CASE STUDY REPORT

Study location	*Kisumu, Kenya*
Organization or researcher that developed the case study	*The Flipflopi Project*
Dates	*June 2024*

A METHODOLOGY TO ASSESS THE LIVING INCOME OF WASTE PICKERS

Introduction to the document:

Context:

In 2024, the study "A living income for the informal waste sector" piloted a methodology with local NGOs to assess the concept of a "living income" for informal waste workers with the goal to create a practical methodology to promote the provision of a living income within these supply chains. Case surveys were developed in 2023 in locations in India, Ghana and Brazil.

This toolkit was developed in the first half of 2024, as part of Phase 2 of the Living Income Assessment. The toolkit is open to be used by anyone and can be used under the CC 4.0 license.

Structure of the overall toolkit:

There are three components to the overall toolkit: a PowerPoint manual, an Excel document and a Word template.

1. A PowerPoint toolkit gives a complete overview of the full methodology.
2. An Excel document is for the final data of the conducted assessment to be recorded.
3. This Word document to record the background of the case study, note down critical assumptions taken in the Final Data sheet (Tab 2) in the Excel document, and summarize key learnings and recommendations.

Recommended length of the word document

(for guidance only):

- Intro and methodology - 0.5 pages
- Establishing a baseline - 1 page
- Living income - 1 page
- Benchmarks - 0.5 pages
- Key learnings and recommendations - 0.5 to 1 pages

Total 3 to 4 pages

Template Input

Introduction & methodology

This research aimed to gain insight into the informal waste picker supply chain in Kisumu. Interviews were conducted by two Flipflopi Project staff - Davina Ngei and Abu Bakr, in Arina, Kasese, and Kisumu CBD. The interviews were conducted between the 17th and 19th of June.

Survey questions provided by Systemiq were entered into a Google Form with a few additional questions included to help us form an estimation for decent living (health costs, education, food, utilities etc).

Several respondents were interviewed and 42 made it to the final database. This sample selection is intended to be representative of the waste picker supply chain in Kisumu.

To engage the waste collectors, we engaged the Kisumu Waste Pickers Welfare Association (part of the Alliance for Waste Pickers) and a consultant from Taka Taka Solutions.

A – Establishing a Baseline

1. As part of our survey, we interviewed waste pickers with three main profiles: those who aggregate, those who collect from households and those who work at the dumpsite. Over 80% of them belong to the Kisumu Waste Pickers Welfare Association, who consider all of these typologies to be under the umbrella of waste pickers.

2. Transport is a big expense for waste pickers in Kisumu town. After they collect waste from households and extract the recyclable materials, they need to pay county trucks to take the remaining waste from the informal dumpsites that they use to the main dumpsite.

3. The waste pickers in Kisumu who collect directly from households complain that the National Environment Management Authority (NEMA) is planning steep licensing fees for waste collection (6000 KES/year), which they cannot afford. They aim to lobby through their welfare association (detailed below) to prevent this.

4. There is a more established welfare association in Kisumu, which offers benefits to waste pickers such as group savings, emergency funds, advocacy, and connections with larger recyclers.

5. The old dumpsite - Kachok, was moved from inside the city, to its outskirts - Kasese. There were 500 - 1000 waste pickers on the old site (which has been closed) but less than 300 on the new site. Waste pickers at the new site tended to fall into two profiles: waste pickers who were previously at Kachok and older waste pickers who come from villages/towns closer to the new site in Kasese. For most, travelling to the dumpsite is expensive due to its remote location.

6. Similar to Nairobi, organic waste is considered by many men to be women's work. Collecting organic waste is difficult and time consuming, as it comes contaminated with non-organic material.

7. As witnessed in Nairobi, formalised waste collectors are diverting a lot of recyclable materials before it reaches the dump site. This means waste pickers at the dump site are receiving only small quantities of recyclables.

8. There is increased competition for aggregators, as Mr Green and Taka Taka Solutions have created buy back centers in Kisumu. Additionally, buyers from Uganda are offering competition for buyers in Kisumu, due the city's close proximity to the border.

9. As a result of the increased demand for recycling materials, many of the waste pickers who collect from households are aiming to start buy back centres to aggregate larger volumes of materials. Currently, stockpiling is difficult for many waste pickers due to a lack of space for storage and also a dependency by many on frequent earnings. However, this is not the same for cooperatives, with some having the ability to stockpile for up to 6 months. However, it should be noted that many cooperative members are gaining an income through other means, such as household collections or another income stream.

10. Among the cooperatives, there seems to be a division of labour among gender lines, with men collecting from households and women sorting.

11. Most of the interviewed waste pickers had PPE, due to recent distributions by Taka Taka Solutions as well as VSO (through their waste to work programme).

B - Living Income Estimate

B1 – Healthy Diets Survey

The costs of a healthy diet in Kisumu are estimated at KES 33,600 per household per month.

The Living Wage Report in rural Kericho (Kenya) led by the Anker Research Institute in 2022[1] mentioned the following:
"*The estimated cost of the model diet is KES 154.1 per person per day or KES 23,429 per family per month (i.e., 23,429 KES = 154.056 KES x (365/12) x 5). This corresponds to USD 1.28 per person per day or USD 195 per family per month*".

Nevertheless, this study is about a rural context and gives little information for the urban context of Kisumu.

In 2014, the Anker Research Institute carried out a similar study in peri-urban areas in Naivasha. This study is too old to be used now and was not considered to describe the urban context of Kisumu.

The minimum dietary diversity was investigated in the Demographic Health Survey conducted in 2022 in Kenya[2].

Minimum dietary diversity is defined as consuming foods from 5 or more of the following 10 food groups:
a. grains, white/pale starchy roots, tubers, and plantains;
b. pulses (beans, peas, lentils);
c. nuts and seeds;
d. dairy (milk, cheese, yoghurt, other milk products);
e. meat, fish, poultry, organ meats;
f. eggs;
g. dark green leafy vegetables;
h. other vitamin A-rich fruits and vegetables;
i. other vegetables;
j. other fruits.

In addition, the DHS provides a list of unhealthy foods. It includes sweet foods such as cakes, sweet biscuits, candies, chocolates, ice cream, or ice lollies; and fried and salty foods such as crisps, chips, ngumu (*half cake*), mandazi (*fried pastry*), samosa (*fried pastry)*, bhajias (*fried snack)*, or Indomie (*noodles*).

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[1] https://www.globallivingwage.org/wp-content/uploads/2023/07/LIVING-WAGE-REPORT_Rural-Kericho-Kenya-FINAL.pdf
[2] https://www.knbs.or.ke/wp-content/uploads/2023/07/Kenya-DHS-2022-Main-Report-Volume-1.pdf

Assuming that 3 meals must be eaten daily, we selected the 6 most common food groups consumed in Kisumu and created 3 typical affordable local meals excluding unhealthy foods.

The 6 most common food groups consumed in Kisumu are the following:
a. grains, white/pale starchy roots, tubers, and plantains;
b. pulses (beans, peas, lentils);
d. dairy (milk, cheese, yoghurt, other milk products);
e. meat, fish, poultry, organ meats;
f. eggs;
g. dark green leafy vegetables.

Based on these categories, three common local and affordable meals are:
- Bread,eggs, tea;
- Rice, lentils;
- Omena (dried fish), Leafy vegetables, Ugali.

Given the local prices, the cost of these meals are on average KES 80, 70 and 120 per person respectively, hence a total of KES 270 per day per person.
On average, the interviewed waste pickers spend KES 521 per day for food for their household, which equates to KES 124 per person per day (considering the actual household size of our sample).
8 binary questions (yes/no answers) on diet vis-a-vis available financial resources over the last 12 months were asked during the interviews. On average the interviewed waste pickers answered "yes" to 7 of these questions. We can thus assume that what they are spending on food is not enough to satisfy their nutritious needs.

We then have 2 estimates:
- KES 270 per person per day for Kisumu based on our analysis;
- KES 124 per person per day based on the actual waste picker expenditures which do not represent a healthy diet.

Given the limited scope of our local analysis, we opted for a conservative estimate of KES 280 per person per day for the cost of a healthy diet in Kisumu.
Which represents KES 33,600 for a family of 4[3] per month.

B2 - Decent Housing Survey

The costs of decent housing are estimated at KES 5,968 per household per month.

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[3] The average household size is 3.8 for Kisumu County according the 2019 Kenya Population and Housing Census (https://dataspace.princeton.edu/handle/88435/dsp01f1881p79p)

A. Rent

The rent costs per household per month are estimated at KES 3,583.

Among our sample, it is more common to rent rather than own a house or an apartment. This is why we considered the price for rent to estimate the cost of decent housing.

23 waste pickers were asked about their rent per month. Excluding one outlier (the highest value), the average rent per month is KES 3,281. But of course, this also considers non-decent housing.

Considering only the waste pickers who responded "Yes" to 9 or 10 of the decent housing questions (out of 10), the average rent is KES 3,583 per month (with 6 answers considered).

B. Utilities

The total utility costs (electricity, cooking fuel and water) per household per month are estimated at KES 2,385.

The Anker Research Institute estimated the following utility costs in rural Kericho in 2022:
- electricity costs = KES 600 per month (i.e. KES 646 adjusted for inflation in 2023);
- cooking fuel (firewood and charcoal being dominant in rural Kericho) = KES 1,000 (i.e. KES 1,076.7 adjusted for inflation in 2023);
- water = 175 KES (i.e. KES 188.4 adjusted for inflation in 2023).

Electricity
The electricity costs per household per month are estimated at KES 400.

23 waste pickers were asked about their electricity expenditures per month. Excluding the outliers (and 1 waste picker using solar systems), their average expenditures were KES 383 per month (15 responses considered).
We also asked 4 non-waste picker workers (2 security guards, 2 vegetable vendors) about their monthly electricity expenditures, the average was KES 362.

KES 375 is considered for the monthly electricity expenditures.

Cooking fuel
The cooking fuel costs per household per month are estimated at KES 1,500.

23 waste pickers were asked about their cooking fuel expenditures per month. Their average expenditures were KES 1,468 per month.
We also asked 3 non-waste picker workers (2 security guards, 1 vegetable vendor) about their monthly cooking fuel expenditures, the average was KES 1,200.

KES 1,450 is considered for the monthly cooking fuel expenditures.

Water
The water costs per household per month are estimated at KES 650.

23 waste pickers were asked about their water per month. Their average expenditures were KES 648 per month.
We also asked 5 non-waste picker workers (2 security guards, 3 vegetable vendors) about their monthly water expenditures, the average was KES 476.

KES 560 is considered for the monthly water expenditures.

B3 – Healthcare Costs

The health costs per household per month are estimated at KES 1,768.

The 2018 Kenya Household Health Expenditure and Utilization Survey estimated the annual per capita out-of-pocket health expenditure for Kisumu County to be KES 2,800. This represents KES 233 per person per month.

After adjustment for the annual inflation rates between 2018 and 2023 (i.e. 5.2% in 2019, 5.41% in 2020, 5.62% in 2021, 7.66% in 2022 and 7.76% in 2023), it represents a monthly per capita out-of-pocket expenditure of KES 317.
This represents KES 1,268 per household per month (for a family of 4 people).

Since most of the waste pickers, being informal, are not registered in NHIF, KES 500 (the minimum voluntary monthly deposit) should be added to the previous estimation to consider the exclusion cost endured by the waste pickers (NHIF covers the nuclear family which includes the principal member and legally declared spouse and children[4]).

B4 – Education Costs

The education costs per household per month are estimated at KES 6,074.

According to the Living Wage Report in rural Kericho led by the Anker Research Institute in 2022, "*The median monthly cost for primary school according to workers and head teachers is 816 KES per month. For secondary school, the median monthly cost estimated by workers and head teachers is 2,233 KES*".

From our understanding, these amounts refer to costs per child and cover all the costs inherent to sending a child to school (uniforms, books etc.).

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[4] https://www.nhif.or.ke/members/

If we try to apply the calculation method presented in the methodology to these figures, we would find an estimate of KES 9,147 per household per month for an average family with 3 children in rural Kericho.

Considering that an average family in Kisumu has 2 children, we would have an estimate of KES 6,098 per household per month.

To consolidate this, 19 waste pickers were asked about their education expenditures. School fees for primary and secondary education per child were asked, as well as expenditures per child related to school items and exams.

For the primary education fees, the answers had a wide range, from KES 1,400 to KES 28,500. Excluding two outliers (the lowest and the highest values), the average primary school fees per child per year are KES 6,435.

For the secondary education fees, the average per child per year is KES 24,083.

For school items expenditures, the average expenditure per child per year is KES 5,423.

For the exam fees, the average per child per year is KES 505.

For the exam fees, the answers varied from KES 100 to KES 2,000. Excluding the lowest and the highest values, the average per child per year is KES 817. It should be noted that for 40% of the waste pickers interviewed, the exam fees are included in the school fees.

The education costs per child per year are thus as follows:
-   primary school fees = KES 6,435;
-   secondary school fees = KES 24,083;
-   school items = KES 5,423;
-   exam fees = KES 505.
Hence a total of KES 36,446 per child per year.
Considering the average family in Kisumu with 2 children, this represents KES 6,074 per household per month.

This is comparable to what can be estimated for Kisumu using the figures presented in the Living Wage Report for rural Kericho (i.e. KES 6,098).

B5 – Costs of decent work

The cost of decent work per household per month is KES 6,198.

On average, waste pickers pay KES 162 for transport per day to reach the place where they collect waste.

This represents KES 2,592 per month (162 x 4 days per week x 4 weeks per month (considering that the interviewed waste pickers work on average 4 days a week)).

Three shops were visited in Kisumu to investigate the local prices of personal protective equipment (PPE). The average prices are as follows:
- cloth masks = KES 100;
- safety gloves (as opposed to medical ones) = KES 520;
- overall = KES 1,745
- gumboots = KES 1,149.

Assuming that waste pickers use 4 masks per year, 1 pair of gloves per month, 2 overalls per year and 1 pair of gumboots per year the estimated cost for PPE is:
- masks = KES 400 per year;
- gloves = KES 6,600 per year;
- overall = KES 3,490 per year
- gumboots = KES 1,149.

Hence a monthly cost for PPE of 11,639 per year (970 per month).

The total cost of decent work is thus KES 3,562 per month multiplied by the Full time worker equivalent specific to Kenya (1.74), hence KES 6,198.

B6 – Saving

The savings are set at 10% of the total living income, hence KES 5,359 per month.

C – Compiling Benchmark Incomes

The 2021 Kenya Poverty Report of the Kenya National Bureau of Statistics estimates the overall poverty lines in monthly adult equivalent terms were at KES 3,947 and KES 7,193 for rural and urban areas, respectively.

In 2022, the minimum wage in the formal sector for Nairobi, Mombasa, Kisumu, Nakuru cities was set at KES 15,201.65 for the general labourer (including cleaner, sweeper, gardener, children's caregiver, house servant, day watchman and messenger).

The Living Wage Report of the Anker Research Institute estimated the living wage for full-time workers in rural Kericho at 26,932 KES (224 USD) per month in 2022, which would represent KES 28,998 if adjusted for inflation in 2023.

Kisumu County employs garbage collectors either on contract or permanently (less frequent); they are paid between KES 15,000 and 20,000 per month. There are also private waste collectors who employ casuals who are paid per day, between KES 300 and 500.

Workers in each of the following sectors were interviewed about their monthly income:

- Security guard (5) = KES 12,950 per month;
- Construction worker (4) = KES 16,563 per month;
- Vegetable vendor (5) = KES 16,900 per month.

Observations & Lessons Learnt

- As the number of waste pickers at the Kasese dumpsite are still few, it is important for the County to control the growth of people working there, to prevent the numbers from becoming unsustainable (this is critical considering hundreds lost their jobs after the dumpsite moved from Kachok, many of whom are still without a job). With more recyclable waste being diverted before it reaches the dumpsite, it is important to formalise existing waste pickers into waste management.
- The Kisumu County can subsidise transport costs for waste pickers working at the Kasese dump site and those collecting from households, as this constitutes a large cost to them. Additionally, licensing fees should account for the low earnings of waste pickers, which make compliance difficult.
- Many of the interviewed waste pickers in Kisumu town (especially those in a cooperative), are not working full time. There is a potential to integrate them into other community work - one waste picker mentioned that waste work has given him additional opportunities as a community health promoter and ward bursary community member, due to his exposure to the community.
- The significance of having an active Welfare Association for waste pickers is apparent. Associations such as these should be supported and included in engagements around the County's waste management.
- For those who collect from households, achieving segregation at source is still a challenge. One of the reasons is that providing two waste points (bins, sacks) for each household is expensive. Community sensitisation, policy enforcement and infrastructure support would allow for segregation at source to be achieved.

Appendix - Assumptions When Asking Questions

Below are some questions from the survey, as well as an explanation of how we asked them/assumptions we made when asking them.

15. Do you have access to a vehicle (e.g., pushcart or a car)?
Answers here reflect the types of transport used by waste pickers to carry out their work. The assumption is that they have access to a vehicle, they can afford it, and they have used it at least once for their work. Vehicles considered were tractors, trucks, pushcarts, and motorbikes.

17. How far do you travel to the buyer?
The answers are based on the distance between the collector's home and the buyer's location. It does not consider the distance travelled by the waste pickers from the areas where they collect to the areas where they store before selling.

18. How much do you earn selling your materials?
This question and the question after does not fully account for earnings gained from collection fees from the households, which might be an additional 1000KES a month for some of the interviewed waste collectors. However, it should not affect the income analysis significantly.

31. Do you own or have access to any of the following? [31.1 A house build with acceptable materials?]
Acceptable materials are assumed to be permanent materials e.g. stone, mud, wood, makuti (weaved palm leaves), and iron sheets. Unacceptable materials are assumed to be impermanent/temporary materials, such as nylon, plastic sheets, and plastic sacks.

31. Do you own or have access to any of the following? [31.2 Access to electricity?]
'Yes' answers also include solar.

31. Do you own or have access to any of the following? [31.9 Safe outside environment?]
Safety included security (from theft or wild animals), as well as safety from floods and landslides (natural threats).

31. Do you own or have access to any of the following? [31.10 No production in your house (no animals)]
'Yes' answers mean that there is no production. 'No' answers mean that there is production - animals are sleeping in the same room.

33. What alternative job opportunity do you have?
This question was asked in two ways: what other opportunities for work do waste pickers currently have and based on their existing skills, what other opportunities could they possibly have?

34. Why do you waste pick over another job?
This question assumes that you can only do one job at a time. We believe this is an incorrect assumption.