). All the other waste pickers who made a statement on the amount of work said there is not enough scraps for everyone. One scrap dealer explained that there is too little work, because there are too many people in this field (interview 40). This issue can also affect scrap dealers, as he explained that companies are not buying up the scraps because there is too much supply. He posed the question how he can pay the waste pickers if he has no income from selling scraps.

It is important to note that the waste pickers interviewed are only working in the streets and not in landfills. When visiting the landfills, there seemed to be enough scraps to pick. Yet, the air was of poor quality with harsh working conditions due to the scorching sun and toxic vapours from burning waste. It seems that the waste pickers from this thesis choose not to work in the landfills, even though more scraps may be available to them there.

The second most commonly mentioned challenge is volatility in income. As income is highly dependent on how much a waste picker can collect, there is no way of knowing how much they will earn in a day. This leads to feelings of insecurity and makes it impossible to plan for the future.

Two challenges were mentioned an equal amount of times, namely not earning enough money and having to walk long distances to collect scraps. Both of these challenges can be tied to there not being enough scraps. Waste pickers have to travel far to collect more scraps and cannot sell enough scraps, so waste pickers do not earn enough money to pay their bills. Three waste pickers additionally mentioned walking in the sun as a challenge.

Some other challenges mentioned in smaller numbers are not having a truck to transport the scraps; sustaining injuries while working; managing time spent between working and studying; having to push a heavy cart in the sun. Finally, a challenge mentioned by one waste picker is that waste pickers sometimes steal valuable items from people, damage the goods on purpose to make it seem like waste and then sell the materials (interview 19). This was confirmed by an unrelated interview with scrap dealer 15, who stated this issue as a challenge for him. He said he would buy up the scraps, but later someone will come to claim the goods as their property.

Implicitly Mentioned Challenges

The interviews were also analysed for challenges not explicitly reported by the waste pickers. These were not mentioned when asked the question, but when answering other questions.

When analysing the interviews this way, more waste pickers faced the challenge of not earning enough money to pay their bills. More waste pickers also mentioned that their income

is very volatile and the prices for scraps fluctuate. Analysing the interviews this way also found three more waste pickers who have to walk long distances when working, in addition to the four who reported the challenge. Another challenge is the power dynamic between waste pickers and scrap dealers, as two waste pickers said they feel the prices when selling their scraps are cheated, when asked whether they think the price they receive is fair. However, they said they cannot do anything about it and have to take the price regardless, showing a lack of power on the side of the waste picker.

What Interventions Can Be Implemented by Private Actors and/or Public Actors to Combat Challenges Waste Pickers Face?

Following the data collected in the field, this thesis offers recommendations to improve the income of waste pickers to a living income. This section is divided into four parts. First, data is presented from the fieldwork interviews, in which the waste pickers were asked what they think would help them in their challenges. Second, recommendations to private actors and how they can be involved in improving the income of waste pickers will be discussed. Third, recommendations to public national actors will be given, i.e. recommendations to the Ghanaian government. Lastly, recommendations to public international actors will be presented.

Solutions to Challenges

The waste pickers were asked what they think would help in their challenges. Seven waste pickers said having a bike, cart or truck helps/would help them in their work. Three waste pickers have a bike to ride around (interview 9, 13, 25). Four waste pickers have a truck (interview 10, 14, 28, 39). Two waste pickers have a cart to transport the scraps around (interview 20, 21). The waste pickers who have such a vehicle said it made their work easier, except for one.

Figure 8

Photograph of truck of a waste picker, photographed by author

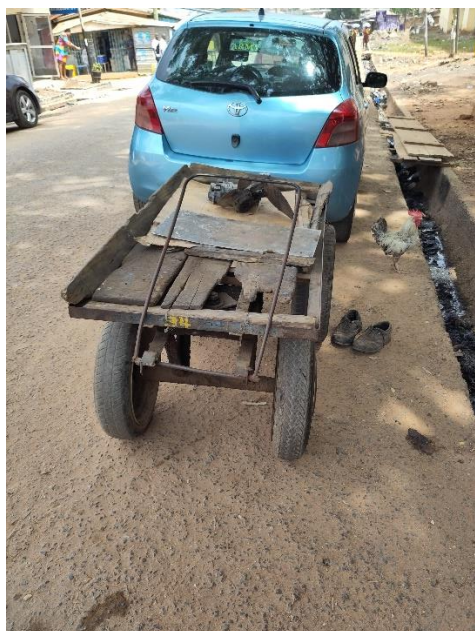


Figure 9

Photographs of cart used by a waste picker, photographed by author



Three waste pickers said ‘get money’ would help in their challenges. A few waste pickers mentioned employment opportunities helping them, such as working with a company or having his own shop. The waste picker who was challenged by balancing work and study said having a financial plan would help. For the challenge of working in the sun, one waste picker said that umbrellas would help. One waste picker said that his scrap dealer helps in his challenges, by giving him money to buy scraps. Two waste pickers proposed external help, one by having companies buy up scraps from scrap dealers so they can pay the waste pickers. The other waste picker proposed NGOs helping, by giving out loans enabling people to start a side business.

When the waste pickers were asked about government help, every single one answered that the government cannot help them. One waste picker said the government is no good and that they would cheat the waste pickers (interview 19). One supervisor explained that people do not trust this government and do not want to talk about the government. She advised me not to ask the question again, in total nine waste pickers answered the question on government help (M. Osabutey, personal communication, March 4, 2024). She explained the question is sensitive because the e-waste workers are worried the government would terminate their work because it is informal.

Private Level

The basis of recommendations for private actors in this thesis is the requirement of companies to “respect human rights in their value chains” (FCI & Systemiq, 2023, p.30). As opposed as viewing private corporations as charities for attempting to improve working conditions of waste pickers, it should be seen as their responsibility to respect all actors in their value chains. According to Asibey (personal communication, May 21, 2024), the private sector has a great position since actors in Ghana have a lot of trust in the private sector and are

willing to work together. The following section proposes four recommendations how private corporations can improve the income of waste pickers, namely providing technical input in government policies and legislations, training and education, making technical equipment available and setting up a fund to provide access to capital for waste pickers.

First, according to literature, it is important to bring together all relevant stakeholders for policy making. Bimpong et al. (2023) argue that all relevant stakeholders should be brought on board for the design and implementation of policies. This includes actors with expertise on the topic. E-waste is “special” (Bimpong et al., 2023, p.9) and should be handled as such. Taking a supportive approach, corporations should engage with the government and its policies and legislations to harness the potential of the informal waste sector and the opportunities urban mining presents (Maes & Preston-Whyte, 2022).

The key informant interviews underscore the need to include private companies in policy making. According to Adanu (personal communication, May 23, 2024), companies involved in hardware electronics can serve a role, as they have the expertise and knowledge on how to handle e-waste well. Baldé (personal communication, May 22, 2024) adds, as companies carry responsibility for the waste they produce, they should be at the forefront of sound e-waste management, acting as proactive catalysing actors instead of reactive actors. Although this may not improve waste pickers’ income directly, it is an important step in taking responsibility for the waste companies generate. At the same time it is important to stress that not all policies that function well in the Global North may work well in Ghana. Therefore, Maes (personal communication, May 22, 2024) states that the knowledge available in the Global North should be offered to Ghana, while at the same time leaving space for indigenous knowledge.

Second, it follows from the literature that an important avenue of improving the working conditions of waste pickers is providing training and education to e-waste workers

(Asibey et al., 2020; Adanu et al., 2020). Similarly, the key informants highlight education and training as well. Asibey explains that training is vital for the workers to understand how to handle the waste and dismantle it safely. Education is important for the workers to understand that e-waste is a special waste that requires a specific way of handling it. He stated that workers ought to be sensitised to e-waste and that it should be handled differently from other waste streams, considering e-waste is now often lumped together with other waste streams. Offering education helps waste pickers take better care of the waste and decreases costs of education.

Akon-Yamga (personal communication, May 22, 2024) proposes the education and training can be channelled through waste picker associations. The workers need to be sensitised to the benefits of an association, so that many of the workers are reachable through such an association and can be assembled for training and education. Waste pickers may feel hesitant because they may have to pay a fee or for a subscription to the association, Maes explains. By showing the benefits they may gain, they may be more inclined to register. Akon-Yamga pointed out that building capacity through training once may not have the desired, sustainable effect as new actors enter the sector. Therefore, education and training should be focused on training in the long term, by training trainees to be trainers, Maes offered. These trainers can then train the new generations, making the education sustainable.

Third, making (technical) equipment available is an important method for improving the income of waste pickers, according to literature. One way to improve the income of waste pickers is by decreasing costs of earning their income, which follows from the income drivers scheme (IDF, n.d.). As FCI and Systemiq (2023) reiterate, the costs of protective gear are significant for waste pickers. E-waste workers do not have sufficient funds to purchase expensive machinery, prohibiting them from using sustainable and safe methods for waste management (Adanu et al., 2020). Providing equipment could also reduce the burning of e-

waste, thereby decreasing environmental degradation and human health hazards (Akon-Yamga et al., 2021).

The waste pickers also explain that making equipment available to them would help them in their challenges. As mentioned above, making vehicles and umbrellas available would improve their working conditions.

Making equipment available is emphasised by the key informants as well. Making safety tools available goes together with education, Amankwaa (personal communication, May 28, 2024) stated, because there has been training on the benefits of working with safety materials. However, as it decreased their productivity, for example the gloves being too thick, thereby slowing down the work, they believe they cannot work well with the tools and will not use them. By raising awareness and engaging with their concerns (e.g. providing lighter gloves), people may be inclined to use safer working materials, Amankwaa explained. Again, the distribution of materials may be channelled through associations, making them available to members. Channelling through associations would be convenient, as the memberships may help finance the materials and the associations have an clear overview of waste pickers to use for distribution.

Moreover, bigger technical equipment such as stripping machines should be provided, as Adanu explains that training and education alone does not suffice in improving the working conditions. As mentioned above, the costs for equipment are too high for waste pickers. By educating them on better methods but not offering the materials to do so, will not empower them to work more safely and sustainably, Adanu argues.

Fourth, setting up an fund to enable access to capital. From the fieldwork interviews, it became clear that waste pickers require capital to be able to do the work (interview 1, 2, 27), buying scraps from people. This is confirmed by literature, as Adanu et al. (2020) explain that

this may be challenging, as they often only earn enough money for subsistence. FCI and Systemiq (2023) explain that waste pickers often face high interest rates when borrowing money for their work. Setting up a fund which waste pickers may use to borrow capital with low interest rates, may be a step closer to breaking the cycle of poverty (Akon-Yamga et al., 2021). A possible avenue to set up such a fund is in collaboration with a waste pickers association, as they have close connections with waste pickers. With an association, a mutual fund may be set up. Those working with the fund may be able to help with financial management. The fund may be financed by outside investors and the government.

National Level

In academia, the lack of national legislation in waste management in Ghana (Akon-Yamga et al., 2021; Bimpong et al., 2023; FCI & Systemiq, 2023; Maes & Preston-Whyte, 2022), is argued to be the reason for the waste mismanagement. This goes to show there is a lot of potential to be harnessed at the national level of Ghana for improvement of waste management. The approach legislation should take is to “recognise the contribution of the informal sector, harness their ingenuities and improve their working conditions” (Amankwaa, personal communication, June 7, 2024). The following section offers three recommendations what national policies and legislations can focus on, namely a formal/informal hybrid organisation of waste management, engagement with waste pickers in legislations and supporting waste pickers associations.

First, a formal/informal hybrid organisation of waste management is supported by literature. Amankwaa (2013) proposes a system where the informal and the formal system both have their responsibilities: the informal is focused on collection, disassembly and segregation of waste after which the formal sector will take over the waste and “manage the upstream processing” (p.572). He argues the informal sector has the experience, network and

knowledge for their work and the formal system has the expertise, technology, capital and specialised skills for the managing of the waste. Considering that 80% of the e-waste collected is collected by the informal sector (Fairphone, 2022), the informal sector is of great importance for waste management in Ghana. Moreover, as Amankwaa (2014) argues, any form of access to livelihoods has a positive relationship with human wellbeing. FCI and Systemiq (2023) argue that national legislation should acknowledge informal waste picking as a legitimate profession. This ought to be done by issuing occupational licenses and identification cards.

Banning the informal sector directly or through complicated and expensive standards they have to follow is not desirable according to the key informant interviews. Asibey explains that the waste pickers supplement the government by picking waste that the government is unable to do. For example, the waste pickers are able to reach unreachable places due to the size of their carts and the networks they have created. Moreover, they offer services to Accra and without them, the cost for waste collection would increase and Accra would be less clean, according to Amankwaa. However, Franke (Franke, personal communication, May 28, 2024) states that the informal sector is often underappreciated, excluded and marginalised. It followed from the fieldwork interviews that people do not trust the government and thought the government could not help them, because their work is informal and were worried that the government would terminate their work because of this (M. Osabutey, personal communication, March 4, 2024). To counter this, Franke argues that waste pickers should be recognised in their profession, so they may make use of public services. Allowing for the use of public services, e.g. public education as opposed to private, decreases costs and improves their income.

In order to bring together the formal and the informal sectors, there should be a financial incentive for informal collectors to bring the waste to formal collection centres.

Akon-Yamga argues this should be funded by eco levies the Ghanaian government should be receiving from exporting actors. Considering how most e-waste workers live in extreme poverty, the financial compensation for bringing it to a formal collector should be greater than keeping the waste in the informal sector, according to Baldé. Specifically, a proposal would be to buy scraps directly from scrap dealers. Scrap dealers are involved in aggregating waste in bigger amount which increases efficiency. Moreover, the scrap dealers have a great network of waste pickers and the knowledge how to deal with waste, which makes the collection of waste easier and more efficient. Furthermore, by buying up waste from scrap dealers, waste pickers are indirectly supported as well, as the scrap dealers need funds to be able to pay the waste pickers (interview 40). This is also in line with Ghanaian customs, as a waste picker explained that his scrap dealer helps him with money to be able to buy scraps. Finally, Amankwaa states, the goal of the cooperation of the informal and the formal sector is not for the formal sector to take over work of the informal, but to “incorporate the informal in the process in an integrated manner based on their comparative advantage” (Amankwaa, personal communication, June 7, 2024).

Second, waste pickers associations offer great opportunity for improvement in waste management and should be encouraged and supported by government actors according to literature (Amankwaa, 2013; Akon-Yamga et al., 2021; FCI & Systemiq, 2023). The need for associations is also stressed by the key informants. For the waste pickers, associations offer advocacy for their interests, by being a united voice instead of thousands of individual workers and education and training can be offered by associations, according to Akon-Yamga. Moreover, Amankwaa states, by being organised in an association, workers may be able to engage with actors on a higher level. At the same time, there should be safeguards in the associations against elite capture, where the interests of a (powerful) few are represented at the expense of the majority (Amankwaa, personal communication, June 7, 2024). For

government actors, associations may be a way to register and identify workers through memberships. This offers formalisation without complicated bureaucracy, Akon-Yamga explains. In turn, interventions by the government, such as the abovementioned formal/informal hybrid form, can be channelled through associations. The associations have the registered members and networks ready to be used, Akon-Yamga proposes.

To encourage waste pickers to register with associations, it is important that waste pickers see associations being taken seriously by the government and that the cooperation will be an equal partnership.

Third, for legislation to effectively improve waste management, all actors should be included in policy making, as argued in literature (Akon-Yamga et al., 2021; Bimpong et al., 2023; Asibey et al., 2020). According to Asibey et al. (2020), informal e-waste workers were not involved in the policy making. Again, making use of an association can help incorporate the interests of e-waste workers and improve the policy made.

The key informant interviews underscored this, with Akon-Yamga explaining, the policies have mostly been top-down and have not included e-waste workers. However, these do not work well, because people cannot understand them as they do not speak English, according to him.

From the fieldwork interviews as well as the key informant interviews, it followed that there is distrust in the government in Ghana. Workers are worried for employment security because their work is informal and could be terminated by the government (M. Osabutey, personal communication, March 4, 2024). Other reasons mentioned in the key informant interviews are the inability of the government to help people due to limited funds (Adanu, personal communication, May 23, 2024), the demolishing of Old Fadama (a part of Agbogbloshie) in 2021 (Asibey, personal communication, May 21, 2024), lacking

transparency in the government (Maes, personal communication, May 22, 2024) and because citizens live in poverty and face hardship while government officials are living lavishly (Amankwaa, personal communication, May 28, 2024).

Increasing transparency and including all actors may be beneficial to building trust, democratising the process of policy making, according to Amankwaa. Asibey proposes to organise a large forum in which all waste workers can voice their concerns and interests. It is vital for the government to take a more inclusive and supportive approach to enhance the business of the informal sector, Amankwaa states. As opposed to seeing them as a nuisance, they should be viewed as an effective mechanism for collecting waste.

International Level

There are some international legislations in place to combat the issues related to e-waste, such as the Basel Convention or the Bamako Convention. However, the continued environmental and human health degradation in Ghana highlight a need for improvements and/or additions to the current international framework. Though the recommendations to international actors are very high level, they may indirectly improve waste pickers' income and working conditions. This following section provides three recommendations focussed on improving international legislation, namely, improving and extending the Extended Producer Responsibility (EPR) framework; establishing a clear definition of e-waste; and reducing the waste streams to the Global South.

First, there is a lot of potential to be harvested by improving the EPR framework (Asibey et al., 2021; FCI & Systemiq, 2023). Extended producer responsibility is defined as producers taking “responsibility for all stages of a product life cycles” (Grant & Oteng-Ababio, 2021, p.74). The guiding principle is placing the responsibility on the producer for bearing the costs of managing and mitigating the environmental impacts of products (Afripac,

n.d.). EPR is technically not a policy instrument, but rather the foundation for selecting policy instruments, such as permits, targets, labels, fees, subsidies, bans/restrictions (Manomaivibool, 2009).

An important opportunity for the EPR framework to actually increase social inclusivity, would be to extend the framework from the EU to Ghana as well. Considering the majority of the e-waste that is imported to Africa originates from Europe (Baldé et al., 2022), the argument could be made that European producers hold responsibility for the e-waste residing in Ghana.

The key informants confirmed the need for extending the EPR framework. Maes explains that the EPR framework works well in Europe, but once the waste leaves European borders sight is lost, due to lacking monitoring systems. Akon-Yamga (personal communication, May 22, 2024) explains how eco levies (i.e. green taxes) paid by waste exporting states could be utilised to fund waste management in Ghana, which is currently lacking (Bimpong et al., 2023; Maes & Preston-Whyte, 2022). Those who benefit from the export of e-waste should also fund the management of it, so the benefits can trickle down to those handling the e-waste. Akon-Yamga stated this is what legislation Act 917 is concerned with, showing potential for the interaction between the EPR framework and Ghanaian legislation. This is confirmed by Awere and Bonoli (2021), Act 917 aims to control, manage and dispose of hazardous waste, by imposing eco-levies, which are to be used for the construction of an e-waste recycling centre. Thus, the argument in favour of a stronger EPR framework is that it taxes those who benefit from the e-waste, so that these taxes may be used to support waste pickers.

Second, according to literature, a clear definition of what constitutes e-waste is required (Akon-Yamga et al., 2021). This is underscored by the key informant interviews, Maes states there is a difference between second hand waste and e-waste and only safe waste

should be exported, i.e. waste that is not too dangerous to deal with and can be handled safely. Akon-Yamga explains that there are a lot initiatives to improve e-waste management, but for the interventions to be effective, there needs to be a clear definition as to what constitutes e-waste. This would improve monitoring waste flows and make prohibiting certain flows more clear. Essentially, to be able to address the issues in e-waste management, it is necessary to have an overview of the issue. This starts with having a clear definition of e-waste.

Third, reducing the waste streams further would alleviate the pressure on Ghanaian waste management. Literature explains that there are some benefits to the importing of e-waste, such as making electronics available which would be too expensive for the Ghanaian population to buy new and offering livelihood opportunities for thousands (Amankwaa, 2014). There are different views from the key informants on the balance between the benefits and downsides. Asibey states that the focus should not be on reducing waste, but rather on the management once it enters Ghana. He explains that treaties have been around for decades, which have not been effective considering so much waste is still imported. However, there are clear hazards to the waste as well as benefits. Asking how these downsides and benefits should be balanced, Amankwaa was clear, saying that though waste offers opportunities for Ghana, most of the imported waste is unusable and ends up in the landfills. This is why he states that dumping of unusable waste should stop. Akon-Yamga explains that for the sake of global sustainability, consumption should be reduced. Though people make their livelihoods by managing the waste, he argues they will be able to adapt to other livelihoods, as long as the process is gradual. In short, all though this recommendation may seem to reduce the income of waste pickers, as Amankwaa pointed out, a lot of the waste is unusable and ends up in landfills. This is of no use to the workers, but does exacerbate the issues Ghana faces.

To finalise the recommendations section, it is important to note, that international treaties and legislation, national laws or corporate intervention on their own would not be

sufficient in solving the issues related to e-waste Ghana faces. As Amankwaa, Akon-Yamga, Franke and Maes all reiterate, interventions on all levels need interaction between the levels. Wicked problems such as these require a holistic approach, incorporating all actors in the solution, as Franke states. Although the results section has been written with separate recommendations to different actors, they ought to be executed in cooperation with one another.

Discussion

The results are discussed in this section. First, the results are discussed in relation to the framework used in the thesis. Second, the contributions of the results to the theory of living income are presented. Third, the contributions of this thesis to e-waste management literature are presented. Fourth, the biases and omissions are discussed that may have occurred in this thesis. Fifth, new avenues of research beyond this thesis are offered. Finally, the relation between this thesis and the field of Development Studies is provided.

The Income Drivers Scheme and Living Income

The sub-questions posed in this thesis fit neatly in the framework used, namely the IDH income drivers scheme introduced in the theoretical framework of this thesis. This section ties all empirical parts of the thesis together in the framework.

The first sub-question allows for understanding the livelihoods of waste pickers, which essentially describes the different components of the income drivers scheme, providing a clear overview of the work of waste pickers. This can be useful to Fairphone to adapt their interventions to the overview. The second sub-question elaborates upon the size of the issue, proving there is a problem in the great deficit in income waste pickers face. The third sub-question presents the challenges of waste pickers, according to the waste pickers themselves. The most mentioned challenges, namely too little income, too volatile income, too little scraps and having to walk great distances, confirm the importance of this thesis, as they all speak of

the need to increase income. This is useful for Fairphone to be able to address issues that waste pickers themselves find important.

The most mentioned challenges are closely related to one another, as having too little work available means one will earn too little income. Having too little income means having to walk great distances to be able to collect scraps, and having too little work leads to volatile income as there is no guarantee one will collect scraps everyday. Increasing income would reduce all these most mentioned issues. Finally, aiming to reduce the issues the waste pickers reported, recommendations to improve the income of waste pickers are presented to finalise the framework. Issues are first presented and described with potential solutions being presented at the end. Going back to the income drivers scheme, the recommendations to improve incomes are mostly focused on the third and fourth component, namely increasing the price received (e.g. with the formal/informal hybrid, which increases the prices scrap dealers receive for waste) and reducing other costs waste pickers face (e.g. providing safety materials to work with).

Input for Living Income Theory

Where living income literature has conventionally focused on other topics such as agriculture, this thesis places the important and relevant topic of e-waste in the frame of living income. It is acknowledged that living income in waste picking is complicated because of the informal and independent nature of the work. Seeking out this complication, this thesis aims to offer solutions to the issue of informality in the application of the theory with regard to cultural sensitivities concerning informality and formalisation. With the recommendations, e-waste legislation, infrastructure and associations can be established to help register and identify waste pickers. This may allow for the improvement of the income and working conditions of e-waste workers, specifically waste pickers.

Furthermore, this thesis focused on economic security as part of a living income. The research proved that volatility in income was a major challenge for many waste pickers in this thesis. Yet, many living income studies focus more on the level of income than the stability of income and economic security. It would be interesting to study economic security to a greater extent, as the issue of economic security showed to be of importance to the waste pickers. It would be helpful to have a more clear theoretical foundation for volatility, understanding how much volatility is ‘acceptable’ for an income to still be considered a living income. Additionally, it would be useful to have a clear method of reporting and measurement for studying volatility.

Contributions to E-waste Management Literature

E-waste management literature often focuses on the issues that e-waste poses, mainly for human health and the environment. This thesis adopts a different approach by studying the opportunities that urban mining and e-waste present for resource recovery. The focus was on what potential urban mining holds, with recommendations seeking to harness this potential. Though the difference is subtle, it changes the perspective on e-waste and on the work of informal waste pickers. As opposed to viewing waste pickers as wrongdoers, posing hazards to the environment, they are viewed as working to recover resources, thereby enabling the recycling of resources and relieving pressure on the environment.

In addition to the alternative frame of opportunity in comparison to conventional literature, this thesis adds to literature by interviewing waste pickers and key informants after new legislation for e-waste management has been introduced, namely Act 917. The waste pickers never mentioned the Act, showing little attention to or knowledge of the legislation. This is confirmed by Owusu-Twum et al. (2022) who found that most e-waste workers have little awareness of Ghana’s e-waste legislation. Having done the thesis after the legislation has

been installed is valuable as one may have a better understanding how the legislation is understood by different actors.

Biases and Omissions

Whilst conducting the thesis, one aims to avoid any biases and omissions. Yet, one can never circumvent all limitations. This thesis is no exception and found several biases and omissions in conducting research. First, while conducting the fieldwork interviews, there was a language and cultural barrier. The language barrier existed because although English is the main language of Ghana, Twi was preferred by most interviewees. This meant that the interviews had to be conducted via a translator. Certain parts may be mistranslated or omitted by the translator. Moreover, due to the differences in cultural upbringing of the interviewees and the interviewer, valuable data may be lost as certain cues may not be picked up on by the interviewer.

Second, while conducting interviews, people would occasionally ask for money in return for participating. These people could not be included in the research. Therefore, people in need of money were omitted from the data. At the same time, other people who stated that they do not earn enough money would participate without any prerequisites. This gives reason to believe the validity of the research was not compromised in regards to omitting people in need of money.

Third, to find literature and key informants to interview, only a limited number of articles could be used and a limited number of key informants could be contacted and interviewed, due to the limited scope and timeframe of the research.

New Avenues of Research

From this thesis, other avenues of research can be pursued. First, it would be interesting to follow up on the volatility in income that waste pickers experience. Due to the

scope of this research, waste pickers could only be interviewed once. However, having a longitudinal study could help chart the income of waste pickers over a longer period of time as opposed to one estimate of an average income reported by the waste pickers. This could enable researchers to establish how volatile the income is and how big differences in income are daily.

Second, it would be of interest to engage with waste pickers discussing the recommendations of this thesis. As the fieldwork interviews were conducted before the data collection began for the recommendations, there was no opportunity to discuss the recommendations with the waste pickers and whether they believe the recommendations could support their livelihoods.

Finally, this thesis was focused on English and Twi speaking interviewees, both in the fieldwork and key informant interviews due to the researcher and translator being able to speak these languages only. It would be a good addition to the research to include e-waste workers speaking other languages, such as Dagbani, a language most commonly spoken in Northern Ghana, which may add to cultural sensitivity in the research into waste pickers and provide different points of view. Speaking with the Ghanaian supervisor in the thesis, there appeared to be some discrimination towards North Ghanaians in Ghana. Being able to include North Ghanaians in their native languages gives a more accurate picture of the population of Ghana and their experiences.

Connection to the Field of Development Studies

This thesis aims to provide recommendations to improve e-waste management in Ghana. The scope has been narrowed down to Ghana and Accra specifically, with the hope of contributing a small, in depth part to the discussions surrounding e-waste management. In this sense, this thesis connects to bigger development discussions of e-waste management in

Africa and on a global scale. Furthermore, this thesis aims to address other issues of increasing demand for electronics and the ever-growing e-waste stream, which cannot go neglected. By placing this topic in a frame of opportunity and potential, the thesis aims to seek solutions to both these major issues. This is closely tied to the issues linked to climate change, where the demand for minerals and metals and the devastating effects of e-waste are damaging to the environment. By harnessing the potential of urban mining and improving management, pressure on mining and the damaging effects of e-waste management may be reduced. Finally, this thesis is closely tied to discussions in development studies, as it focuses on the inequality on a global scale, where the Global North produces the vast majority of e-waste while the Global South has to bear the negative consequences of e-waste. This thesis seeks to address this inequality and calls on the producers of waste to take responsibility for its management.

Conclusion

In this thesis, avenues to improve the income of waste pickers in Ghana were explored, and answers the research question: “How can Fairphone enable waste pickers to earn a living income?”. The research question was answered by answering multiple sub-questions.

First, the characteristics and livelihoods of waste pickers were studied. The majority of the waste pickers in the thesis moved from outside of Accra to work in scraps. Most of the waste pickers also take care of their family. Some of the waste pickers have an alternative source of income. What most of the income is spent on was answered differently by the waste pickers, whether that was food, rent or remittances. As for their livelihoods, it follows from the fieldwork interviews that waste pickers pick scraps from landfills and other piles of waste and/or collect scraps by buying them from other people. The waste pickers do not follow a pattern when walking around to collect scraps, but seem to go wherever they can collect

scraps. There is variability in the amount of times waste pickers will go out to collect, ranging from going out once to seven times per day. The waste pickers sell their scraps to scrap dealers, who will weigh the scraps. They are paid a differing price depending on the material, per kg. Scrap dealers will also base their price on the dollar, which means the prices will fluctuate.

Second, the living income gap for waste pickers in this thesis was studied. To do so, the living income benchmark was first set at 4.800 GHC per month. Using the average daily incomes the fieldwork interviews reported, the daily average income was set at 57,75 GHC and 1.505,54 GHC per month. Therefore, the living income gap in this thesis is found to be 3.294,46 GHC per month. Additionally, volatility in income was an important topic for the waste pickers which poses a threat to living income, as living income is concerned with economic security as well as the level of income.

Third, the challenges that the waste pickers face, according to them, are studied. The challenges the waste pickers most often mentioned are that there is not enough work for the waste pickers, that the income is very volatile, that they do not earn enough money and that they have to walk long distances to collect the waste.

Fourth, the thesis offers recommendations to both private and public actors to improve the income of waste pickers. First, the main solutions offered by the waste pickers is presented, which are having vehicles, other employment opportunities, and external actors (e.g. NGOs) helping out. Second, recommendations to private actors include providing technical expertise for government legislation, offering training and education to waste pickers and other e-waste actors, making technical equipment and safety materials available for waste pickers and setting up a fund to help waste pickers access capital. Third, recommendations to public national actors consist of organising a formal/informal hybrid economy, engaging waste pickers in policymaking and supporting waste pickers associations.

Finally, recommendations to international actors include improving and extending the EPR framework, establishing a clear definition of e-waste and reducing the waste streams to the Global South.

As the key informants already state, recommendations for improving the income and working conditions of waste pickers are very context specific and require cooperation at the local level. Therefore, making generalisations beyond this case is quite difficult. However, one finding that is generally applicable is that all levels of organisations are required to cooperate, to solve this wicked problem. As the problem is so complex, it is not solved by one type of actor taking responsibility. One may be the catalysator, but without the cooperation of others, the problem will continue on and escalate due to the ever-growing waste stream. Moreover, to address the issues at the root, the bottom rung actors should be included in the problem solving: the waste pickers. Allowing their input in policymaking and building their capacity to work better will be the key to improve e-waste management.

References

- Abubakari, M., & Twum, K. O. (2019). Cities and floods: A pragmatic insight into the determinants of households' coping strategies to floods in informal Accra, Ghana. *Jàmhá: Journal of Disaster Risk Studies*, 11(1), 1-14.
- Adanu, S. K., Gbedemah, S. F., & Attah, M. K. (2020). Challenges of adopting sustainable technologies in e-waste management at Agbogbloshie, Ghana. *Heliyon*, 6(8).
<https://doi.org/10.1016/j.heliyon.2020.e04548>
- Afripac. (n.d.) Extended Producer Responsibility (EPR) within tackling plastic pollution. *IUCN*. https://gridarendal-website-live.s3.amazonaws.com/production/documents/:s_document/1053/original/AFRIPAC_2pagers_EPR_En.pdf?1698310400
- Agyei-Mensah, S., & Owusu, G. (2010). Segregated by neighbourhoods? A portrait of ethnic diversity in the neighbourhoods of the Accra Metropolitan Area, Ghana. *Population, Space and Place*, 16(6), 499-516. <https://doi-org.proxy.library.uu.nl/10.1002/psp.551>
- Akon-Yamga, G., Daniels, C. U., Quaye, W., Ting, B. M., & Asante, A. A. (2021). Transformative innovation policy approach to e-waste management in Ghana: Perspectives of actors on transformative changes. *Science and Public Policy*, 48(3), 387-397. <https://doi-org.proxy.library.uu.nl/10.1093/scipol/scab005>
- Ali, I. (2022). *An analysis of the relationship between minimum wage and poverty. A case study of Ghana*. [Master's thesis, Masaryk University].
- Amankwaa, E. F. (2013). Livelihoods in risk: Exploring health and environmental implications of e-waste recycling as a livelihood strategy in Ghana. *The Journal of*

Modern African Studies, 51(4), 551-575.

<https://doi.org/10.1017/S0022278X1300058X>

Amankwaa, E. F. (2014). E-waste livelihoods, environment and health risks: unpacking the connections in Ghana. *West African Journal of Applied Ecology*, 22(2), 1-15.

Anker, R. (2006). Living wages around the world: A new methodology and internationally comparable estimates. *International Labour Review*, 145(4), 309-338.

Anker, R. (2011). *Estimating a living wage: A methodological review*. International Labour Office.

Asibey, M. O., King, R. S., Lykke, A. M., & Inkoom, D. K. B. (2021). Urban planning trends on e-waste management in Ghanaian cities. *Cities*, 108.

<https://doi.org/10.1016/j.cities.2020.102943>

Awedoba, A. K. (2006). The peoples of Northern Ghana. *National Commission on Culture*.

Awere, E., & Bonoli, A. (2021). Transforming the e-waste management sector in Ghana:

Progress on regulatory and institutional strengthening. In: J.N. Mojekwu, W. Thwala, C. Aigbavboa, L. Atepor, & S. Sackey. (Eds.), *Sustainable Education and*

Development (pp. 455-465). Springer. https://doi-org.proxy.library.uu.nl/10.1007/978-3-030-68836-3_39

Baldé, C.P., D'Angelo, E., Luda, V., Deubzer, O., & Kuehr, R. (2022). *Global transboundary e-waste flows monitor 2022*. United Nations Institute for Training and Research (UNITAR).

- Bimpong, F. A. K., Asibey, M. O., & Inkoom, D. K. B. (2023). Ghana's recently introduced e-waste regulatory policy: A hope for a better e-waste sector?. *Waste Management & Research*. <https://doi-org.proxy.library.uu.nl/10.1177/0734242X231204457>
- Bisschop, L. (2016). How e-waste challenges environmental governance. In T. Wyatt (Ed.), *Hazardous waste and pollution: Detecting and preventing green crimes* (pp. 27-43). Springer Cham. <https://doi-org.proxy.library.uu.nl/10.1007/978-3-319-18081-6>
- Borthakur, A. (2020). Policy approaches on e-waste in the emerging economies: A review of the existing governance with special reference to India and South Africa. *Journal of Cleaner Production*, 252, 119885. <https://doi.org/10.1016/j.jclepro.2019.119885>
- Boysen, O., Ferrari, E., Nechifor, V., & Tillie, P. (2023). Earn a living? What the Côte d'Ivoire–Ghana cocoa living income differential might deliver on its promise. *Food Policy*, 114, 102389. <https://doi-org.proxy.library.uu.nl/10.1016/j.foodpol.2022.102389>
- Canavati, A., Toweh, J., Simon, A. C., & Arbic, B. K. (2022). The world's electronic graveyard: What is the solution to Ghana's e-waste dilemma?. *World Development Perspectives*, 26, 100433. <https://doi-org.proxy.library.uu.nl/10.1016/j.wdp.2022.100433>
- Cossu, R., & Williams, I., D. (2015). Urban mining: Concepts, terminology, challenges. *Waste Management*, 45, 1-3.
- Daum, K., Stoler, J., & Grant, R. J. (2017). Toward a more sustainable trajectory for e-waste policy: A review of a decade of e-waste research in Accra, Ghana. *International Journal of Environmental Research and Public Health*, 14(2), 135. <https://doi.org/10.3390/ijerph14020135>

- Dawani, K., Sayeed, A., Anker, A., & Anker, M. (2019). Updating Anker methodology Living Wage estimates: Methodological issues and guidelines. *Global Living Wage Coalition*.
- Dekongmen, B. W., Kabo-bah, A. T., Domfeh, M. K., Sunkari, E. D., Dile, Y. T., Antwi, E. O., & Gyimah, R. A. A. (2021). Flood vulnerability assessment in the Accra Metropolis, Southeastern Ghana. *Applied Water Science*, 11, 1-10.
<https://doi.org/10.1007/s13201-021-01463-9>
- Fair Circularity Initiative & Systemiq (2023). *A living income for the informal waste sector: A methodology to assess the living income of waste workers in the context of the Global Plastic Treaty*.
- Fairphone. (2022). *Baseline research informal e-waste recycling Ghana and potential contributions of downstream companies*.
- Fairphone. (n.d.a) *Longevity*. Retrieved at November 28 2023 from
<https://www.fairphone.com/en/impact/long-lasting-design/>
- Fairphone. (n.d.b) *Mapping the journey of your Fairphone*. Retrieved at November 28 2023 from <https://www.fairphone.com/en/impact/source-map-transparency/>
- Flynn-Dapaah, K. (2001). *Rethinking ambiguity as an asset: gender and land struggles in the peri-urban area of Accra*. [Doctoral dissertation, Carleton University].
- GIZ & MESTI-PIU. (2022). Baseline study assessing the baseline of the e-waste sector in Ghana.
- Gneiting, U. (2021). Living Income: From right to reality. *Oxfam Novib*. DOI: 10.21201/2021.8212

- Grant, R., & Oteng-Ababio, M. (2012). Mapping the invisible and real" African" economy: Urban e-waste circuitry. *Urban Geography*, 33(1), 1-21. <https://doi-org.proxy.library.uu.nl/10.2747/0272-3638.33.1.1>
- Grant, R., & Oteng-Ababio, M. (2021). Formalising e-waste in Ghana: An emerging landscape of fragmentation and enduring barriers. *Development Southern Africa*, 38(1), 73-86. <https://doi.org/10.1080/0376835X.2020.1823822>
- Herat, S. (2007). Sustainable management of electronic waste (e-waste). *Clean–Soil, Air, Water*, 35(4), 305-310. <https://doi-org.proxy.library.uu.nl/10.1002/clen.200700022>
- Impact Innovation. (2021, October 25). Reintroducing: Fairphone’s Reuse & Recycle Program. *Fairphone*. Retrieved at 28 January 2024 from <https://www.fairphone.com/en/2021/10/25/recycling-program/>
- Initiatief Duurzame Handel. (n.d.) *Step 2: Assess the Living Income gap*. Retrieved at January 28 2024 from <https://www.idhsustainabletrade.com/step-2-measure-current-income-and-the-gap/>
- Khan, A., Anker, R., & Anker, M. (2022). Living wage and living income for sustainable diets. In *Routledge Handbook of Sustainable Diets* (pp. 431-441). Routledge.
- Khan, S. A. (2016). E-products, e-waste and the Basel Convention: Regulatory challenges and impossibilities of international environmental law. *Review of European, Comparative & International Environmental Law*, 25(2). <https://doi-org.proxy.library.uu.nl/10.1111/reel.12163>
- Khan, S. A. (2018). Struggles and actions for legal space in the urban world: The case of informal economy e-waste workers. *Canadian Journal of Law and Society/La Revue Canadienne Droit et Société*, 33(2), 115-135. doi:10.1017/cls.2018.11

- Kofie, R. Y., Attua, E. M., & Nabila, J. S. (2008). Poverty and socio-economic consequences of Buruli ulcer (*Mycobacterium ulcerans*) in the Ga West district of Ghana. *Norsk Geografisk Tidsskrift-Norwegian Journal of Geography*, 62(3), 210-221. <https://doi.org/10.1080/00291950802335855>
- Krook, J., & Baas, L. (2013). Getting serious about mining the technosphere: A review of recent landfill mining and urban mining research. *Journal of Cleaner Production*, 55, 1-9. <https://doi-org.proxy.library.uu.nl/10.1016/j.jclepro.2013.04.043>
- Kumah, A. (2017). Minimum wage compliance in developing countries among the informal sector workers in Ghana. *International Journal of Current Innovation Research*, 3(04), 646-652.
- Lu, C., Zhang, L., Zhong, Y., Ren, W., Tobias, M., Mu, Z., Ma, Z., Geng, Y., & Xue, B. (2015). An overview of e-waste management in China. *Journal of Material Cycles and Waste Management*, 17, 1-12.
- Maes, T., & Preston-Whyte, F. (2022). E-waste it wisely: Lessons from Africa. *SN Applied Sciences*, 72(4). <https://doi.org/10.1007/s42452-022-04962-9>
- Manomaivibool, P. (2009). Extended Producer Responsibility in a non-OECD context: The management of waste electrical and electronic equipment in India. *Resources, Conservation and Recycling*, 53(3), 136-144. doi:10.1016/j.resconrec.2008.10.003
- Maphosa, V., & Maphosa, M. (2020). E-waste management in Sub-Saharan Africa: A systematic literature review. *Cogent Business & Management*, 7(1). <https://doi-org.proxy.library.uu.nl/10.1080/23311975.2020.1814503>

- Maxwell, D., Larbi, W. O., Lamptey, G. M., Zakariah, S., & Armar-Klemesu, M. (1999). Farming in the shadow of the city: Changes in land rights and livelihoods in peri-urban Accra. *Third World Planning Review*, 21(4), 373.
- Mensah, J., & Teye, J. K. (2021). A geographic theorization of Zongos in urban Ghana: A complex systems approach. *Ghana Journal of Geography*, 13(2).
DOI:10.4314/gjg.v13i2.3
- Njoku, A., Agbalenyo, M., Laude, J., Ajibola, T. F., Attah, M. A., & Sarko, S. B. (2023). Environmental injustice and electronic waste in Ghana: Challenges and recommendations. *International Journal of Environmental Research and Public Health*, 21(1), 25. <https://doi.org/10.3390/ijerph21010025>
- Nnorom, I. C., & Osibanjo, O. (2008). Electronic waste (e-waste): Material flows and management practices in Nigeria. *Waste Management*, 28(8), 1472-1479. <https://doi-org.proxy.library.uu.nl/10.1016/j.wasman.2007.06.012>
- Olowu, D. (2012). Menace of e-wastes in developing countries: An agenda for legal and policy responses. *Law Environment & Development Journal*, 8, 59-75.
- Oteng-Ababio, M. (2012). When necessity begets ingenuity: e-waste scavenging as a livelihood strategy in Accra, Ghana. *African Studies Quarterly*, 13(1,2), 1-21.
- Owusu-Twum, M. Y., Kumi-Amoah, G., Heve, W. K., Lente, I., Owusu, S. A., Larbi, L., & Amfo-Otu, R. (2022). Electronic waste control and management in Ghana: A critical assessment of the law, perceptions and practices. *Waste Management & Research*, 40(12), 1794-1802. <https://doi-org.proxy.library.uu.nl/10.1177/0734242X221103939>

- Prakash, S., Manhart, A., Amoyaw-Osei, Y., & Agyekum, O. O. (2010). Socio-economic assessment and feasibility study on sustainable e-waste management in Ghana. *Öko-Institut eV in cooperation with Ghana Environmental Protection Agency (EPA) & Green Advocacy Ghana, Ministry of Housing, Spatial Planning and the Environment, VROM-Inspectorate.*
- Przetacznik, F. (1994). The right of living as a basic human right. *Sri Lanka Journal of International Law*, 6, 203-242.
- Ram, M., Edwards, P., Jones, T., & Villares-Varela, M. (2017). From the informal economy to the meaning of informality: Developing theory on firms and their workers. *International Journal of Sociology and Social Policy*, 37(7/8), 361-373.
- Shumon, M. R. H., Ahmed, S., & Islam, M. T. (2014). Electronic waste: present status and future perspectives of sustainable management practices in Malaysia. *Environmental earth sciences*, 72, 2239-2249. DOI: 10.1007/s12665-014-3129-5
- Smith, S., & Sarpong, D. (2018). Living Income report.
- Sovacool, B. K., Hook, A., Martiskainen, M., Brock, A., & Turnheim, B. (2020). The decarbonisation divide: Contextualizing landscapes of low-carbon exploitation and toxicity in Africa. *Global Environmental Change*, 60, 102028. <https://doi-org.proxy.library.uu.nl/10.1016/j.gloenvcha.2019.102028>
- Torraco, R. J. (2005). Writing integrative literature reviews: Guidelines and examples. *Human Resource Development Review*, 4(3), 356-367.
<https://doi.org/10.1177/1534484305278283>

- Traverso, M., Mankaa, R., Pedalá, M. C., & Covais, A. (2024). Social hotspot analysis of the e-waste sector in Ghana and Nigeria. *Waste Management, 183*. <https://doi-org.proxy.library.uu.nl/10.1016/j.wasman.2024.05.023>
- Tyszler, M., Bymolt, R., & Laven, A. (2018). Analysis of the income gap of cocoa producing households in Ghana. *KIT Royal Tropical Institute*.
- Van de Ven, G. W. J., de Valença, A., Marinus, W., de Jager, I., Descheemaeker, K. K. E., Hekman, W., Teklu Mellisse, B., Baijukya, F., Omari, M., & Giller, K. E. (2021). Living income benchmarking of rural households in low-income countries. *Food Security, 13*, 729-749. <https://doi-org.proxy.library.uu.nl/10.1007/s12571-020-01099-8>
- Van Vliet, J. A., Slingerland, M. A., Waarts, Y. R., & Giller, K. E. (2021). A Living Income for cocoa producers in Côte d'Ivoire and Ghana?. *Frontiers in Sustainable Food Systems, 5*, 732831. <https://doi.org/10.3389/fsufs.2021.732831>
- Xavier, L. H., Ottoni, M., & Abreu, L. P. P. (2023). A comprehensive review of urban mining and the value recovery from e-waste materials. *Resources, Conservation and Recycling, 190*, 106840. <https://doi-org.proxy.library.uu.nl/10.1016/j.resconrec.2022.106840>
- Yang, J., Bertram, J., Schettgen, T., Heitland, P., Fischer, D., Seidu, F., Felten, M., Kraus, T., Fobil, J.N., & Kaifie, A. (2020). Arsenic burden in e-waste recycling workers—A cross-sectional study at the Agbogbloshie e-waste recycling site, Ghana. *Chemosphere, 261*, 127712, 1-9. <https://doi.org/10.1016/j.chemosphere.2020.127712>
- Yao, C., Parker, J., Arrowsmith, J., & Carr, S. C. (2017). The living wage as an income range for decent work and life. *Employee Relations, 39*(6), 875-887. <https://doi-org.proxy.library.uu.nl/10.1108/ER-03-2017-0071>

Appendix A

Interview Guide Fieldwork Interviews

Thank you for agreeing to take part in this interview. My name is Eline Mateboer and I am conducting this study about (e-)waste pickers in Ghana. Specifically, I am studying what work you do and challenges you experience in your work. Is it okay for you if I write down your answers?

- What do you do for work?
 - o Do you move large distance?
 - o How often do you go to collect?
- Where do you go to sell the scraps?
 - o How do you set the price?
 - o Do you think the price is fair/good?
- How much money do you earn daily?
 - o Is it enough?
 - o How much do you need?
- Do you have to take care of your family?
 - o Are you the only one working in your family?
 - o What do you spend most of the money on? (e.g. rent, food, education etc)
- Are you from Accra/this region?
 - o Where do you live?
- Is waste picking the only work you do?
 - o Is there enough work you can do?
 - o Would you want to do other work?
- What are challenges/difficulties in this work?
 - o What would help solve your challenges?
- Could the government help you in your challenges?

Appendix B

Interview Guide Key Informant Interviews

Introduction

Thank you for agreeing to take part in this interview and providing your expertise for this interview. My name is Eline Mateboer and I am conducting this study about (e-)waste pickers in Ghana. Specifically, providing recommendations how to improve the income of waste pickers to a living income on three levels, international, national and for private organisations. The purpose of this interview is to gain your insight on recommendations to these three different types of actors.

- Before we get started, do you consent to having this interview being audio recorded?
- The thesis will be published online, do you consent to your name being mentioned in the thesis?
- Do you have any questions before we get started?

Key Informant

- Could you introduce yourself and the work you are involved in?
- *Summarise paper's recommendations*
 - o Is there anything you would like to add to or comment on this?
 - o Which recommendation would be most effective to improve the waste pickers' income to a living income in your opinion?
- What level (national, international, private) is most suitable to improving the income of waste pickers, according to you?

Private companies recommendations

Fairphone aims to enact on their Extended Producer Responsibility, arguing that capacity building is required. As opposed to waste pickers being unwilling to work sustainably and safely, they argue that people are not able to work differently.

- How could private corporations build capacity of waste pickers?
- How could corporations be involved in sustainably improving incomes of waste pickers?
- According to you, could corporations independently improve incomes sustainably or is some kind of cooperation always necessary? (With (public) regional, national, international actors)

National government recommendations

Many of the recommendations for government intervention mention formalisation of the informal economy and giving rights to informal workers.

- Do you think formalisation would an effective way of improving waste pickers' income?
 - o If yes: What should formalisation look like to improve incomes?
 - o If no: Why not?
 - Do you think the government are able to improve the incomes?
 - What are some other avenues the government could pursue to improve the incomes other than formalisation?
- Do you think formalisation is suitable for the Ghanaian economy and culture?
- How could the government provide protection of rights of informal workers according to you?

When speaking with the participants in Ghana, they spoke of a distrust in the government. They believe the government cannot help them.

- Do you believe there is a general distrust in the government in Ghana?

- Is it necessary to build trust in the government? How do you believe the trust in the government could be improved?
- Do you think there is a role for the government to improve the incomes of waste pickers?

International community recommendations

Interventions done by the international community often involve curbing/reducing waste streams, i.e. keeping and recycling waste in the place of origin. In the case of Ghana, waste mostly originates from the continent of Europe through sometimes illegal and uncontrolled exports.

- Would curbing the waste streams to Ghana be realistic and desirable?
- According to you, would such an international agreement to curb waste streams be effective in solving the issues Ghana faces related to e-waste?

The European Union has Extended Producer Responsibility policies in place, in essence forcing nation states to implement a waste management strategy.

- How could Extended Producer Responsibility policies be extended to Ghana, where the waste often ends up? (In terms of funding, subsidies for setting up management and recycling centres)

The waste streams have clear downsides, for human health and the environment, yet also have some benefits, such as making electronics available for a lower price to Ghanaians and providing a livelihood for thousands of people.

- To what extent should waste streams be reduced to Ghana?
- How should these benefits and downsides be balanced?

Wrap up

There are a lot of organisations, legislations and initiatives currently active aiming to improve the working conditions of waste pickers. Due to the scope of the research, I cannot study every single one of these.

- Which of these, according to you are most relevant/important to include in the research?
- Is there anything else you would like to add or comment on?

Thank you so much for your participation and sharing your expertise. It is greatly appreciated!

Appendix C

Overview Interviews

Interview 1 Scrap dealer Agbogbloshie	75
Interview 2 Scrap dealer Agbogbloshie	76
Interview 3 Pan workshop Agbogbloshie.....	77
Interview 4 Phone dismantlers Agbogbloshie	78
Interview 5 Scrap dealer Alajo	79
Interview 6 Scrap dealer Alajo	80
Interview 7 Schoolteacher Alajo	81
Interview 8 Scrap dealer Alajo	82
Interview 9 Waste picker Nima	83
Interview 10 Waste picker Nima	84
Interview 11 Scrap dealer Nima	85
Interview 12 Waste picker Nima	86
Interview 13 Waste Picker Nima.....	87
Interview 14 Waste picker.....	88
Interview 15 Scrap dealer Agbogbloshie	89
Interview 16 Dismantler Agbogbloshie.....	90
Interview 17 Welder Agbogbloshie	91
Interview 18 Oven maker Agbogbloshie.....	92
Interview 19 Waste picker Afuaman (Greater Accra Region).....	93
Interview 20 Waste picker Afuaman (Greater Accra Region).....	95
Interview 21 Waste picker Afuaman (Greater Accra Region).....	96
Interview 22 Waste picker Newtown	97
Interview 23 Waste picker Newtown	98
Interview 24 Waste picker Lapaz	99
Interview 25 Waste picker Lapaz	100
Interview 26 Waste picker Lapaz	101
Interview 27 Scrap dealer Lapaz.....	102
Interview 28 Waste picker Lapaz	103
Interview 29 Pan maker Jamestown.....	104
Interview 30 Waste picker Jamestown	105
Interview 31 Waste picker Jamestown	106
Interview 32 Scrap dealer Nima.....	107
Interview 33 Scrap dealer Nima.....	108

Interview 34 Scrap dealer Agbogbloshie	109
Interview 35 Okada Agbogbloshie	110
Interview 36 Scrap dealer Agbogbloshie	111
Interview 37 Scrap dealer Agbogbloshie	112
Interview 38 Scrap dealer Agbogbloshie	113
Interview 39 Waste picker Agbogbloshie	114
Interview 40 Waste pickers Oduma.....	115
Interview 41 Waste picker Oduma	116
Interview 42 Scrap dealers Nsakina	117
Interview 43 Scrap dealer Nsakina.....	118

Agboglobshie, February 13, 2024

Interview 1 Scrap dealer Agboglobshie

1. Scrap drop, unwanted materials, order what people want, to help out family survive people coming from the districts (scrap dealers)
Add a little small (price)
- 4/5. Scale → they weigh it
200 kg → 2 cedis x 200?
6. You need money to work the business
7. Yes
- 8/9. Other people earn money as well, the same work
10. You want to work in it
You don't know how much you can sell
11. A lot of people work here (the same work)
12. There are too many challenges: capital, you need a lot of money for bills, school, toilet, housing etc.
13. All about capital! If you don't have money, you cannot buy waste
Sometimes money stolen

This interview was done with a scrap dealer, who buys up waste from waste pickers. He weighs the scrap, for which there is a set price per kilogram. He in turn sells it again. He explained that the main challenge is that capital is needed to be able to buy up waste from waste pickers. He explained that the work is necessary to help his family survive, and other families as well by selling and buying waste. He also explained that there is insecurity in this work, as you don't know how much you will be able to sell each day. He mentioned he is from Northern Ghana and he sends money back to his family (remittances).

Agboglobshie, February 13, 2024

Interview 2 Scrap dealer Agboglobshie

- Challenges Sometimes you earn, sometimes don't
Black market, people bargain
- Advantages People give e-waste for free [sometimes]
- Sometimes to collect, not every day
7. Not all earn enough, if there were a few, not enough for everyone
Capital is needed
10. Not only this work, not my future work, also work as a farmer, when I get
money, I go back to farm
Used to collect

This interview was done with a scrap dealer, who buys up waste from waste pickers. He used to collect himself. He explained that there are advantages and disadvantages to this work. An advantage he explained is that sometimes households give their waste for free. The challenges/disadvantages are that income is volatile, sometimes you earn, sometimes you don't earn. Moreover, people may bargain when buying up waste, meaning that sometimes you lose money when you sell the waste for less than you bought it for. He explained that not all workers in the industry earn enough because he claims that there are too many workers in the field, there is not enough for everyone. To work in this sector, you need capital. He does not only work in this field, but he is also a farmer. Once he had earned money, he uses it on his farm. When he collects, he does not go every day. (did not explain why)

Agbogbloshie, February 13, 2024

Interview 3 Pan workshop Agbogbloshie

Extremely hot, not easy work

Expensive to buy aluminium

Would want to have a bigger workspace with more workers

Not wearing slippers

Burn the aluminium in a small room where they work

Probably no other work available (supervisor)

In this country, if you have no handwork, you will not eat (supervisor)

Cannot change the location because it is not their land (supervisor)

Also throw plastic in fire

Workers seem young, teens/early twenties?

We visited a workshop, where they make pans from recycled aluminium. It was a location with a very low roof where they melted the aluminium and made the pans as well. They used aluminium that they bought from scrap dealers, which they told was very expensive to buy. My supervisor said that there was probably no other work available for them to do. The working conditions were very hard, with extremely high temperatures in the workshop. However, as my supervisor elaborated, if you do not work with your hands, you will not eat in this country.

Agbogbloshie, February 13, 2024

Interview 4 Phone dismantlers Agbogbloshie

Need more space, need to expand

Tablets, keypads, laptop, phone, phone, DVD

People bring old waste, households, repair [shops]

They take out the important parts (motherboard)

They sell the parts again

Need more space, need more capital, so they can employ more people, you help people and their family survive

Have to raise the storage when water rises

They have to recycle outside because there is not enough space, things break

Throw away the left over, unusable, given to other people for free

Okotex

This interview was with phone recyclers, they explained that they take the phones apart to be able to take out important parts (e.g. motherboard). These parts are then sold to other parties (did not elaborate who). Their main challenges were storage and workspace. The owner explained that they would like to hire more people to work, but the current space they had only allowed for four people to work inside. He said that if he could hire more people, more people and their families could be helped by the income they earn. However, this is not possible as of now. They currently also use the small road in front of the store to take apart phones, which is inconvenient when cars have to pass. They need to move the parts every time and parts break. If they had more space, they could hire more people and would not have to use the street to dismantle. "Africans are suffering"

Alajo, February 14, 2024

Interview 5 Scrap dealer Alajo

Buy scraps, sell at Timber market

They know the price

Go to different places to sell materials

Use scale to set the price

1 kg = 3 cedis

White people buy

No other work

Earn enough?

No challenges

Different scales for materials

Injuries on foot

This was a group of scrap dealers, who buy up e-waste from pickers, to then sell it at the Timber market. When asked about how they set prices for scraps, the first response was “They know the price”. After further inquiry they told that 1 kg waste is worth 3 cedis (unclear if that is buying or selling). They use two scales for different materials. When selling their waste, they go to different places in the market to sell different materials (e.g. aluminium, steel). One of the buyers of the waste were “white people”. When asked about challenges, they said that there are none. Later they did show that they get wounds on their feet due to the work.

Alajo, February 14, 2024

Interview 6 Scrap dealer Alajo

Working on government land, what if the government takes it back

Don't have their own

People buy scraps and sell it to them

Profit and loss

He uses money to support family,

Sometimes enough, sometimes not

Buys waste from pickers

Can only to this work

This interview was with a scrap dealer, who buys up waste from pickers. He said he can only do this work (no explanation). He said that depending on the day, he earns enough to support his family or not, there is "profit and loss". The money he earns, he uses to support his family. The main challenge when asked, he said was the fact that he does not own the land. He is working on government land (storing the waste). He was worried what would happen if the government would take back the land.

Alajo, February 14, 2024

Interview 7 Schoolteacher Alajo (irrelevant)

Private school of language

1005 cedis/month

Not enough, 2000 is better

Need more for wife and children to pay rent

Only one working, taking care of wife and mother

I can do business, selling products

If salary is good, it's good

Manager

Challenges, not in one place, I need a motorbike, salary is not enough

Aim is to get his own business, that would help

From Northern Ghana

Used to farm, if I have money I use it for the farm

Hire people to work the farm

Has a big land, can earn a lot from maize

This interview was with a teacher (not relevant for this study necessarily). He said that he does not earn enough. Other work he could be doing was business, particularly selling products. If he has earned money, he uses it to farm. He is from Northern Ghana, but has hired people to work the farm. He said he has a big land, which could help him earn a lot of money.

Alajo, February 14, 2024

Interview 8 Scrap dealer Alajo

Buying and selling scraps

Price 1 kg = 2 cedis buy

1 kg = 3 cedis sell

Timber market, fabrique (white people)

How much I earn depends on how much I can get

Not enough, but he is managing it

Also has to take care of family

2 wives, mother

Maybe I can get my master

All do one business together, share the business

They used to go around, with trucks, bikes

Need money to buy the scraps

Any money to support my business

Cannot go to school anymore, didn't go (but maybe when his kids learn to write, they can show him, according to my supervisor)

Also from Northern Ghana

This interview was with a scrap dealer, who buys from waste pickers and then sells the scraps at the Timber market to a company Fabrique (which are white people according to the dealer). When asked about earnings, he said that how much he earns depends on how much waste he can get from the pickers. Buying up waste from pickers is 2 cedis per kilo, which he then sells for 3 cedis per kilo. He also has to take care of his family, he does not earn enough, but he is managing. When asked about whether there is enough work, he explains that everyone is sharing the business and working together. A challenge in this work was that you need money to earn money, you need money to be able to buy up scraps. To solve this, he said that he should get money to support his business. He has also come to work from Northern Ghana.

Nima, February 15, 2024

Interview 9 Waste picker Nima

Sometimes early, sometimes nothing

Sometimes earning, sometimes not

7x a day, because I have a bike

[Kantamanto] market

Sometimes they have scale

The price is not enough

Cannot complain due to the scale, even when it is wrong

50 cedis a day

Also electronic waste, air conditioner

Always mix it

Not enough work, no other work

Many challenges, the work can finish, not enough money, profit and loss, today enough, tomorrow not

I get plenty money, I will start a business, provision

This was an interview with a waste picker, who was mostly speaking about the fact that his income is highly volatile. Some days, you can collect more and you will earn more, and other days there are no scraps left for him to sell. He explained that he can go for seven times a day to collect waste and sell it (at Kantamanto market), because he has a bike. He said that they weigh the scraps he has collected, but sometimes the price is incorrect. However, because of the scale, he cannot complain about the price (the scale is objective?). He said he earns about 50 cedis a day. He collects all different kinds of waste, also e-waste. The main challenges for him are that there can be insufficient work for him to do and that the money is very volatile. If he would earn enough money, he would like to start a (different) business.

Nima, February 15, 2024

Interview 10 Waste picker Nima

Scraps, also collect phones

2 cedis for a phone

3/4 cedis for a smartphone

1 kg = 3 cedis (for other materials, such as aluminium)

All materials have different prices

Also works as a farmer, use this money to farm, when it is raining season, you go back to farm (maize, groundnut, beans, pepper), not the season to farm

Does not earn enough, rent is high, if you don't have money to pay the landlord, he will beg the landlord to get a few days to earn more money

Not from this area, from [Kantamanto] market

Money is a challenges, at this time there is no more scraps

I don't have money now, if I get money to do business

Also take care of wife and children of his passed brother and his mother

This interview was with a waste picker who was relaxing by his cart. He told us that he is also a farmer, but that this is not the season to farm. The money he earns as a waste picker, he uses it to farm. When it is raining season, he goes back to farm. He explained that for a collected phone he gets 2 cedis per phone and for a smartphone (i.e. with a touchscreen). For a kilo of other collected waste (such as aluminium screens), he can get 3 cedis, which is more than other waste pickers we have interviewed. He explained, though, that for different materials, you get different prices. He said that he does not earn enough money to pay his bills and sometimes has to beg his landlord to give him a few more days to pay the rent. The challenge he mentioned is that there are not enough scraps to earn enough money. If he would have enough money, he would use it to start a business. He also has to take care of the family of his brother who has passed away as well as his mother.

Nima, February 15, 2024

Interview 11 Scrap dealer Nima

Scrap dealer has workers, interview with worker

Crushing rubbish, to sell the scraps at the market

Buy up scraps

Buy for 2 kg scraps, 2,5 kg to sell to recycler

Work on it, crush and wash it to recycler

Variable market, sometimes higher

→10/11 cedis to Chinese

Clean scraps for 5 cedis/kg

Earn enough to pay the bills

Only work here

Challenges are about machines, because of no machine. With machine it would be quicker

This interview was with a worker, who works for a scrap dealer. He explained that they buy up scraps from pickers for 2 cedis per kilo. They then work on it (use machetes to cut up the plastics) and wash it, to then sell it to a recycler for 2,5 cedis per kilo. After that, they sell the scraps to Chinese people for 10/11 cedis per kilo. It was unclear what happens at the recycling centre or what/whether they have to pay the recycling centre. He said that the market is variable and that the prices at which the Chinese buy the scraps can fluctuate. He said that they could also buy clean scraps for 5 cedis per kilo, but that is rare and expensive. He said he earns enough to pay the bills and he does not have other work. The challenge he talked about was the fact that they don't have machines to crush the materials, which would make the work easier and quicker.

Nima, February 15, 2024

Interview 12 Waste picker Nima

Scraps collect, to sell

Have to weigh, 1 kg = 1,5 cedis

Not everyday you get the same

Also has a wife, from the North

Also a student

2/3 times a day go to collect

Earns enough

No other work

Challenges → no challenges

Send money to the North

This interview was with a waste picker, who collects waste to then sell it at the market. The price is set by a scale. For one kilo, he gets 1,5 cedis, which is less than other waste pickers have mentioned. (My supervisor explained that the prices are never stable but often change). When asked how much he earns, he said that he never earns the same amount but it changes daily. He can go 2 or 3 times a day to collect waste, and he said he earns enough to pay the bills. He sends money to his wife, who lives in Northern Ghana. He does not have other work and he reported no challenges in his work.

Nima, February 15, 2024

Interview 13 Waste Picker Nima

Collect scraps and farming

3x a day go collect

Earn enough

Weigh scraps

1 kg = 1,5 cedis

Also has to take care of his wife, his wife also works as a carrier

During rain season he goes back to farm (maize, cassava, yam)

No challenges

Helps a lot to have a bike

This interview was with a waste picker, who was carrying a big piece of metal on his bike when we talked to him (looked like a motor). He said that they weigh the scraps that he has collected. He earns 1,5 cedis per kilo scraps. He can go up to three times to collect scraps. He also has a wife to take care of, but she also works (as a carrier). During rain season he goes back to farm in Northern Ghana. He reported no challenges and he said he earns enough. He said that it helps a lot to have a bike when collecting scraps.

February 15, 2024

Interview 14 Waste picker

Collect rubbish, no good work

If I get money, I change work

20 cedis for rubbish, 20 cedis for metals, collected in his cart

100 cedis/day

Truck helps a lot (cart)

→ 400 cedis

Don't like the work, but you need money

Weigh it

Don't earn enough money, so wants different work

This interview was with a waste picker who was walking around with a full cart. He explained that for the rubbish (plastics) collected he would get 20 cedis and for the scraps (metals) collected he would get 20 cedis. He said he earned about 100 cedis per day. He has a cart, which helps him a lot in his work. The cart cost him about 400 cedis. He said he does not like the work and would switch to other work if it were possible, but he need the money he earns with this work. He would switch, because he said he does not earn enough money. He did not understand the question about challenges.

Agbogloboshie, 16 February, 2024

Interview 15 Scrap dealer Agbogloboshie

Use carts/tricycle to collect, shouting at people asking if they have waste to sell, people set the price, he decides if he is okay with it

He sorts the materials, plastics/metals etc

They have a lot of people going around who buy the materials, from whom he buys up the waste

They also sell to other buyers, they don't recycle here. Other people (companies) bring it outside Ghana to recycle, don't have the capacity to recycle

Sell it to companies

Iron rods, beams

Scraps bought from pickers, sell it 2x price

Gather the materials, cannot sell daily

Measure in tonnes, tonnes profit when sold in bundles

Gives money to people who transport, what is left is his profit (minus loading and transport)

He earns enough

Challenges: accidents (lose their hand, arm) when loading the trucks, exploding oxygen tanks (1 dead, 1 lost legs), dangerous work. Some people sell stolen waste, owner will come to claim

If they had a unit solving issues about stolen items (association), official card

This interview was with a scrap dealer, who first explained how waste pickers work. He explained that they ride around with a tricycle cart shouting at people if they have waste to sell. The people selling the waste give a price, the one buying decides if he agrees with the price. In turn, they sell the waste to the scrap dealer. Once he has bought up waste, he will sort by materials, so plastic, metals etc. Then the materials are bought up in bundles, by tonne. He said he sells the waste for twice the price he had bought it. This does not happen daily, but once a lot of waste has been gathered, the waste is picked up. He explained that he sometimes can for example sell four tonnes of waste for the price of six tonnes. He uses the profit (two tonnes) to pay for loading and transport, what is left over is his profit. He said he earns enough money to pay his bills. The waste is then exported by companies because Ghana does not have the capacity to recycle, according to him. The challenges he spoke about are accidents and stolen waste. The work they do is very dangerous, so accidents happen with people losing an arm, hand, leg or even their life. Another issue is that waste pickers sometimes sell stolen waste to them after which the owner will come to claim the waste. A solution to this would be to have a unit that would solve the issues, some kind of official way of handling these conflicts. He did not give a solution for the work being dangerous.

Agboglobshie, 16 February, 2024

Interview 16 Dismantler Agboglobshie

Sometimes poor, not easy

The work can cease, not enough money

Dismantling the scrap with a machine

3 months without work, rents out room as well, no other work

Also has to take care of family

Had to move yard, but there is no work here

Dismantle cars to cut the metals

He wants to go to school for this work

He would like to be employed for this work

10.000 cedis for all tools

He is employed for dismantling, works with scrap dealers

He wishes he would have a company hire him so he can further his education, he cannot do that now because he has to work

This interview was with a dismantler of cars. He explained that he has a machine to dismantle the cars and cut the metals, which helps his work. However, there is often not enough work when there are no scraps to dismantle. He said that he has had no work for three months. To still earn some money, he rents out one of his two rooms. He does not have other work. The scrap yard was forced to move, but at the new place there is little work available. He has paid 10.000 cedis for all the tools he uses. His challenge was that there is not enough work for him to do. He wishes a company would hire him, as a solution, and that he could follow an education for this work with the company. He cannot currently follow education as he also has to earn money. He also takes care of his family.

Agboglobshie, February 16, 2024

Interview 17 Welder Agboglobshie

Metals, welding

Canopy

Buys from Tema, where scrap dealers sell

Depends on material if it is expensive, the thickness and size and weight

Measure materials in feet, meters and inches

If he earns enough depends on if there is enough work

He has dependence, wife and children

Only work he can do

Sometimes you get a contract, maybe a week or a month

There is a risk in the work

Challenge: accidents in the work, you can fall, canopy can fall on you, there are no safety materials. The work is not every day. When you charge someone to work for them, but the materials are more expensive than you charge

No idea to solve the issues

This interview was with a welder, who buys materials from Tema market. This is a market where another scrap dealer sells his scraps. He buys metals to build e.g. canopies with. He has to take care of his wife and children as well. He explained that a challenge in this work is that work and thus money is volatile. Sometimes he does not get work. Another challenge is accidents during the work, such as cutting the hand, something toppling over while working on it, falling off a building they are working on. The last challenge mentioned is when he charges a client for a job but then the materials turn out higher than expected. He did not have an idea for how to solve the issues.

Agboglobshie, February 16, 2024

Interview 18 Oven maker Agboglobshie

Buys scraps from stores, they use recycled sheets made from Tema

Very expensive materials

After a few days working, maybe after a while of building the oven, someone will buy it

He earns enough, earning more than before when he was a student (learning the job)

Also has to take care of his family and outside

Works with ovens and gas cookers

No challenges

Sometimes no money, but what he gets is enough to survive

He builds in the workshop, sells on the roadside

Measure oven in $\frac{1}{2}$ four: 3.500, $\frac{1}{4}$ flour: 1.500, small: 1.200

This interview was with someone who makes ovens and gas cookers. He explained that he buys metal sheets made from recycled materials from the shops around his work place. These stores buy the sheets from Tema market. The sheets are expensive to buy. He does not have a daily income, but it depends on whether someone buys a product. However, this did not pose an issue to his income, because he earns enough to cover the time. He is also taking care of his family and people outside his family as well. He reported no challenges in his livelihood.

Afuaman, 19 February, 2024

Interview 19 Waste picker Afuaman (Greater Accra Region)

Afuaman new site

Getting the scrap: scrap dealers from rubbish, from construction sites, old used metals, old fridge, (Bola) = rubbish, here we have a dumpsite, no general car

We dump rubbish in dumpsite, burn it, then left over rubbish is picked

Burn it to get rid of paper, rubber etc, easier to identify when it's been burned

Go house by house

Weigh it at the scale, scrap dealers then gather so it's one container

Sometimes it's fair, sometimes not

The ones that have picked for free, it's fair

For those who have to pay for the waste, have to demand a higher price

Daily: sometimes only 5 cedis a day, depending on the items, sometimes 20/30 cedis

Tins for food

Earn enough to pay if you are single, for family it is not enough

Money is mostly spent on food

Sometimes there is not enough in Ghana, they import it from Ivory Coast, Togo, Benin, there are seasons

Most companies located in Tema

Most travel from far, all the way to Accra, to sell

Challenges: sometimes takes people's valuable items and turn it to scrap

No particular job here people live in the village for Accra

Use metals for constructions, to build big metals

Always pick different waste

Scrap dealers sort out the materials

Waste pickers do not burn, owners burn the waste

Graduated Uni of Ghana public admin, but there is no work

There is no permanent work, but would love to

Government is no good, will cheat the people

Maybe NGOs, giving loans, side business

This interview was with someone who used to be a waste picker. She has studied at the university of Ghana for Public Administration, but now cannot get a job. She would love to have a permanent job, but cannot find anything even though she has sent out a lot of applications.

She explained that she would go around looking for waste and sometimes buy it from people for a reasonable price. She explained that people dump their rubbish outside and burn it (not the waste pickers), after which the waste pickers can pick out the useable waste to be sold again. She said the waste is easier to identify once it has been burned. Another way of getting the waste, was by construction sites. Sometimes they would cut iron rods and the left over pieces could be picked and sold. Once a cart has been filled, they go to the scrap dealer to weigh and sell it. This is why waste pickers do not always earn money every day, because sometimes they cannot fill the whole cart and they will wait to sell. She said that waste pickers always pick different materials, not only metals or plastics or e-waste. They sell it to the scrap dealers, who then sort it per material. They in turn also first gather a lot of waste in a container before they sell it.

When asked whether the scrap dealers pay a fair price for the waste in her opinion, she said that the price for waste picked for free is fair. However, if someone had to pay for the waste they picked, she said that they should demand a higher price for it. Her daily income was highly volatile, sometimes earning only 5 cedis, sometimes more like 20/30 cedis. She said she earned enough when she was single, but that it does not earn enough to support a family. The money earned is mostly spent on food.

There are seasons when there is not enough waste in Ghana (did not specify which seasons when asked), so it is imported from neighbouring countries such as Ivory Coast, Togo, Benin. This increases the price for companies to use waste. Most of these companies using waste are located in Tema. The recycled materials are used for e.g. construction and to make other big metals.

Most of the waste pickers walk long distances to collect waste and then to sell it as well. In the village Afuaman there is no particular job to do except pick waste. She explained that most people lived there to work in Accra.

She mentioned that a challenge in this work was that people sometimes steal valuable items from people, beat the materials to look like scrap to then sell it. There is not always enough waste to sell for people.

When asked whether the government could help in their problems, but she said the government is no good. If they were involved in this, they would cheat the people from their money. She proposed instead maybe that NGOs could help by giving loans, providing people with side businesses.

Afuaman, February 19, 2024

Interview 20 Waste picker Afuaman (Greater Accra Region)

Have a cart to collect scrap, sometimes you buy, sometimes for free, then weigh it at the dealer

Sell it to scrap dealers in village when cart is full

If the cart is not full, they will not sell

Use the money, for any quick business to make profit

Collect all different waste

Lives in this village, not from Ghana, from Niger

One full cart = 25/50 cedis, some days get nothing

Enough money to buy waste, sell it double price

Earn enough money

Sends remittances to parents

There is not enough work in Ghana

Challenges: getting enough scraps, you have to walk far, they don't have enough money, have to pay for scrap, get sick from the sun

Help: hair umbrella, having a cart, tricycle

This interview was with a waste picker, who moved here from Niger to work and send remittances to his parents back home. He explained that he both collects scraps from the street as well as buying scraps from people. He said that he has enough money to pay people for their scraps, because he can sell their scraps for double the price. He only sells the waste he has collected once the cart is completely full, meaning that he does not earn money every day. He collects all different kinds of waste. A full cart can earn around 25-50 cedis. The money he earns, he uses to live in Ghana and all that is left over, he sends to his parents in Niger as remittances. He said he earns enough to pay his bills, but also that there is not enough work in Ghana. He reported multiple challenges: getting enough scraps, having to walk great distances, not having enough money, having to pay for scraps, getting sick from walking in the sun for too long. (He said both that he earned enough and that it is okay paying for the scraps, yet also mentioned both as challenges). Possible solutions are hair umbrellas, or having a cart and tricycle, so you don't have to walk on foot so far.

He said that any opportunity to make a profit, he will take. An example is that he could buy a bag somewhere and then sell it somewhere else for a profit.

Afuaman, February 19, 2024

Interview 21 Waste picker Afuaman (Greater Accra Region)

Picks scraps, both plastic and metal

Buy from people

Go to Accra to sell, Agbogbloshie

Sometimes the price higher/lower

Use the scale

Christmas goes down

Price is fair

Packs all the waste, does not sell daily

Earns enough

Also farms

From Tamale, goes during the rain [season] to farm, to check on it

Also takes care of family, only one working

Cannot get any work other than this, family is still in Tamale, 4 wives

Most of the money goes to food and money (business?)

Challenges: going around, walking far, with the cart in the sun

Cart helps a lot

Does not know what would help

Government cannot help

This interview was with a waste picker from Tamale, who works here to earn money for his farm in Tamale. He collects all kinds of waste, both collecting and buying from people. He goes from Afuaman to Agbogbloshie to sell the waste he has collected, which is a really long distance. He does not sell the waste daily, but first collects until the entire cart is full. They use the scale to set the price for waste, the price fluctuates. When asked why it changes, the answer was that at Christmas the price is lower than other times, but did not elaborate why. In his opinion, the price he receives for the scraps is fair. He is the only one working in his family and sends money back to his family in Tamale. This is the only work he can do. Most of the money earned is spent on food. He reported multiple challenges, namely that he has to walk around a lot and long distances in the hot sun. He did say that the cart helps a lot in earning money. He could not think of things that would help in his challenges, but said that the government could/would not help him in his challenges.

Newtown, February 20, 2024

Interview 22 Waste picker Newtown

Work → cannot ask the government to help, they need the help, but they need someone to stand for them, they need the small money they have

They buy scraps from people, sometimes the price is higher (to buy)

If they go to people's house to buy they need profit

They sell at Tema market

→ Sometimes they cheat the price, they have to take the price (when asked if it's fair)

He has no other work, if he has money, he uses it to buy more scraps

He is from Northern Ghana, sends remittances

Also takes care of his family, the only one in Accra, only one earning money

Daily income: can only gather for a month, cannot gather daily. He has to calculate whether he will get a profit when selling

He does not earn enough, he has to send money to family, most to family and food

No place to stay in Accra, cannot rent a room (too expensive)

Challenges: not easy (a lot of challenges), used to go around with truck, does not have a truck anymore (truck helps a lot, get more scraps), not enough money, does not know how much he will earn

Getting money would help

This interview was with a waste picker resting in Newtown. He explained that he goes around to buy scraps from people, so he needed to make a profit to be able to buy more scraps and to be able to pay his expenses. He said the price to buy scraps is volatile, sometimes the price will be higher to buy from people. He goes to Tema to sell the scraps. He explained that they sometimes cheat the prices, but he cannot do anything about it. When asked if he thinks the prices are fair, he simply responded that he has to take the price regardless. He did not state an opinion about the prices. This is the only work he has, if he earns money, he uses it to buy more scraps. He is from Northern Ghana and sends remittances to his family who is still living there. He is the only one in the family earning money. He said he does not earn enough money. The money he earns, he spends mostly on food and he sends most of it to his family. Because rent is too high, he does not have a room to stay in Accra. He does not earn money daily, but he gathers scraps monthly to sell. He said there are a lot of challenges in this work, it is not easy. He used to go around with his truck, but he does not have it anymore, which makes it more difficult. Having a truck helps a lot to collect more scraps. Other challenges are that he does not earn enough money and that he does not know how much he will earn (volatility). He said a solution for him would be to get money.

Newtown, February 20, 2024

Interview 23 Waste picker Newtown

Buys scraps from people, going around

Goes up and down, depends on the market

Sell it at Tema, weigh it at the special scale

Sometimes 4.000/6.000 per tonnes

Don't know if price is fair, sometimes good, sometimes not

Also a farmer, groundnut, maize, rice, goes back for rain season to the North

Also has to take care of his wife, praying to get more, if he has money he can marry more

Challenges: sometimes you can't get money, business goes up and down, sometimes good, sometimes no good

This interview was with a waste picker in Newtown. He said he earns money by buying scraps from people by going around. The price for the scraps goes up and down when buying, depending on the market. He sells the scraps at Tema, where they weigh it at the scale. He said that he sells the scraps per tonne and that he can earn somewhere between 4.000-6.000 cedis when selling the scraps. When asked if he thinks the price is good, he said that it changes and that it is sometimes good and other times not. He also works as a farmer and during rain season he goes back to farm. He is also earning money for his family, he currently has one wife but said he wishes to have more. However, you need more money to marry more women. Challenges he reported are that the money is volatile and the business goes up and down. He was very busy, so after a few questions he had to leave.

Lapaz, February 22, 2024

Interview 24 Waste picker Lapaz

Everything is going well for them, I am not a master (not the boss)

Going around to buy from people, have to go far to go around

Some go 3-5 times a day

Sell at Tema

Price depends on the materials

Copper/aluminium gives more

Only work to do, want to get another job

Depends on the items how much you earn

Earn enough, have to take care of wife and family, family is also in scraps

From North Accra, live there as well, don't have a land

Would like to do any other work, needs more money

Challenges: depends on the day, sometimes enough, sometimes not

Does earn enough

Help: more money

Government cannot help

Face challenges because they have to money. If you has money, there would be no challenges

This interview was with a waste picker who was resting underneath a tree. He explained that he goes around to buy scraps from people. There was a group of workers there, they said that people go around 3-5 times a day to collect scraps and they cover long distances. They sell the scraps at Tema market, and it depends on the material how much they earn. Though he said he earns enough to pay his bills, he also said that he wants to do other work (when asked what job, any other job, he said) to be able to earn more money. He also has a family to take care of, but he is not the only one working. Other people in his family are also involved in scraps. He is from North Accra and lives there as well. The challenge he mentioned is that his earnings are very dependent on the day and how much he can collect. He said that getting money would help in his challenges. It was argued that if they had money, they would not face any challenges. He said the government cannot help in his challenges.

Lapaz, February 22, 2024

Interview 25 Waste picker Lapaz

Same challenges as 24 (too little money, dependent on how much you can collect)

Also has to take care of family, one wife, one child

Only one working in the family

Also from North Accra

Most money spent on rent, living in Accra

Depends on the day how often they go

Sells at Tema

Expensive to buy scraps from people, gets money from the boss to buy it

Government cannot help

Need more money to sell this at the store

Helpful to have a bike, motor would be better

There is no money, difficult to buy the goods, not enough scraps here, have to go far

This interview was with a waste picker who was resting underneath a tree with other waste pickers. He said it depends on the day how often he goes out to collect (did not elaborate what it depends on). The scraps are then sold at Tema market. It can be expensive to buy the scraps from people, so he gets money from his boss to buy the scraps. He has to provide for his family as well and he is the only one working in his family. Most of the money he earns is spent on rent. He lives in Northern Accra. He said he wants to earn more money so he can use the money on the shop (unclear whether he wants to open the shop or if he already has the shop). He uses a bike to collect scraps, but he said a motor would be more helpful. He said he faces the same challenges as the other waste picker faces, which are not earning enough money and having a volatile income. Additionally, there are not enough scraps and he has to go far to collect the scraps.

Lapaz, February 22, 2024

Interview 26 Waste picker Lapaz

Need more money, getting money they can move fast

Married to his wife, 1 child, only one working

He lives in Konkomba market

Only work he does, he wants to get other work, he wants his own farm

During rain season, goes back to farm, using this money, maize, groundnut, soy

Sell at Tema

Spends most on farming in Northern Ghana

Not enough work to do, travels long distances, 3 times a day

Help: getting money

Has a place to live here in Accra

Government cannot help

This waste picker was resting underneath a tree. He goes around buying up scraps, to then sell them at Tema market. He also provides for his wife and child, he is the only one working in his family. He wants to get other work, working on his own farm. During rain season he goes back to Northern Ghana to work on the farm. Most of his income is spent on his farming. Currently, he lives at Konkomba market. The challenges he faces are that there is not enough work to do and that he has to travel very far to collect scraps. It would help him in his challenges to get money. He said the government cannot help him.

Lapaz, February 22, 2024

Interview 27 Scrap dealer Lapaz

Scraps business, boss. His workers go around. He does not go out himself, has a scale, then sells at Tema, has to rent a car to transport

A tonne does not have one price, goes up and down

→ Because of the dollar fluctuations

Also takes care of his family, many wives and children and mother

Only one working, earns enough, sends money

Lives in Fadama, comes here every morning

Sends most to family

Daily earnings change depending how many scraps

100-200 cedis, changing, sometimes nothing

The work is good for him, does not have enough money to buy more truck, car

Profit is used to rent the car

Challenges: sometimes people will take their scraps back when you don't have the money (you need capital)

Help: need money, need a car

Government cannot help

We need money

Sometimes injuries when loading the truck

This interview was with the boss of the other waste pickers we interviewed. He explained that he does not go out to collect scraps, but he has workers to do that. He then takes all the scraps and sells it at Tema market. In order to sell the scraps, he needs to rent a car to transport it. When asked how he sets the price for the scraps, he said that the price goes up and down depending on the dollar. His daily earnings are very volatile, depending on how many scraps are collected each day. He estimated he sometimes earns around 100-200 cedis a day, sometimes nothing. He provides for his family, his many wives, children and mother. He is the only one working and he sends most of his income to his family. He lives in Fadama but travels every day to this location in Lapaz. He said he earns enough money to pay his bills. He said the work is good for him, but he does not earn enough to be able to buy a car. Now, he has to spend the profits on renting a car. He mentioned a few challenges, namely that you need capital to do this work. If you don't pay people, they will claim their scraps back. Another challenge is that people can get injured when they are loading the truck with scraps. What would help in his opinion is getting more money and getting a car. He said the government cannot help him.

Lapaz, February 22, 2024

Interview 28 Waste picker Lapaz

Sometimes when you go around, you get, sometimes not

Buys scraps from people, going around with his cart (truck). Sometimes the price is high, sometimes low. Have to bargain the price

Every morning he goes out, only in the morning

Travels far, from Agboglobshie

Sells at Agboglobshie, prices are different

Price is fair

(He is from) Agboglobshie, lives in Agboglobshie

Has a family to take care of, mother and father, wife and children, only one working

Daily: sometimes 50 cedis

Would like to do other work, does not earn enough, work at a company

Challenges: a lot of challenges, money, injuries

Cart doesn't help

Government cannot help

This interview was with a waste picker, who had a truck. He goes around to buy up scraps from people. He explained that you bargain about the price, so sometimes it's higher than other times. He sometimes gets more scraps than other times. He sells the scraps at Agboglobshie and said he thought the prices are fair. He only goes out to collect in the morning. He also provides for his family, his mother and father, his wife and children. He is the only one working for his family. He estimated that he earns around 50 cedis a day, but it differs each day. He would like to do other work because he does not earn enough here. He would like to work at a company. He said there are a lot of challenges, such as not earning enough money and getting injured while working. He said the truck does not necessarily help. He also said the government cannot help.

Jamestown, February 26, 2024

Interview 29 Pan maker Jamestown

Use small pots to melt

Mostly work in the morning, 6 am

Pat it down before pouring in, have different sizes

Boss is not around

Buy materials at Agbogbloshie, expensive

Boss pays him for the work

Other people making moulds, filing it down

Make the mould smooth and take out the forming pan, to pour in the melted aluminium

Takes time to learn the work

At times the market is good, sometimes not (when asked if he earns enough)

Workers are from around here, all men

Challenges: cannot always get metals, need a lot of money to buy it. If you have a lot, you can buy it in advance when the market is not good

Chinese drive up the price and they buy up the scraps

Sometimes enough money for bills, sometimes not

Help: getting money

This interview was with someone making aluminium pans from scraps they bought. The work is not easy. He was not the boss, but someone working for the boss. They make the moulds using pans, to pour in the melted aluminium which they melt in the same room. They have different sizes of pans. He explained that they buy the scraps from Agbogbloshie and that the scraps are very expensive to buy. Moreover, there is not a steady flow of scraps. Sometimes there simply are not enough scraps available to buy. This craft is not learned in a day, but takes time to master. He said that his income is volatile, as sometimes he has enough, sometimes not. Sometimes the market is better than other times, meaning that sometimes more pans are sold. The people working at the workshop are from the area. The challenges he mentioned are that scraps are not always available and that you need a lot of money to buy scraps. He said it would be better to have more money so you can buy extra materials for when there are no scraps available. He also said that Chinese people buy up a lot of materials making them harder to come by and more expensive. His solution to his challenges was getting more money.

Jamestown, February 26, 2024

Interview 30 Waste picker Jamestown

Scraps collection, buy from people, not expensive

5/6 times to collect, walking

Only this area (later corrected for Jamestown, Agbogbloshie and Isanta?)

Collect any materials

Sell the materials here (he was resting at a scrap yard)

1/2/0,5 cedis

Price is okay

Also other work, riding around (motorcycle taxi)

Earn enough, sometimes 80/100 cedis, price changes

Enough work

Also provides for family, working with two

Moved from Zongo

Challenges: depends on the work you do, how much you earn, uses someone else's motor (for the other work)

Help: having his own bike (expensive)

Government cannot help

This interview was with a waste picker who was sitting with other people at a scrap yard. He explained he collects scraps by going around and buying scraps from people. He said they are not expensive to buy. He goes around 5/6 times per day. He walks around different surrounding neighbourhoods to collect scraps. He collects all kinds of materials. He sells the materials he gathers in Jamestown. The prices differ, can be around 1, 2, 0,5 cedis. He thinks the price is okay. Waste picking is not the only work he does, in the night he also chauffeurs people on a motor. He does not own the motor. He said there is enough work in scraps (yet he also has other work). He also takes care of his family, he is not the only one working. He moved from Zongo to work here. He said that challenges in this work are that income is volatile and that he does not own the motor for his other job. What would help him in his challenges is getting a bike, which is expensive. He said the government cannot help in his challenges, did not explain why when asked.

Jamestown, February 26, 2024

Interview 31 Waste picker Jamestown

Collect scraps, buy from people, expensive

Everyday, 5 times a day, people bring to us

From different places, not only here

Buyers come here, prices are personal

Prices are okay

Daily: 50 cedis, okay earnings

Provide for family, other people work too

Comes from Ghana, lives not around here

Also goes to school

Challenges: difficult, to get money outside school, time management

Help: financial plan

Government cannot help personal business

This was an interview with a waste picker sitting on the side of the road with the collected waste. He was willing to answer questions initially, but half way through he was hesitant to answer more questions. My supervisor then talked him into helping us by explaining the purpose of the study. He explained that he buys up scraps from people who come by to sell it to him and the sells it to buyers who also come by. The people selling scraps come from different places. The prices are set per person and are okay according to him. He earns enough. He also provides for his family, but he is not the only one working. He is from Ghana but did not specific from whence he came. He is also a student. He explained that his challenge is time management between school and work and earning money beside school. It would help him to get a financial plan. The government cannot help, specifically with personal business.

Nima, March 2, 2024

Interview 32 Scrap dealer Nima

Buy from waste pickers, gather per month, before they sell at Tema

1 kg metal, some day 3 cedi, depends on the metal, sometimes 4 cedis, 5 cedis

Price is not good when selling at Tema

Depending on the weight when buying

Copper is good but rare

Depends on the kilo if it is expensive for them to buy

Not enough to take care of his family, 2 girls, 3 boys, brother also works

Spends most on rent

Lives nearby, moved from the North

Sends money to his family

Only work he does, used to go back to farm

Now there is enough work, he would do other work if possible, wants a job that makes it easier to take care of his family

Challenges: roadside (government land), what if the government to take it, would be better to have another place, money to send home

Help: different work

Government cannot help them, unimportant work, self-employment

This interview was with a scrap dealer in Nima. We have interviewed another worker from this scrap dealer (interview 11). They sell the waste monthly in Tema, in big quantities. He said the price is not good when selling. The price they pay waste pickers is dependent on the materials they collect. When asked if it is expensive for the scrap dealer to buy the scraps, he said it depends on the material. This worker has moved from the North to work here. He lives nearby the location of the scrap yard. He sends money to his family, but he said he does not earn enough money to take care of his family. This is why he would want to do other work if possible, to be able to take better care of his family. He does say there is enough work to do, now. This is the only work he does. He is not the only one working in his family, his brother also works. Most of his money is spent on rent. The challenges he mentioned is that he does not have enough money to send home and the fact that they are operating on government land. He was worried what would happen if the government would claim the land back. The solution for the money would be to have different work and for the space to have a different place to work. He said the government cannot help, because the work is considered unimportant and people are self-employed.

Nima, March 2, 2024

Interview 33 Scrap dealer Nima

Scrap, different materials, sort it

Weigh it, metal 1 kg = 3 cedis, mix 1 kg = 2,5 cedis, rubber 1 kg = 2,5 cedis, cans 1 kg = 4 cedis (light weight)

Waste pickers: most are smokers, need to be patient, take time to attend to them

Companies buy big bags, different companies (load on Tuesday)

Big bag = 150 kg (rubber)

1 month = metals, to Tema

Do not buy all plastics, only rubber, will reject it (otherwise)

Price when selling is different for companies, changes a lot

Workers are paid every two weeks

Pickers save until bigger quantity

When load is sold, you can settle with the workers, manage income yourself

From Nigeria, live in Accra, also sends money to family

Also does other personal business

Challenges: floods will take away scraps

Help: manage yourself

Government cannot help, it is a private business

This interview was with a scrap dealer in Nima. He buys up different materials from waste pickers and then sorts it per material. For a kilo of rubber he pays 2,5 cedis, for a mix of metal and rubber it is 2,5 cedis, for a kilo metals it is 3 cedis and for a kilo of cans it is 4 cedis, because the cans are quite light so one needs more for it to be a kilo. He either sells to companies who come buy to buy bulk or he sells at Tema. He said the price for the quantities bought by companies differs per company. He sells monthly to Tema. He does not buy all rubber that is offered, he tests it in the water (whether it floats) and will reject if it is not rubber. It is taken out and then they weigh it again. He pays his workers every two weeks. He does not have a steady income, but has to manage the money he gets for bigger loads. He did seem to have enough money from what he told us. He is from Nigeria, but lives in Accra. He sends money to his family in Nigeria. This is not the only work he does, he has other work which he did not want to elaborate upon. The challenge he mentioned is that the river can overflow and cause floods, taking away the scraps with it. When asked what could help in his challenges, he said one should manage themselves. He said the government cannot help, this is his private business and should fix it himself.

Agbogbloshie, March 4, 2024

Interview 34 Scrap dealer Agbogbloshie

Buy scraps from waste pickers

Price depends on market, 3,5 cedis

1 kg = 1,5 cedis, 3,5 cedis

Market is not good, companies set price

Burkina (Faso), Mali is cheaper, price is not good

Price are raised, not good for scrap dealer

We need help, big companies need to buy

Doing the dirty work

Sell it to people

First the had enough money, not anymore

You need money to do the work

5.000/10.000

Also take care of family, 2 wives, only one working

Most on rent

From Bawku, lives in Accra

Challenges: not enough money

Help: company should help

Government cannot help

This interview was with a scrap dealer in Agbogbloshie. He buys scraps from waste pickers and said the price he pays depends on the market. He mostly spoke about how the market is not good at the moment. Companies come by his scrap yard to buy up scraps, but he said because of the market, the price they pay is too low. He was speaking of competition with surrounding countries, explaining that the prices change because of that. He said he needs help, by companies buying up the scraps for good prices. He said he used to earn enough, but does not anymore. He also explained you need to have money to do this work. He is from Bawku which is in Northern Ghana, but lives in Accra now. He is the only one working in his family and has to take care of his family, with his two wives. Most of his money is spent on rent. The challenge he mentioned is not earning enough money and said if would help if companies would help. He said the government cannot help.

Agbogbloshie, March 4, 2024

Interview 35 Okada Agbogbloshie (irrelevant)

Okada, pick passengers

Go anywhere, since 2013

6/7 o'clock

100/150 cedis a day

Does not earn enough, 200 cedis needed

Also take care of family, not the only one working

They live here

Most on rent, food

Challenges: police, accidents

Help: insurance, licenses, body protection

Government cannot help, this one only helps themselves

This interview was with an okada, someone who rides around people on motorcycles. He said they cover great distances. He has done this work since 2013. He works daily until 18.00 or 19.00. He is also taking care of his family but he is not the only one working. He and his family live in Accra. Most of the money earned is spent on rent and food. The challenges he mentioned are the police and accidents. It would help if he would have insurance, licenses and protection for his body (they do wear helmets). He said the government cannot help them. This government only helps themselves.

Agboglobloshie, March 4, 2024

Interview 36 Scrap dealer Agboglobloshie

Boss, people go around to collect

Price depends, wheel = 10 cedis

Expensive depends on price and weight

Sells at Tema, price changes, price depends on the market

Buys copper (from electronics), aluminium, iron, no rubber

Also takes care of family, 1 wife here, 1 in the North, he is from the North

Son in the North is also working

Most spent on family

From the North, place to stay here

Challenges: some hit your hand, injuries

Earns enough

Help: get more money

Government cannot help

This interview was with a scrap dealer, who buys up scraps from waste pickers. He said the price depends on what people bring, the material, weight etc. There was a wheel/rim someone just brought, which was worth 10 cedis. Whether it was expensive to buy from waste pickers is dependent on the material they sell. He buys copper (which can be derived from electronic devices), aluminium and iron. He does not buy rubber, like other scrap dealers do. He sells the scraps at Tema. The price he receives for the scraps is dependent on the market and changes often. He said he earns enough to pay his bills. He also takes care of his family. He has two wives, one living in the neighbourhood and one living in the North, where he is from. His son living in the North also works. Most of his income is spent on family. A challenge he mentioned is getting injured at work. He said getting more money would help in his challenges. He said the government cannot help. After this interview, the question on the government was not asked again.

Agbogbloshie, March 4, 2024

Interview 37 Scrap dealer Agbogbloshie

Scraps, buy from people

Expensive to buy

Copper, iron at Tema

Iron 1 kg = 3 cedis

Aluminium 1 kg = 7 cedis

Price when selling is good

Does not take care of family, is not married

Spends money on bills, earns enough

Only this work, enough work

From Northern region, have a place in Accra

Challenges: a lot of challenges

Help: get money, get more scraps

This interview was with a scrap dealer. He buys up scrap from waste pickers. He said it was expensive to buy from waste pickers. He sells the scraps at Tema, he said the price is good when selling. He does not have to take care of a family as he is not married. He spends his money on bills (did not elaborate), he has enough money to pay the bills. He only does this work and he said there is enough work for him to do. He is from the North, but he does have a place to stay here. He said there are a lot of challenges in this work, but did not elaborate upon what challenges they are when asked. He said it would help to get more money and more scraps.

This interview was quite uncomfortable, as he immediately grabbed my hand when walking up to the group. He asked to marry me. This has happened more often, yet with the other instances the men stopped when I said no or showed a ring on my finger. However, this man did not stop and kept grabbing my hand, looking at the ring. I wanted to finish the interview quickly.

Agboglobloshie, March 4, 2024

Interview 38 Scrap dealer Agboglobloshie

Scrap dealers, buy scraps from pickers

Sell it at Tema

Buying price is not stable, market

Tema price changes, sell 3x a month, not only once a month, demand is low

Income depends on scraps, expensive to buy

Earn enough

Also takes care of family, family is around here, 2 wives, 7 children

Most spent on family, school and food

Only work, iron and rubber, only one working

Not enough work

Challenges: many, buy it for a higher price than sold (little profit), expensive, family issues, business goes up and down due to dollar, export stopped thereby stopping competition, fall back

Help: get support (from whom?)

This interview was with a scrap dealer who buys up scraps from pickers. The price he pays is not stable but dependent on the market. He sells at Tema, where the price is also dependent on the market and changes. He used to sell three times a month, but now it is only once a month because demand for scraps is low. His income is dependent on how many scraps he can get. He said the scraps are expensive to buy. He does earn enough. He also takes care of his family with two wives and seven children. He is the only one working. Most of the money is spent on the family, i.e. on food and school. This is the only work he does, but there is not enough work according to him. He said there are many challenges, e.g. when you buy for a high price and sell for a low price, making little profit; it is expensive to buy scraps; family issues and being able to pay for everything; business going up and down due to the fluctuating dollar; changing export rules stopping competition, making Ghana fall back. He said it would help to receive support but he did not specify from whom.

Agbogbloshie, March 4, 2024

Interview 39 Waste picker Agbogbloshie

Scraps, go around to buy it, sell it at scrap dealer

When buying, sometimes good, sometimes not, decide if you think price is good

Everyday, one time per day, if I get early I will sell and then go back

Travel far

From Konkoma

Also takes care of family, only one working

Spends most on rent

Earns enough, only work, depends how much you earn daily

Challenges: plenty, need money to buy the scraps, sometimes from the boss

Help: scrap dealer helps

This interview was with a waste picker who was sitting on his truck. He explained that he goes around to buy scraps from people, to then sell it at the scrap dealer. When asked if the price when buying is good, he explained that it sometimes is, sometimes not. He discusses with the person the price and then he decides if it is good or not. When he goes out early, he will sell his scraps at the dealer and then go back. If it is too late, he will only go out once. He travels long distances to collect scraps. He is from Konkoma. He also has to take care of his family and he is the only one working. This is the only work he does. Most of his income is spent on rent. He said he earns enough, but that his income depends per day how much you can collect. He said there are plenty challenges, such as the need to have money to buy up scraps. It can be expensive. Sometimes his scrap dealer helps him by loaning him money to buy up the scraps. When asked what helps in his challenges, he repeated that his scrap dealer helps him.

Oduma, March 5, 2024

Interview 40 Waste pickers Oduma

Scrap buyers, go around to buy

Morning, 8 o'clock, once

Expensive to buy, 3 cedi per kg

Go around Afuaman

50/60 cedi per day

Not enough

Companies are not buying up the scraps, price is down

A lot of people are doing this work. Not enough work for everyone

Collect everything

All live here, come from Niger

Only work they do

Not taking care of a family

Money is spent on rent and food

Challenges: companies are not buying scraps, volatile income, not enough income

Help: if they have more buyers, if nobody is buying, how can I earn money?

This interview was with four waste pickers from Niger. Because they do not speak English or Twi, the scrap dealer was translating for them. He explained that they go around Afuaman to buy scraps from people, which is expensive to buy. They go collect once a day and they leave around 8. They sell at the scrap dealer, they receive 3 cedis for each kilo they sell to him. They earn about 50/60 cedis per day, which is not enough to pay for the bills. They collect all different kinds of waste. This is the only work they do. They do not have to take care of a family and send money home. The money they earn is spent on rent and on food. The scrap dealer explained that the biggest challenge is finding companies to buy up the scraps. Because a lot of people are working in scraps, there is not enough work for everyone. Therefore, there is not enough demand to buy up the scraps. When the scrap dealer cannot sell the scraps, how can he earn money to pay his bills and the workers? He said it would help if companies would buy up the scraps.

Oduma, March 5, 2024

Interview 41 Waste picker Oduma

Used to be picker

Other boys go around

Multiple times, 2 times a day

5/10 kilometres, Nsakina

Difficult to get scraps, a lot of people collect

Expensive to buy from people

Monthly = about tonnes, can only sell when it is tonnes

Not enough money

50/50 Ghana and Niger, moved from Niger

Also take care of family, more people work in the family

Difficult to rent a room

Challenges: sun, pushing the truck

Truck helps

Help: having a motor

Change work if there is not enough

This interview was a scrap dealer who used to be a waste picker. The questions were focused on when he was waste picker. He used to go multiple times, usually 2 times. He moved in an area of around 5 to 10 kilometres. It is difficult to get scraps as many people now collect scraps and he said it is expensive to buy from people. He said his income is more monthly now, as they sell the scraps monthly to Tema by tonnes. He said he does not earn enough money, mainly because there are not enough scraps to collect and sell. He is half Ghanaian and half from Niger (Nigerian?). He also has to take care of family but he is not the only one working in the family. When asked whether he was earning more now than when he was a waste picker, he said he does not necessarily earn more, because there are less scraps now. He said it is difficult to rent a room here. Some challenges he mentioned are working in the sun, pushing the cart around. Although the truck helps in the work, it is also difficult. He said it would help if he would have a motor. Once there is not enough work for him to do in this industry, he would switch work.

Nsakina, March 4, 2024

Interview 42 Scrap dealers Nsakina

2 scrap dealers

Both bosses, a lot of people going around for them, rent the land to hold scraps

Companies come by to buy the scraps

Check the car, correct, spoiled car will be dismantled

Sometimes the price when buying is not good

Companies buy trailers, kia, sometimes the price they pay is not fair

When you have 10 tonnes, the price will not reach (?)

When selling at Tema, the price changes a lot

Cannot sell a lot, not moving, there are a lot of workers, not enough work

North, take care of family, some family live here, some still in North

Also a farmer, one not, yam, beans, cassava

Goes back for raining season (April, June, July)

Earns enough, spends most on family

Challenges: not easy, saw and hammer hit hand, injuries when dismantling, accidents, car can fall of step and blow, cannot work, renting machines and manpower

Help: electric or gas machines to cut

This interview was with two scrap dealers from the North. They have people who go around to buy scraps and cars. They check the cars whether they are still good. If they are not working anymore, they will dismantle them to find parts to be sold again. They do not buy up rubber at this scrap yard, only metals. They said that sometimes the price is not good when buying up scraps. The price companies pay to buy up the scraps is also not fair. They explained that the price when selling at Tema changes a lot, it is unclear whether they sell at Tema or not. They explained that they cannot sell a lot of scraps, because there are a lot of workers and not enough work. The supply seems to be higher than the demand. They are both from the North and taking care of family. Some family is living in the South with them and some family is still in the North. Most of their income is spent on family. They said they earn enough. One of scrap dealers interviewed is also a farmer, so goes back during raining season. They mentioned multiple challenges, they said accidents happen when dismantling, which means you cannot work. While we were there, there were some people working on dismantling a refrigerator. They keep the metals they can get but get rid of parts that are not useful to them, such as metals with foam stuck to it. They also said it is expensive to rent machines to dismantle or hire manpower to do it. It would help them to have machines of their own to save on money and make the work safer.

Nsakina, March 4, 2024

Interview 43 Scrap dealer Nsakina

Stays here, master goes around, take care of scraps

Earns different each day, only metals

Use scale, 1 kg = 2,5 cedis

Master will look for a car in Accra and take it to Tema

Price when buying changes

Earns enough to pay for the bills

Doesn't need to take care of family (young)

Lives around here, master lives in Accra

Both are from the North, only this work

Enough work to do

Challenges: scraps can cut your hand, injuries

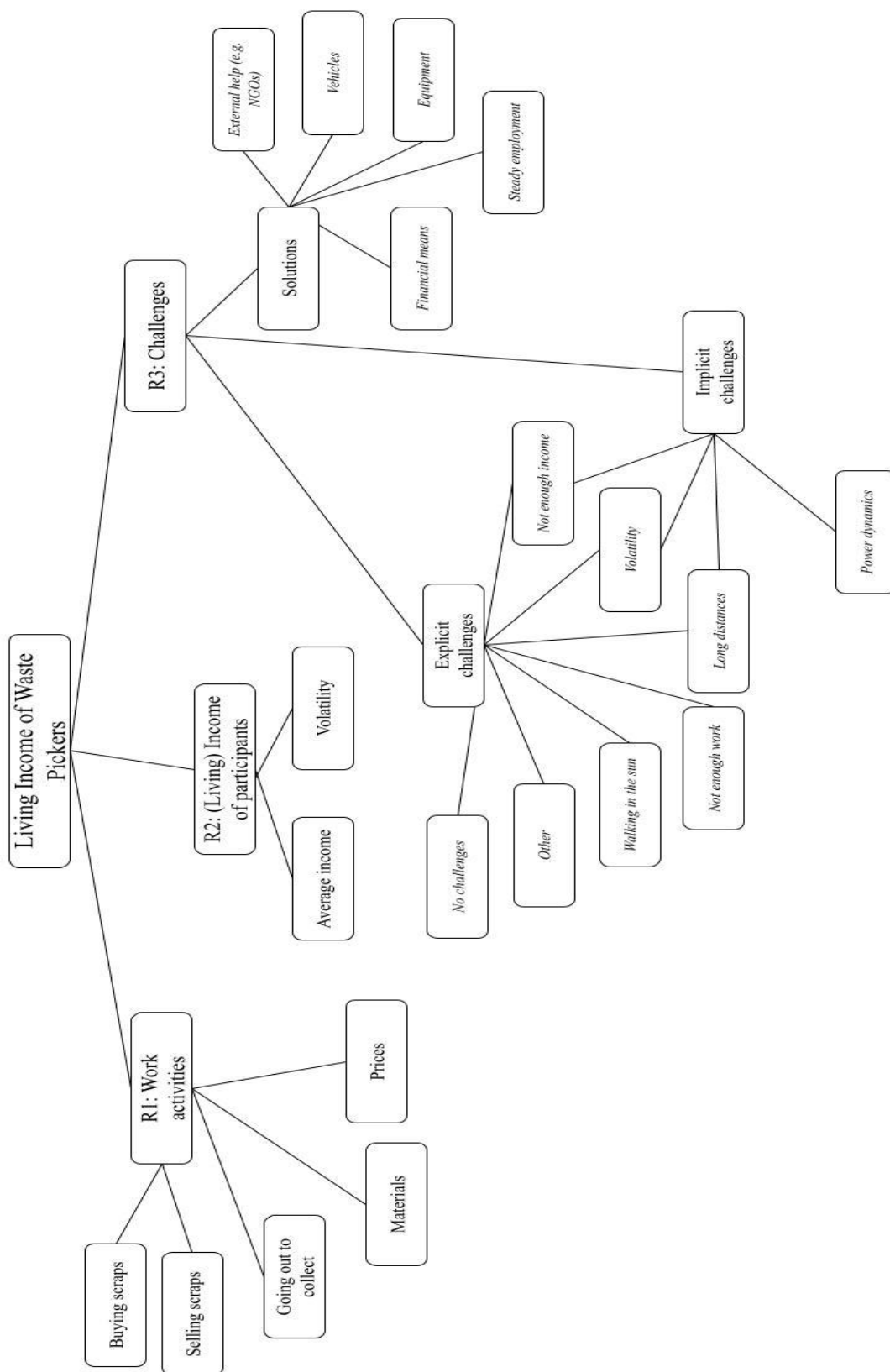
Help: money

Master pays him monthly, when they sell at Tema

This interview was with someone who works for a scrap dealer. He explained that the scrap dealer goes around to buy scraps, and he stays back to take care of the scraps they collected. They only collect metals, no rubber. They use the scale to set the price, one kilo is 2,5 cedis. Once they have collected enough scraps, the master will look for a car in Accra so they can sell the scraps at Tema. The worker is paid monthly, when they sell the scraps at Tema. He said he earns enough to pay for bills and he does not have a family to take care of. He seemed quite young (teen/early twenties). He lives around the area of the scrap yard (Nsakina). Both the master and him are from the North. They only have this work. He said there is enough work to do. This is quite interesting, considering the scrap dealers in the same street said there is not enough work to do (probably 0,5 kilometres removed from each other). Perhaps the difference is that this scrap dealer sells at Tema? The challenge he mentioned is that working with the scraps can cut your hand. It would help if they would have more money according to him.

Appendix D

Coding Tree Interviews Fieldwork



Appendix E

Coding Tree Key Informant Interviews

