LIVING INCOME RESULTS

TOOLKIT

Version 2.0

Fair Circularity Initiative

PURPOSE OF THIS DOCUMENT

Context:	In 2024, the Living Income study 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:	This toolkit was developed in the first half of 2024, as part of Phase 2 of the Living Income Assessment. It has been updated for Phase 3 of the Living Income Assessment. The toolkit is open to be used by anyone and can be used under the CC 4.0 license.
Purpose:	The purpose of the document is to provide a step-by-step methodology that local NGOs and researchers can use to assess living incomes for informal waste picker communities.

Why is it important:

An estimated 19-24 million individuals worldwide derive their livelihoods from collecting and recycling waste. Approximately 0.5-1% of the global workforce are engaged in this occupation. Despite their indispensable role in the global recycling system these workers are often underappreciated and underpaid.

Definition of “Living Income”:[1]

Living income is defined as the required earnings to afford a standard of living with all the components essential for a decent life. This concept acknowledges the right of every individual to earn an income that allows them to meet their basic needs, lead a dignified life and escape the cycle of poverty.

- Source: Fair Circularity Initiative, Systemiq (2024). A living income for the informal waste sector: A methodology to assess the living income of waste workers in the context of the Global Plastics Treaty

Fair Circularity Initiative

HOW TO USE THIS DOCUMENT

Example case studies from Living Income Phase 1 and Phase 2 for reference

+

I. METHODOLOGY GUIDE

This document

II. WORD SURVEY TEMPLATE

For conducting surveys in the field

III. EXCEL TEMPLATE

To enter survey results & estimates from research

IV. WORD REPORT

For sharing final results and assumptions

Case study start

Case study completion

Fair Circularity Initiative

INTRODUCTION TO THE METHODOLOGY

Fair Circularity Initiative

WHY TO USE THIS METHODOLOGY?

Goal

The goal of this methodology is to support stakeholders with practical tools to assess the income level of informal waste picker communities and to create awareness of these income gaps to put pressure on the government and the value chain to improve waste picker conditions.

Advantages of the methodology:

The methodology provides data-driven insights for governments, brands, and waste management companies to act on closing the income gap. It aims to:

- Provide a common unbiased approach that organizations globally can use to assess and explain income gaps in their waste picker communities.
- Enable consistency of survey results and the ability to compare with other countries.
- Enable participation in a network of global organizations including global companies

THE METHODOLOGY FOLLOWS 3 STEPS TO COMPARE A LIVING INCOME VERSUS CURRENT WASTE PICKER EARNINGS AND BENCHMARKS

	Establish the baseline…	*Determine the need…*	*Compare against benchmarks…*
	A Current waste picker earnings	**B** Living income	**C** Legal minimum wage & comparable incomes
Objective	Define the **current earnings** by waste pickers or the salaries received by waste workers	Calculate the locally applicable living income required to guarantee a **decent standard of living** for workers in informal and cooperatives settings.	Compare against incomes in **other comparable jobs** or against **government minimum wages**.
Method for data collection	Via **primary data**, i.e., survey	Via **primary data**, i.e., survey + **secondary research**	Via **primary data**, i.e., survey + **secondary research**

Source: Fair Circularity Initiative, Systemiq (2024). A living income for the informal waste sector: A methodology to assess the living income of waste workers in the context of the Global Plastics Treaty

Fair Circularity Initiative

EXAMPLE: THE INCOME GAP

Example output from case in Delhi

INCOME GAP
882 PPP $/FTE/month or 17,836 ₹/FTE/month

Poverty line[1]
454 PPP $/month
9,180 ₹/month

Extreme Poverty (World Bank)	Poverty (World Bank)	Vulnerable/ Near-poor	Decent Living

	Independent Waste Picker Revenues	Legal Minimum Wage	Formal Cooperative Waste Picker Revenues	Living Wage[2] Anker variant
Earnings for one full-time worker	415 PPP $/month 8,400 ₹/month	865 PPP $/month 17,494 ₹/month	890 PPP $/month 18,000 ₹/month	1,297 PPP $/month 26,236 ₹/month
Income for an average household	Average Independent Waste Picker Household Income 113 PPP $/month 284 ₹/month	N/A	Average Formal Coop. Waste Picker Household Income 1,068 PPP $/month 2,160 ₹/month	Living Income Anker variant 1,557 PPP $/month 31,484 ₹/month

Legend:
- A. Current waste picker incomes
- B. Living income
- C. Minimum wage & comparable incomes (benchmark)

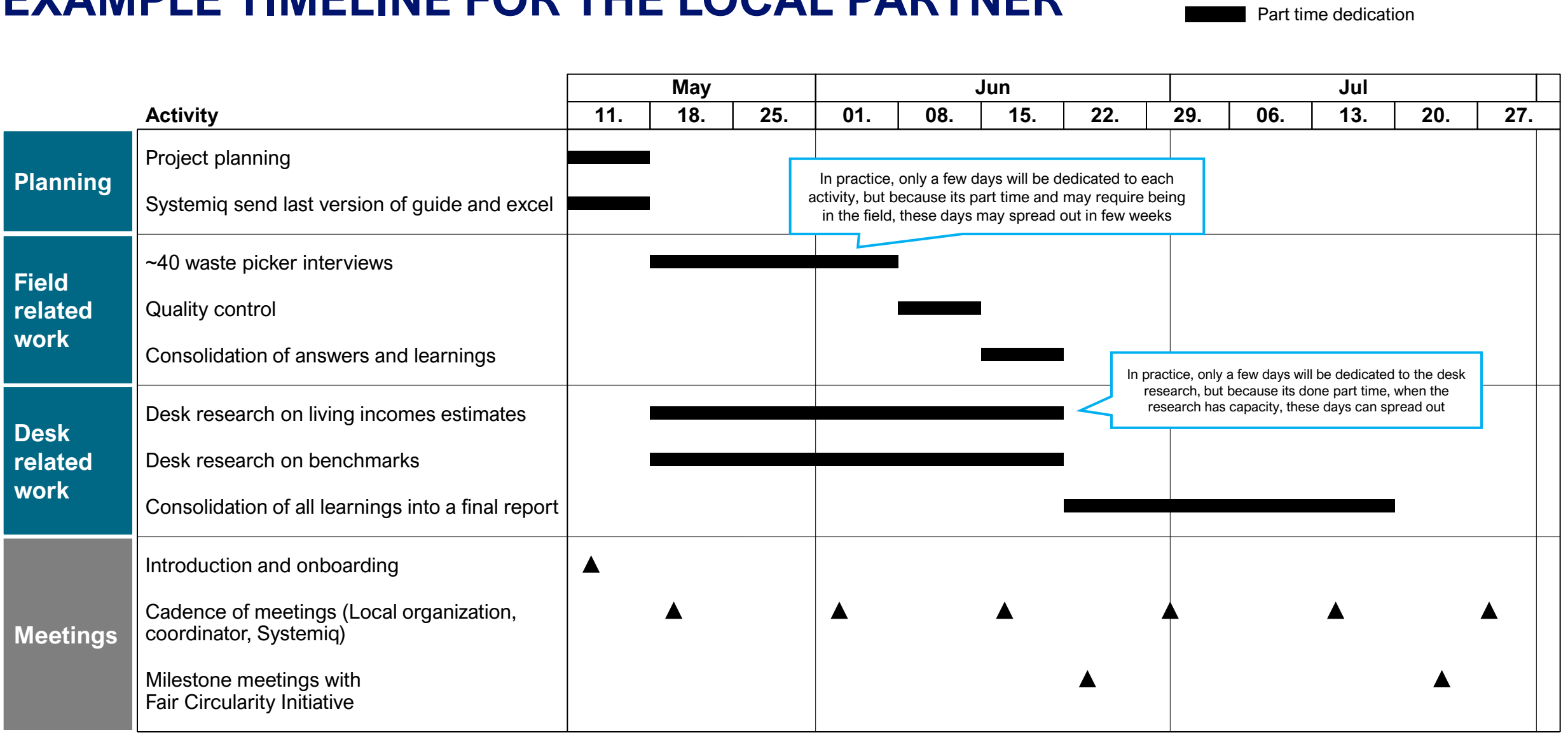
Wages from prevailing jobs:

Formal waste workers:	18,000 ₹/month	Agricultural Labourer	10,020 ₹/month
Construction workers:	19,620 ₹/month		

All $ are in PPP 2023
(1) World bank poverty line for lower middle income (3.65 $/cap/day - PPP 2017) corrected for inflation for 2023
(2) The concept of wage living is defined as remuneration received for a standard work week by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his family. Note that living incomes calculated in this study followed the Anker methodology but may not be considered Anker conformant given they have not been independently reviewed by the Anker Research Institute.
(3) Variant calculated by the Inter-Union Department of Statistics and Socio-Economic Studies (DIEESE) following a different methodology from Anker as it include leisure, transport, hygiene and clothing costs.

Fair Circularity Initiative

EXAMPLE TIMELINE FOR THE LOCAL PARTNER



Fair Circularity Initiative

METHODOLOGY GUIDE

Fair Circularity Initiative

A) CURRENT WASTE PICKER INCOME

Fair Circularity Initiative

THE METHODOLOGY FOLLOWS 3 STEPS TO COMPARE A LIVING INCOME VERSUS CURRENT WASTE PICKER EARNINGS AND BENCHMARKS

	Establish the baseline…	*Determine the need…*	*Compare against benchmarks…*
	A Current waste picker earnings	**B** Living income	**C** Legal minimum wage & comparable incomes
Objective	Define the **current earnings** by waste pickers or the salaries received by waste workers	Calculate the locally applicable living income required to guarantee a **decent standard of living** for workers in informal and cooperatives settings.	Compare against incomes in **other comparable jobs** or against **government minimum wages**.
Method for data collection	Via **primary data**, i.e., survey	Via **primary data**, i.e., survey + **secondary research**	Via **primary data**, i.e., survey + **secondary research**

Source: Fair Circularity Initiative, Systemiq (2024). A living income for the informal waste sector: A methodology to assess the living income of waste workers in the context of the Global Plastics Treaty

Fair Circularity Initiative

AGGREGATING DATA AND PREPARING OUTPUT

STEP 1

Collect ~40 interviews and input in the provided Excel sheet template.

(The following questionnaire helps with these interviews)

STEP 2

Conduct data quality control and delete outliers if the data is assessed to be flawed (only if applicable)

STEP 3

Draw the average for relevant typologies of the waste pickers (independent / in a cooperative)

STEP 4

Draw key insights from data

CURRENT EARNINGS: WASTE PICKERS SURVEY (1/3)

Conduct interviews with ~40 local waste pickers. Ensure sample is representative of local waste pickers by:

i. Gender representation
ii. Age balance
iii. Relevant mix of ways in which workers are organized

Section 1: About the interviewee

1. **Gender** *[Male, Female]*
2. **Age** *[open question]*
3. **Household size** [open question]
4. How many years ago did you start waste picking? *(optional question)* *[open question]*
5. Why did you start waste picking? *(optional question)* *[open question]*

Section 2: Waste management working conditions and organization

6. **Where do you get your waste from?** *Note, can choose more than one option. [streets, household, dumpsite/landfills, businesses, other]*
7. **Are you an independent worker or organized with peers?** *[independent waste picker, waste picker or worker informally organized, waste picker or worker formally organized*
8. **Do you also earn any income from other activities aside from waste picking?** *[Yes/No]*
9. **What other income generating activities do you have?** *[open question]*
10. **How many hours do you work on waste picking a day?** *[open question]*
11. **How many days do you work on waste picking a week?** *[open question]*

Section 3: Revenues from waste management activities

12. **Where and to whom do you sell the waste materials?** *[cooperative, junkshop, waste bank, other]*
13. **Do you know the price of materials you are getting before selling?** *[Yes/No]*
14. **How soon after collecting the materials do you get paid for them?** *[at delivery, at end of week, other]*
15. **How do you get paid?** *[cash, credits, online]*

CURRENT EARNINGS: WASTE PICKERS SURVEY (2/3)

Section 3:
Revenues from waste management activities

Please feel free to use data available from waste cooperatives to fill the following tables, if available.

16.	Total earnings from waste picking	Local currency / month
i.	Total earnings per month (earnings from services + from selling materials)	
ii.	Earnings from the service provided: for example, remuneration for providing the service of collecting waste or a base remuneration for collecting recyclables (irrespective of what type of materials are collected) Note this may not exist in all markets.	
iii.	Earnings from selling materials: Earnings from selling collected recyclables to the market	

17. Earnings from selling materials (%): Earnings from selling collected recyclables to the market

- Plastic, PET bottles
- Plastic, other rigids (e.g., HDPE)
- Plastic, flexibles
- Paper/Carton
- Glass
- Aluminum cans
- Other metal packaging (e.g., tinplate cans)
- Other non-packaging metals (e.g., electronics)
- Any other materials

18. Kilos collected (%)

- Plastic, PET bottles
- Plastic, other rigids (e.g., HDPE)
- Plastic, flexibles
- Paper/Carton
- Glass
- Aluminum cans
- Other metal packaging (e.g., tinplate cans)
- Other non-packaging metals (e.g., electronics)
- Any other materials

19. What are your main limitations to increase revenues from waste activities? To aid the interviewer, options can include – time availability, quality of material available, volumes of material available, competition from other waste pickers, physical conditions, lack of equipment e.g., pushcart/bicycle *[open question]*

CURRENT EARNINGS: WASTE PICKERS SURVEY (3/3)

Section 4: Expenses from waste management activities

20. **Do you have debt or obligations to your buyers?** *[Yes/No]*
21. **How much does this activity (of waste picking) cost you?** *(local currency / month) To aid the interviewer, cost buckets can include – gas/fuel, cost of buying materials from household or businesses, cost to access specific areas, cost of maintenance of vehicle, gloves, boots, else, etc.* *[open question]*
22. **Do you have access to a vehicle? If so, which one?** *[none, pushcart, bicycle, motorized bicycle, other]*

Section 5: Living expenses and conditions

23. **How much do you spend on food for yourself or your household (specify which) everyday?** *(local currency / individual or local currency / household)* *[open question]*
24. **Food Security Experience Scale.** During the last 12 months, was there a time when, because of lack of money or other resources when you: *[Yes/No – for each option below]*
    - were worried you would not have enough food to eat?
    - were unable to eat healthy and nutritious food?
    - ate only a few kinds of foods?
    - had to skip a meal?
    - ate less than you thought you should?
    - saw your household ran out of food?
    - were hungry but did not eat?
    - went without eating for a whole day?
25. **Do you own/have access to a living set-up with:** *[Yes/No – for each option]*
    - a house/flat built with acceptable materials
    - access to electricity,
    - proper lighting,
    - proper ventilation,
    - safe sanitation
    - sufficient living space
    - safe outside environment
    - no production / work in the house
26. **Does your work mean that you stay outside the home? If so, where? How would you describe your accommodation?** *[open question]*

Section 6: Job alternatives and savings from earnings

27. **Why do you pick and sell waste materials over another job?** *[open question]*
28. **What alternative job opportunities do you have?** *[open question]*
29. **How many days could you afford to live without a revenue?** *[open question]*
30. Are you able to save money for an unforeseen event? *[Yes/No]*
31. What is the best part of your job? *(optional question)* *[open question]*
32. What is the worst part of your job? *(optional question)* *[open question]*

Side note: Optional questions may be added by local project partners. They will not inform the outcome of the study directly. They may be helpful for:

- Creating trust during the interview (more personal)
- Obtain data from the social context for qualitative social studies outside this study
- Obtain more granular data to better understand some of the other data points

DATA COLLECTED FROM THE SURVEY SHOULD BE SEGMENTED BY THE TYPOLOGY OF THE WASTE PICKERS INTERVIEWED

Informal | **Formal**

Independent | **Organized**

Independent waste pickers

Description: Waste pickers that are informal and not organized

Examples:
- Waste pickers working independently e.g., in the streets or dumpsite
- Independent collection worker picking up waste from households for a fee

Waste picker or worker informally organized

Description: Waste pickers or informal workers that have no contracts or agreements with the cooperative or organizations that they operate with.

Cooperatives and other organizations may or may not be registered businesses.

Examples:
- Street or dumpsite waste pickers organized in an informal cooperative or similar
- Waste pickers / workers working in an informal junkshop or local aggregator
- Informal entrepreneur with a team picking up waste from households for a fee

Waste picker or worker formally organized

Description: Waste workers that have contracts or agreements with the cooperative they operate with.

Cooperatives and other organizations are generally registered.

Examples:
- Street or dumpsite waste pickers organized in a formal cooperative or similar
- Registered organization hired by council to pick up waste from households or businesses
- Workers of a formal waste bank

The above categories serve as a guidance for the typologies that could be used to when surveying informal waste pickers but the local organizations implementing these cases are free to chose the typology classification that works best in their context.

Fair Circularity Initiative

BEST PRACTICE AND WATCH-OUTS

- **When conducting surveys:**
  - **It is recommended to compensate waste pickers for their time**
  - Ensure it is run anonymously, and waste pickers' **identities and activities are protected**
  - Interviews are run constructively. Rephrase and change the order of questions to create an informal discussion
  - Interviews are run respectfully. Draw on the **local cultural context and knowledge** of waste pickers to ensure they do not feel embarrassed or insecure about answering personal questions
  - Ensure interviews are conducted such that **sufficient data points are available per segment/typology**

- **When processing data**:
  - **Record assumptions** made
  - **Critically evaluate responses** from interviews
  - Account for **outliers** in the data, e.g., excluding specific data points
  - Collect **data on earnings and volumes from cooperatives**, if needed to give a comprehensive response

WE ARE INTERESTED IN THE EARNINGS ONLY FROM WASTE PICKING AS IF THE WASTE PICKER IS DEDICATED FULL TIME

ALL earnings are to be reported in FTE (Full-time equivalent) figures for this study to allow a comparison across the sample.

Illustrative example: A part-time waste picker earns 100$ per month from waste picking but works 5 hours a day and only 3 days a week. **To compare across the sample, we would like to calculate his monthly income assuming he is a full-time waste picker.** This means converting his current part-time earnings to full-time equivalent (FTE) earnings –

1. **Convert to hourly rate using current part-time earnings –**

   100$ / (3 days x 5 hours/day x 4.33 weeks/month) = **1.54$/hour**

2. **Assuming the waste picker works at this hourly rate full-time, calculate monthly earnings –**

   1.54$/hour x (5 days x 8 hours/day x 4.33 weeks/month) = **267$ per month**

A part-time waste picker earning 100$ per month would earn 267$ per month full-time (FTE).

B) CALCULATING LIVING INCOME

Fair Circularity Initiative

THE METHODOLOGY FOLLOWS 3 STEPS TO COMPARE A LIVING INCOME VERSUS CURRENT WASTE PICKER EARNINGS AND BENCHMARKS

	Establish the baseline…	*Determine the need…*	*Compare against benchmarks…*
	A Current waste picker earnings	**B** Living income	**C** Legal minimum wage & comparable incomes
Objective	Define the **current earnings** by waste pickers or the salaries received by waste workers	Calculate the locally applicable living income required to guarantee a **decent standard of living** for workers in informal and cooperatives settings.	Compare against incomes in **other comparable jobs** or against **government minimum wages**.
Method for data collection	Via **primary data**, i.e., survey	Via **primary data**, i.e., survey + **secondary research**	Via **primary data**, i.e., survey + **secondary research**

Source: Fair Circularity Initiative, Systemiq (2024). A living income for the informal waste sector: A methodology to assess the living income of waste workers in the context of the Global Plastics Treaty

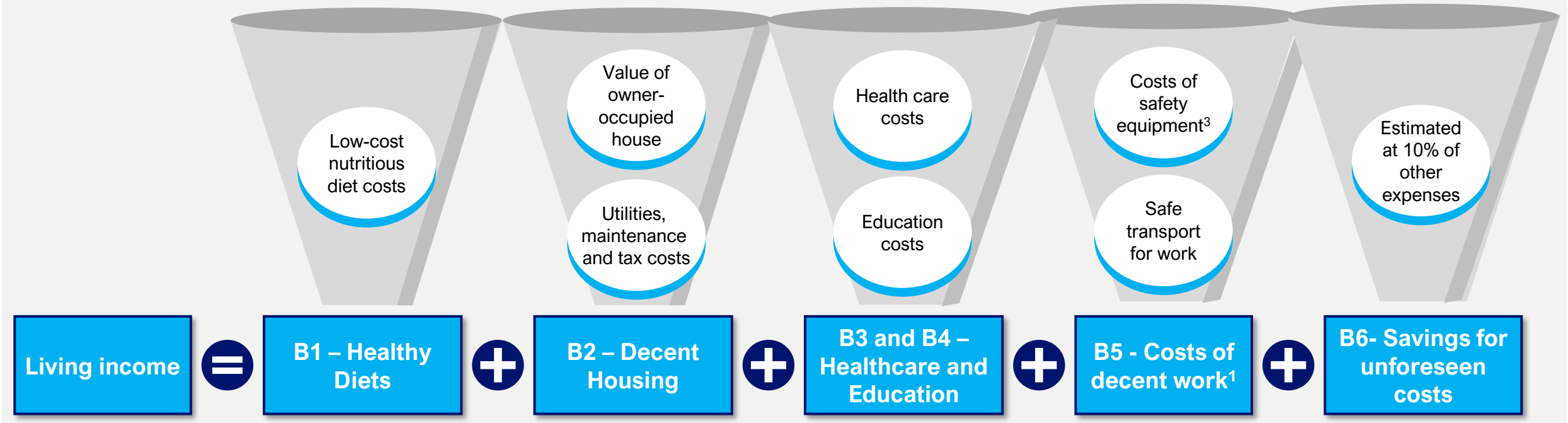
Fair Circularity Initiative

THE LIVING INCOME IS THE SUM OF ALL THE HOUSEHOLD COSTS TO GET A DECENT STANDARD OF LIVING

In this methodology, we build from the Anker methodology and add sector-specific challenges i.e. costs of decent work.

- **Note, for this section we calculate data for the average household and NOT the individual waste picker.** This is because many costs are incurred at a household level, e.g., decent living, education, etc.
- **We then use full-time equivalent workers** to determine the size of the average household and **ultimately get the living income at the individual worker level.**

Unit: USD (or local currency) earnings per month for average household



[1] Costs of workplace safety equipment such as gloves and boots

Fair Circularity Initiative

B1 – HEALTHY DIET

This needs to be estimated by the local project partner

Key questions for local project partner to answer:

How much does it cost per month to provide a low-cost nutritious diet for a typical household?

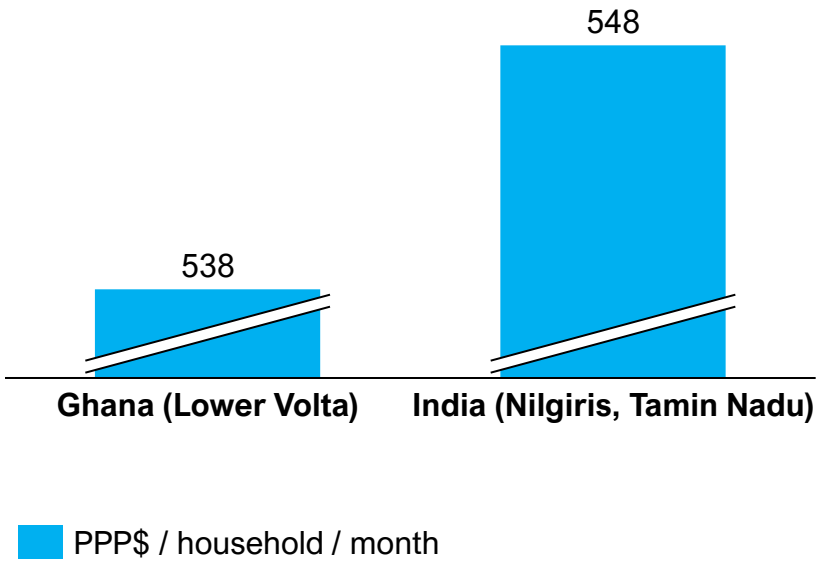
APPROACH

Food Cost

Via secondary data

- We suggest relying on secondary data rather than performing extensive local surveys on food diet.
- Data is available for most countries[1].
- The local project partner / interviewer should assess the validity of the provided numbers for their project location. They may need to be updated, e.g., to adjust for inflation.
- Project partners can also use local surveys to estimate local costs if the Anker data is not suitable.

EXAMPLE



[1]https://www.ankerresearchinstitute.org/ari-country-index
Note: All $ are in PPP 2023:
PPP conversion factor 2023 INR to USD is 0.04682 USD
PPP conversion factor 2023 GHS to USD is 0.34112 USD

Fair Circularity Initiative

B2 – DECENT HOUSING – QUESTIONS

Key questions for local project partner to answer:

1. How much does it cost to build or rent decent housing that fulfils the parameters below?

2. How much do utilities cost (e.g., water, electricity, cooking fuel, heat, lighting, etc.) per month?

Key parameters that define what qualifies as decent housing

- Walls from durable materials without leaks (e.g., well-joined bricks or cements)
- Roof from durable materials without leaks (e.g., cement, tile, zinc/iron sheets)
- Floor from durable materials without leaks (e.g., cement, stone, tile, wood – cannot be mud or dung)
- Safe sanitation (Flush toilet, pit latrine with slab, or VIP toilet; in or near the house; shared by <15 people)
- Safe drinking water not far from home (Piped into house/yard, pump, public tap, protected well, or bore hole)
- Good ventilation quality (≥1 window per room; adequate evacuation of fumes when cooking indoors)
- Adequate lighting (>1 window per room or another light source (e.g. electricity, kerosene, or dry cells)
- Comfortable ambient temperature (Indoor heating or air conditioning in areas with extreme temperatures)
- Sufficient living space (36-60 m2 ; Ceiling ≥2 m)
- Sufficient bedrooms (max 3pers/bedroom)
- Proper house conditions (house in good state of repairs and good foundations)
- Safe outside environment (No risk of landslides, flood zones, industrial pollution, surface water drainage, etc.)
- Separated from production (animal housing outside of the house)

B2 – HOUSING COSTS – APPROACH

This needs to be estimated by the local project partner

Housing costs

Costs	Primary data	OR	Secondary data
Building or Buying Housing	Building costs for acceptable local housing. This is estimated by taking the monthly depreciation costs of the building over the average building lifetime, plus maintenance costs.		Average real estate prices in the local area
OR			
Rent	Rent for acceptable local housing or user cost of owner-occupied housing in locations with small rental market. *Note, waste pickers could be asked where would they move if they had marginally higher income and how much would the rent be in this locality?*		Average renting price for buildings in different regions
✚			
Utilities	Surveys of local utility costs per household e.g. monthly expenditure on water, gas, electricity etc.		Percentage of household expenditure for utilities from household expenditure survey

- Local project partners should **choose the appropriate data source, depending on the local circumstances**. For example, informal waste pickers in the area might not have the opportunity to build their own house and rather need to rent.
- If results from the sample vary greatly, **interview 3-5 additional waste pickers.**
- **Data may be available from national statistic offices. If so, fewer interviews may be sufficient.**
- Research local housing standards to **check whether aligned with the decent housing parameters explained** in the previous page.

B2 – HOUSING COSTS – EXAMPLE

Example output from case in Sao Palo

Example from locations in Sao Paulo, Brazil

In the Brazilian case researchers calculated housing costs as the sum of renting costs and utilities. Building a home was determined to not be a feasible option for informal waste pickers and was not included.

Housing costs

Costs	Approach	Result (in US Dollars)[1]	Result (in Reals)
Building or buying housing	Not a feasible option for informal waste pickers due to high costs	N/A	N/A
OR			
Rent	To estimate the cost of rent, the Brazilian researcher used one of the largest collaborative platforms that brings together a database on different aspects of the cost of living in Brazilian cities. (Cost of Living Index for the Municipality of São Paulo - ICV-DIEESE August 2023 - General Index)	200$ per month	980 R$ per month
+			
Utilities	The Brazil team asked four workers from different occupations (formal waste collector, business office maid, informal domestic laborer and formalized domestic worker) about their monthly utilities costs (electricity, water, gas)	54$ per month	270 R$ per month
Total costs	The Brazil team then took the average for the two categories (rent and utilities) and added them up for the total housing costs.	**254$ per month**	**1250 R$ per month**

1. Note: All $ are based on 2023 forex, assuming 1 BRL is 0.20359 USD

B3 – HEALTHCARE COSTS – QUESTIONS

This needs to be estimated by the local project partner

The aim of this step is to calculate the average healthcare costs, as part of the living income, per waste picker

Key questions for local project partner to answer

- **Cost of exclusion check:**
  - Are waste pickers excluded from certain services which could results in higher cost of living? (e.g., healthcare, education or others) if so which ones and what cost does it represent?
- **Healthcare:**
  - Is basic health care insurance available for waste pickers?
  - What is the cost of basic health care insurance per household per month?
  - What health care services are included?
  - For health care services which are not covered by health care insurance?
    - What are the top 5 most common diseases/situation when healthcare services are required?
    - What is the average unit cost for each? (e.g., consultation, medicine)
    - What is the average number of treatments per year?

B2 – HEALTHCARE COSTS – APPROACH

This needs to be estimated by the local project partner

Before estimating costs, check if waste pickers are excluded from national healthcare services which could result in a higher cost of living through interviews with waste pickers and/or local secondary research from NGOs, academia and other institutions.

		Costs	Primary data	OR	Secondary data
			Basic costs for healthcare insurance…		
Healthcare Costs	Basic costs	Is basic healthcare **available**?	Interviews with waste pickers (mostly informal waste pickers)		Local secondary research from NGOs, academia and other institutions And government data, as available
		What is the **cost of basic healthcare insurance?**			
		What healthcare services are **covered**?			
			Extra costs outside healthcare insurance…		
	Extra costs	What are the **top 5** most common diseases/situations when healthcare services are required?	Interviews with waste pickers (mostly informal waste pickers)		Local secondary research from NGOs, academia and other institutions
		What is the **average unit cost** for each? (e.g., consultation, medicine)			
		What is the **average number of treatments** per year?			

- **If results from the sample vary greatly, interview 3-5 additional waste pickers.**
- **Data may be available from national statistic offices. If so, fewer interviews may be sufficient.**

B3 – HEALTHCARE COSTS – EXAMPLE (1/2)

Example output from case in Sao Palo

Example from locations in Sao Paulo, Brazil

In Brazil, a universal healthcare system exists, but many individuals decide to not use it because of long wait times, social stigmas, etc. The local partner therefore, estimated the 'extra healthcare cost' using data from the Cost-of-Living Index.

	Costs	Approach	Result (in US Dollars)[1]	Result (in Reals)
Healthcare costs	**Cost of exclusion**	Informal waste pickers have access to the universal healthcare system in Brazil that covers all diseases. Brazilian waste pickers often decide not to use public healthcare because of social stigmatization and a lack of accessibility.	None	None
	Basic healthcare costs	Informal waste pickers have access to the universal healthcare system in Brazil that covers all diseases. Brazilian waste pickers often decide not to use public healthcare because of social stigmatization and a lack of accessibility.	None	None
	+			
	Extra healthcare costs	This cost is incurred by households despite the universal health insurance. Some people decide against universal healthcare because of long waiting times, social stigma and other factors. The data is from the cost-of-living index for the local area. (Cost of Living Index for the Municipality of São Paulo - ICV-DIEESE August 2023 - General Index).	51$ per month	250 R$ per month
	Total costs	Only 'extra healthcare cost' is relevant	**51$ per month**	**250 R$ per month**

1. Note: All $ are based on 2023 forex, assuming 1 BRL is 0.20359 USD

B3 – HEALTHCARE COSTS – EXAMPLE (2/2)

Example from locations in Bangalore, India

Example output from case in Bangalore

In India, a state healthcare system exists, but many do not have access and rely on private healthcare.
The local partner calculated healthcare costs as a sum of basic healthcare and extra healthcare costs (which is estimated from the unit cost of treatment and number of treatments for most common diseases)

		Costs	Approach	Result (in US Dollars PPP)[1]	Result (in Rupees)
Healthcare costs	Basic costs	**Basic healthcare costs**	Surveys with relevant informal waste pickers revealed the top-down estimation of state healthcare. Most do not have access to subsidized public healthcare (often due to a lack of documentation) and therefore rely on private healthcare.	$19 – 235 per year	400 – 5000 Rupees per year
	+				
	Extra costs	**Top 5** most common diseases/situations when healthcare services are required?	Surveys with 3-4 informal waste pickers revealed bottom-up costs of extra healthcare costs since waste pickers tend to use private healthcare.	1. Allergies-skin. 2. Body ache-back pain-knee pain. 3. Gastric – stomachache. 4. Women's issues – childbirth. 5. Disability issues	
		Average unit cost for each (e.g., consultation, medicine)		**17.7$** on average per treatment (ranging from $5-164)	**100 – 3500** Rupees per treatment
		Average number of treatments per year		**7-8** times per worker	
		Total costs	The final cost is an estimate of the unit costs per treatment, multiplied by the number of treatments per year.	17.7$ x 7 = **124$ per month**	**2650 Rupees per month**

Note: All $ are in PPP 2023
1. PPP conversion factor 2023 INR to USD is 0.04682 USD

B4 – EDUCATION COSTS – QUESTIONS

This needs to be estimated by the local project partner

The aim of this step is to calculate the average education costs for the household's children, as part of the living income, per waste picker.

Key questions for local project partner to answer

What are the household out-of-pocket expenses per child for one year for public primary school and lower secondary school per month?

- **School fee** (and other charges such as exam fee when applicable)
- **Clothing** (e.g., uniforms, shoes, schoolbag)
- **Materials** (books and supplies)

B4 – EDUCATION COSTS – APPROACH

This needs to be estimated by the local project partner

Education costs

Costs	Primary data	OR	Secondary data
School fee (primary and secondary school fee, exam fees, etc.)	**Interviews** with waste pickers, school personnel, and other key informants.		**Local secondary research from NGOs and others**. Alternatively, **government information** on costs.
Clothing (e.g., uniforms)			
Materials (e.g., stationary, books, etc.)			

- **If results from the sample vary greatly, interview 3-5 additional waste pickers.**
- **Data may be available from national statistic offices. If so, fewer interviews may be sufficient.**

Fair Circularity Initiative

B4 – EDUCATION COSTS – EXAMPLE

Example output from case in Bangalore

Example from locations in Bangalore, India

Total education costs are a sum of primary and secondary school fee, exam fees and clothing in India. Annual costs per child are available and converted to monthly costs per household.

Education costs

Costs	Approach	Result (in US Dollars PPP)[1]	Result (in Rupees)

School fee (primary and secondary school fee, exam fees, etc.)	Surveyed 3-4 respondents on the costs of primary / secondary education and exams per child. Chose lower end of costs for government subsidized education.	• **Primary school**: Avg - 300$ per year (range from $234 – 1600)
		• **Sec. school:** Avg - 400$ per year (range from $470 - 2100)
		• **Exam fee:** 164$ per year
			• **Primary school:** 5k – 35k Rupees per year
			• **Sec. school:** 10k – 45k Rupees per year
			• **Exam fee:**
			  • Primary school: 1k – 1.8k Rupees per year
			  • Sec. school: 6k – 7k Rupees per year

Clothing (e.g., uniforms)	Government school uniforms are free but stitching needs to be paid by the family.	• **70$ per year**	• **1500 Rupees per year**
Materials (e.g., stationary, books, etc.)	Books are provided in government schools.	• **None**	• **None**
Average number of children per household	Based on Anker data that can be found here (LINK)	• **3 children**	
Total costs	The Indian team took the approximate average for the primary and secondary school fees and added an average for the unform and exam costs	Total yearly costs (934$) x number of children / 12 for monthly costs **Total monthly cost: 234$**	**5000 Rupees**

Note: All $ are in PPP 2023

1. PPP conversion factor 2023 INR to USD is 0.04682 USD

B5 – COST OF DECENT WORK – QUESTIONS

This needs to be estimated by the local project partner

Key questions for local project partner to answer

Costs of safety equipment per month:

- What is the cost of gloves?
- What is the cost of masks?
- What is the cost of boots?
- What is the cost of a work uniform?
- What is the cost of aprons?

What is the cost of safe transport? (this could include e.g., public transport, a pushcart, private vehicle. Depending on local context)

B5 – COST OF DECENT WORK – EXAMPLE

Example output from case in Bangalore

Example from locations in Bangalore, India

Cost of decent work is a sum of cost for different items (gloves, masks, boots, etc.). This is calculated for the household by using an estimate of the FTWE for India.

Cost of decent work

Costs	Approach	Result (in US Dollars PPP)[1]	Result (in Rupees)
Gloves	Estimated from surveying relevant shops. Informal waste pickers are assumed to use four gloves per moth	7$ per month	156 Rupees per month
Masks	Estimated the surveying relevant shops. Informal waste pickers are assumed to use four masks per month.	3$ per month	61 Rupees per month
Boots	Data not available	N/A	N/A
Uniform	Estimated from surveying relevant shops. Informal waste pickers are assumed to buy two uniforms per year.	31$ per year	661 Rupees per year
Apron	Estimated by surveying 3-4 informal waste pickers.	23$ per year	500 Rupees per year
Safe transport	Estimated monthly costs via average prices for public transport or auto rickshaw.	35$ per month	758 Rupees per month
Total costs	Total cost of safe work for all categories multiplied by the Full-time Worker Equivalent (FTWE) per household specific to India. This is because all workers in the household require protection.	55$ per month x 1.65 (FTWE) = **90$ per month**	1160 Rupees per month x 1.65 (FTWE) = **1928 Rupees per month**

- **If results from the sample vary greatly, interview 3-5 additional waste pickers.**
- **Data may be available from national statistic offices. If so, fewer interviews may be sufficient.**

Note: All $ are in PPP 2023
1. PPP conversion factor 2023 INR to USD is 0.04682 USD

B6 – SAVINGS

This needs to be estimated by the local project partner

Key questions for local project partner to answer

How much should households save to account for unforeseen circumstances (e.g., emergencies, extended family support, etc.) per month?

Savings are estimated at 10% of the final living income estimate for the surveyed locations

The savings are then added to the final living income estimate

Example

	Sum of B1 – B5	x	**10%**	=	**Savings**
For example, India:	**1709$ per month**	x	**10%**	=	**170.9$ per household**

C) COMPILING BENCHMARK INCOMES

Fair Circularity Initiative

THE METHODOLOGY FOLLOWS 3 STEPS TO COMPARE A LIVING INCOME VERSUS CURRENT WASTE PICKER EARNINGS AND BENCHMARKS

	Establish the baseline…	*Determine the need…*	*Compare against benchmarks…*
	A Current waste picker earnings	**B** Living income	**C** Legal minimum wage & comparable incomes
Objective	Define the **current earnings** by waste pickers or the salaries received by waste workers	Calculate the locally applicable living income required to guarantee a **decent standard of living** for workers in informal and cooperatives settings.	Compare against incomes in **other comparable jobs** or against **government minimum wages**.
Method for data collection	Via **primary data**, i.e., survey	Via **primary data**, i.e., survey + **secondary research**	Via **primary data**, i.e., survey + **secondary research**

Source: Fair Circularity Initiative, Systemiq (2024). A living income for the informal waste sector: A methodology to assess the living income of waste workers in the context of the Global Plastics Treaty

Fair Circularity Initiative

BENCHMARKING APPROACH

This needs to be estimated by the local project partner

We benchmark the current income of waste pickers against a benchmark based on earnings of individuals in comparable professions or the minimum wage in a country (if applicable)

Key questions for local project partner to answer

Is there a minimum wage locally, if so, how much is it?

How much do local government waste workers earn?

How much income are local alternative job opportunities offering (e.g., construction work, agricultural work, logistic and trade work etc.)

APPROACH

We suggest relying on government statistics and surveys based on available data: Official government statistics can usually be accessed through government websites.

If existing secondary data is not available, conduct surveys with local experts to answer key questions: This can be a limited set of interviews (max. 10 experts). The surveys should be conducted with respondents that have insights into local wages (either because they work in those sectors or employ in those sectors). Biases should be avoided by asking a diversity of respondents.

EXAMPLE: HOW TO CALCULATE THE BENCHMARK DATA

Example from locations in Bangalore, India

Example output from case in Bangalore

	MINIMUM WAGE	GOVERNMENT WAGE	AVERAGE INCOMES FOR COMPARABLE SECTORS
	The lowest remuneration that employers are legally required to pay workers	*The prevailing remuneration that is paid by the local government to workers*	*Prevailing average remuneration for comparable sectors such as agriculture*
Benchmark earnings	▪ Via government statistics	▪ Via government partner ▪ Indian Example: Legal Minimum Wage 910 PPP $/month 19,200 ₹/month	▪ Via survey (max. 10 respondents) ▪ Income generated through waste picking, construction work, agricultural labour ▪ For instance, formal waste workers: 7,800 Rupees per month ▪ Agricultural laborers: 10,100 Rupees per month
Sources	▪ The minimum wage can usually be accessed through official government websites.	▪ The government wage can usually be accessed through official government websites.	▪ Conduct survey of max. 10 respondents on wages in sectors such as formal waste worker and agricultural labourers.

ANNEX

Fair Circularity Initiative

CONVERSION TO PPP USD

To compare current income, living income and benchmarks across countries we convert all figures from local currency to PPP USD

	Local currency	x	PPP conversion factor	=	Figure in PPP USD
For example, Brazil…	**R$1000**	x	**0.40984**	=	**$409.84**

Source: *World Bank*[1]

[1] https://data.worldbank.org/indicator/PA.NUS.PPP

Example output from case in Sao Palo

CASE STUDY

Brazil

REGIONS

Várzea da Barra Funda and Tomas Edson Industrial Park, Barra Funda District; Tatuapé, Tatuapé District; Brás, Downtown District; Ipiranga, Ipiranga district, **São Paulo**

CURRENCY

Brazilian Real (R$)

POPULATION

215 Million

THE INCOME GAP

Example output from case in Sao Palo

INCOME GAP
170 $/FTE/month or 1,000 R$/FTE/month

Poverty line[1]
79 $/month
1,850 R$/month

	Independent Waste Picker Revenues	Legal Minimum Wage	Living Wage[2] Anker variant	Formal Cooperative Waste Picker Revenues
Earnings for one full-time worker	270 $/month 1,340 R$/month	320 $/month 1,550 R$/month	480 $/month 2,340 R$/month	600 $/month 2,930 R$/month
Income for an average household	Average Independent Waste Picker Household Income 470 $/month 2,290 R$/month	N/A	Living Income Anker variant 810 $/month 3,990 R$/month	Average Formal Coop. Waste Picker Household Income 1,030 $/month 5,050 R$/month

Legend:
- A. Current waste picker incomes
- B. Living income
- C. Minimum wage & comparable incomes (benchmark)

Independent waste picker revenues from other sources:

National average:	1,450 R$/month
Southwest average (relevant for São Paulo):	1,570 R$/month

Wages from prevailing jobs:

Formal waste workers:	1,650 R$/month	Domestic Workers:	1,700 R$/month
Construction workers:	2,280 R$/month	Plastic recycling industry (production line):	2,100 R$/month

(1) World bank poverty line for lower middle income (3.65 $/cap/day - PPP 2017) corrected for inflation for 2023
(2) The concept of wage living is defined as remuneration received for a standard work week by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his family. Note that living incomes calculated in this study followed the Anker methodology but may not be considered Anker conformant given they have not been independently reviewed by the Anker Research Institute.
(3) Variant calculated by the Inter-Union Department of Statistics and Socio-Economic Studies (DIEESE) following a different methodology from Anker as it include leisure, transport, hygiene and clothing costs.

Fair Circularity Initiative

CURRENT WASTE PICKER EARNINGS

Example output from case in Sao Palo

Average earnings

9 R$** hour **77 R$ day **1,790 R$** month

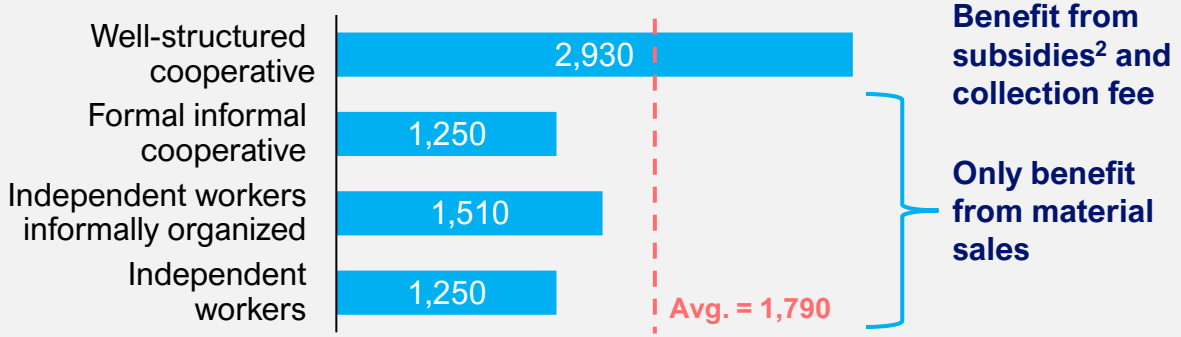
Key Features

55% have access to a vehicle for work (pushcart/car)

78% know the price of their waste materials before selling

25% have obligations to their buyers

Average earning per worker typology, R$/month



Main limitation to increase revenues[3]

- Lack of transparency on pricing and pricing fluctuations
- Lack of equipment (e.g., small tools) and heavy machinery (e.g., baler)
- Lack of infrastructure (e.g., building with access to electricity and water, storage)
- More and more efficient vehicle (e.g., from pushcart to car, from car to truck)
- Increased competition between waste pickers leading to less materials available and lesser high-quality materials
- Lack of collaboration and recognition with/from public authorities (e.g., cooperative contract, land to work)

((1) cooperative which has a warehouse and some heavy equipment. They are a formally registered organization but are not registered with government waste system as such they cannot apply to pay-back schemes (EPR/PRO) nor to have formal agreement with local government for collection.
(2) fee from deposit system and as part of a local packaging recovery scheme
(3) Contracts signed between waste pickers' cooperatives and municipalities to provide collection and transport services for the collection of recyclables. These services may include, in whole or in part the following activities: selective household collection, waste transportation, environmental education campaigns, sorting of recyclable materials, and environmentally correct disposal
(4) based on survey, open-ended question with no pre-selected answers.

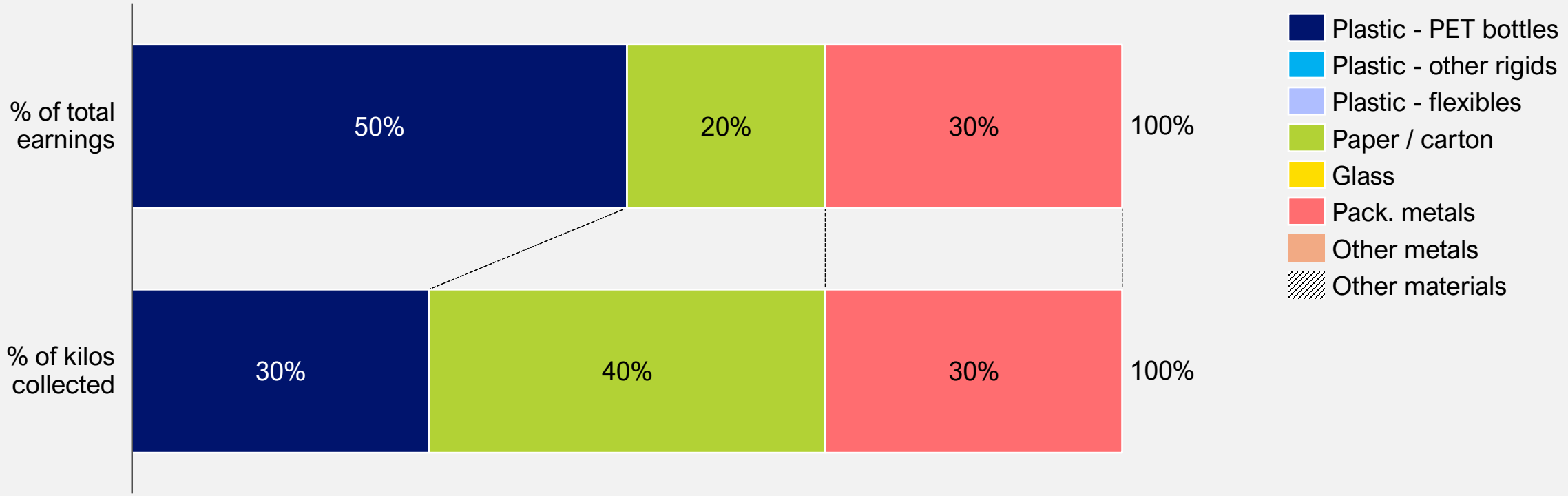
Fair Circularity Initiative

WASTE PICKER EARNINGS BY MATERIAL TYPE

Illustrative example

ABOUT

Waste pickers predominantly collect paper and carton waste, but a significant portion of revenues comes from plastic packaging and metals because of higher availability and selling prices.



Fair Circularity Initiative

LIVING INCOME

Example output from case in Sao Palo

Living wage per waste pickers

2,340 R$ month (full time worker supporting an average household)

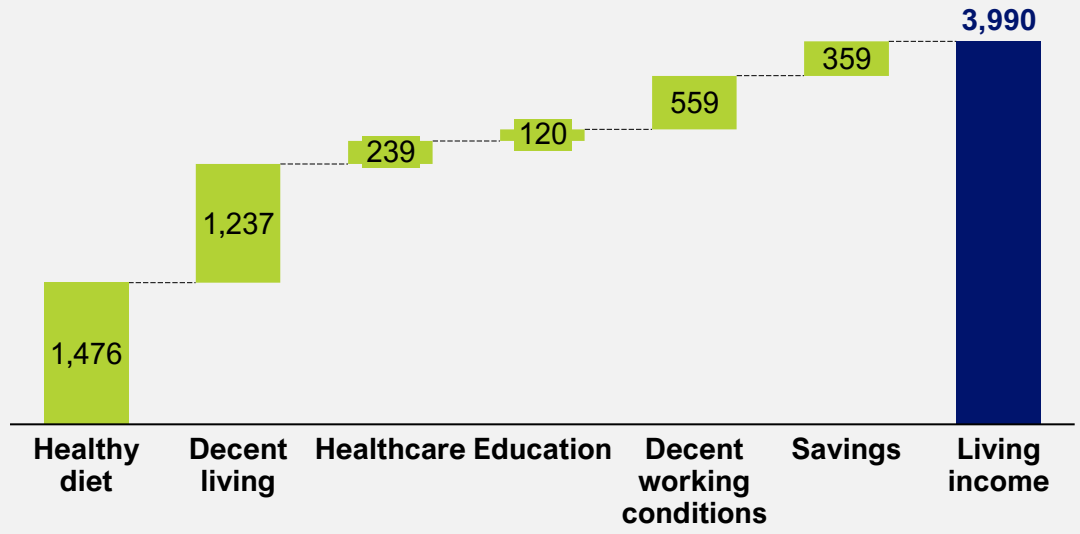
Living income per household

3,990 R$ month (for an average household)

Household characteristic used for the study:

- Household size : 4 (2 adults + 2 Children)
- 1.71 full time workers per household.[4]

Healthy diet and decent living represents around two thirds of household expected living income expenditures

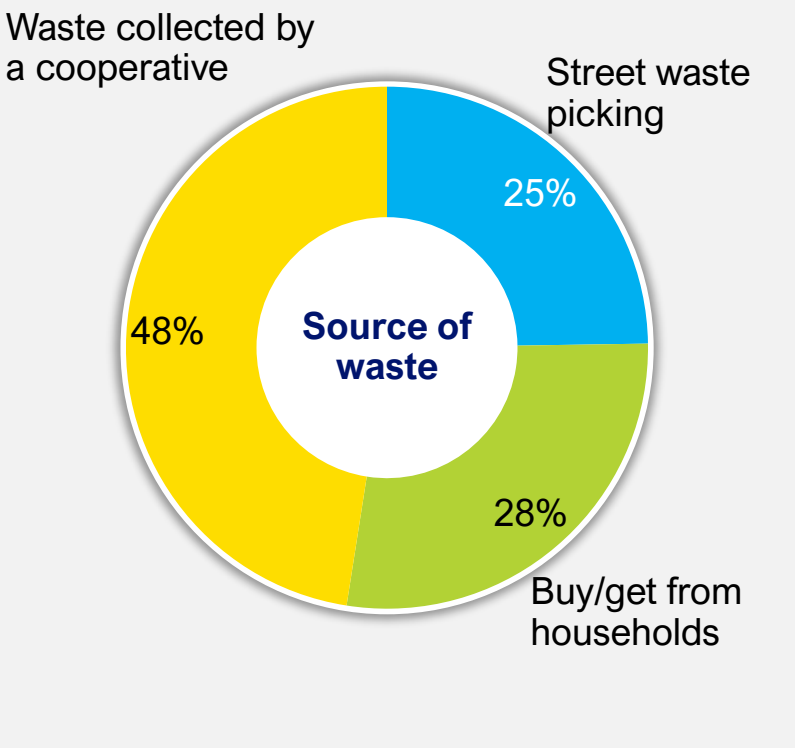


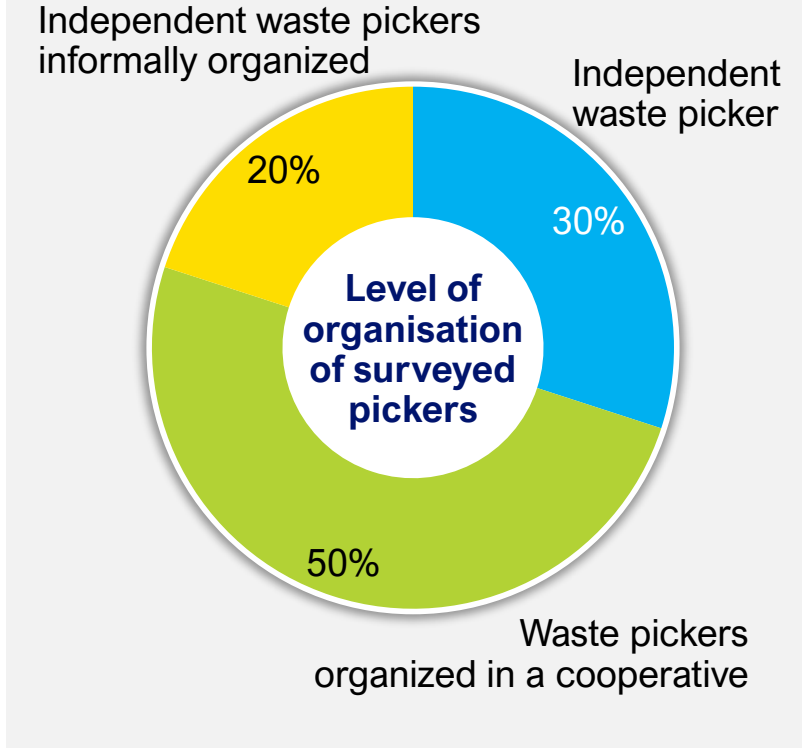
(1) Cooperative which has a warehouse and some heavy equipment. They are a formally registered organization but are not registered with government waste system as such they cannot apply to pay-back schemes (EPR/PRO) nor to have formal agreement with local government for collection.
(2) Fee from deposit system and as part of local packaging recovery scheme.
(3) Based on survey, open-ended question with no pre-selected answers.
(4) According to Anker methodology, the formula to calculate the number of full time worker equivalent (FTWE) is the following. FTWE = 1 + [LFPR x (1 – UR) x (1 – PT / 2)]; where LFPR is the activity rate (% of male and female working), UR is the unemployment rate (% of active male and female currently unemployed), PT is part time rate (% of active male and female workers working part time).
(5) Previously estimated incomes show that they are not able to meet the high end (15 R$/cap/day) daily. Alone this cost would be 1,450 R$/month.
(6) 50 years is the timeline recommended by Anker Living Methodology.
(7) Savings is assumed to be 10% according to Anker Methodology.

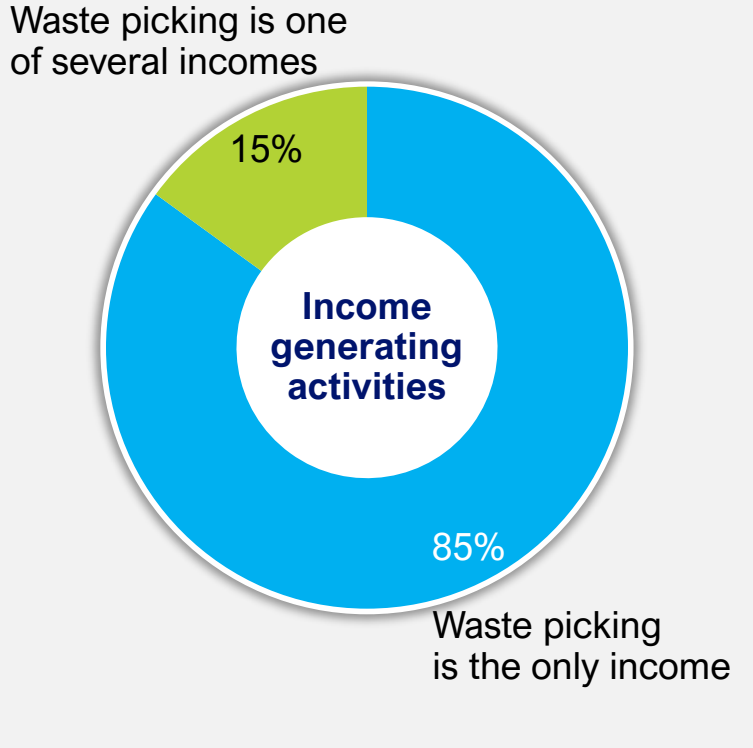
Fair Circularity Initiative

TYPOLOGY OF SURVEYED WASTE PICKERS

Example output from case in Sao Palo







About the population surveyed : three categories of waste pickers were studied with different characteristics.
(1) Informal and independent, some have their own houses, others are homeless living in tents/shelters or live in squats.
(2) Independent and informally organized (share a land/storage but compete on sales), receiving waste from a cooperative. Focus on sorting.
(3) Formal and organized waste pickers from two well-structured cooperatives benefiting from adequate equipment and infrastructure and high productivity.
Gender : 43% Female – 57% Male[1]
Household size : 3.3;
Average working week : 47 hours

Fair Circularity Initiative

WASTE PICKER QUESTIONNAIRE RESULTS

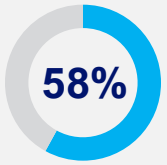
Example output from case in Sao Palo

WASTE PICKER QUESTIONNAIRE

Most waste pickers surveyed faced strong food insecurity, running on low to no safety net, but access to decent housing could be improved

Food Insecurity Experience Scale[2]

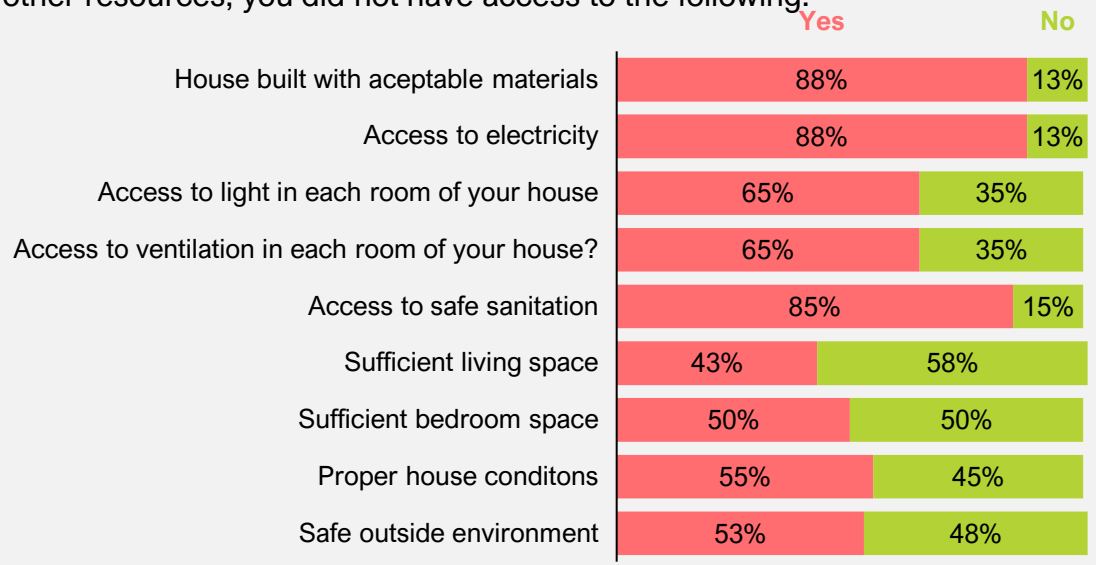
During the last 12 months, was there a time when, because of lack of money or other resources.,.



Mentioned they cannot afford to live without a revenue
the rest has enough savings to last between a week and a month

Decent Housing Survey[3]

During the last 12 months, was there a time when, because of lack of money or other resources, you did not have access to the following:



11 m²/person is below decent housing standard according to Anker methodology[5]

(1) Gender sampling was performed to represent waste picker population
(2) FAO survey
(3) Anker methodology criteria
(4) Homeless waste pickers were excluded in this average; they represent 10% of the survey respondents
(5) For Brazil the recommended value is 15m2/person;

Fair Circularity Initiative