inclusive cities

IEMS Informal Economy Monitoring Study

Waste Pickers in Nakuru, Kenya

by Grace Nyonyintono Lubaale and Owen Nyang`oro

July 2013

Informal Economy Monitoring Study: Waste Pickers in Nakuru, Kenya

Field research for this report was conducted in Nakuru between August–September 2012. The Nakuru Research Team consisted of: Grace Lubaale, Evalyne Wanyama, Owen Nyang'oro, and Charles Munene Kiura.

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About the Informal Economy Monitoring Study

The Informal Economy Monitoring Study (IEMS) is a major, longitudinal study of the urban informal economy being undertaken initially at two points in time, 2012 and 2015, in 10 cities around the world: Accra, Ghana; Ahmedabad, India; Bangkok, Thailand; Belo Horizonte, Brazil; Bogota, Colombia; Durban, South Africa; Lahore, Pakistan; Lima, Peru; Nakuru, Kenya; and Pune, India. The study combines qualitative and quantitative research methods to provide an in-depth understanding of how three groups of urban informal workers – home-based workers, street vendors, and waste pickers – are affected by and respond to economic trends, urban policies and practices, value chain dynamics, and other economic and social forces. The IEMS will generate panel data on the urban informal economy.

In each city, a team of five researchers worked in collaboration with a local membership-based organization of informal workers from April 2012 to April 2013 to collect and analyze the first round of the data.

All city research reports, as well as sector reports (one each for home-based work, street vending and waste work), a global report, and other information on the study can be found at www.inclusivecities.org and www.wiego.org.

Abbreviations

CBD	Central Business District
CBO	Community Based Organization
FGD	Focus Group Discussion
IEMS	Informal Economy Monitoring Study
KENASVIT	Kenya National Association of Street Vendors and Informal Traders
Kshs.	Kenyan shillings
MBO	Membership-Based Organization
NAWPA	Nakuru Waste Pickers' Association
PIEA	Participatory Informal Economy Appraisal
SHG	Self Help Group
WIEGO	Women in Informal Employment: Globalizing and Organizing

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Executive Summary

Recent statistics show the majority of workers in developing countries earn their livelihoods in the informal economy. Studies on the informal economy have provided theories to explain the persistence, characteristics and growth of informal employment. However, few have evaluated the grounded realities of work in the informal economy, and none have done so over time and across a sufficiently large number of sectors and cities. The Informal Economy Monitoring Study (IEMS) is a qualitative and quantitative study designed to evaluate the reality of these workers' lives. With research conducted over three years in 10 cities, the IEMS aims to provide credible, grounded evidence of the range of driving forces, both positive and negative, that affect conditions of work in the informal economy over time. Informal workers and their membership-based organizations (MBOs) are at the centre of the analysis.

The Research on Waste Pickers in Nakuru

In Nakuru, the IEMS research was carried out with 163 waste pickers. Two variables were used to select the sample: 1) sex; and 2) source of materials – whether the waste pickers collected in Nakuru's only dumpsite, Gioto, or outside the dumpsite, mainly within the business and residential areas south of the Nairobi–Nakuru–Eldoret highway. The sample, drawn primarily from all waste picker organizations operating in these areas, consisted of 47 per cent men and 53 per cent women respondents.

Focus groups were conducted between August–September 2012 with 75 waste pickers taking part in this qualitative research. The quantitative component of the study entailed a survey questionnaire administered to the 75 focus group participants plus another 88 waste pickers who were also members of the nascent but growing MBO, for a total of 163 participants. In addition, key informant interviews were conducted with knowledgeable officials and those involved with the waste pickers' movement as a means of further exploring issues that arose from the study.

The waste pickers both at and outside the dumpsite collect a wide range of products – food, metal, plastic items, PET bottles, clothing, shoes, glass, and paper – and sell the material to earn their livelihood.

Findings

Over 90 per cent of waste picker respondents' households depend on the informal sector for their livelihood. Almost 80 per cent of survey participants said their own efforts sustained the household, while most others relied on the informal activities of other household members. The average household size, consistent with the Nakuru District average, is 3.6 with, on average, one working person supporting two dependants. Only six of the 163 respondents said their household could rely on formal sector wage employment. It was more common for male waste pickers to say they were the main providers for their families, while female waste pickers sometimes were supplementing the household income. Generally, the waste pickers had no access to other types of income (such as pension or social assistance), and a very small proportion of them received limited remittances.

Most waste pickers in Nakuru are independent, self-employed own account workers. In a few cases, waste pickers are members of cooperatives, indicating that there is a small level of group organization.

The amount of total sales of material (turnover) varies across waste pickers both by sex and the source of their materials. Men had higher turnovers on average compared to women irrespective of location of waste collection. However, all waste pickers subsist on meager returns. The average mean monthly turnover – before accounting for any expenses incurred, such as storage or transportation – was under Kshs. 5,000, or less than US $2/day.

A majority reported that their incomes had fallen in the previous 12 months. Asked to evaluate their expectations over the next year, survey respondents painted a gloomy picture. Most waste pickers expected less access to waste, less material collected and less revenue for their efforts in the coming year. A smaller, proportion expected the same factors to improve, but almost all agreed competition will increase as more people enter the sector.

Waste pickers in Nakuru are not highly educated; slightly over half of the waste pickers have at most primary education, and very few have attained any tertiary education, suggesting there are few other employment options available to these workers.

Value Chain Dynamics

Participants evaluated the driving forces that impact their work. For Nakuru's waste pickers, the value chain, especially low and fluctuating prices, was the most important negative driving force. (Ironically, the value chain was also cited as the most important *positive* driving force for waste pickers, with availability of materials being the most significant factor.) The prices offered by the buyers for their products are affected by macroeconomic conditions such as shifting prices for recyclables in the formal economy that are closely linked to movements in prices in the commodities markets. Other difficulties named that relate to value chain dynamics include inadequate availability of materials, exploitation by buyers, too few buyers, competition from other waste pickers, and lack of market information. Through this study, we find that value chain factors are constrained by current urban policies.

Businesses, which waste pickers identified as the most important institutional actors, provide materials but also sometimes were reported to unjustifiably limit waster pickers' access to waste materials. Other businesses and organizations bought materials –including artists and youth groups. However, the most common buyers, the middlemen who sold the recovered materials on to formal recyclers, were often reported to engage in unfair trade practices such as through the use of faulty weighing scales or, through cartels, to force the waste pickers to sell at unfairly low prices.

Working Conditions

The second-most negative driving force identified was unfavourable health, safety, and working conditions. Waste pickers described their workplace as dangerous, foul, smoky and toxic. Participants noted that they had been burned by chemicals, and that they need protective gear. One particularly worrying issue was the dumping of medical waste at Gioto. Waste pickers frequently encountered syringes, blood, cotton pads, and medicines. According to men from the dumpsite, the dumping of medical waste at Gioto results in loss of property, air pollution, disease and even death.

Harassment and discrimination by society were also identified as key issues affecting the waste pickers. Research participants became emotional at their treatment by the public. As one woman in a focus group explained, "People see us and just begin laughing as if we are mad people! We are really discouraged and humiliated."

City/Government Policies & Practices

The research participants prioritized a number of different negative forces related to government policy and practices at the city and national level. These included: harassment by the municipality; poor service delivery and infrastructure; municipal waste management policy and national government.

Scrutiny of the regulations shows that waste pickers are not recognized as workers and their needs not addressed. The findings from this study, for example the perpetual harassment of waste pickers, strongly suggest that rules governing waste picking in Nakuru are generally inappropriate. It is also apparent that the importance of and rights of waste pickers are seldom recognized in Nakuru. The municipality, like businesses, provides and limits access to waste both at the Gioto dumpsite and throughout the Nakuru town. But the municipality was also identified as engaging in gratuitous violence through excessive harassment of waste pickers.

A close examination of the policy framework revealed a worrying focus on private collection and a failure to recognize the role of waste pickers in waste management.

Furthermore, infrastructure and institutional obstacles were identified as occupational problems affecting the safety of waste pickers. Poor access to small business support, poor access to infrastructure and the cost of infrastructure were highlighted. Harassment and discrimination by society was also raised as an issue.

Recommendations

The waste pickers, researchers and MBO experts together propose the following recommendations to address the most pressing issues identified in the study:

Recognition and Respect

Waste pickers in the study were asked to propose how institutions and actors could help them. Virtually all their proposals revolved around promoting and securing the rights and dignity of waste pickers. For instance, they asked that the municipality stop the harassment and instead collaborate

with waste pickers. Similar demands were made of the police, and rich people were urged to behave humanely and respectfully toward this vulnerable group. Highlighting the divisions that exist between waste pickers, older (and particularly female) waste pickers emphasized the need for young, male waste pickers to stop harassing and dominating them.

Value Chain

The majority of waste pickers in Nakuru sell their materials to informal businesses and workers in highly exploitative relationships. To ensure that waste pickers earn a fairer distribution of profits in the recycling value chain it is proposed that:

- As in Pune, India, the municipality establish municipally run buy-back centres that purchase materials at a fair price.
- Waste pickers should be encouraged and supported to form cooperatives that can secure contracts to sell materials collectively in order to obtain higher prices.
- As in Bogota, Colombia and Diadema, Brazil, the municipality should pay waste pickers a set fee per kilogram of recyclables collected as remuneration for the environmental service they provide to the city by diverting recyclables from the landfill. Such payment is fair compensation for a key service, and helps to provide income security and to protect the waste pickers from the vagaries of the market.

Municipal Waste Management Policy

- The municipality must recognize waste pickers as a legitimate part of the waste management system.
- Bylaws should be amended and developed in order to ensure that waste pickers have access to recyclables and are not harassed while performing their work.
- The municipality should engage with the national police force to ensure police do not harass and victimize waste pickers.
- The municipality should develop an inclusive solid waste management system. Waste pickers must be remunerated for this service in addition to earning an income from selling the materials they collect.
- Waste pickers will need to be consulted and involved in the development and implementation of policies and systems.
- The municipality should hire staff with expertise in integrated waste management and social mobilization around waste issues.
- The municipality should run awareness campaigns with residents to educate them on the important role played by waste pickers and instruct them how to correctly separate their materials.
- The municipality should develop a forum where municipal officials, waste pickers, residents and other actors in the waste management and recycling sectors can engage to develop and oversee the implementation of inclusive waste management policy.

Health and Safety

Waste pickers working at both the dumpsite and on the streets labour in extremely hazardous and unhealthy environments. In cities such as Belo Horizonte, Brazil, it has been demonstrated that a long-term solution to health and safety concerns lies in an integrated solid waste management system in which waste pickers collect recyclables that have been sorted by residents, then collected and sorted/stored in safe, hygienic warehouses.

The recommendations listed here to address waste pickers' health and safety issues should be seen as the first stage in a comprehensive programme to move waste pickers off of the dumpsite and out of itinerant picking, and into integrated source segregation programmes. Waste pickers will need to be consulted and involved in the development and implementation of these policies and programmes.

- The municipality should develop a separation at source programme in which residents are required to separate recyclable and compostable material from waste.

- Waste pickers should be contracted by the municipality to collect the separated waste.
- In the interim, while waste pickers are still working on the dumpsite and as itinerant waste pickers in the streets, the municipality should create designated areas within the dumpsite for the salvaging and sorting of materials.
- The municipality should also provide waste pickers working on the landfill and in the streets with health and safety training and equipment.
- The municipality must ensure, with immediate effect, that no hospital waste is sent to the landfill.

Social Policy

- The municipality should ensure that all waste pickers receive official government identification and all benefits to which they are entitled.

Mobilization of Waste Pickers

All of the above initiatives require the active involvement of waste pickers. As waste pickers have only recently begun to organize in Nakuru and their organizations are still small and weak, it is of pressing priority that waste pickers in Nakuru receive support to develop strong, democratic MBOs.

- The Nakuru Waste Pickers' Association (NAWPA) and the Kenya National Association of Street Vendors and Informal Traders (KENASVIT) should work together to provide organizing support to waste pickers in Nakuru.
- As in Belo Horizonte, Brazil, the municipality can also play a key role in strengthening organizing of waste pickers by making resources available, and by hiring staff with knowledge and expertise who can work with waste pickers and assist them in organizing.

Introduction

Study Objectives

It is now widely recognized that the majority of workers in the developing world earn their livelihoods in the informal economy. Advancements in official statistics show that informal employment accounts for more than half of total non-agricultural employment in most regions, and as much as 82 per cent in South Asia and 80 per cent in many sub-Saharan African countries (WIEGO website 2013). Though many studies offer theories to explain the persistence, characteristics and growth of informal employment, few have evaluated the grounded realities of work in the informal economy – and none have done so over time and across a sufficiently large number of sectors and cities. The Informal Economy Monitoring Study (IEMS) seeks to fill this gap.

More specifically, the objective of the study is to provide credible, grounded evidence of the range of driving forces, both positive and negative, that affect conditions of work in the informal economy over time. The study, which places informal workers and their organizations at the center of the analysis, examines not only the impact of these forces but also informal workers' strategic responses to them. It is based on a collaborative approach between researchers and membership-based organizations (MBOs) of informal workers to monitor, on an ongoing basis, the state of the working poor in three sectors – home-based work, street vending, and waste picking – and also to build the capacity of MBOs to assess and mediate the driving forces that affect their work. The study was based in 10 cities, as follows:

Table 1 - An Overview of the IEMS

	Sector(s)	Local Partner
Africa		
Accra, Ghana	Street Vending	Institute of Statistical, Social and Economic Research (ISSER) and StreetNet Ghana Alliance
Durban, South Africa	Street Vending, Waste Picking	Asiye eTafuleni (AeT)
Nakuru, Kenya	Street Vending, Waste Picking	Kenya National Alliance of Street Vendors and Informal Traders (KENASVIT)
Asia		
Ahmedabad, India	Home-Based Work, Street Vending	Self-Employed Women's Association (SEWA)
Bangkok, Thailand	Home-Based Work	HomeNet Thailand
Lahore, Pakistan	Home-Based Work	HomeNet Pakistan
Pune, India	Waste Picking	Kagad Kach Patra Kashtakari Panchayat (KKPKP)
Latin America		
Belo Horizonte, Brazil	Waste Picking	Instituto Nenuca de Desenvolvimento Sustentável de Belo Horizonte
Bogota, Colombia	Waste Picking	Asociación de Recicladores de Bogotá (ARB)
Lima, Peru	Street Vending	Federación Departamental de Vendedores Ambulantes de Lima y Callao (FEDEVAL)

Conceptual Framework

In the IEMS, the term "driving forces" is used to refer to systemic factors that may impact, in either positive or negative ways, the occupations or livelihoods of urban informal workers. Three categories of "driving forces" anchor the study. First, the IEMS explores the economy as a driving force: that is, the macroeconomic conditions such as inflation, recession, and patterns of growth that may influence working conditions in the informal economy. Second, the IEMS examines government policies and practice, specifically, but not exclusively, at the city level, including urban planning and policies,

zoning regulations, sector-specific policies, regulatory norms, and urban infrastructure and service delivery. Third, the IEMS considers sector-specific value chain dynamics, including the power relations between informal workers and their suppliers and buyers, and the role of intermediaries in the value chain. The framework also allows for the identification of other driving forces, such as migration, that may have a significant impact on working conditions in a particular sector or city.

The IEMS assumes that the impact of these driving forces is mediated by institutions and actors related to the particular sector under study in each city. The study examines a range of institutions including government institutions, civil society organizations, and, fundamentally, MBOs of informal workers. It explores the responses of informal workers to key driving forces in each city, as well as the economic, political, and spatial linkages within each sector. Finally, through its sampling design, the study allowed for comparisons at the individual level by sex (in cities in which both men and women belong to the partner MBO), employment status, and location of the workplace.

The data collection tools – i.e., the participatory focus group methodology and the survey questionnaire – were designed with reference to a few prevailing "myths" about the informal economy. Those myths were identified by MBO partners at a Research Design workshop in London in May 2011, and then were used to inform the study hypotheses and the design of the data collection tools. These included the following:

Myth #1: The informal economy is not linked to the formal economy.
Hypothesis #1: Informal workers are closely linked to the formal economy.

Myth #2: The informal economy is not a part of the modern economy.
Hypothesis #2: Informal workers are part of modern chains of production, distribution and services that download risks and costs to informal workers.

Myth #3: Informal workers intentionally "hide" from regulations and avoid the costs of formalization.
Hypothesis #3: Informal workers are not hiding from regulations; rather, regulations are unknown, inappropriate, or hostile to informal workers.
Hypothesis #4: Economic policies and urban reforms/policies are not supportive of urban informal livelihoods.

Myth #4: The informal economy does not contribute to the city (e.g. informal workers do not pay taxes).
Hypothesis #5: Informal workers do pay taxes and other types of fees, but do not get the benefits thereof.
Hypothesis #6: Informal workers contribute to the city in a variety of ways.

Methodology

The IEMS is based on both qualitative and quantitative methods. The qualitative component consists of a participatory informal economy appraisal (PIEA), an innovative method designed to capture systematically the perceptions and understandings of informal workers in their own words, in a focus group setting.[1] Each city team conducted 15 focus groups of five participants each (per sector), in which nine tools – organized around the themes of sector characteristics, driving forces and responses, the institutional environment, and contributions of the sector to the city – were used to generate data related to the conceptual framework. The results of the focus groups were recorded in reports of about 12 pages, on average, immediately after each focus group was conducted, and those reports were then analyzed.

The quantitative component consists of a survey questionnaire administered to the 75 focus group participants per sector, plus another 75 workers in each city-sector. Thus an overall sample size of about 150 was achieved (with minor variation in the sample size in some cities/sectors). The questionnaire is designed to supplement the data collected through the focus groups by collecting information on the household profile and income sources of the workers; the assets profile of the workers' households; detailed information on the enterprise or occupation of the workers;

[1] The methodology was developed collaboratively with Caroline Moser, Angélica Acosta, and Irene Vance, who also trained the city teams in the data collection methods and later in data analysis. PIEA is an adaptation of earlier participatory methodologies developed by Chambers (1994), Moser and Holland (1997), Moser and McIlwaine (1999, 2004), and Moser, Acosta and Vásquez (2006).

and linkages between the informal economy and the formal economy. The questionnaires were administered using a data-capture tool. It took approximately 90 minutes for each respondent to complete the questionnaire.

Collectively, the focus groups and questionnaires provide data on the context within which informal workers earn their livelihoods, and the forces that impact, both positively and negatively, on workers' incomes and working conditions. We are also able to understand how workers adapt their work strategies in the face of these economic, social and institutional forces.

The sampling approach was designed to maintain comparability in the results across the 13 city-sectors, on the one hand, and to allow some flexibility as demanded by local circumstances, on the other hand. As much as possible, the following principles were followed in every city-sector: only members of the MBO were included; and each sector sample was based on two variables as shown in table 2.

Table 2 - Variables for Sampling

Sector	Sampling Variable 1		Sampling Variable 2	
Home-Based Work	**Employment Status**		**Product Category**	
	Self-Employed	Sub-Contracted	Category 1	Category 2
Street Vending	**Sex**		**Location of Workplace**	
	Women	Men	Central city	Periphery
Waste Picking	**Sex**		**Source of Materials**	
	Women	Men	Fixed	Variable

Each city team developed the "best sample possible" based on the sampling variables outlined above. "Best" was defined as (a) the most representative sample possible of the study population of MBO members, and (b) the most sensible, feasible, and locally appropriate sample possible. In cities where the partner MBO maintains an updated registry of members with data on the sampling variables, for example, it was possible to develop a stratified random sample that was statistically representative of the MBO population on the sampling variables; in cities where there was no accurate registry, the city team used a quota sampling approach. In each city, the local researchers worked with the MBO to identify what the best possible sample would be, based on local circumstances.

The second sampling variable – product category for home-based workers, location of workplace for street vendors, and source of materials for waste pickers – was designed to correlate with a degree of vulnerability that stems from sector-specific circumstances. In the street vending sector, for example, vendors who work in the central city are typically more vulnerable to evictions than those who work in the periphery. Each city team identified the best way to operationalize this variable according to local circumstances.

In keeping with the sampling frame, our discussions with the representatives of the waste pickers in Nakuru revealed that in addition to sex, the source of the materials collected was important. Nakuru's only dumpsite, Gioto, is located north of the Nairobi–Nakuru–Eldoret highway. Other important sources of waste are located mainly within the business and residential areas of the city that are south of the highway. Itinerant waste pickers mainly access these other sources.

For the area located north of the highway, we sampled all the waste picker organizations that have members working in this area (see next section). Similarly, for the area south of the highway, we sampled all the organizations operating there. However, the organization of waste pickers is still nascent. A total of 163 waste pickers, all MBO members, participated in the study, with 75 waste pickers taking part in both qualitative and quantitative survey, while the remaining participated in the quantitative survey only. We sampled more women waste pickers, as we had done for street vendors in Nakuru, in accordance with the sampling framework. This framework, designed to maintain consistency across IEMS cities, slightly over-sampled women for the qualitative component to help ensure a voice for women in the five mixed-sex focus groups, and aimed for a 50/50 quota sample of men and women for the quantitative component in cities where the composition of the full population of workers was unknown. As a result, the sample consisted of 47 per cent men and 53 per cent women respondents.

The waste pickers both at the dumpsite and outside the dumpsite pick a wide range of products. These include food, metal, plastic items, plastic water bottles. Other products the waste pickers collect include clothing, glass, and paper. Waste pickers sell these materials to earn their livelihoods.

A Brief Introduction of the Membership-Based Organization

The Kenya National Alliance of Street Vendors and Informal Traders (KENASVIT) is a network of informal traders and street vendors that has also begun organizing waste pickers. The members of KENASVIT started this organization because of a strong desire to improve and secure their socio-economic conditions. KENASVIT started informally in 2002, and was registered in 2006 under the Societies' Act of 1968. The organization currently has members in 14 urban areas/towns of Kenya including: Busia, Eldoret, Kakamega, Thika, Kisii, Kisumu, Kitale, Machakos, Migori, Mombasa, Nairobi, Nyeri, Embu, and Nakuru. The vision of KENASVIT is "to transform street vending and informal businesses into corporate establishments." Its mission is "to organize and empower street vendors and informal traders to improve their businesses through training, access to credit, dialogue with local authorities and other relevant institutions on appropriate by-laws and policies that would give recognition to and bring to an end harassment and discrimination against street vendors and informal traders."

KENASVIT started supporting waste pickers in 2010 with a workshop that brought together various stakeholders in order for them to form a national umbrella organization like KENASVIT. Since the organization of waste pickers is still nascent, fewer than 200 waste pickers had been organized into groups in Nakuru at the time of this study. The waste pickers' MBO is the newly forming Nakuru Waste Pickers' Association (NAWPA). Like the street vendors, the waste pickers belong to community-based organizations or self help groups that comprise NAWPA. For membership in their groups, the waste pickers pay a membership fee. NAWPA's member waste picker organizations are shown in table 3.

Table 3 - Waste Pickers Groups in Nakuru

No.	Name of group	Location/street	No. of Members	Women	Men
1.	Bondeni waste pickers Self Help Group (SHG)	Bondeni	27	9	18
2.	Murogi Youth group	Free area/ Lion hill primary	18	7	11
3.	Taka Ni Mali Pickers SHG	Lanet	25	5	20
4.	Gioto waste pickers SHG	Gioto Dumpsite	34	21	13
5.	Victory Waste Pickers	South of highway	46	unknown	unknown
	Total		**150**		
6.	Scrap metals group	Not considered	Consists of buyers		

Source: Coordinator, NAWPA Initiative, June 2012

An Overview of Waste Picking in Nakuru

With an estimated population of 300,000 people, Nakuru is the fourth largest city in Kenya after Nairobi, Mombasa and Kisumu (Republic of Kenya 2009). Located about 160 km northwest of Nairobi, Nakuru is at the heart of Great Rift Valley. Nakuru is a fast growing town. However, this growth is not without challenges. According to the Regional Business Agenda Report of 2011, Nakuru is faced with inadequate and inefficient infrastructural services (poor water supply, power outages and poor road network), high land rates and unfair valuation systems, corruption within official agencies, and poor service delivery by the Municipal Council (RBA report 2011).

Nakuru has one dumpsite popularly known as Gioto that was established in 1975. The dumpsite is situated to the northwest direction along Nakuru-Kabarnet road, about 3 kms from Nakuru Town. Until 2006, the municipality was the sole collector of solid waste and has always dumped the waste at Gioto. After 2006, the municipality contracted private companies and local Community

Based Organizations (CBOs) to collect and dispose of waste on its behalf, and they were awarded licences to dump at Gioto. Waste is collected at designated collection points both in the residential and commercial areas of Nakuru. Currently, the dumpsite has hardly any more dumping space left. Sometimes waste is either washed down by surface run off and/or is blown by strong winds to the adjacent roads and the neighbourhood (Practical Action, 2005).

Private companies collect at least 44 percent of the waste from the municipality (Mitullah and Kamau 2011). While the local authority is supposed to collect the remaining 66 per cent, a considerable amount of waste is never collected and is either burnt by residents or left to decompose.

Official data from the local authority or central government on individual waste pickers is not available, so the actual number of waste pickers is not known. However, ECOTACT (2010) notes that waste picking is an important source of livelihood for thousands of people in Nakuru. Although they lack legal recognition, waste pickers make important contributions to the waste management chain, reducing the amount of waste in the environment by facilitating re-use and recycling. For instance, they support the waste recycling industry that similarly contributes to employment creation and income generation.

In addition to resource recovery, waste pickers also contribute to the economy of Nakuru by taking up other income generating activities. These include selling water, working as domestic workers, assisting motorists to park in the Central Business District (CBD), washing cars, running small businesses, working as security guards and providing casual labour to nearby farms (Practical Action 2005).

Roadmap of the Report

This report is organized in five parts including this introduction. After the introduction, Part 1 describes the waste picking sector in Nakuru based on analyses of the survey on demographic, household and enterprises characteristics. Part 2 draws on both quantitative and qualitative data to explore how waste pickers in Nakuru are affected by and respond to key positive and negative driving forces and the role played by intermediary institutions. Part 3 focuses on the linkages and contributions of the waste picking sector in Nakuru. The final section assesses the prospects for waste pickers and puts forward recommendations based on the findings.

Part 1: Waste Pickers' Households & Enterprises

1.1 Introduction

In this section we provide an overview of the basic demographic characteristics of the waste pickers as well as information on the characteristics of their enterprises. The section starts by providing information on the characteristics of the individual waste pickers, including household size, dependency levels, education and sources of income. Next, it presents information on the nature of enterprise the waste pickers are engaged in, focusing on the nature of work, earnings, hours worked, and assistance with work; a brief value chain analysis follows. Information in this section draws on the survey data and contrasts where possible with existing literature on waste picking.

1.2 Characteristics of Individual Waste Pickers and their Households

The ages of the waste pickers surveyed in Nakuru ranged from 17 years to 63 years, with a mean age of 32 years for men and 30 years for women. The mean household size of the sampled waste pickers is 3.7 with a dependency ratio in relation to household members who work of 0.5, meaning on average, one working person supported two dependants. The household size is higher for female respondents than for male respondents at 4.1 versus 3.3 respectively, but the dependency ratio is higher for men compared to women at 0.6 and 0.5 respectively (table 4). The average household size is consistent with the Nakuru District average of 3.6 (Republic of Kenya 2009).

The variance in the dependency ratio for male and female respondents is reflected in the proportion of other household members who work. Among men, 47 per cent indicated they have other workers in the household (41 per cent have informal workers and nearly 7 per cent have formal workers) while 61 per cent of women indicated the same (53 per cent have informal workers and 10 per cent have formal workers), showing that dependence on female waste pickers is lower as their earnings are complemented by those of other household members. The existence of other workers in the households for women is above the overall average of 55 per cent, while for men it is below the overall average (table 4).

Table 4 - Basic Household Characteristics, By Sex

Household characteristics	Men	Women	Total
Household size	3.27	4.09	3.71
Household dependency ratio (ratio of workers to total household size)	0.59	0.49	0.54
Percentage with:			
Other workers in the household	47.37	60.92	54.60
Other informal workers in the household	40.79	52.87	47.24
Other formal workers in the household	6.58	10.34	8.59
N	**76**	**87**	**163**

Source: Nakuru waste pickers IEMS survey data (2012)

Waste pickers in Nakuru are not highly educated, with education levels being low irrespective of the sex of the waste picker. On average, as table 5 shows, most of the respondents have attained at least some basic education. Overall, close to one third have completed primary school, though slightly over half of the waste pickers have at most primary education. Education levels for men were higher than for their female counterparts; almost 53 per cent of male waste pickers have some primary education or have completed it, compared to 61 per cent of female waste pickers. On the other hand, 22 per cent of the men have completed secondary but with no tertiary education, compared to 16 per cent of women. Interestingly, at the level of tertiary education there was no meaningful difference between men and women, with 4 per cent of male waste pickers and 5 per cent of female waste pickers having at least some tertiary education.

Table 5 - Respondents' Level of Education, By Sex (%)			
Level of Education	**Men**	**Women**	**Total**
None	7.89	5.75	6.75
Some primary	26.32	25.29	25.77
Completed primary	26.32	35.63	31.29
Some secondary	13.16	12.64	12.88
Completed secondary	22.37	16.09	19.02
At least some tertiary	2.63	2.30	2.45
Completed tertiary	1.32	2.30	1.84
Total	100.0	100.0	100.0
N	**76**	**87**	**163**

Source: Nakuru waste pickers IEMS survey data (2012)

Table 6 shows that within the waste pickers' households there is an overall average of 1.5 children per household and, male and female waste pickers have an average of 1.2 and 1.7 children respectively. The number of working-age adults is slightly higher in households of female waste pickers at 2.3 compared to that of male waste pickers at 2.0, as is the number of adults that completed secondary at an average of 0.8 and 0.7 respectively. While there is some difference in the two cases above, this is not significant.

Table 6 - Household Demographic Characteristics, By Sex			
Characteristics	**Men**	**Women**	**Total**
Number of children	1.17	1.74	1.48
Number of working-age adults	2.02	2.27	2.15
Number of pensioners	0.01	0.01	0.01
Number of adults that completed secondary school	0.67	0.78	0.73
N	**76**	**87**	**163**

Source: Nakuru waste pickers IEMS survey data (2012)

As shown in table 7, over 90 per cent of waste pickers' household depend on the informal sector for their livelihood. Almost 80 per cent of survey participants said their own informal employment sustained the household, while more than 14 per cent said the informal work of another household member was the primary source of household income. Men were more likely to be the main source of household income (at 93 per cent) than women (at 68 per cent). A quarter of the women waste pickers rely on earnings from informal work by other household members as the main source of household income. Only 6 of 163 respondents said formal sector wage employment was the main source of household income, implying in these homes that waste picking is only a supplemental income-generating activity for them.Waste pickers in Nakuru do not have access to other types of household income such as government grants, unemployment payouts, worker's compensation, retrenchment packages or pension. However, remittances were a source of additional household income for 8 per cent of male waste pickers and 5 per cent of female waste pickers. The size (or value) of the remittances was not established from the survey. It is possible that the remittances are receipts through the mobile money services. A small proportion of men (under 3 per cent) also reported rental incomes, showing that only male respondents own assets which are rented.

Table 7 - Main Source of Household Income, By Sex (%)			
Main Source of Household Income	**Men**	**Women**	**Total**
Your own informal business/enterprise/work	93.42	67.82	79.75
Earnings from informal work by other household members	1.32	25.29	14.11
Formal sector wage employment (respondent) in public sector	1.32	1.15	1.23
Formal sector wage employment (respondent) in private firm	0.00	2.30	1.23
Formal sector wage employment (other household members) in public sector	0.00	2.30	1.23
Formal sector wage employment (other household members) in private firm	0.00	0.00	0.00
Non-agricultural business of other household members	0.00	0.00	0.00
Social assistance/Pension/Other benefits	0.00	0.00	0.00
Rent, interest, dividends, savings	0.00	0.00	0.00
Charity, gifts and scholarships	0.00	0.00	0.00
Remittances	1.32	0.00	0.61
Alimony	0.00	0.00	0.00
Money from a religious organization	0.00	0.00	0.00
Other	2.63	2.30	2.45
Total	100.0	100.0	100.0
N	**76**	**87**	**163**

Source: Nakuru waste pickers IEMS survey data (2012)

1.3 Characteristics of Waste Pickers' Enterprises

The results in table 8 on employment status show that a very high proportion of the waste pickers are own account workers (over 93 per cent) – that is, they work for themselves. A small number of waste pickers work as members of a cooperative, three times as many women as men. Only one waste picker, a man, was an employer and only one waste picker, a woman, was an employee.

Table 8 - Status in Employment, By Sex (%)			
Status of employment	**Men**	**Women**	**Total**
Own account worker	96.05	90.80	93.25
Employer	1.32	0.00	0.61
Contributing family worker	0.00	0.00	0.00
Employee	0.00	1.15	0.61
Member of a cooperative	2.63	6.90	4.91
Casual day labourer	0.00	1.15	0.61
Industrial outworker	0.00	0.00	0.00
Total	100.0	100.0	100.0
N	**76**	**87**	**163**

Source: Nakuru waste pickers IEMS survey data (2012)

Getting help, whether paid or unpaid, with the work is not very common. However, unpaid family members are the most used when help is sought, and this is predominantly among the waste pickers who collect from the dumpsite. As table 9 shows, at the dumpsite 9 per cent of male waste pickers get help from unpaid family compared to 8 per cent of female waste pickers and it's only male waste

pickers (9 per cent) who used paid helpers. However, in areas outside of the dumpsite, help from unpaid family was only used by 3 per cent of the female waste pickers while 10 per cent of the male waste pickers used help from unpaid non-family. During the busiest time of the year there is an increase in the percentage of women (12 per cent) at the dumpsite who use family members as unpaid helpers, while the percentage of men who use family as unpaid helpers remains constant at 9 per cent even during the busiest period. During the busiest time of year there is an increase in the percentage of male waste pickers at the dumpsite (11 per cent) who pay people to assist them with their work.

Table 9 - Number of Paid and Unpaid Helpers, By Sex and Work Site (%)

	Dumpsite		Other	
	Men	Women	Men	Women
	Last Week			
Percentage with:				
Unpaid family	9.26	8.16	0.00	3.13
Unpaid non-family	0.00	0.00	10.00	0.00
Paid	9.26	0.00	0.00	0.00
	At the busiest time of the year			
Percentage with:				
Unpaid family	9.26	12.24	0.00	0.00
Unpaid non-family	0.00	0.00	10.00	0.00
Paid	11.11	0.00	0.00	0.00
N	**54**	**49**	**20**	**32**

Source: Nakuru waste pickers IEMS survey data (2012)

As table 10 shows, over half of the waste pickers indicated that their revenues have fallen over the past 12 months. The highest proportion of waste pickers indicating a decline in revenue was men collecting from other areas (63 per cent) and women in the dumpsite (67 per cent). Only about two fifths of waste pickers visiting the dumpsite have a second job compared to four fifths of waste pickers who do not visit the dumpsite. Women working as waste pickers in areas other than the dump are most likely to have a second job, with over 90 per cent of them doing some other kind of work.

Table 10 - Earnings and Work Stability, By Sex and Work Site (%)

	Dumpsite		Other	
Earnings	**Men**	**Women**	**Men**	**Women**
Revenue fallen over past 12 months	57.41	67.35	63.16	59.38
Would have liked more hours	68.52	69.39	60.00	56.25
Have a second job	40.74	44.90	70.00	90.63
N	**54**	**49**	**20**	**32**

Source: Nakuru waste pickers IEMS survey data (2012)

The waste pickers surveyed generally do not receive any support when they are not able to work. Women waste pickers at the dump were least likely to receive support, with 88 per cent reporting that no one assists when they cannot work. Among men, it was those who work outside the dump who were most likely to have no support. In both sexes and both locations, however, the majority of waste pickers did not have any support when they could not work; this implies that when unable to work, most waste pickers do not earn any income from their main economic activity. Those who were able to get support drew on several different options—but mainly from within families or informal networks. Male waste pickers at the dumpsite relied primarily on household members and informal workers, while women at the dumpsite relied more on household members. For waste pickers who

collect from other areas, the highest percentage receives support from friends who take care of the business in their absence, followed by other informal workers. Table 11 summarizes these results.

Table 11 - Types of Support When Unable To Work, By Sex and Work Site (%)				
	Dumpsite		Other	
Support	Men	Women	Men	Women
No support	68.52	87.76	75.00	65.63
An employee will take over	5.56	6.12	5.00	3.13
Household member will take over	9.26	12.24	0.00	6.25
Friend will take over	14.81	2.04	20.00	12.50
Another informal worker will take over	9.26	2.04	10.00	9.38
Will work more on return to work	0.00	0.00	0.00	0.00
N	54	49	20	32

Source: Nakuru waste pickers IEMS survey data (2012)

As shown in table 12, for those waste pickers who have a second work activity, the most common activity is offering services, followed by selling goods and wage earning. The type of second activity a waste picker is involved in varies by sex. Male waste pickers are mainly involved in wage earnings and the provision of services, while female waste pickers are mainly involved in services and selling goods for sale as supplementary sources of income. Other second activities include farming work, breeding animals and helping for free in a family business or farm.

Table 12 - Type of Second Work Activity, By Sex (%)			
Work	Men	Women	Total
Selling goods for sale	18.92	32.14	26.88
Producing goods for sale	0.00	8.93	5.38
Domestic cooking for a private individual or household	0.00	5.36	3.23
Services	35.14	58.93	49.46
Farming works and breeding farming animals	8.11	7.14	7.53
Working for tips	0.00	0.00	0.00
Working for commission	2.70	0.00	1.08
Wage earner	43.24	5.36	20.43
Helping for free in a family business or farm	5.41	3.57	4.30
Other	5.41	3.57	4.30
N	37	56	93

Source: Nakuru waste pickers IEMS survey data (2012)

1.4 Collective Description of the Sector Activities and Value Chains

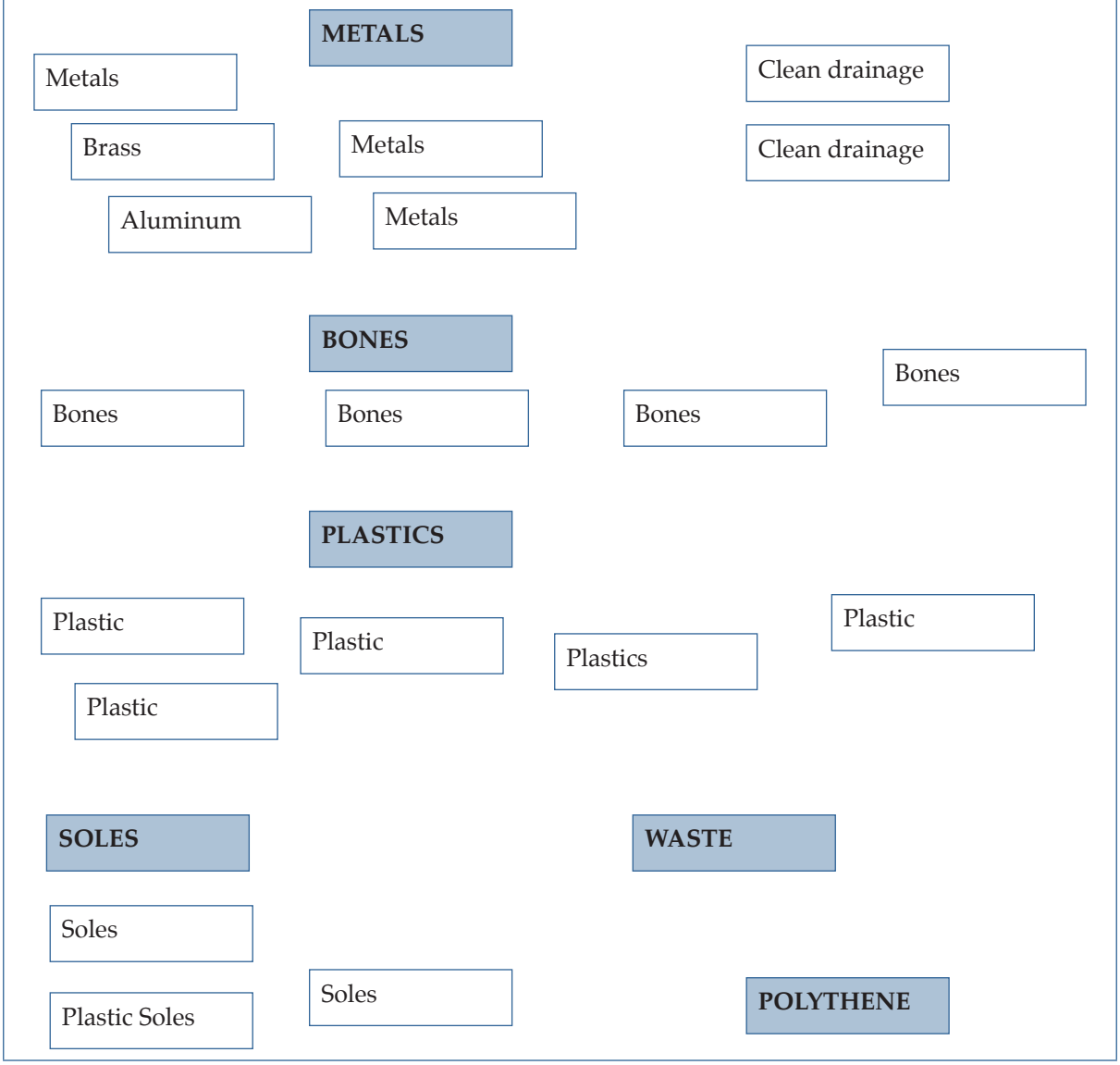
Waste pickers in Nakuru collect a wide array of materials. They pick items for sale, domestic and personal purposes, and at times exchange what they have collected with other waste pickers. The results from the participatory[2] exercises show that 28 types of items were picked. These include plastics, bones, papers, metals, old clothing, shoes and shoe soles, old newspapers, glass bottles, wood, PETs (plastic containers), paper bags, food, pipes, car tires, cooking pans, and polythene. However, in areas both in and outside the dumpsite, the three main items collected were metals, plastics and bones. These items were collected by both men and women waste pickers.

[2] For the IEMS, the qualitative methodology adapted a project planning and management method that encourages participatory planning and analysis. The tool was used to explore with participants the nature of their occupations.

There are some differences in how men and women work in the sector. First, the men monopolize the collection of high value metals. Only women who work at the dumpsite collect charcoal. The waste pickers were very resourceful in finding items of value to sell. As one woman working north of the highway noted, "[w]hen we find dress waste, we can remove the buttons and zips and sell to tailors" (Focus group with women, 25 August 2012). Outside the dumpsite there are waste pickers who also clean drains and provide a service in their communities.

Although there were 28 main types of items collected by waste pickers (figure 1), items such as plastics and bones were easily identified; others such as metals and soles include a range of other items. Metals included aluminium, brass and other metals. Soles on the other hand included soles for plastic shoes and used shoes made of other materials.

Figure 1 - Diagram Showing Typical Work Done By Waste Pickers



Source: Focus group with five men from the dumpsite and outside the dumpsite, 29 August 2012

The waste pickers were interestingly divided when asked to evaluate their expectations over the next year. Approximately a third of waste pickers expected to have better access to waste, to earn more money, and to collect more materials. However, 54 per cent expected to have worse access to waste, 44 per cent expected to collect less waste, and 50 per cent thought that they would earn less money. The majority (over 85 per cent) believe that the number of people entering the sector will increase. As the number of waste pickers increases, competition for materials will be higher, leaving the participants

with less to collect. Buy-back centres (enterprises that purchase recyclable materials from waste pickers), as shown in table 13, were also expected to increase in the next one year.

Table 13 - Expectations for Waste Collection Work over the Next Year (%)

	More	Less	Stay the same
Able to collect more, less or the same amount of waste over the next one year	36.81	43.56	6.13
Have access to waste over the next one year	31.90	54.60	6.75
Amount of money to receive for the waste that you collect over the next one year	33.74	49.69	4.29
Increased number of people collecting waste in your city over the next one year	85.28	7.98	3.68
Increased number of people (or buy-back centres) buying waste in the city over the next one year	54.32	12.35	20.99
N	**163**		

Source: Nakuru waste pickers IEMS survey data (2012)

Part 2: Changes in the Sector

2.1 Introduction

In this section we discuss how the driving forces of the economy, government policies and practices, and waste sector-specific value chains influence the working conditions of waste pickers in Nakuru. The discussion then shifts to the ways waste pickers respond, mitigate, and/or adapt to the adverse effects of the above driving forces. We finally consider the effectiveness of institutions and other actors in mediating the impacts of the driving forces.

2.2 Negative Driving Forces

The IEMS methodology identified four main categories of driving forces that were investigated in each city. These are captured in table 14 and are: macro economy, city and state policies and practices, value chain dynamics, and others. From the ranking, the value chain, especially low and fluctuating prices, was the most important negative driving force identified by waste pickers. This was followed by unfavourable health, safety, and working conditions. Conversely, competition from other waste pickers and lack of market information were the least important negative driving forces identified by the focus groups. Interestingly, none of the focus groups identified macroeconomic forces as being among the top three negative driving forces affecting their work.

Table 14 - Negative Driving Forces in the Informal Economy for Waste Pickers

Driving Force	Priority 1	Priority 2	Priority 3	Frequency
Macroeconomic	-	-	-	-
City/Urban Policy/Practice	**3**	**2**	**2**	**7**
Harassment	2	1	-	3
Poor service delivery	1	-	1	2
Waste management policy	-	1	1	2
National/Government Policy/Practice	**-**	**1**	**3**	**4**
Value Chain	**10**	**5**	**6**	**21**
Low and fluctuating prices	6	4	-	10
Insufficient materials	3	1	3	7
Exploitation by buyers	1	-	2	3
Competition from other waste pickers	-	-	1	1
Lack of market information	-	-	1	1
Other	**6**	**6**	**8**	**20**
Weather	-	2	2	4
Harassment by society	1	2	3	6
Health, safety and working conditions	5	2	3	10

Source: Grouping, listing and ranking from 15 focus groups

Although important, it is interesting to note that none of the groups identified issues related to the national government as their top problem. By contrast, the three times that the issue of harassment by the municipality was identified, these groups felt very strongly about this problem, twice ranking it as their number one overall problem and once ranking it as the second most important problem. However, the national government was reported to be a negative force in relation mainly to harassment by the police employed by the national government in Kenya. In a focus group comprising two men and three women from both outside and inside the dumpsite, one man explained, "The police also disturb the buyers and the waste pickers when they find you with a piece of metal. They then go to sell the metal and take the money for themselves."

Another waste picker elaborated that the problem of police harassment was exacerbated by lack of recognition by government, noting, "We are not recognized, and therefore our services are not paid for adequately. If you don't have proper identification you are mercilessly harassed and even arrested" (Focus group with three women and two men, from both inside and outside dumpsite).

2.2.1 Macroeconomic Forces

Macroeconomic policies are made at the national level and affect all workers in general; however, the informal waste pickers identified aspects that affect them at the city level, some of which are linked to macroeconomic conditions. For instance, issues of price instability at the buy-back centres are affected by changes in prices at the macro level and may be a mechanism of covering additional costs by the buy-back centres. High transport costs related to macroeconomic conditions led buy-back centres to not transport material.

The waste pickers did not identify any difficulties or obstacles directly linked to macroeconomic conditions in the focus group discussions. However, this does not necessarily mean that changes in macroeconomic conditions did not negatively affect their work. Even though generation of waste and the type of waste was driven by macroeconomic advancement, waste management at the macro level was not given much prominence.

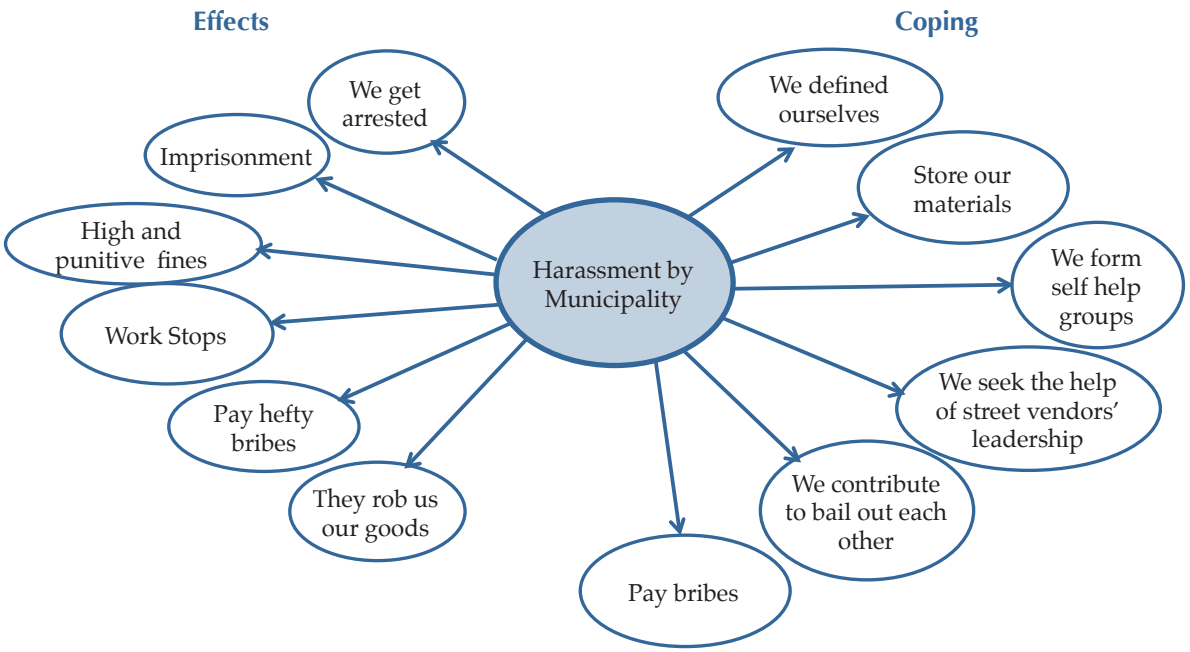
2.2.2 Government Policy and Practices, City and State Level

As shown in table 14, the research participants prioritized a number of different negative forces related to government policy and practices at the city and state level. These included: harassment by the municipality; poor service delivery and infrastructure; municipal waste management policy and national government. These negative forces affect waste pickers in a variety of ways. Figure 2, for instance, shows how two men and four women said they were affected by harassment, and indicates the strategies they adopted to cope with this incessant harassment.

Explaining the problem of harassment, one woman waste picker noted that, "you'll be arrested, charged high fines and if you cannot pay and sometimes even when you pay the fines, you are imprisoned." Another male waste picker added, "You are also mercilessly beaten up."

Harassment negatively affected their livelihood: "When you are arrested you cannot work and that is difficult." Another woman added, "If you use money to pay fines you collapse as your business is taken back to square one! Paying bribes is inevitable. That is the way you can stay working. You have got to oil the system!" Finally, another male waste picker added, "I cannot pay those fines. So when I am arrested, I serve at the pleasure of the government as an inmate."

Figure 2 - Coping with Harassment and its Effects



Source: Focus Group with 2 men and 4 women from outside dumpsite, 3 September 2012

2.2.3 Value Chain Dynamics

In the opening to section 2.2, we note that the value chain was the most important of the driving forces identified by the waste pickers. By far the most important difficulty identified by the focus groups was low and fluctuating prices. Two thirds of the focus groups prioritized fluctuating prices in their top three problems, and 6 of these 10 groups said that it was their most important problem. A focus group of men outside the dumpsite noted that they were sometimes even forced to sell their materials: "When the buying prices are reduced, we also have cartels called brokers who intervene and force our colleagues to sell to them" (Focus group with five men, 31 August 2012).

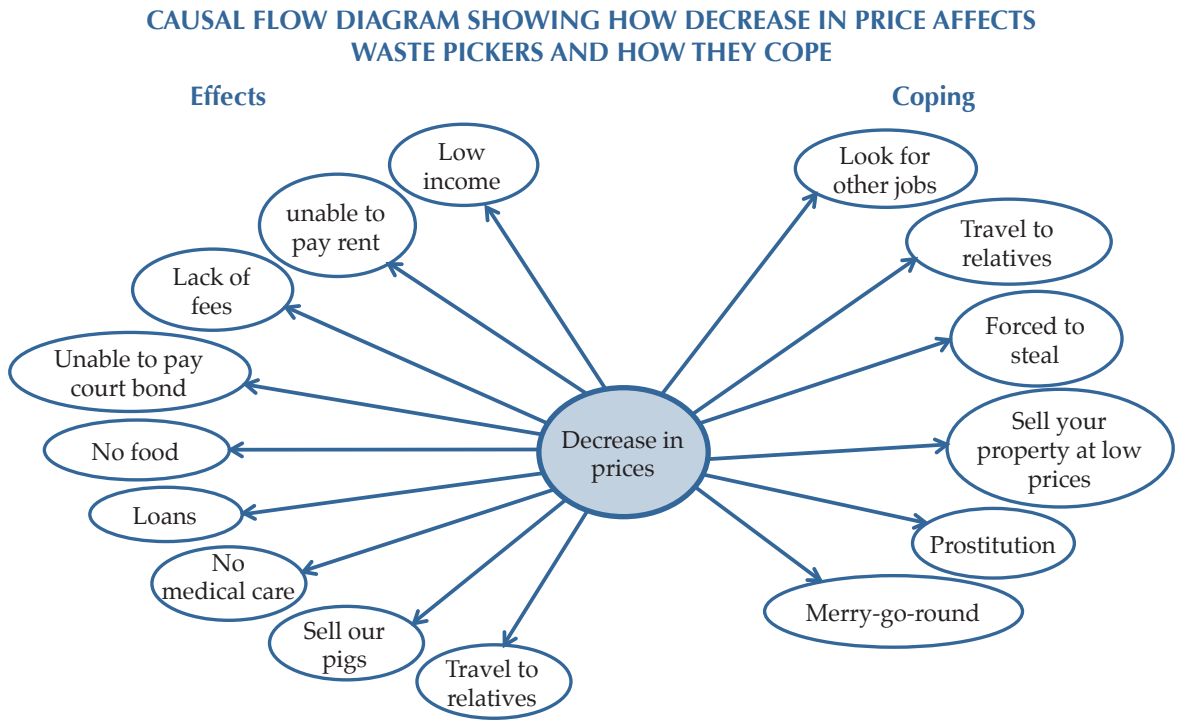
After the low and fluctuating prices, inadequate availability of materials was the second most important difficulty in the value chain. This was prioritized seven times as being one of the top three difficulties or obstacles faced by the waste pickers. One woman in a focus group of five women drawn from the dumpsite and outside the dumpsite explained, "You are forced to walk for long distances. You also waste a lot of time: you spend too much time searching for materials. And you can also lose precious customers. If the buyers come to your place several times and you do not have the materials they need, they find other sources" (Focus group with women inside and outside the dumpsite, 22 August 2012).

The other difficulties named that relate to value chain dynamics included exploitation by buyers, competition from other waste pickers, and lack of market information. According to women outside the dumpsite, buyers exploited the waste pickers by biasing their scales (Focus group with five women, 25 August 2012). The groups that raised competition between waste pickers noted how lack of unity negatively affects them. As one woman waste picker in a group of men and women from both the dumpsite and outside noted, "Sometimes we fight over materials and both of us eventually lose" (Focus group with three women and two men, 6 September 2012). This competition also affects them when they go to sell.

Further analysis of how low and decreasing prices affected waste pickers yielded strikingly similar results. For instance, in a discussion with men waste pickers from the dumpsite, one of them noted, "When the price of our products reduces, our income reduces, and we are unable to pay rent" (Focus group with five men, 27 August, 2012). Another added, "You cannot defend yourself if you don't have money. Without money, you have no say." Another explained: "Providing for basic needs such as food and clothes is problematic." He continued, "There is so much borrowing to be able to survive." Low prices affected their families: "If your child falls sick, you are not able to take them to hospital."

Figure 3 shows how this group of men responded to decreasing prices and the different ways in which these reducing prices affected them.

Figure 3 - Coping with Decrease in Prices and its Effects



Source: Focus Group with 5 men, on 27th August 2012

A male waste picker from outside the dumpsite elaborated: "There is also high competition from other waste pickers. The buyer is sometimes forced not to buy some materials because the materials are too much for them to buy" (Focus Group with three men and two women, 4 September 2012). Women from Gioto dumpsite added that this competition took on a gendered form. As one woman explained, "The boys at Gioto have taken the vehicles as if they belong to them" (Focus group with five women, 21 August 2012). Another woman in the same focus group discussion added, "Sometimes these boys steal from us our products/goods if [we] don't keep them well."

To establish the effect of the negative driving forces, waste pickers were asked questions that compared their activities at the time of the survey with the same period last year. Over half of them reported that they collected less, have less access to waste, and get less amount of money for the waste collected compared with the same time last year. At the same time, almost 90 per cent of waste pickers think there are more people collecting waste in the city than last year, while only about one in every two waste pickers think there are more people buying waste compared with the same time last year while two in every five think that the number of buyers has remained the same. Table 15 presents the results in the discussion above.

Table 15 - Changes in Waste Collection Work over the Past Year (%)			
Changes in Waste Collection	**More**	**Less**	**Stay the same**
Amount of waste collected compared with this time last year	30.06	58.90	9.82
Access to waste compared with this time last year	28.22	62.58	8.59
Amount of money received for the waste that you collect compared with this time last year	19.02	66.26	12.27
Number of people collecting waste in your city compared with this time last year	89.57	4.29	3.68
Number of people (or buy-back centres) buying waste in your city compared with this time last year	46.01	10.43	40.49
N	**163**		

Source: Nakuru waste pickers IEMS survey data (2012)

To further understand their problems, table 16 shows that about four in every five waste pickers reported large variations in sales/income, low profits and too many competitors. However, with respect to location of operation of waste pickers, low profits were mentioned by over 80 per cent at the dumpsite compared to 75 per cent who worked outside the dumpsites, while those proportions were switched when it came to the issue of too many competitors. Other problems that appeared to be important for waste pickers in the dumpsite include there being too few customers for materials or goods and customers rejecting products, both of which were mentioned by approximately half of the waste pickers.

Table 16 - Problems of Product Markets and Competition, by Work Location (%)			
Problems	**Dumpsite**	**Other**	**Total**
Too few customers of materials or goods	50.49	42.31	47.74
Large variations in sales/income	81.55	80.77	81.29
Low profits	80.58	75.00	78.71
Customers reject products	53.40	38.46	48.39
Don't know what customers want	33.98	34.62	34.19
Customers don't pay their debts	22.33	19.23	21.29
Distance from markets	34.95	15.38	28.39
Too many competitors	75.73	84.62	78.71
N	**103**	**52**	**155**

Source: Nakuru waste pickers IEMS survey data (2012)

The waste pickers normally sell their products to buy-back centres. As shown in table 17, 48 per cent of the waste pickers indicated that the buy-back centres where they sell recyclables have closed in the last 12 months, but a larger proportion – about 62 per cent – indicated that they heard about opening of other buy-back centres. This means that the waste picking sector has grown. The existence of more waste pickers invariably affects the waste available and income that can be earned.

Table 17 - Status of Buy-Back Centres (%)			
Status	**Dumpsite**	**Other**	**Total**
Buy-back centres, or shops where you sell your recyclables, have closed in the last 12 months	52.43	38.46	47.74
Heard about the closing of other buy-back centres where recyclables are sold	47.57	25.00	40.00
Heard about the opening of other buy-back centres where recyclables are sold	60.19	65.38	61.94
N	**103**	**52**	**155**

Source: Nakuru waste pickers IEMS survey data (2012)

2.2.4 Other Driving Forces

Table 14 also shows that poor health and safety and working conditions were prioritized most frequently. Focus group participants identified a number of health and safety hazards and concerns. A male focus group participant painted a vivid image, noting: "When you are infected by some of this waste, you die. The waste is dangerous. It is not good. It is not attractive. Our workplace smells. It is foul. The fumes and other smoke endanger our lives because our lungs are subjected to toxic fumes" (Focus group with five men, 27 August 2012). Participants further noted that they got burned by chemicals (Focus group with five women outside the dumpsite, 23 August 2012), and that they need protective gear as their work is hazardous (Focus group with two men and three women outside dumpsite, 5 September 2012).

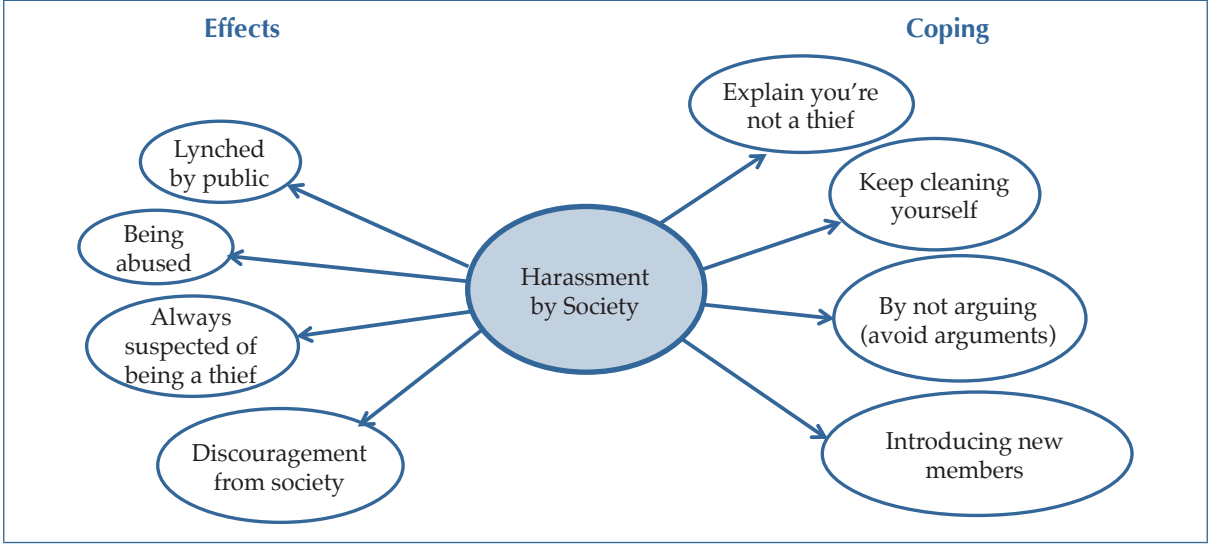
One particularly worrying issue was the dumping of medical waste at Gioto. Waste pickers frequently encountered syringes, blood, cotton pads, and medicines. According to the men from the dumpsite, the dumping of medical waste at Gioto results in loss of property, air pollution, disease and even death.

Harassment and discrimination by society and poor weather were also identified as key issues affecting the waste pickers. The research participants were emotional as they discussed their relationship with the public. As one woman explained, "People see us and just begin laughing as if we are mad people! We are really discouraged and humiliated" (Focus group with four women, 22 August 2012).

A number of the focus group participants commented on how they are seen as thieves. A man from outside the dumpsite explained, "Members of the public discriminate against us. They think we are thieves because we are always dirty when working" (Focus group with four men outside the dumpsite, 29 August 2012). A woman in another group said, "You are called a thief. We are always being discouraged. People do not think our work is anything" (Focus group with four women from outside and at the dumpsite, 22 August 2012). Another added, "Yes some of us are indeed thieves who pretend to be waste pickers. That means that we are always suspected to be thieves even if it is a few. Many times we are harassed; they [members of the public] always ask us to empty our bags and then fill them up again. It is very humiliating."

Figure 4 shows how these women visualized the effects of harassment and the strategies they adapted to cope with the problem.

Figure 4 - Coping with Harassment by the Society and its Effects



Source: Focus Group with 4 women from dumpsite and outside dumpsite, 22 August 2012

In addition to the above driving forces, it was also established during the survey that there are waste pickers who did not work a usual week the week before they were interviewed. The main reasons most of them gave are due to personal or family reasons, reduction or suspension of work, and illness or accident. However, specific reasons varied by location. Those operating from the dumpsite mentioned weather, care for sick or that they found other work, while those operating from other locations mentioned maternity and that there were fewer materials available from the selective locations as the reason they did not work. The issues mentioned highlight the challenges faced by waste pickers that affect their work.

2.3 Positive Driving Forces

As with the negative driving forces, the focus group discussions with waste pickers did not identify any macroeconomic driving force. However, the research participants identified other driving forces that positively affected their work. Table 18 summarizes the driving forces identified.

Table 18 - Positive Driving Forces in the Informal Economy for Waste Pickers

Driving Force	Priority 1	Priority 2	Priority 3	Frequency
Value Chain				
Availability of materials	5	6	8	19
Price	3	3	-	6
Market	3	1	2	6
City/urban policy	**-**	**1**	**2**	**3**
Other				
Community	1	1	2	4
Prayers	1	1	-	2
Capacity of group (for waste picker)	1	-	2	3
Weather	-	1	-	1
Capacity of waste picker	-	1	-	1

Source: Grouping, listing and ranking from 15 focus groups

The analysis of the results in table 18 shows the value chains were the most important positive driving force for the waste pickers. Availability of materials, ranked five times as first priority and six times as second priority, is the most significant of the value chain issues. A woman waste picker from

outside the dumpsite observed; "If materials are available, then you are able to sell more and get more income. When we have more buyers, we'll get a better price" (Focus group with four women and two men, 3 September 2012).

The city and urban policy driving force was mentioned three times – once as a second priority and twice as a third priority. The other important driving forces the waste pickers identified included prayers, the capacity of groups of waste pickers, the capacity of individual waste pickers to work and favourable weather.

2.4 Responses

Table 19 summarizes the typical responses to the negative driving forces identified by the participants. The results show that these responses were overwhelmingly personal, with far fewer responses at an organizational level and virtually no household responses. These results reflect two main aspects about waste picking and pickers in Nakuru. First, as mentioned in the introduction to this report, the waste picking sector remains largely unorganized, with only a few relatively new organizations. Second, because the sector is undeveloped, waste pickers still greatly depend on individual initiative to deal with any changes in the sector.

Table 19 - Typical Responses to Negative Driving Forces

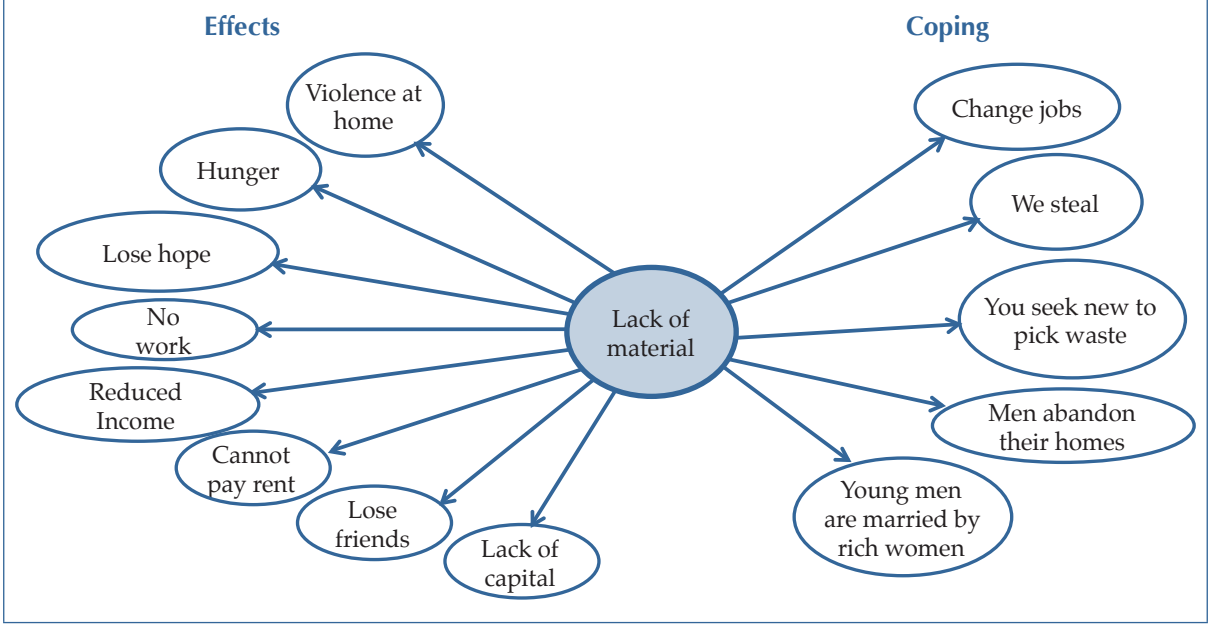
Driving Force	Individual	Household	Organizational	Total
Macroeconomic	-	-	-	-
City/Urban Policy/Practice	**10**	**-**	**10**	**20**
Harassment	5	-	4	9
Poor service delivery	2	-	3	5
Waste management policy	3		3	6
National/Government Policy/Practice	**1**		**2**	**3**
Value Chain	**47**	**3**	**5**	**55**
Low and fluctuating prices	33	1	5	39
Insufficient materials	9	2	-	11
Competition from other waste pickers	4			4
Lack of market information	1	-		1
Other	**31**	**-**	**5**	**36**
Harassment by society	11	-	1	12
Health, safety and working conditions	20	-	4	24
TOTAL	**89**	**3**	**22**	**114**

Source: Grouping and ranking from 15 focus groups

As figure 3 shows, the main responses to fluctuating prices were personal. These included: seeking other jobs, relocating to live with relatives, stealing, engaging in prostitution, and selling personal/household assets. Further, some waste pickers joined saving groups popularly known as "merry-go-round". Through its provision of emergency loans, the merry-go-round provides the main organizational response that waste pickers use. Access to such loans was critical for their survival during times of low and fluctuating prices.

The lack of materials also adversely affects waste pickers. As shown in figure 5, such effects included increased violence at home, hunger, and increased inability to meet basic needs. The response to lack of materials was similar to responses to fluctuating prices. For instance, two men and four women from the dumpsite and outside the dumpsite revealed that whenever there was a shortage of materials, some changed jobs, others engaged in theft and prostitution. Some abandoned their homes and older, richer women married young men.

Figure 5 - Coping with Lack of Materials and its Effects



Source: Focus Group with 2 men and 4 women from dumpsite and outside dumpsite, 6 September 2012

Further analysis of the results from the discussions revealed two interesting responses related to men making decisions when materials became scarce. First, it was reported that some men grappled with whether to continue to be part of their households or abandon their families, and others chose to marry richer women. It was not unclear whether the men alone, or whether their families were involved in making these decisions. What was clear was that problems related to their work were leading waste pickers to take decisions that affected their household structures.

The negative driving forces and other challenges to waste collection as an economic activity may have led to a fall in revenues, which about three in every five waste pickers reported. The waste pickers were asked to give the main ways by which they cope with fallen revenues. Irrespective of location, 67 per cent of them cut down on their expenses. The other common ways of coping included finding other work, borrowing money and lengthening the work day. Considering the responses by location, more waste pickers outside the dumpsite found other work (55 per cent) compared to those in the dumpsite (39 per cent), while borrowing money and lengthening the work day was more popular in the dumpsite. These strategies corroborate findings from the focus groups. For instance, a woman in a focus group with waste pickers from outside the dumpsite noted: "You will change your line of work. You go to wash clothes for someone or do household chores. Some people go back to their home of birth. You also move to another location in town where waste is fairly available" (Focus group with two men and four women from outside the dumpsite, 6 September 2012).

2.5 Intermediary Factors

2.5.1 Institutions and Actors

In the focus groups the waste pickers were asked to identify institutions that affect their work. As waste picking is not recognized in the current official plans of Nakuru it is not surprising that government institutions did not feature prominently in the focus group discussions. The institutions that the waste pickers did identify were closely related to the driving forces. It is important to note that this does not necessarily mean that these are the only institutions that play a role, as there may be other institutions whose role the waste pickers are not aware of.

In this study, the terms *institution* and *actors* were used broadly to include organizations and even individuals who had a positive and/or negative role on the work of waste pickers. The positive and negative roles were analyzed in terms of how such institutions and actors respectively helped or hindered the work of waste pickers. These institutions and actors included those both inside and outside Nakuru. Six main types of institutions including private businesses, the city, community entities, national government, NGOs, and others were identified. Table 20 shares the details of these institutions and actors.

Table 20 - Profile of Important Institutions and Actors for Waste Pickers	
Type	**Institution/Actor**
Private businesses	Waste collectors, saw mill, supermarkets, clubs/hotels, jua kali artisans, schools, offices, managers of companies, factories, industries, slaughter house, buyers of waste, bars, games and tournaments, landlords, traders, Kenya Pipeline
City	Municipal Council of Nakuru, Town Clerk, Councilors
Community entities	Residents, citizens, ma'boyz (young male waste pickers), watchmen, tenants, street families, thieves, merry-go-rounds, farmers, churches, rich people, schools
National government	MP, chief, District officer, schools, Police, Administration Police, National Environment Management Authority (NEMA), Lanet Barracks, National AIDS and STIs Control Programme (NASCOP), village elders
NGOs	Akiba uhaki, PRO-Mara programme, Swiss Contact
Others	White men

Source: Compiled from institutional maps and matrices from 15 focus groups

Although the city was important, it was the private business, community and national government institutions and actors that were predominantly identified by the waste pickers. There are certainly other types of institutions found in Nakuru, but for the research participants those listed in table 20 were the ones that they perceived as important in helping them in their work as waste pickers.

To appreciate the different ways in which these institutions helped and/or hindered the work of waste pickers, further analysis is presented in table 21. The analysis shows that business, the municipality, and buyers were spoken of most times respectively. Businesses, clearly the most important, provide materials but also sometimes were reported to unjustifiably limit waster pickers' access to waste materials. The municipality, like businesses, provides and limits access to waste both at the Gioto dumpsite and throughout the Nakuru town. But the municipality was also identified as engaging in gratuitous violence through excessive harassment of waste pickers. Finally, the buyers engaged in unfair trade practices such as use of faulty weighing scales and offering low and fluctuating prices.

Schools, churches, hospitals, hostels and hotels, manufacturers, and environmental groups were the only institutions and actors that waste pickers said only helped and did not hinder them. Although they were mentioned fewer times than businesses, the municipality, and buyers, it is crucial to note their unambiguously positive role. These institutions mainly provide waste materials. However the churches were noted for providing prayers, spiritual support, and other moral encouragement that waste pickers valued for the success of their work.

Table 21 - Importance of Institutions				
Institution	Number of times mentioned	Help (+)	Hinder (-)	Help and Hinder (+/-)
Municipality (including elected and appointed officials)	16	1	6	9
Garbage collectors	3		2	1
Chiefs and village elders	4			4
Waste picker groups	4	2		2
Waste pickers (too much competition, need to organize)	1			1
Ma'boyz and male waste pickers (young boys)	3		2	1
Schools, churches and hospitals	7	7		
Hostels and hotels	3	3		
Police	5		1	4
Factories and businesses that are sources of waste (including traders)	26	19	2	5
Watchmen	2		2	
Environmental groups and NGOs	5	5		
Buyers	13	5	1	7
Thieves	3		3	
National environmental agency	2	1		1
Landlords and tenants	4			4
Sonko (wealthy people)	3		2	1
Community	5	1	2	2
National government	2	1		1
Manufacturers/recyclers	1	1		

Source: Compiled matrices of institutional interventions from 15 groups

In the survey, waste pickers identified generally the same institutions as playing a role in the sector. The differences between the qualitative and quantitative portions of the study are minimal and include institutions such as trade unions.

Within the survey, a similar question was asked to establish the role of a number of organizations as to whether the organizations have been "helpful" or "unhelpful". Irrespective of sex and location greater percentage of the waste pickers (60 per cent) mentioned other waste pickers and MBOs as helpful. Within the dumpsite, 13 per cent of men and 14 per cent of women mentioned local government as being helpful, and 22 per cent of men and 14 per cent of women mentioned national government as helpful. This could be because of their role in disposing waste at the dumpsite and regulations on waste disposal that are favourable to the waste pickers in the dumpsite. It is, however, important to note that far larger percentages of waste pickers at the dumpsite identified these two spheres of government as being unhelpful: 76 per cent of men and 57 per cent of women identified national government as unhelpful, while 65 per cent of men and 61 per cent of women identified local government as being unhelpful.

Waste pickers in other areas mentioned NGOs, police and local government as having been helpful. The identification of unhelpful institutions shows commonality of responses irrespective of the location. Most waste pickers mentioned supermarkets or large retailers, police, NGOs, national government and local government as unhelpful. Supermarkets or large retailers came first for waste

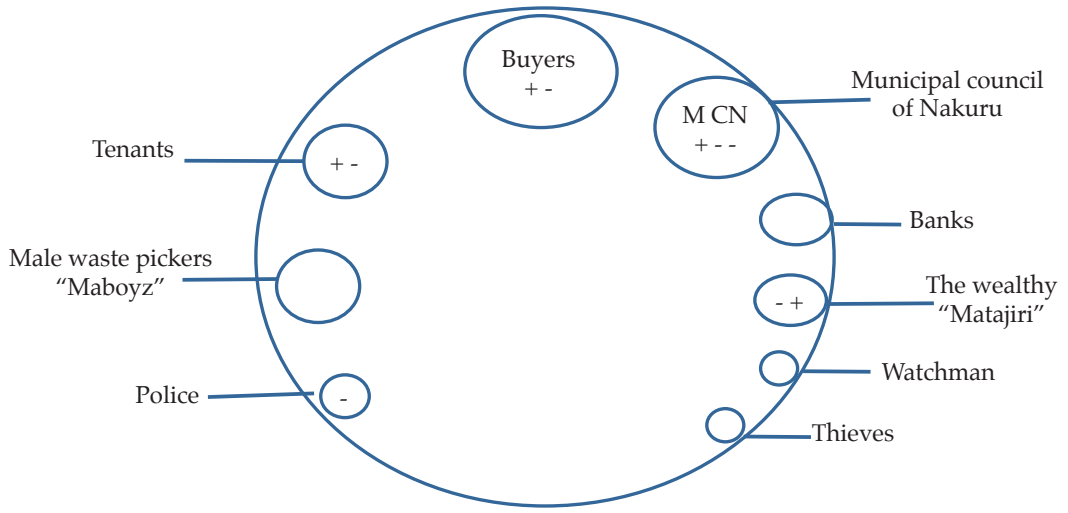
pickers in the dumpsite while the national government came first for waste pickers in other areas. Table 22 details these results.

Table 22 - Helpful and Unhelpful Organizations by Sex and Work Site (%)				
Helpful				
	Dumpsite		**Other**	
Organization	**Men**	**Women**	**Men**	**Women**
National government	12.96	14.29	5.00	15.63
Local government	22.22	14.29	30.00	9.38
NGOs	5.56	6.12	20.00	15.63
MBO	66.67	77.55	70.00	78.13
Police	9.26	6.12	20.00	15.63
Other waste pickers	72.22	61.22	60.00	68.75
Trade union	0.00	0.00	0.00	0.00
Waste pickers' coop	0.00	0.00	0.00	3.13
Supermarkets or large retailers	9.26	2.04	10.00	0.00
Unhelpful				
	Dumpsite		**Other**	
Organization	**Men**	**Women**	**Men**	**Women**
National government	75.93	57.14	80.00	56.25
Local government	64.81	61.22	60.00	62.50
NGOs	77.78	61.22	60.00	50.00
MBO	16.67	12.24	20.00	15.63
Police	79.63	59.18	60.00	50.00
Other waste pickers	25.93	32.65	25.00	21.88
Trade union	62.96	44.90	55.00	37.50
Waste pickers' coop	62.69	42.86	55.00	34.38
Supermarkets or large retailers	77.78	65.31	65.00	65.63
N	**54**	**49**	**20**	**32**

Source: Nakuru waste pickers IEMS survey data (2012)

In focus groups, the participants drew pictures that showed their perceptions of the relative importance of institutions and actors by the sizes of the circles. For instance, in figure 6, men and women from the dumpsite and outside the dumpsite showed the buyers, with the biggest circle, as the most important institution. Conversely, the thieves and watchmen were depicted within the smallest circles. Since all the institutions were located inside the biggest circle that represents Nakuru, for this group, not only were all the institutions that affected their work located inside Nakuru, they agreed that there were no significant institutions worthy of mention outside the city.

Figure 6 - Important Institutions for Waste Pickers



Source: Focus Group with 3 men and 4 women from dumpsite and outside dumpsite, 6 September 2012

The plus signs in the institutions were used to show the relative positive importance of the respective institutions, while the minus signs denoted the extent to which the institution hinders the work of waste pickers. Therefore, figure 6 indicates that police is the only institution that invariably hinders the work of waste pickers. Similarly, the municipality, although recognized for helping waste pickers, was seen by these men and women as an institution that more often greatly hinders their work compared to the other institutions they identified.

From the survey, gender affected the identification of both helpful and unhelpful institutions. Men mentioned other waste pickers as most helpful while women mentioned MBOs. For the qualitative part, factories have been identified as the most helpful, which confirms the finding on the value chain. Institutions mentioned as most unhelpful in the survey by male waste pickers were national government; female waste pickers more often mentioned supermarkets and large retailers, as well as local government. In the qualitative portion, the institution mentioned as most unhelpful was the municipality.

2.5.2 Role of Institutions in Supporting Waste Pickers

In table 21, we showed the perceptions of importance and helpfulness of institutions that help and hinder the work of waste pickers in Nakuru. In addition to specifying the ways in which institutions are helpful, in this section we share participants' views of how these institutions could enhance their helpfulness to the work of waste pickers. Table 23 shares how waste pickers in one focus group identified how institutions help and hinder their work, and what the waste pickers feel they should do instead.

Table 23 - An Illustrative Perspective of Helpfulness of Institutions

Institution	How they help	How they hinder	What solution should they provide
Municipal Council	- they bring waste to the dumpsite	- they harass us	- MCN should work with us - stop harassing us - bring more waste to the dumpsite
The boys		- harass us – women - beat us – women - prohibit us from picking waste	- stop harassing us - treat us humanely - regard us as people - collaborate with us
Police		- arrest us unnecessarily - they beat us - forcibly take our materials - harassment	- stop taking our materials - we should work together

Table 23 - An Illustrative Perspective of Helpfulness of Institutions			
Institution	**How they help**	**How they hinder**	**What solution should they provide**
The rich people		- they abuse us - threaten our lives	- let's work together - they should be humane in their dealings with other people
Thieves		- steal	- stop stealing
Watchmen		- also steal from us - they chase us	- stop this hatred
Tenants		- abuse us - rebuke us	- let's work together
Buyers	- they buy our materials	- tamper with weighing scales	- stop tampering with weighing scales - increase the buying price - give us small loans

Source: Focus Group with three men and three women, 1 September 2012

Surprisingly, virtually all the proposals made by waste pickers in table 23 revolve around promoting and securing the rights and dignity of waste pickers. For instance, for the municipality, which was reported to perpetually harass waste pickers, one of the men noted, "We would like the MCN to collaborate with us." It was not different for the police or the rich people in the community. Jokingly, another man in the group observed, "The police should stop taking waste pickers' materials. They should work with us." He continued, "The rich people should be human and stop looking at themselves like they live on an island" (Focus group with three men and three women from dumpsite and outside the dumpsite, 1 September 2012).

The main problems with infrastructure and institutional obstacles reported by the waste pickers are analyzed in table 24. The greatest of these are occupational hazards affecting the safety of waste pickers (99 per cent), poor access to small business support (52 per cent), poor access to infrastructure (51 per cent) and cost of infrastructure (51 per cent). The order of problems mentioned varies based on the location of the waste pickers. For instance, while occupational hazards affecting the safety of waste pickers is mentioned by more than three quarters of all waste pickers, those in the dumpsite also mention poor access to infrastructure, cost of infrastructure, inadequate access to toilets or rubbish removal and poor access to small business support more than waste pickers in other locations.

This analysis, together with our review of the Nakuru District Development Plan 2008-2012, shows that waste pickers are excluded from the formal infrastructure planning. This is confirmed by most waste pickers who stated occupational hazards as a problem (77 per cent).

Table 24 - Infrastructure and Institutional Obstacles, By Work Location (%)			
Obstacles	**Dumpsite**	**Other**	**Total**
Poor access to infrastructure (electricity, water, lights)	62.75	26.92	50.65
Cost of infrastructure (electricity, water, telephone)	61.76	28.85	50.65
Inadequate business space	16.67	17.65	16.99
Expensive rent	0.00	0.00	0.00
Inadequate or lack of storage space	13.73	21.15	16.23
Inadequate access to toilets or rubbish removal	56.86	26.92	46.75
Poor access to small business support centres	54.90	48.08	52.60
Can't obtain a business licence	46.53	28.85	40.52
Occupational hazards affecting safety of waste pickers or self	78.64	75.00	77.42
Treatment by the local authority	36.89	34.62	36.13
N	**103**	**52**	**155**

Source: Nakuru waste pickers IEMS survey data (2012)

To assess the awareness and understanding of rules and regulations and their implementation, the waste pickers were asked whether they agree with the statement "In general, the municipal rules and regulations which determine where and when I can sort or collect waste/recyclables are clear and easy to understand." The responses from the waste pickers show that up to 66 per cent of them either tend to disagree, disagree in most cases, or fully disagree with the statement. Evidently, the rules and regulations are not clear to most of them. At the same time, 59 per cent of the waste pickers indicated that they tend to disagree, disagree in most cases or fully disagree with the statement that "municipal rules and regulations are enforced fairly and equally for all waste pickers or sorters". Only 14 per cent of waste pickers agreed with the statement.

Table 25 presents data on the waste pickers' perceptions about the support they receive from local authorities. It demonstrates that only 23 per cent indicated that city officials, police and local authorities provide support to them. Almost 72 per cent of the waste pickers indicated that waste services have become more privatized in the last two years, and 66 per cent indicated that they believe waste services will become more privatized in the next two years. Privatization of waste services implies reduced availability and access to waste by the waste pickers working outside the dumpsite. This is related to the value chain in the previous analysis. As previously discussed (table 14), the value chain factors were the most critical negative driving forces. These included shortage of materials, increased competition from other waste pickers and increased privatization of waste collection.

Despite their low understanding about rules and regulations, only 27 per cent of the waste pickers feel that the laws or regulations that affect their work have benefited them, while 44 per cent perceive the laws to be limiting to their work. A slightly smaller proportion has a positive outlook that the government will improve waste pickers' working conditions in the next two years.

Table 25 - Perceptions of Support from Local Authorities (%)

Support	Agree (%)
City officials, the police or other local authorities provide support to you in your work as a waste picker	23.31
Government, in the next two years, will be able to improve the working conditions of waste pickers such as yourself	43.56
Local laws or regulations that affect your work as a waste picker benefit you in some way	26.99
These local laws or regulations limit your work as a waste picker in some way	44.17
General public recognizes and appreciates the work you do as a waste picker	32.52
Waste services have become more privatized in the last two years	71.78
Waste services will become more privatized in the next two years?	66.67
N	**163**

Source: Nakuru waste pickers IEMS survey data (2012)

2.5.3 Membership-Based Organizations

During the course of this study, it was quickly evident that waste pickers in Nakuru had only recently begun to organize, thus, there was no strong MBO. Most of the research participants did not mention or discuss waste picker organizations. Surprisingly, even the focus group held with leaders of waste picker groups did not identify waste picker organizations as relevant. The waste picker leaders said that the Kenyan National Alliance of Street Vendors and Informal Traders (KENASVIT), which supported waste pickers to organize, also assisted them to gain recognition. Although KENASVIT is an MBO, the waste picker leaders see it as an NGO.

Waste picker groups were mentioned by only three focus groups, which highlights the weak level of organization in the city. A focus group of men and women from outside the dumpsite said that the groups they belong to help them to exchange ideas, reduce idleness and provide loans and savings. The women from the dumpsite said that their group helps them speak in one voice and assists them to help one another address problems. They also noted, however, that their group was affected by a lack of cooperation.

A woman from outside the dumpsite acknowledged the need for groups to be proactive:

> "Groups should prepare ID cards for members so that the members are recognized. The groups should also put more efforts on educating the society on the value of a clean and safe environment. There are youth who engage in risky ventures such as prostitution, theft, and drug trafficking. If we engage in waste picking and are paying our bills, it is something they can also do. Groups should also invest in waste management equipment" (Focus group with five women from outside the dumpsite, 25 August, 2012).

Part 3: Linkages and Contributions

3.1 Introduction

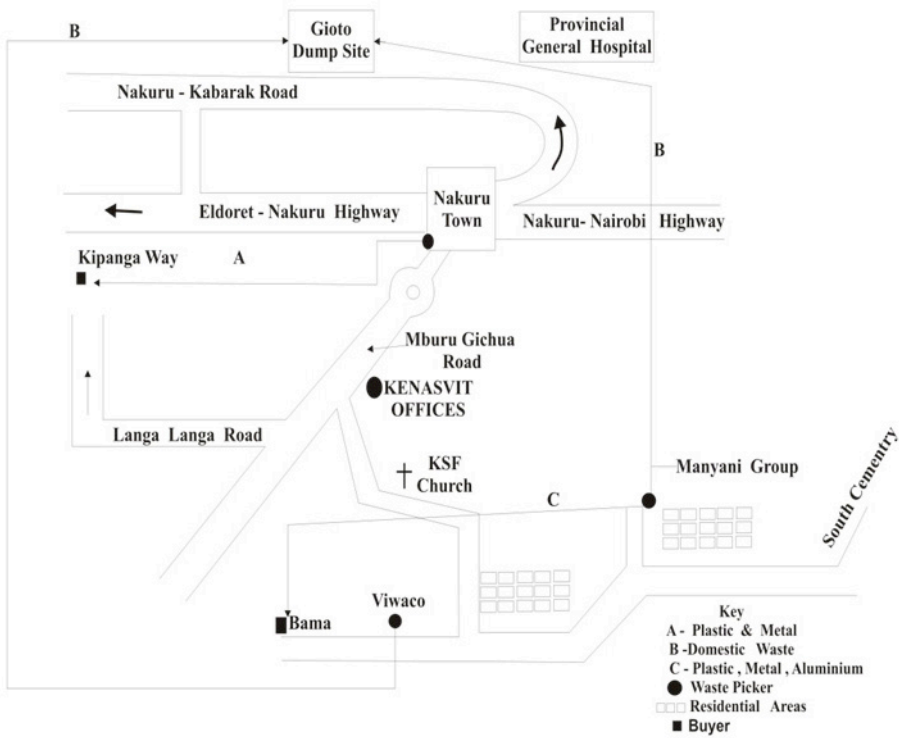
In this section we consider different linkages in the waste picking sector as well as the contributions this sector makes. We start with the economic linkages and explore the different ways these are manifested in Nakuru. We also consider some of the sector-specific conditions that shape these connections. We then move to city/policy links and end the section with an analysis of the contributions made by and/or attributed to the waste picking sector.

3.2 Economic Linkages

A number of forward and backward linkages into both the formal and informal economies in the waste-picking sector in Nakuru were identified. In Nakuru, town waste pickers do not work in the central business district. Some work at the town's main dumping site, called Gioto dump, which is located north of the Nairobi-Nakuru Highway. The majority work as mobile waste pickers who collect materials from residential and commercial areas outside of the central business district on both the north and south sides of the highway. These areas include Free Area, Machine and Lanet on the northern side of the highway and Bondeni, Manyani, Pangani and Langa Langa on the southern side of the highway. The map in figure 7 shows some of these linkages. Previous studies have found a similar geographical distribution of waste pickers in Nakuru.

As the map in figure 7 shows, the waste pickers collect recyclable materials such as plastics and metals, which they sell to buyers located within the residential and commercial areas close to them. Although not noted in this group many waste pickers also collect reusable materials. A few groups that have secured tenders from the municipality provided waste collection services in residential areas near to where they live. The provincial general hospital features on the map as waste pickers receive health care there, but those who work at the dumpsite must also contend with medical waste that the hospital disposes at Gioto.

Figure 7 - Map Showing Waste picking in Nakuru



Source: Focus Group with 5 men from outside the dumpsite, 30 August 2012

In table 26, we illustrate some of the ways in which the waste picking sector contributes to the city of Nakuru. Table 25 also shows that although 66 per cent of the waste pickers collect items from the dumpsite the others collect items from the streets, people's homes, and businesses. Thus waste pickers contribute to waste management in the city.

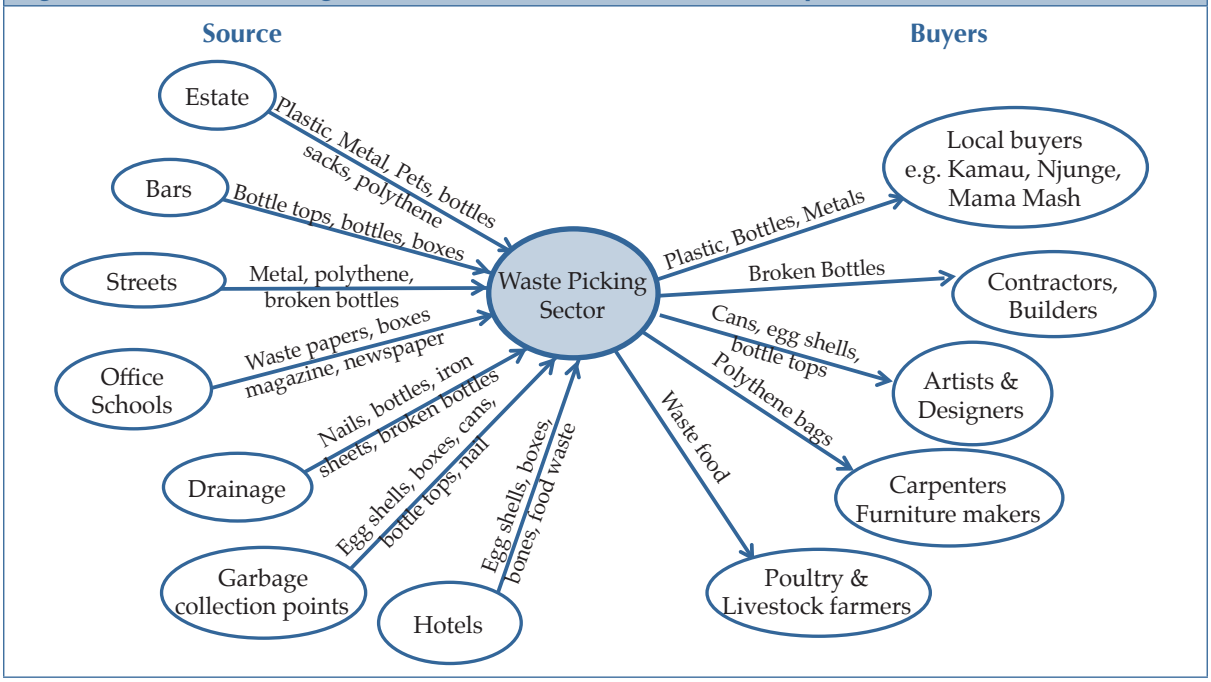
Table 26 - Waste Collecting Activities, By Work Location (%)

Activities	Dumpsite	Other	Total
Collecting from a street	59.22	73.08	63.87
Collecting directly from people's homes	60.19	90.38	70.32
Collecting from a dump site	100.00	0.00	66.45
Collecting from businesses	59.22	63.46	60.65
Sorting at a recycling warehouse	7.77	1.92	5.81
N	**103**	**52**	**155**

Source: Nakuru waste pickers IEMS survey data (2012)

Table 26 complements the information from the causal flow diagrams such as the one in figures 8 and 9. In figure 8, women who work outside the dumpsite illustrate specific linkages. While literature on waste picking focuses primarily on the collection of recyclable materials for ultimate use in the formal economy, figure 8 demonstrates that women waste pickers collect a range of reusable and recyclable materials from an array of sources; they sell this material into both the formal and informal economies. Materials collected include plastic, metal, PETs (plastic bottles), cans, sacks, polythene, bottle tops, boxes, bottles, waste paper, magazines, newspapers, nails, iron sheets, egg shells, bones and waste food.

Figure 8 - Economic Linkages, Women Who Work Outside the Dumpsite



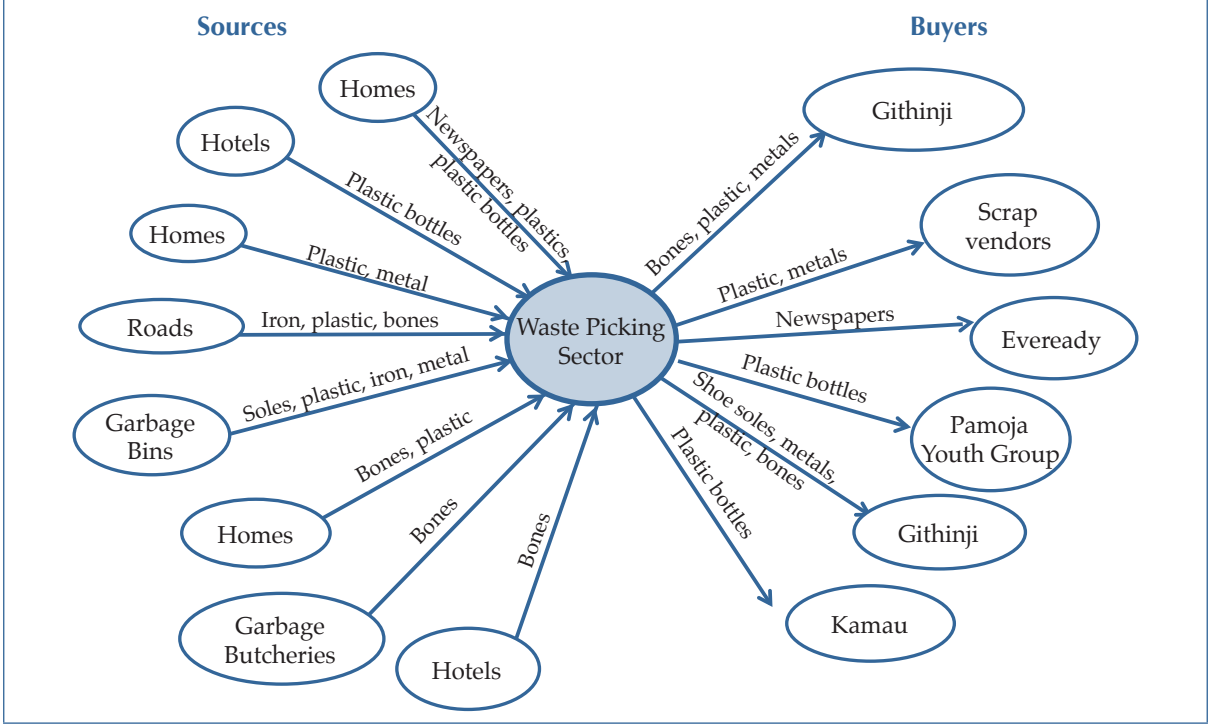
Source: Focus Group with 6 women from outside the dumpsite, 24 August 2012

The women collect these materials from housing estates, bars, streets, offices, schools, drains, garbage collection points and hotels. As one participant explained, "I pick waste from the garbage in the estates. This includes oso (metals), nyota (bottle tops), nails, and plastics." Another woman added, "I pick egg shells, charcoal, bones, and PETs from hotels. We also get food for chicken (keroma)". Instead of simply selling products into the recycling value chain, the women sell their materials to an impressive range of formal and informal industries including the recycling, building, farming, arts and design

and furniture industries. One woman explained, "We sell egg shells, and bottle tops, bones, and cans to artists and designers. Nails, metals, and bolts we sell to Mama Muthoni. Mama Muthoni also buys soles and plastics" (Focus group with six women from outside the dumpsite, 24 August 2012).

In figure 9, men and women who work outside the dumpsite north and south of the highway provided another perspective. These men and women collect from similar sources as the women above. However, these waste pickers also sell directly to factories and groups that produce their own products. As one male participant explained, "we sell to Eveready Batteries the old newspapers, to Pamoja Youth Group we sell plastics and bottles. Pamoja uses these items to package the liquid soap they make. We also sell to Kamau" (Focus group with two men and four women from outside the dumpsite, 5 September 2012).

Figure 9 - Economic Linkages, Men and Women Who Work Outside the Dumpsite



Source: Focus Group with 2 men and 4 women from outside the dumpsite, on 5 September 2012

The results in table 27 show that informal businesses and informal waste pickers are the main purchasers of materials from waste pickers, with 87 per cent of waste pickers surveyed reporting that informal businesses are their main customers and 26 per cent reporting that other informal workers were their main customers. Categorization of the waste pickers by location shows that in addition to informal businesses and waste pickers, waste pickers in the dumpsite sell to private individuals, while waste pickers in other locations sell to a range of other customers.

Table 27 - Main Customers or Buyers, by Work Location (%)

Customers/buyers	Dumpsite	Other	Total
Formal businesses	4.17	8.51	5.59
Informal businesses	86.73	88.00	87.16
Other informal workers	27.08	25.00	26.39
Personal family / friends	2.08	4.17	2.78
General public	1.04	10.20	4.14
Private individuals	13.13	12.50	12.93
Other	2.78	20.00	7.84

Source: Nakuru waste pickers IEMS survey data (2012)

From existing information, we know that population growth has resulted in a change in consumption patterns in Nakuru and Kenya in general. This increases the vulnerability of the informal waste pickers. The information in table 27 supports the analysis in figures 8 and 9. For instance in figure 9, waste pickers sell to individual buyers (such as Githinji and Kamau), other informal waste pickers (e.g. Pamoja Youth Group) and formal businesses (e.g. battery making company Eveready).

The discussions with key informants showed that most buyers are licensed by the city even though waste pickers mainly view these buyers as informal businesses. This contradicts the myth that the informal economy, as it relates to waste pickers in Nakuru, is not linked to the formal economy. Unsurprisingly, the discussion of important or most helpful institutions invariably showed the buyers as the most helpful actors (figure 6 and table 23). The perception that buyers are informal businesses differs given the exposure of specific waste pickers to information.

3.3 Policy/City Linkages

The results of the discussions from focus groups show that the waste picking sector makes five main contributions to the City of Nakuru. These include: employment, environmental health, the local and national economy, security, and strengthening of the local communities. A male participant in a focus group of men and women from south of the highway captured the economic contribution that they make to the economy:

> "When we pick up waste, nails, bottles, and other items, our environment is clean. When we sell we start a chain of revenue generation and collection from the buyers all the way to manufacturers. This is great because it does not really need financial capital to get started" (Focus group with two men and two women, 5 September 2012).

The waste picking sector also contributes to poverty reduction by providing livelihoods. A male participant noted, "We keep the youth busy and sustain and provide their livelihoods. We also keep the environment clean. We also grow the local economy of Nakuru" (Focus group with four women and two men, 3 September 2012). The analysis of the focus group discussions shows that this sentiment was widely shared among the research participants.

The participants also argued that they make other important contributions to the city of Nakuru. Box 1 shows a typical conversation in one of the focus groups.

Box 1 - A Conversation on the Contribution of Waste Pickers

A woman participant said:

> "We make life affordable in the slums and estates. We clean these places. We educate the people of the estates; we also clean Nakuru. We are employed by this ourselves but we also employ others."

Another participant added:

> "We reduce poverty. Before, waste picking did not have benefits. These days even those who have not gone to school, they can get employed. We clean Nakuru, we are employed and employ others."

Another said:

> "We create jobs, people are employed and are kept very busy. That way, we contribute to the reduction of crime in Nakuru. We keep the drains clean. We now have a clean environment in Manyani."

Source: Focus group with six women from outside dumpsite, 24 August 2012

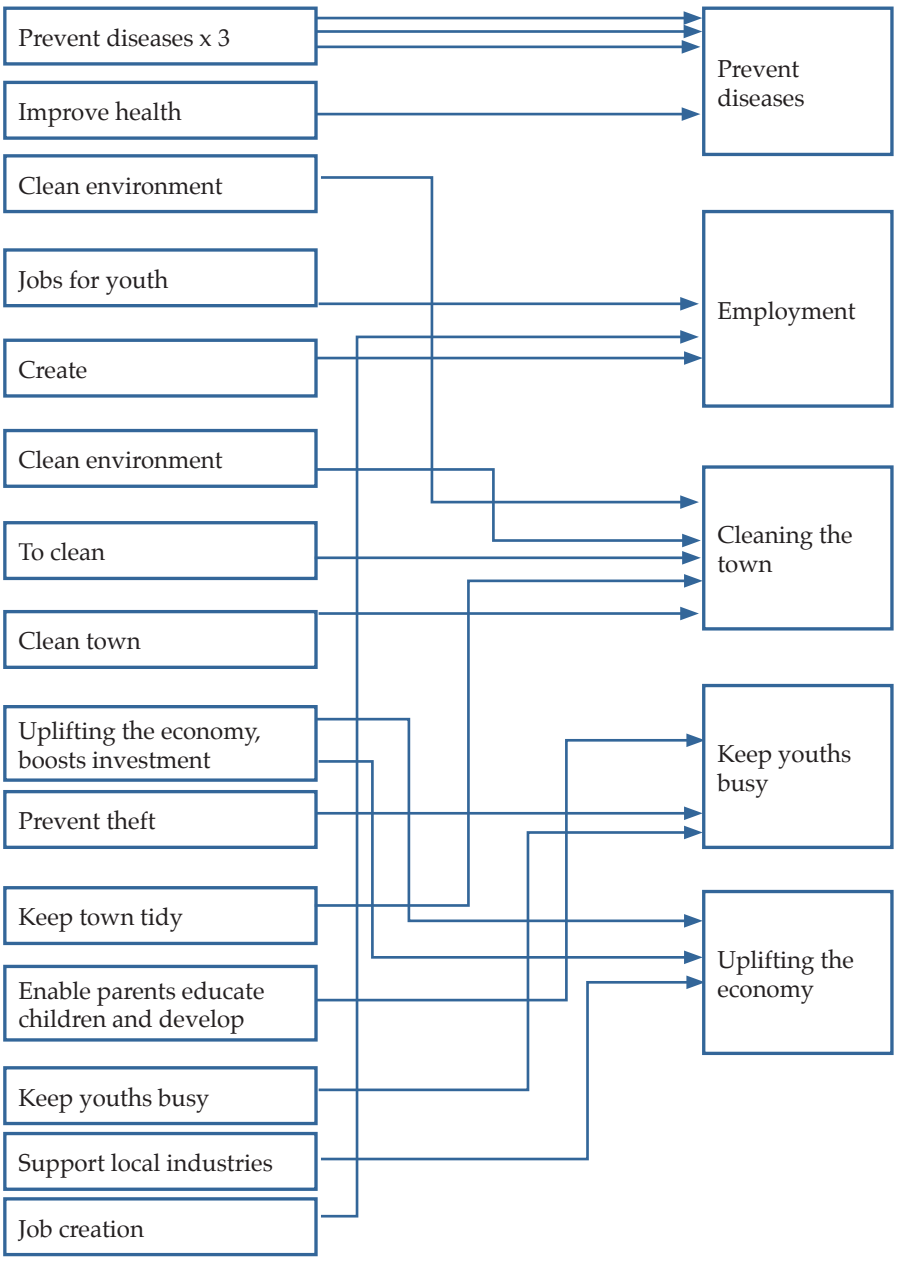
It is noteworthy that value chain dynamics are largely dependent upon the city policies in Nakuru. However, the impending shift from the current governance framework to a devolved and decentralized county system of governance imposes further challenges on the waste picking sector. Since this shift is yet to be operationalized, our preliminary assessment shows that with the increasing tendency to regulate the work of informal sector waste pickers, including waste pickers, the value chain would be affected. For instance, with increased privatization of waste collection, the supply of, availability of, and access to waste materials are likely to be limited both in the immediate and short term.

Furthermore, our assessment of current development priorities in various development plans shows a set of priorities, whose implementation will also greatly affect waste pickers in the informal waste picking sector. These priorities, identified by the city, include: privatization of waste collection, relocation of the dumpsite, and a promotion of public-private partnership to produce fuel from the dumpsite.

3.4 Contributions of the Sector

While each waste picker group has a range of views on the contributions the sector makes, there are emerging commonalities. The information presented in figure 10 gives a typical perspective of the groups' view of the details of these contributions. In figure 10, the text boxes on the left side of the diagram identify the details of each type of contribution; the ones on the right side identify main types of contributions to the city. For instance, jobs for youth create employment, and job creation text boxes are broadly grouped as employment in the text box on the right side of the diagram. The illustration shows that environmental health, which includes preventing diseases and cleaning the town, is the most important contribution of waste pickers that was identified in the focus group.

Figure 10 - Waste Pickers' Contributions to the City of Nakuru



Source: Focus group with two men and four women from north and south of the highway, 6 September 2012

As mentioned in Part 1 of this report, the waste pickers in Nakuru do not have significant access to any other types of household income. Furthermore, the remittances received are so small that their average incomes remain too low to be able to support their family needs. Therefore, they are generally poor and vulnerable. In table 28, it is clear the average earnings of waste pickers vary by sex and are higher for male than for female waste pickers, irrespective of the location of waste picking. Among waste pickers who collect from the dumpsite, male waste pickers have a monthly turnover of Kshs. 5,748 (US $68.98[3]) on average compared to Kshs. 3,680 (US $44.16) of female waste pickers. Among waste pickers who do not collect from dumpsite, the average monthly turnover was Kshs.5,956 (US $71.47) and Kshs.3,509 (US $42.11) for male and female waste pickers, respectively.

Table 28 - Mean Turnover and Working Hours, by Sex and Work Site (%)

	Dumpsite		Other	
Earnings	Men	Women	Men	Women
Mean monthly turnover (Kshs,)	5748.07	3680.20	5955.55	3509.37
Mean hours per week (last week)	22.85	22.24	23.85	11.43
Mean months per year	11.11	10.04	9.60	10.34
N	**54**	**49**	**20**	**32**

Source: Nakuru waste pickers IEMS survey data (2012)

Earnings vs. Turnover

The data presented here were generated through a question designed to capture ***turnover***—that is, the total value of sales. They **do not** take into consideration the expenses incurred in generating the sales, such as transport, storage, and fees. The literature on income clearly establishes that it is very difficult to capture distinctions between turnover, gross earnings, and net earnings reliably. As with similar studies, these data should not be taken out of context and should be interpreted with caution.

Data on turnover from all cities included in the IEMS study showed very high standard deviations and means that far exceeded medians. Means (rather than medians) for turnover are presented in the IEMS city reports.

Within each sex category, the mean earnings are higher for men who collect from other areas outside the dumpsite, while mean earnings are higher for women who collect inside the dumpsite. The average working hours per week are almost the same for waste pickers collecting from the dumpsite, but vary for those who collect from other areas, where on average, men work double the hours worked by women. This perhaps reflects the domestic duties of women, and/or the fact that their income is supplemental rather than the primary household income. Male waste pickers in the dumpsite worked more months (11.1 months) in the past one year compared to those who did not pick waste from dumpsites (9.6 months). However the women worked almost the same number of months in the past year irrespective of location (i.e. about 10 months).

As table 28 shows, the average turnover of waste pickers in Nakuru is not quite 5,000 Kshs. per month, which translates into approximately US $2/day. From the analyses in tables 7 to 10, and table 28, it is clear that the earnings of waste pickers in Nakuru are so low that they cannot easily meet even their basic and other needs. The vulnerability of the waste pickers is two-fold: their sources of livelihood are insecure, and secondly, they have a diminished capacity to significantly stay out of poverty. The corollary, therefore, is that if these waste pickers are to continue working in the sector, the city and national government need to deliberately ensure their social protection. This would include for instance: provision of food during times of high food prices and scarce waste, and increased access through subsidies for housing, water, and electricity, among other assistance.

[3] 1 Kenyan shilling = .012 US dollars at May 1, 2013, per www.xe.com's mid-market rate.

Part 4: Policy Implications

4.1 Introduction

This study sought to provide credible, grounded evidence of the range of driving forces, both positive and negative, that affect conditions of work for waste pickers working in the informal economy in Nakuru. The study placed waste pickers and their organizations at the center of the analysis, examining not only the impact of these forces but also informal waste pickers' strategic responses to them.

This study makes several important contributions. Current literature on the informal economy in Kenya is mainly focused on the *jua kali* – the broad categories of small-scale traders in urban areas. This study expands the literature on the informal economy by contributing to the small but growing body of literature on waste picking in Kenya. Secondly, by showing the importance of, opportunities for, and threats to waste pickers in a context of changing driving forces that affect conditions of their work, this study makes a useful contribution to knowledge of a specific sector in the informal economy. The study therefore provides a foundation for further research and policy advocacy. The latter is what we focus on in the remaining parts of this section. But first, we recast the key findings of the study, and then we consider the myths and hypotheses that guided the study.

4.2 Summary of Key Findings

The study found that waste pickers mainly rely on the informal economy as the main source of household income, whether from waste picking or from the informal activities of other household members. Male waste pickers are more likely than female waste pickers to be the main providers for their families. Only a small percentage of the women's households receive income from a family member's employment in the formal sector. The waste pickers surveyed do not have access to government grants, unemployment payouts, worker's compensation, retrenchment packages or pensions. Aside from the few households that receive remittances, the waste pickers' households are therefore almost completely dependent on income from the informal economy.

Waste pickers were also engaged in waste picking mainly on own account. However, there are a few cases where waste pickers are members of cooperatives, showing a level of group organization in waste picking. The turnover varies across waste pickers both by sex and location. Considering sex, men have higher turnovers on average compared to women irrespective of location of waste collection. However, men who collect waste from other locations have higher turnovers on average compared to those who collect from the dumpsite, while women who collect from the dumpsite have higher turnovers than their counterparts who collect elsewhere.

While the weekly working hours at the dumpsite are the same on average considering sex, in other areas males spend double the hours spent by female waste pickers in a week. Also, while women spend, on average, the same number of months in a year working, men in the dumpsites spend more time (at least one month more) compared to those who don't collect from the dumpsite.

The use of helpers in waste picking is common among those who collect from the dumpsite compared to those who collect from other areas. The most common helpers are unpaid family members. Male waste pickers rely more on helpers, whether unpaid or paid, compared to female waste pickers. During the busiest time of the year, men rely more on paid helpers while women rely more on unpaid family helpers. The extent of using paid help by men supports the findings that men are depended on more often as the main source of household income.

Value chain dynamics were the most important of the driving forces that the waste pickers identified. (Ironically, the value chain was also cited as the most important *positive* driving force for waste pickers, with availability of materials being the most significant.) Waste pickers are adversely affected by low and fluctuating prices. The prices offered by the buyers for their products are affected by macroeconomic conditions. This volatility emerges precisely because of shifts in prices for recyclables in the formal economy that are closely linked to movements in prices in the commodities markets. Through this study, we find that value chain factors are constrained by current urban policies.

Scrutiny of the regulations shows that waste pickers are not recognized as workers and their needs not addressed. The findings from this study, for example the perpetual harassment of waste pickers, strongly suggest that rules governing waste picking in Nakuru are generally inappropriate. It is also apparent that the importance of and rights of waste pickers are seldom recognized in Nakuru. A close

examination of the policy framework revealed a worrying focus on private collection and a failure to recognize the role of waste pickers in waste management.

The study also reveals that unfavourable health, safety, and working conditions are important negative driving forces in the value chain. Other negative factors that affect waste pickers are large variations in sales, low profits and too many competitors, as well as harassment and discrimination by members of society and poor weather. Furthermore, infrastructure and institutional obstacles were identified as occupational problems affecting the safety of waste pickers. Poor access to small business support, poor access to infrastructure and the cost of infrastructure were highlighted.

Myth #1: The informal economy is not linked to the formal economy.

Hypothesis #1: Informal workers are closely linked to the formal economy.

Waste pickers in Nakuru are closely linked to the formal economy through the recycling value chain. They collect materials directly from businesses and factories. Although only a small (6) percentage sell their materials directly to formal businesses, the recyclable materials which they sell to informal workers and businesses ultimately are sold to recycling companies in the formal economy. The fact that the vast majority do not sell directly to formal enterprises does not mean that they are not linked to the formal economy. Rather it reveals their very weak position in the value chain and also identifies that their position could be strengthened by selling directly to formal recycling companies rather than to informal buyers whose only role is to act as intermediaries who buy materials from informal waste pickers and sell materials into the formal economy. It is, important to note, however, that the survey and focus group results for Nakuru demonstrate that, in addition to collecting recyclables which are sold into the formal economy, waste pickers in Nakuru are also linked into chains of informal production and exchange. This signals the resilience of the sector, as waste pickers do not rely solely on demand in the formal economy, and also points to opportunities for further growth as some of these informal production activities could be formalized.

Myth #2: The informal economy is not a part of the modern economy.

Hypothesis #2: Informal workers are part of modern chains of production, distribution and services that download risks and costs to informal workers.

This study established, from the waste pickers, that the informal economy is closely linked to the formal economy, thus the informal economy is closely linked to the modern economy. From the economic linkages, where all the inputs are mainly outputs of the formal economy and the inputs are mostly sold to buyers in the formal economy, a clear link to the modern economy is indisputable. The study supports the hypothesis that informal waste pickers are part of modern chains of production and distribution of services that download risks and costs to informal waste pickers.

Myth #3: Informal workers intentionally "hide" from regulations and avoid the costs of formalization.

Hypothesis #3: Informal workers are not hiding from regulations; rather, regulations are unknown, inappropriate, or hostile to informal workers.

Hypothesis #4: Economic policies and urban reforms/policies are not supportive of urban informal livelihoods.

The survey and focus group data clearly affirm both Hypothesis #3 and Hypothesis #4 that regulations are unknown, inappropriate and hostile to informal waste pickers and are not supportive of urban informal livelihoods. Two thirds of waste pickers indicated that municipal rules and regulations related to their work as waste pickers were not clear and easy to understand. Less than a quarter (23 per cent) of waste pickers in Nakuru stated that city officials, police and local authorities provide support to them. Tellingly, only 27 per cent feel that the laws and regulations that affect their work benefit them, while almost half (44 per cent) believe that these laws and regulations actually limit their work. In addition, only 14 per cent felt that that the rules and regulations were enforced fairly and equally.

The summary of the findings above support the two hypotheses, and therefore underscore the falseness of the myth that informal waste pickers intentionally "hide" from regulations and avoid the costs of formalization.

Myth #4: The informal economy does not contribute to the city (e.g. informal waste pickers do not pay taxes).

Hypothesis #5: Informal waste pickers do pay taxes and other types of fees, but do not get the benefits thereof.

Hypothesis #6: Informal waste pickers contribute to the city in a variety of ways.

The study finds that despite their severe vulnerability, informal waste pickers contribute to the city in specific ways such as providing social protection for the vulnerable, providing jobs to the unemployed poor and providing inputs to a growing recycling industry. With this contribution, it cannot be justifiably argued that the informal economy, through the waste picker sector, does not contribute to the city.

4.3 Policy Recommendations

This study raises important findings about waste picking in Nakuru which need to be addressed at the policy level. Waste pickers in Nakuru are some of the city's poorest and most vulnerable residents. They are negatively affected by conditions and power relations in the recycling value chain, poor health and safety conditions, and discrimination from residents and authorities alike. Far from assisting them, government policy actually hinders them in their work. The current Constitution of Kenya (see Section Four of the Constitution for details) recognizes and seeks to protect the rights of all citizens, including waste pickers. It is critical that policy be developed and implemented to support and assist this vulnerable population, which plays a vitally important role in the economy, environment, and development of the city. In the remainder of this document we put forward policy proposals related to the value chain, health and safety, and municipal waste management policy.

Recognition and Respect

Waste pickers in the study were asked to propose how institutions and actors could help them. Virtually all their proposals revolved around promoting and securing the rights and dignity of waste pickers. For instance, they asked that the municipality stop the harassment and instead collaborate with waste pickers. Similar demands were made of the police, and rich people were urged to behave humanely and respectfully toward this vulnerable group. Highlighting the divisions that exist between waste pickers, older (and particularly female) waste pickers emphasized the need for young, male waste pickers to stop harassing and dominating them.

Value Chain

The majority of waste pickers in Nakuru sell their materials to informal businesses and workers in highly exploitative relationships. To ensure that waste pickers earn a fairer distribution of profits in the recycling value chain it is proposed that:

- As in Pune, India, the municipality establish municipally run buy-back centres that purchase materials at a fair price.
- Waste pickers should be encouraged and supported to form cooperatives that can secure contracts to sell materials collectively in order to obtain higher prices.
- As in Bogota, Colombia and Diadema, Brazil, the municipality should pay waste pickers a set fee per kilogram of recyclables collected as remuneration for the environmental service they provide to the city by diverting recyclables from the landfill. Such payment is fair compensation for a key service, and helps to provide income security and to protect the waste pickers from the vagaries of the market.

Municipal Waste Management Policy

- The municipality must recognize waste pickers as a legitimate part of the waste management system.
- Bylaws should be amended and developed in order to ensure that waste pickers have access to recyclables and are not harassed while performing their work.
- The municipality should engage with the national police force to ensure police do not harass and victimize waste pickers.

- The municipality should develop an inclusive solid waste management system. Waste pickers must be remunerated for this service in addition to earning an income from selling the materials they collect.
- Waste pickers will need to be consulted and involved in the development and implementation of policies and systems.
- The municipality should hire staff with expertise in integrated waste management and social mobilization around waste issues.
- The municipality should run awareness campaigns with residents to educate them on the important role played by waste pickers and instruct them how to correctly separate their materials.
- The municipality should develop a forum where municipal officials, waste pickers, residents and other actors in the waste management and recycling sectors can engage to develop and oversee the implementation of inclusive waste management policy.

Health and Safety

Waste pickers working at both the dumpsite and on the streets labour in extremely hazardous and unhealthy environments. In cities such as Belo Horizonte, Brazil, it has been demonstrated that a long-term solution to health and safety concerns lies in an integrated solid waste management system in which waste pickers collect recyclables that have been sorted by residents, then collected and sorted/stored in safe, hygienic warehouses.

The recommendations listed here to address waste pickers' health and safety issues should be seen as the first stage in a comprehensive programme to move waste pickers off of the dumpsite and out of itinerant picking, and into integrated source segregation programmes. Waste pickers will need to be consulted and involved in the development and implementation of these policies and programmes.

- The municipality should develop a separation at source programme in which residents are required to separate recyclable and compostable material from waste.
- Waste pickers should be contracted by the municipality to collect the separated waste.
- In the interim, while waste pickers are still working on the dumpsite and as itinerant waste pickers in the streets, the municipality should create designated areas within the dumpsite for the salvaging and sorting of materials.
- The municipality should also provide waste pickers working on the landfill and in the streets with health and safety training and equipment.
- The municipality must ensure, with immediate effect, that no hospital waste is sent to the landfill.

Social Policy

- The municipality should ensure that all waste pickers receive official government identification and all benefits to which they are entitled.

Mobilization of Waste Pickers

All of the above initiatives require the active involvement of waste pickers. As waste pickers have only recently begun to organize in Nakuru and their organizations are still small and weak, it is of pressing priority that waste pickers in Nakuru receive support to develop strong, democratic MBOs.

- The Nakuru Waste Pickers' Association (NAWPA) and the Kenya National Association of Street Vendors and Informal Traders (KENASVIT) should work together to provide organizing support to waste pickers in Nakuru.
- As in Belo Horizonte, Brazil, the municipality can also play a key role in strengthening organizing of waste pickers by making resources available, and by hiring staff with knowledge and expertise who can work with waste pickers and assist them in organizing.

References

Chambers, Robert, 1994. "The Origins and Practice of Participatory Rural Appraisal." *World Development*, Vol. 22(7), July, pp. 953-969.

Horn, Zoe. 2009. *No Cushion to Fall Back On: The Global Economic Crisis and Informal Workers*. Inclusive Cities Report.

KAM. 2010. Nakuru Regional Business Agenda Report. Unpublished report. Nakuru office.

Kuria, D. and Rina Muasya. 2010. *Mapping of Waste Pickers and Organizations Supporting Waste Pickers in Kenya.* WIEGO.

Mitullah, W.V. and Anne Kamau. 2011. Report of the National and Regional Dissemination Workshops for Waste Pickers in Kenya, held in Nairobi, Nakuru, Kisumu and Mombasa.

Moser, Caroline and Jeremy Holland. 1997. *Urban Poverty and Violence in Jamaica*. Washington DC: IBRD/World Bank Latin American and Caribbean Studies.

Moser, Caroline and Cathy McIlwaine. 1999. "Participatory Urban Appraisal and Its Application for Research on Violence." *Environment and Urbanization*, Vol. 11, No. 2, pp. 203–226.

Moser, Caroline and Cathy McIlwaine. 2004. *Encounters with Violence in Latin America. Urban Poor Perceptions from Colombia and Guatemala*. New York and London: Routledge.

Moser, Caroline, Angélica Acosta and María Eugenia Vásquez. 2006. *Mujeres y paz. Construcción de consensos*. Bogota: Social Policy International.

Onyango, J.O., W.L.A. Olima and L. Onyango. 2012. Dynamics of Street vending Phenomenon in the Kisumu Municipality. *International Journal of Arts and Commerce,* Vol. 1 (4):107-120.

Practical Action. 2005. *The Salvager's Ways of Life and their Livelihoods.* Practical Action 2006 base line survey report of Nakuru salvagers: who they are, ways of life, challenges and recommendations. Nakuru Office.

Practical Action. 2007. Waste pickers /Salvagers' Livelihood Interventions – Nakuru, Kenya.

Republic of Kenya. 2009. Nakuru District Development Plan, 2008-2012. Nairobi: Government Printer.

Republic of Kenya. 2010. Population and Housing Census. Nairobi: Government Printer.

WIEGO website. 2013. "Statistical Picture." Available at http://wiego.org/informal-economy/statistical-picture (accessed 01 May 2013).

The Informal Economy Monitoring Study (IEMS) is a part of the Inclusive Cities project. Inclusive Cities is a collaboration of membership-based organizations (MBOs) of the working poor, international alliances of MBOs and support organizations working together as partners to improve the situation of the working poor. Launched in late 2008, Inclusive Cities aims to strengthen MBOs in the areas of organizing, policy analysis and advocacy in order to ensure that urban informal workers have the tools necessary to make themselves heard within urban planning processes.

The Informal Economy Monitoring Study is being led by Women in Informal Employment: Globalizing and Organizing – WIEGO (see www.wiego.org) – a global action-research-policy network that seeks to improve the status of the working poor in the informal economy, especially women. WIEGO has convened a Technical Advisory Committee (TAC) to guide the project.

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Caroline Moser, Angélica Acosta and Irene Vance led the development of, and training for, the qualitative modules of the study.

Nakuru Waste Pickers' Association (NAWPA)