
LIVING INCOME RESULTS

TOOLKIT

CONTEXT AND DOCUMENT STRUCTURE

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.
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.



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.

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.



NAVIGATION PAGE

The manual splits into three chapters and is accompanied by an Excel and Word template

Example of how a case study looks like

This sections shows the outcome of the living income assessment and the methodology once it has been conducted by the local project partner ([Page 6 to 14](#))

Introduction to the methodology

This section introduces methodology and explains its concept & structure ([Page 15 to 20](#))

Methodology guide

This section gives a step-to-step guide on how to implement the methodology ([Page 21 to 58](#))

- A- Establish a baseline – Explains how to estimate current earning of informal waste pickers ([Page 24 to 31](#))
- B - Calculating living income – Explains how to estimate living income levels ([Page 32 to 54](#))
- C - Compiling benchmarks – Explains how to compile benchmark wages ([Page 55 to 58](#))

Excel document

The PowerPoint manual is accompanied by an Excel template that enables the project partner to enter their survey results.

Word document

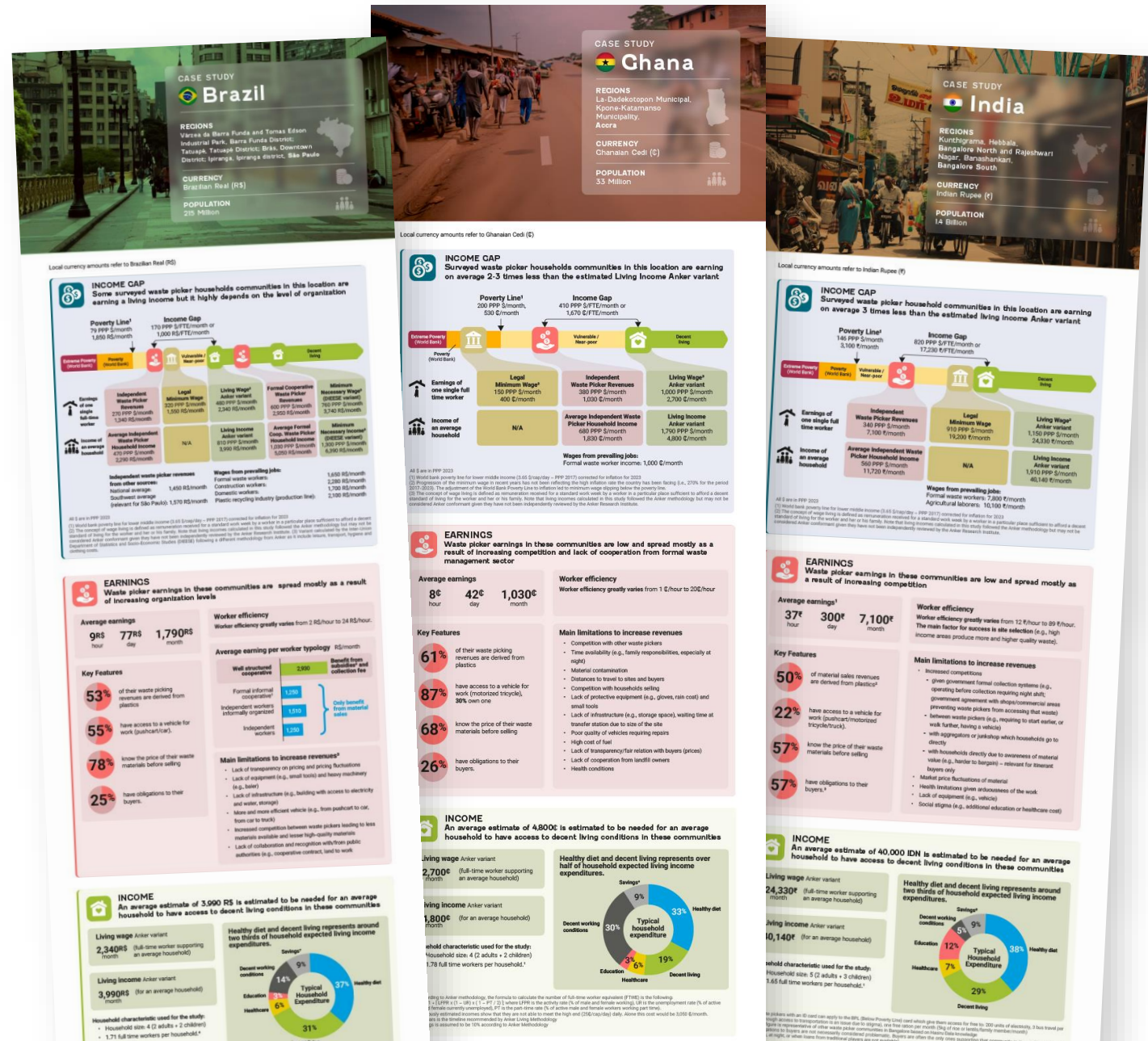
The PowerPoint manual is accompanied by a Word template that enables the project partner to submit their survey results and critical assumptions when undertaking the research.

EXAMPLE OF HOW A CASE STUDY LOOKS LIKE

WHAT WE ARE AIMING FOR

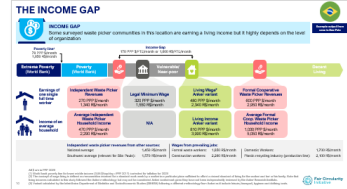
During 2023, local project NGOs in India, Brazil and Ghana implemented the methodology, and the results were published in the [Living Income Study](#).

This toolkit is meant to be a step-by-step guide to build similar case studies in different locations.



WHAT ARE WE TRYING TO BUILD IN EACH CASE STUDY? EACH CASE STUDY CONSISTS OF AN OVERVIEW OF THE INCOME COMPARISON AND DETAILED INFORMATION BOXES

Income Gap



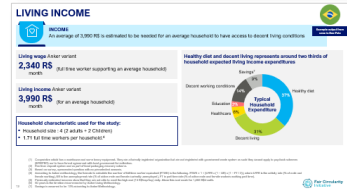
Shows the income gap between current earnings and the living income

Earnings



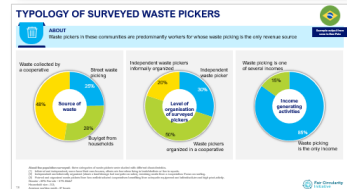
Shows the current earnings of waste pickers by typology and the main limitations to increase revenues.

Living Income



Shows the living income for waste pickers in the locations

Typology



Shows the typology of waste pickers

Waste pickers questionnaire results



Shows key survey data for informal waste pickers

The next six pages show an example case study of informal waste picking communities in Sao Paulo, Brazil. Results for Ghana and India are available in the full report.



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

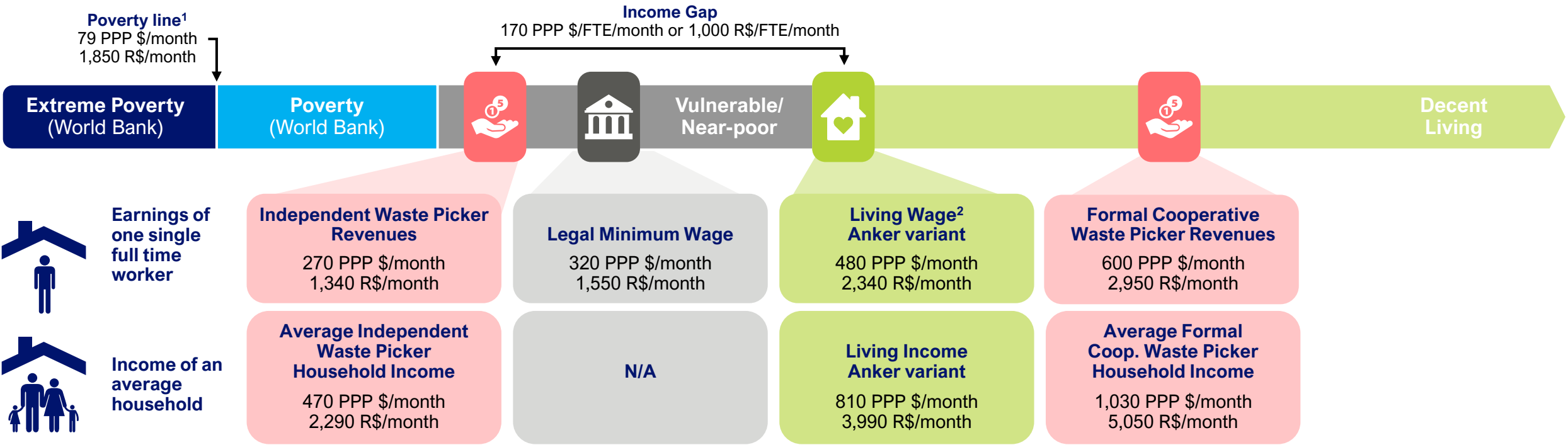


Example output from
case in Sao Palo



INCOME GAP

Some surveyed waste picker communities in this location are earning a living income but it highly depends on the level of organization



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

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.

CURRENT WASTE PICKER EARNINGS



Example output from case in Sao Palo



EARNINGS

Waste picker earnings in these communities are spread mostly as a result of increasing organization levels

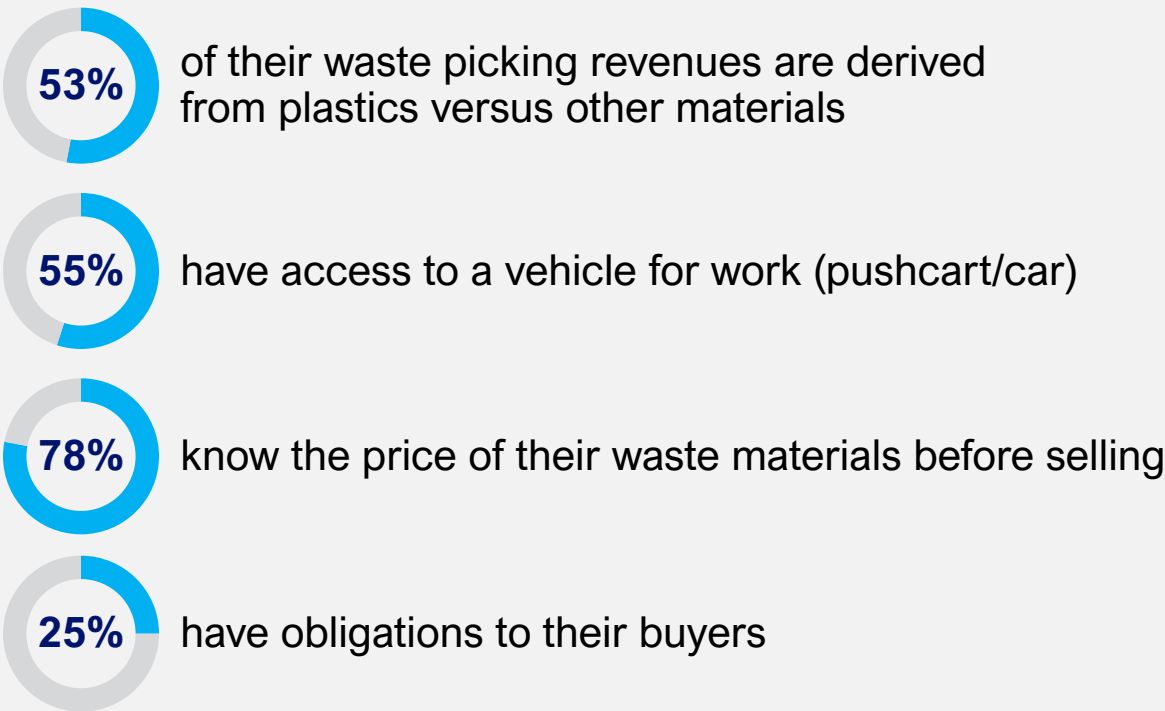
Average earnings

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

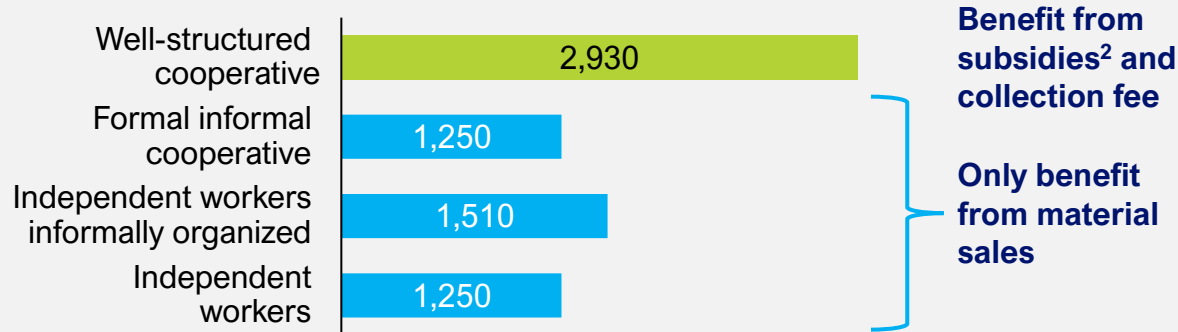
Worker efficiency

Worker efficiency greatly varies from 2 R\$/hour to 24 R\$/hour

Key Features



Average earning per worker typology, R\$/month



Main limitation to increase revenues³

- 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)

All \$ are in PPP 2023
(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.

LIVING INCOME



INCOME

An average of 3,990 R\$ is estimated to be needed for an average household to have access to decent living conditions

Example output from case in Sao Palo

Living wage Anker variant

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

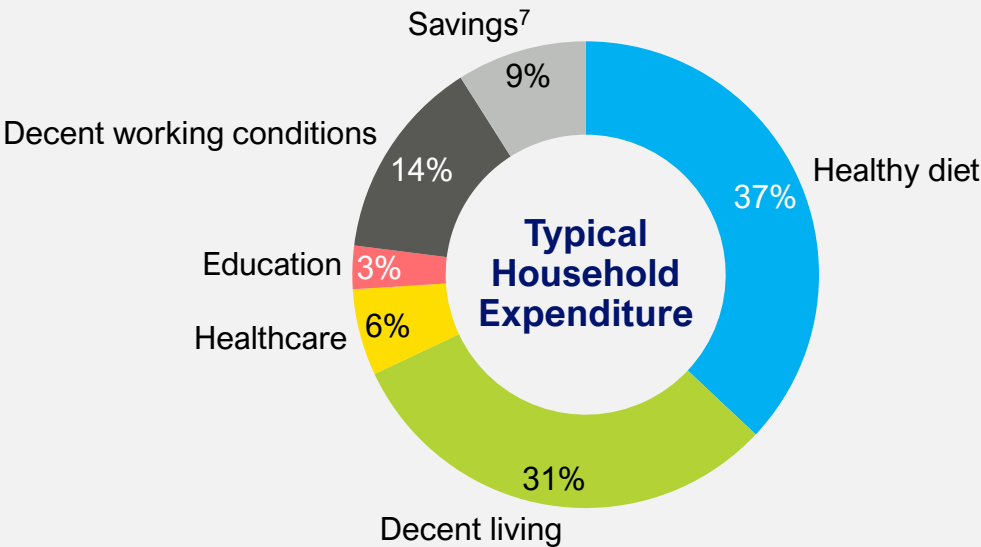
Living income Anker variant

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

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. $FTWE = 1 + [LFPR \times (1 - UR) \times (1 - PT / 2)]$; 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.

TYPOLOGY OF SURVEYED WASTE PICKERS



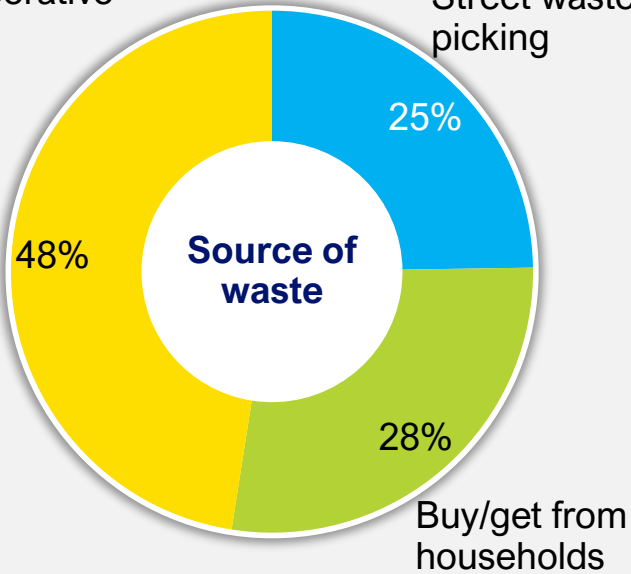
Example output from
case in Sao Palo



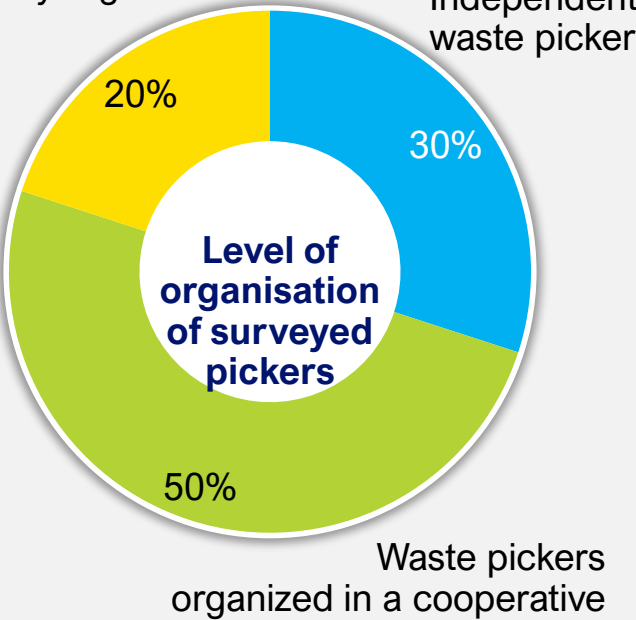
ABOUT

Waste pickers in these communities are predominantly workers for whose waste picking is the only revenue source

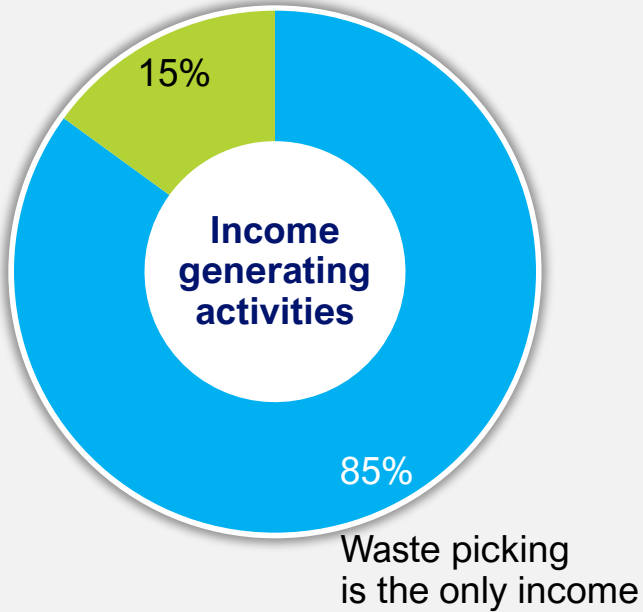
Waste collected by
a cooperative



Independent waste pickers
informally organized



Waste picking is one
of several incomes



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% Male¹

Household size : 3.3;

Average working week : 47 hours

WASTE PICKER QUESTIONNAIRE RESULTS



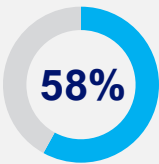
WASTE PICKER QUESTIONNAIRE

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

Example output from case in Sao Palo

Food Insecurity Experience Scale²

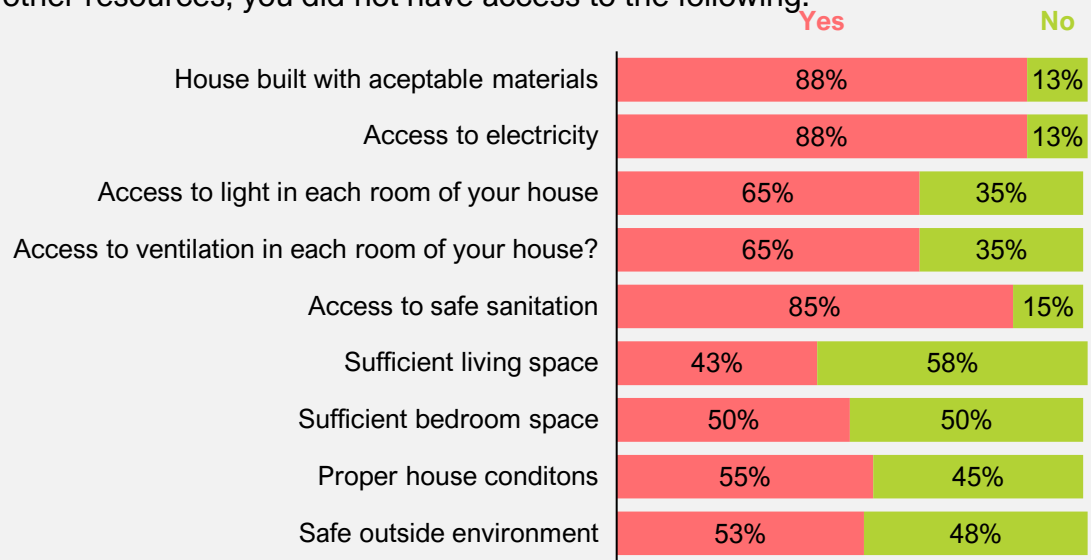
During the last 12 months, was there a time when, because of lack of money or other resources.,.



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

Decent Housing Survey³

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

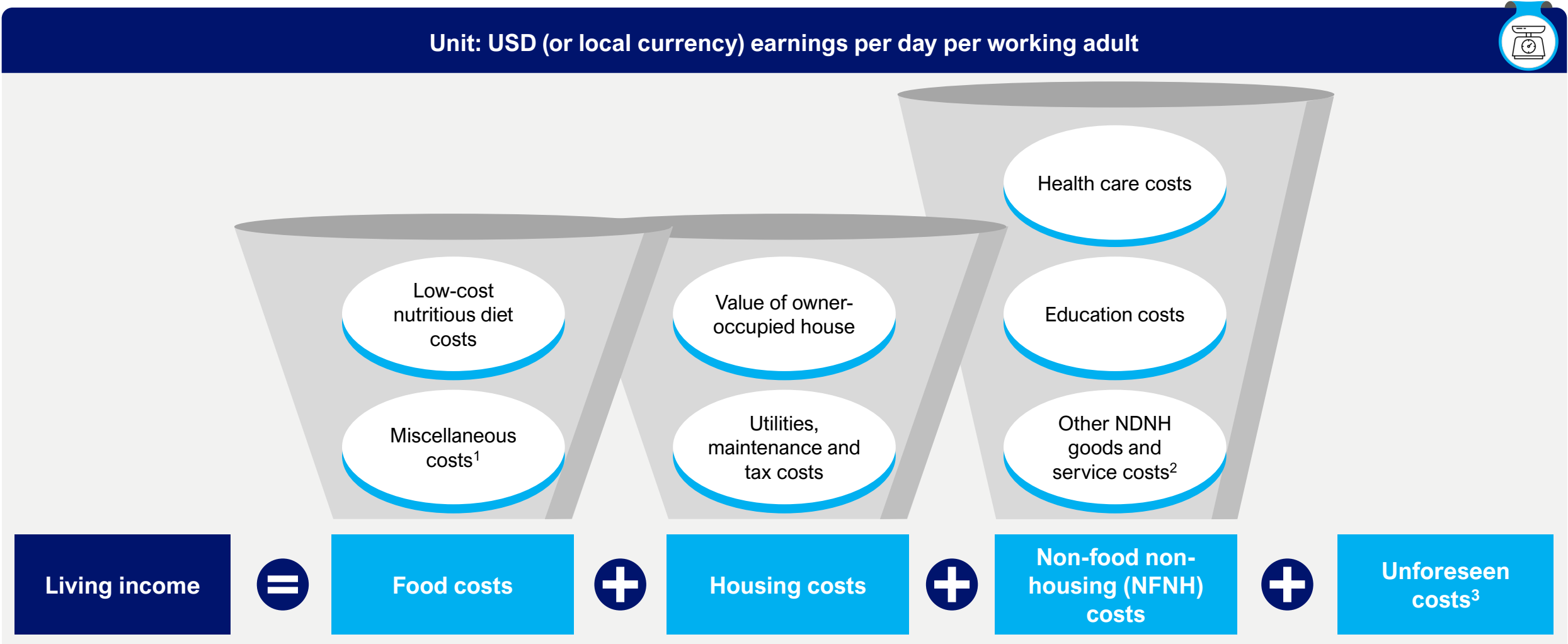
is below decent housing standard according to Anker methodology⁵

(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;

INTRODUCTION TO THE METHODOLOGY

HOW DO WE CALCULATE THE LIVING INCOME?

The Anker methodology is a well-accepted standard to calculate Living Incomes

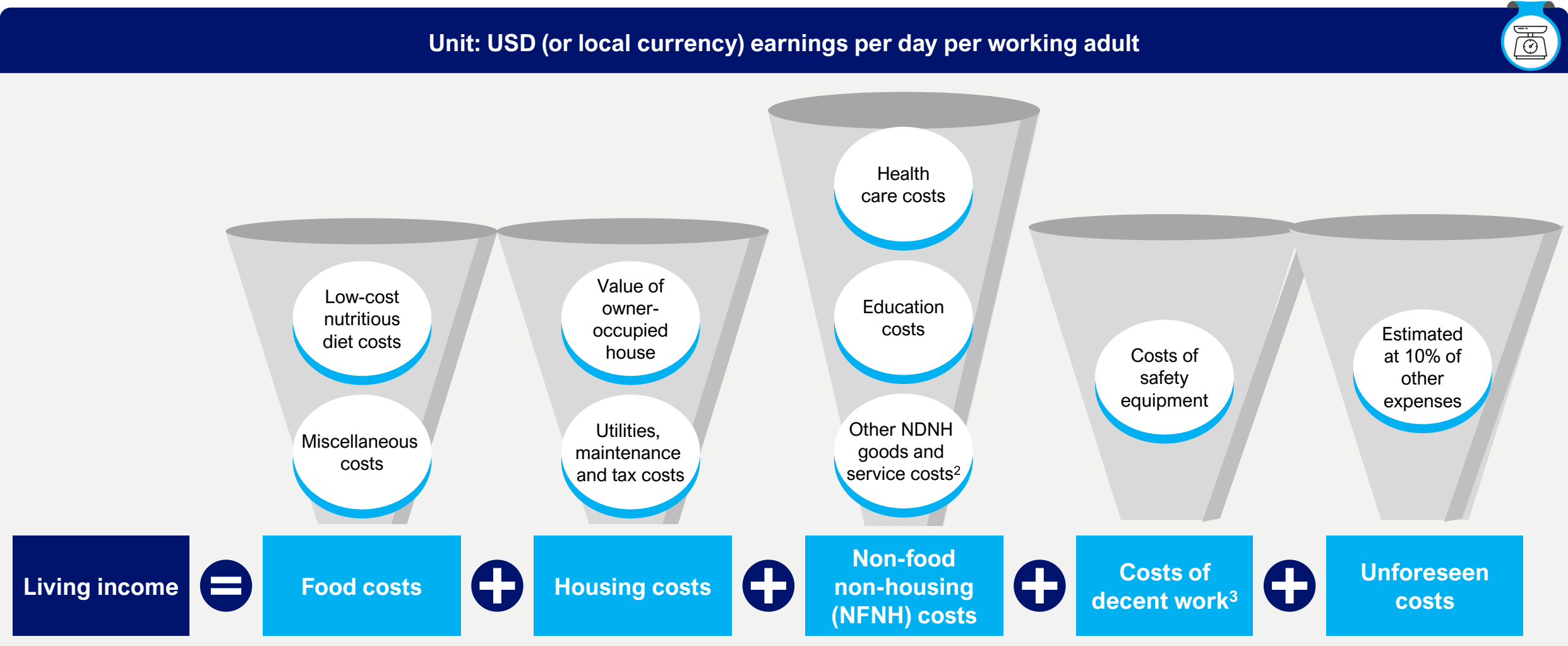


Source: van de Ven, G. W., de Valença, A., Marinus, W., de Jager, I., Descheemaeker, K. K., Hekman, W., ... & Giller, K. E. (2021). Living income benchmarking of rural households in low-income countries. Food Security, 13, 729-749.

1. is 16% of low-costs nutritious diet costs, 2, 20% of total Food, Housing and NFNH costs, 3. 10% of Living income

HOW DO WE CALCULATE THE LIVING INCOME IN THE CONTEXT OF THE INFORMAL WASTE PICKERS?

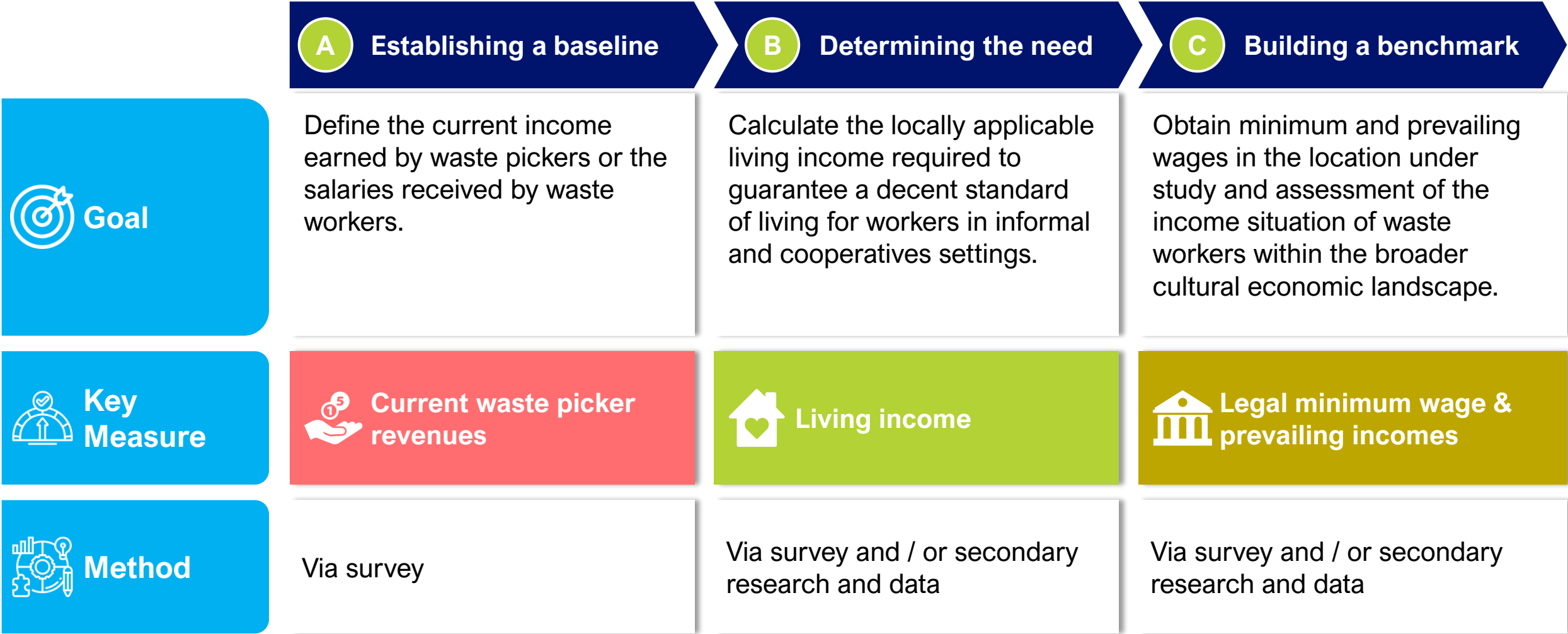
In this methodology, we build from the Anker methodology and add sector-specific challenges i.e. costs of decent work.



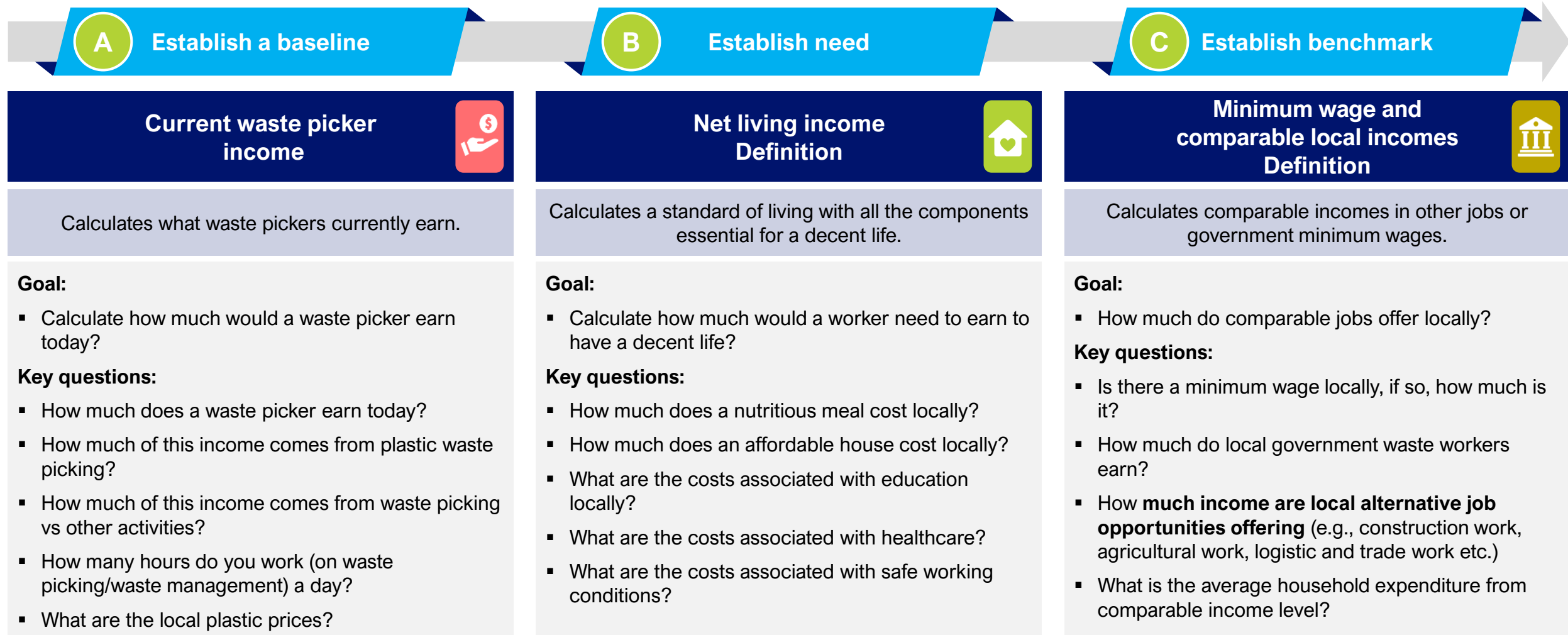
Note: Green indicates the added pillar of the adapted Anker methodology for informal waste picking communities

1.: is 16% of low-costs nutritious diet costs, 2. 20% of total Food, Housing and NFNH costs, 3. Costs of workplace safety equipment such as gloves and boots

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



FOR EACH STEP, WE ARE ADDRESSING THESE KEY QUESTIONS:



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 take action to close the income gap. It has several key advantages:

- Provides a common unbiased approach that organizations around the world can use to assess and explain income gaps in their waste picker communities.
- Enables global consistency of survey results and the ability to compare results with other countries.
- Enables participation in a network of global organizations including global companies (see full list of FCI members [here](#)) and leading NGOs such as [WIEGO](#).



METHODOLOGY GUIDE

USERS NEED TO BALANCE ASSUMPTIONS AND COLLECTED DATA WHEN IMPLEMENTING THE LIVING INCOME ASSESSMENT

Usual process for developing a case study:



When processing the survey data and drawing insights, researchers need to **balance the fact that data may have suboptimal quality and therefore make critical assumptions** to draw insights:

- **Data may be limited and fragmented** and there may only be a small number of data points for certain dimensions.
- There may also be significant **outliers** because of incorrect statements, errors, or other factors.



- **Assumptions will be needed** because of the fragmentation and suboptimal availability of data in many locations.
- It is important to document and **record these assumptions** for future review.
- **Understanding the local realities and context is fundamental** to be able to make these assumptions.

DURING THE ITERATIVE PROCESS, THE LOCAL CONTEXT OF THE METHODOLOGY NEEDS TO BE ACCOUNTED FOR

Examples of factors to consider for the local context of living income assessment:

1



Adapt to the local culture to ensure that surveyed waste pickers do not feel embarrassed or insecure about answering personal questions e.g., on food safety

2



Adapt to the knowledge level of the waste picker, e.g., they might not know the exact prices of plastic material.

3



Adapt to the local political context and ensure that informal waste pickers' identities and activities are protected

The definition of what constitutes a decent life needs to be locally specific, while adhering to certain components of what to consider when calculating a living income (explained on Pages 32-54)

A) ESTABLISH A BASELINE



WASTE PICKER SURVEY – METHOD

Conducting questionnaire with waste pickers

Conduct interview with the provided questions, using a sample of around 40 waste pickers

Sample

- **~40 local waste picker interviews. Interviews are anonymous.**
- **Ensure sample is representative of local waste pickers by:**
 - i. Gender representation
 - ii. Age balance
 - iii. Relevant mix of organizational types and worker configurations (see worker typology in Slide 31)

Best practices

- Interview to be run individually, although group interviews is also possible.
- Interviews should be run respectfully and constructively. Rephrasing may be necessary. Questions order may be changed to create the feeling of an informal discussion.
- Compensation to waste pickers for their time is recommended.
- Possible tools for survey: pen and paper, notes on phone or tablet.



AGGREGATING DATA AND PREPARING OUTPUT

THE DATA THEN IS
AGGREGATED BY THE
LOCAL PROJECT
PARTNER IN THE
PROVIDED EXCEL
TEMPLATE



STEP 1



Collect around 40 survey interviews and input in the provided Excel sheet template (link).



STEP 2



Separate survey data by typology, which is specific to the location.



STEP 3



Conduct data quality review and discuss outliers for each typology. This means to remove outliers if the data is assessed to be flawed (if applicable).



STEP 4



Draw the average for relevant typologies



STEP 5



Draw key insights from data



WASTE PICKERS QUESTIONNAIRE (1/3)

Section 1: About the interviewee



1. Gender
2. Age group
3. Household size
4. When did you start waste picking? *(optional question)*
5. Why did you start waste picking? *(optional question)*

Section 2: Waste management working conditions and organization



6. Where do you get your waste from? *(streets, household (for free), household (buy), dumpsite, landfills, businesses, market, others)*
7. Are you an independent worker or organized with peers? *(independent workers, independent but part of a cooperative, hired by a junkshop/local aggregator, hired by a formal waste system, other)*
8. Is waste picking your only income generating activity?
9. What other income generating activities do you have?
10. How many hours do you work (on waste picking/waste management) a day?
11. How many days do you work on waste picking a week?

Section 3: Revenues from waste management activities



12. How often do you sell your materials?
13. Who do you sell to?
(cooperative, junkshop; waste bank, etc.)
14. How do you choose your buyer? *(optional question)*
15. Do you have access to a vehicle? If so which one.
(none, pushcart, bicycle, motorized bicycle, other)
16. Who own the vehicle (e.g., a pushcart or a car)? *(I own the vehicle, I co-own it, I rent it)*
17. How far do you travel to the buyer? *(optional question)*
18. How much do you earn selling your materials?
(per sale, per day or per week)
19. Out of your total waste picking earnings, how much comes from selling plastic material?
(per sale, per day or per week)
20. What volumes of materials do you sell?
(kg per sale, day, or week)
21. What volumes of plastic materials do you sell?
(kg per sale, day, or week)
22. What selling price do you get for each category of waste you sell?
(as many answers as necessary)



WASTE PICKERS QUESTIONNAIRE (2/3)

Waste picker questionnaire

Section 3 (continuation from previous Page): Revenues from waste management activities



23. Has the price of plastic changed over the past year? If so how much?

24. Do you know the price before selling?

25. Do you have debt or obligations to your buyers?

26. What is your main limitation to increase revenues from waste activities? (time availability, quality of material available, volumes of material available, competition from other waste pickers, physical conditions, lack of equipment e.g., pushcart/bicycle)

Section 4: Expenses from waste management activities



27. What cost do you have for operating your activity? (e.g., gas/fuel, cost of buying materials from household or businesses, cost to access specific areas, cost of maintenance of vehicle, gloves, boots, else)

28. If you own a vehicle, how much did it cost you?

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 of the context of this study
- Obtain **more granular data** to better understand some of the other data points



WASTE PICKERS QUESTIONNAIRE (3/3)

Waste picker questionnaire

Section 5: Living expenses and conditions



29. How much do you spend on food for yourself or your household (specify which) everyday?
30. **Food Security Experience Scale.** During the last 12 months, was there a time when, because of lack of money or other resources (Yes/No):
1. You were worried you would not have enough food to eat?
 2. You were unable to eat healthy and nutritious food?
 3. You ate only a few kinds of foods?
 4. You had to skip a meal?
 5. You ate less than you thought you should?
 6. Your household ran out of food?
 7. You were hungry but did not eat?
 8. You went without eating for a whole day?
31. Do you own/have access to any of the following: a house built with acceptable materials, access to electricity, proper lighting, proper ventilation, safe sanitation, sufficient living space, sufficient bedroom space, proper house conditions, safe outside environment, no production in the house?
32. Does your work mean that you stay outside the home? If so, where, how would you describe your accommodation

Section 6: Miscellaneous questions



33. What alternative job opportunity do you have?
34. Why do you waste pick over another job?
35. How many days could you afford to live without a revenue?
36. Are you able to save money for unforeseen event?
37. What is the worst part of your job? *(optional question)*
38. What is the best part of your job? *(optional question)*



EXAMPLE OF THE FIVE STEPS WHEN CONDUCTING SURVEYS FROM CASE STUDY IN BRAZIL



Example output from case in Sao Palo

Example survey data (extract from Brazilian Case)



Number	Typology	Monthly Income	STEP 1	The researcher in Brazil conducted the interviews and input the data in the Excel template sheet (extract above).
01	Cooperative member	R\$ 1,900.00	✓	
02	Independent worker	R\$ 800	STEP 2	The survey is divided by typology. This is important because the data point may vary significantly between different worker types. In the Brazilian case the cooperative members have a much higher monthly income than independent workers.
03	Cooperative member	R\$ 2,300.00	✓	
04	Cooperative member	R\$ 1,250.00	STEP 3	The Brazilian team conducted quality review and removed the outlier Number 05 (see crossed out row). This is because the monthly income was reviewed and deemed to be unrealistically high. The outlier was removed from the data aggregation
05	Cooperative member	R\$ 5,000.00	✓	
06	Informal group member	R\$ 2,300.00	STEP 4	For each worker type, the average was then calculated (excluding the outliers).
07	Informal group member	R\$ 2,300.00	✓	
08	Independent worker	R\$ 1,200.00	STEP 5	The current earnings were then visualized using the “income ladder” that is shown on Slide 10. For Brazil, the final numbers were R\$1,340 for independent waste pickers and R\$2,950 for cooperative waste pickers.
... (total number is 40)		

If applicable, these are example typologies by which the survey data could be segmented

	Informal and independent	Informal and organized	Formal and organized
Waste Pickers <i>Focus on picking high value materials only</i>	<ul style="list-style-type: none">Independent street or dumpsite waste pickers<i>Example: most waste pickers in Indonesia, Ghana</i>	<ul style="list-style-type: none">Waste bank workersIndependent street or dumpsite waste pickers organized in cooperative or similarHired waste pickers by junkshop or local aggregators<i>Examples: waste pickers in India</i>	<ul style="list-style-type: none">Waste bank workersStreet or dumpsite waste pickers organized in cooperative or similar<i>Examples: waste pickers in Brazil</i>
Waste collection workers <i>Focus on collecting all MSW waste from households and businesses</i>	<ul style="list-style-type: none">Independent collection worker picking up waste from households or business for a fee<i>Example: in areas where waste management is not a basic service and demand is not large enough to grow a business (e.g., rural areas)</i>	<ul style="list-style-type: none">Independent local entrepreneur with a team picking up waste from households or businesses for a fee<i>Example: in area where waste management is not a basic service and demand is large enough to grow a business (e.g., cities)</i>	<ul style="list-style-type: none">Registered organization hired by government to pick up waste from households or businessesGovernment-owned waste collection<i>Example: Project STOP, local waste management staff from any government owning waste collection vehicles</i>

Workers and organizations in these categories have no contracts or agreement with the local government and operate independently. They may be registered businesses or not (i.e., informal organization).

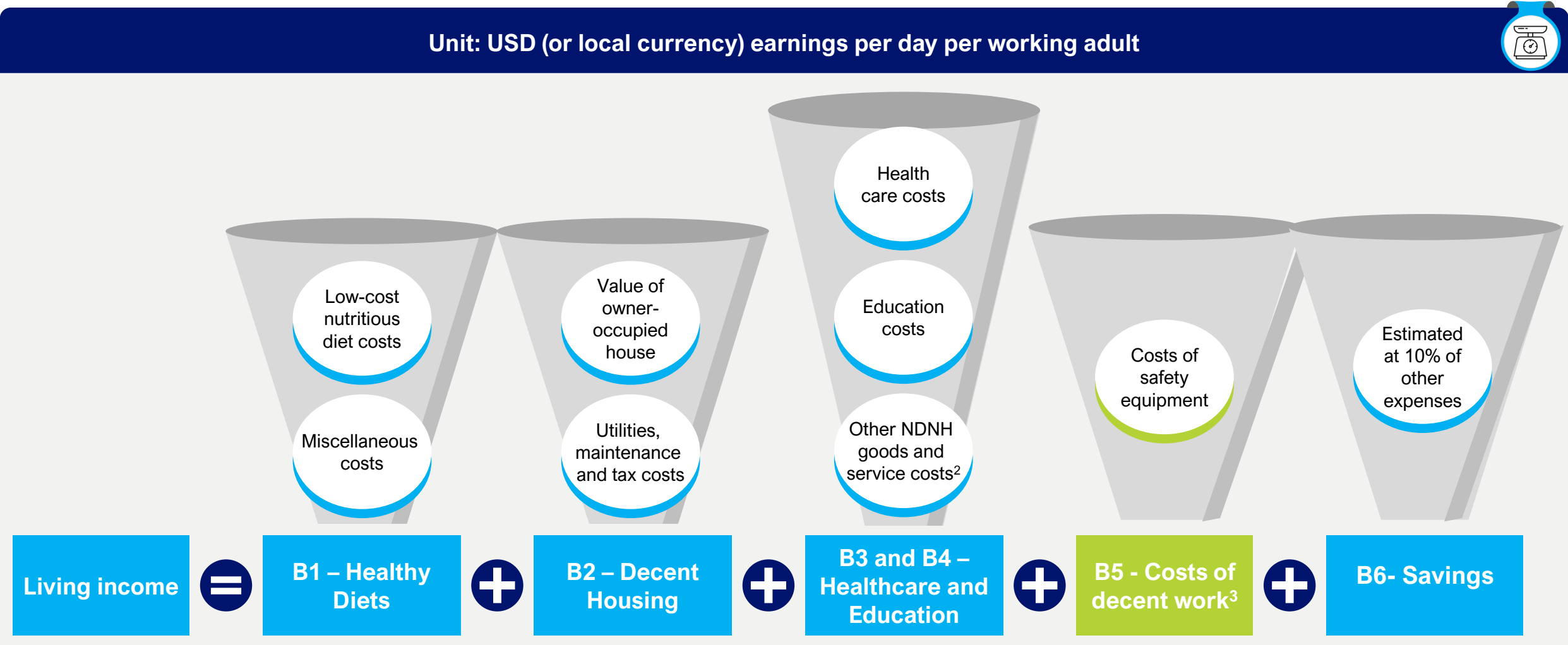
Local government or organizations having a contract or agreement with the local government

The above categories are in scope for the living income assessment. If applicable, please use the above categories as a guidance for typologies that could be used to when surveying informal waste pickers.

B) CALCULATING LIVING INCOME

HOW TO ESTIMATE THE LIVING INCOME ACCORDING TO THE ANKER METHODOLOGY

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



Note: Green indicates the added pillar of the adapted Anker methodology for informal waste picking communities

THE LIVING INCOME ESTIMATE IS COMPOSED OF 6 ITEMS

B1 | Healthy Diets



- Costs of a healthy diet per day – Food costs are estimated based on: a low-cost nutritious diet that meets recommendations on calories, macronutrients, and micronutrients and is consistent with local food preferences (see Page 36).

B2 | Decent Housing



- Costs of decent housing – Housing costs are estimated based on: costs of renting or buying decent housing that follows specific parameters (see Page 37-40).

B3 | Healthcare Costs



- Costs of access to healthcare – Healthcare costs are estimated based on the costs of accessing healthcare (see Page 41-44)

B4 | Education Costs



- Costs of education (see Page 45-47)

B5 | Costs of Decent Working Conditions



- Costs of having decent working conditions (see Page 48-49)

B6 | Savings



- Costs of savings for unexpected life event (see Page 50)

THE LIVING INCOME ESTIMATE IS COMPOSED OF 6 ITEMS

B1 | Healthy Diets



- Costs of a healthy diet per day – this represents the costs for healthy and nutritious diet (see Page 36)

B2 | Decent Housing



- Costs of decent housing - this represents (see Page 37-40)

B3 | Healthcare Costs



- Costs of access to healthcare (see Page 41-44)

B4 | Education Costs



- Costs of education (see Page 45-47)

B5 | Costs of Decent Working Conditions



- Costs of having decent working conditions (see Page 48-49)

B6 | Savings



- Costs of savings for unexpected life event (see Page 50)

The B1, B2, B3 and B4, B5 components of the living income need to be estimated by the local project partner (highlighted in red)

The B6 components do not need to be calculated by the local project partner, as the data is pre-calculated (highlighted in blue)

The metric of the components is the local currency and additionally the PPP conversion factor to USD

This needs to be estimated by the local project partner

B Establish need

Food Cost

Via secondary data

- For local in-country partners, we suggest relying on secondary data rather than performing extensive local surveys on food diet. The data is available for most country and the sources can be found in the accompanying Excel sheet. The local project partner should assess the validity of the provided numbers for their project location. They may need to be updated or need an inflation adjustment.
- Project partners can also use local surveys to estimate to local costs of a local data if the Anker data cannot be used.

Example Data points

Metric	Unit	Ghana (Lower Volta)	Location: Brazil (Minas Gerais South)	Location: Brazil (São Paulo State)	Location: India (Tiruppur City)	Location: India (Nilgiris, Tamil Nadu)
Cost of a healthy diet	Local currency/ cap/day	12.92	9.14	11.47	65.33	99.30
Cost of a healthy diet	PPP\$/cap/day	4.4	1.86	2.34	3.1	4.65
Cost of a healthy diet	PPP\$/cap/month	134	57	71	95	142

Note: cells highlighted in blue are the relevant locations for the estimated results

Source

The data for your locations can estimated using the Excel sheet. (Tab 3 - Healthy Diets).

Note: All \$ are in PPP 2023

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

PPP conversion factor 2023 BRL to USD is 0.20359 USD

PPP conversion factor 2023 GHS to USD is 0.34112 USD

B2 – DECENT HOUSING – QUESTIONS AND PARAMETERS

This needs to be estimated by the local project partner



Housing Cost

Housing costs are a central component of living expenses for a decent living. What are housing costs in the context of living income?

These questions that the local project partner should try and answer :

These are the key parameters that define decent housing

1. How much does it cost to build or rent decent housing that fulfils the parameters below?
2. How much do the utilities cost including water and electricity per month?

- 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)

Housing costs also include utilities such as water, electricity, cooking fuel, heat; lighting, or others.

B2 – HOUSING COSTS – DATA COLLECTION

This needs to be estimated by the local project partner

After explaining the key questions and parameters for housing costs

Housing costs	Costs	Primary data	Secondary data
	Building or Buying Housing - or -	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
	Rent	Rent for acceptable local housing or user cost of owner-occupied housing in locations with small rental market.	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

- If results from the sample varies greatly, interview 3-5 more.
- Those may be available from national statistic offices in which cases fewer interviews may be sufficient to confirm those numbers.
- Research local housing standards to check whether aligned with the decent housing parameters explained in the previous page.
- 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.

B2 – HOUSING COSTS – HOW WAS THE DATA COLLECTED?



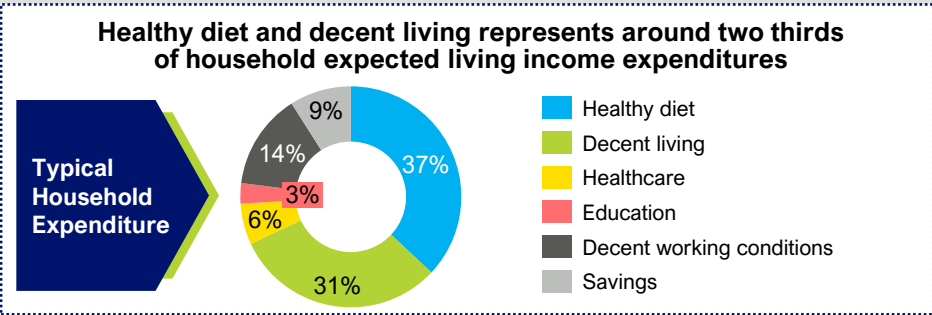
Example from locations in Sao Paulo, Brazil

Example output from case in Sao Palo

Housing costs	Costs	Indian Approach	Result (in US Dollars PPP) ¹	Result in local currency (in Reais)
	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

In the Brazilian case, the researchers only took the renting costs because building a home was determined not to be a feasible options for informal waste pickers due to high costs

Housing costs represent 31% of the final living income. The final number is 254\$ per month per household



39 Note: All \$ are in PPP 2023
1. PPP conversion factor 2023 BRL to USD is 0.20359 USD

B2 – HOUSING COSTS – HOW WAS THE DATA COLLECTED?



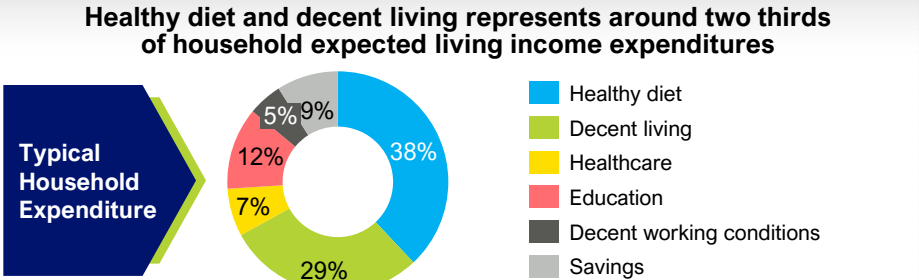
Example output from case in Bangalore

Example from locations in Bangalore, India

Housing costs	Costs	Indian Approach	Result (in US Dollars PPP) ¹	Result in local currency (Rupees)
	Rent	The India team conducted secondary research to get the average renting prices for the location. They then complemented the data for informal waste pickers and their renting costs.	470\$ per month	10,000 Rupees per month
	Utilities	The India team asked 4 respondents on their average utility costs and the took the average among the respondents. They split the utility costs in electricity costs, water costs, firewood costs and gas costs.	81\$ per month	100 (Water) 1190 (Electricity) 250 (Gas) 230 (Firewood) Total: 1770 Rupees per month
	Total costs	The India team then added the two categories (rent and utilities) up.	551\$ per month	1,170 Rupees per month

In the Indian case, the researchers again took the renting costs rather than building costs as a best estimate for informal waste pickers

Housing costs represent 29% of the final living income. The final number is 551\$ per month per household



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



HEALTHCARE COST

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

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

- **Cost of exclusion (if applicable):**

- Are waste pickers excluded from certain services which could result 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?
- 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 treatment per year?

If results from the sample
varies greatly interview 3-5
more.

Those may be available from
national statistic offices in
which cases fewer interviews
may be sufficient to confirm
those numbers.

B3 – HEALTHCARE COSTS – HOW IS THE DATA COLLECTED?

This needs to be estimated by the local project partner

What are the key questions and parameters for housing costs

		Costs	Primary data	Secondary data
Costs of exclusion		Costs of exclusion	Interviews with respondents to investigate whether informal waste pickers are excluded from certain services and how much it costs informal waste pickers.	Local secondary research from NGOs, academia and other institutions that investigates whether local informal waste pickers are excluded from certain services and how much it costs informal waste pickers
Healthcare Costs	Basic costs	Availability of basic healthcare insurance	Interviews with respondents (mostly informal waste pickers) to investigate whether informal waste pickers have basic healthcare insurance available.	Local secondary research from NGOs and others that investigates whether local informal waste pickers have basic health insurance available. Alternatively, government information on insurance availability.
		Costs of basic healthcare insurance	Interviews with respondents to investigate the costs of basic healthcare insurance for informal waste pickers	Local secondary research from NGOs and others that investigates basic health insurance costs. Alternatively, government information on costs.
		Coverage of basic healthcare insurance	Interviews with respondents (mostly informal waste pickers) to investigate what services are included in basic coverage	Local secondary research from NGOs and others that investigates the coverage basic health insurance for informal waste pickers. Alternatively, government information on coverage
	Extra costs	What are the top 5 most common diseases/situations when healthcare services are required? (for services not covered by basic health insurance)	Interviews with respondents (mostly informal waste pickers) to investigate what the 5 most common diseases/situations when healthcare services are required. This applied to services that are outside of basic health insurance.	N/A
		What is the average unit cost for each? (e.g., consultation, medicine)	Interviews with respondents (mostly informal waste pickers) to investigate the average unit costs for each of the above top 5 diseases/situations	Local secondary research from NGOs and others that investigates the unit costs for the top 5 diseases/situations.
		What is the average number of treatments per year?	Interviews with respondents (mostly informal waste pickers) to investigate the average number of treatments per year or the above top 5 diseases	Local secondary research from NGOs and others that investigates the average number of treatments of the top 5 diseases/situations per year.

B3 – HEALTHCARE COSTS – HOW WAS THE DATA COLLECTED?

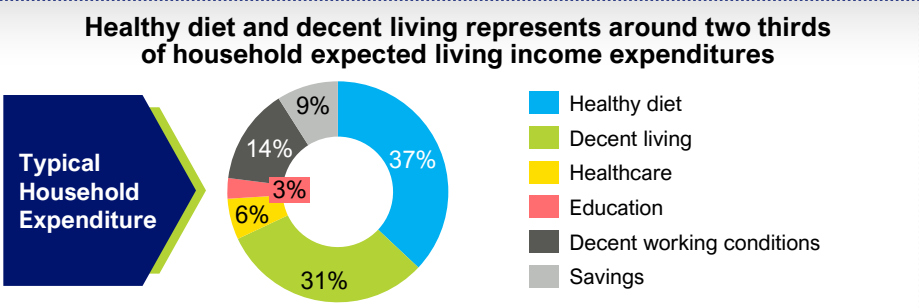


Example from locations in Sao Paulo, Brazil

Example output from case in Sao Palo

		Costs	Brazilian Approach	Result (in PPP US Dollars) ¹	Result in local currency (Reais)
Healthcare costs	Costs of exclusion		Based on existing legislation, informal waste pickers have access to the universal healthcare system in Brazil that covers all diseases is the right of all Brazilians, from pregnancy onwards and throughout their lives. Brazilian waste pickers often decide not to use public healthcare because of social stigmatization and a lack of accessibility.	None	None
	Basic costs	Basic healthcare costs	Based on existing legislation, informal waste pickers have access to the universal healthcare system in Brazil that covers all diseases is the right of all Brazilians, from pregnancy onwards and throughout their lives. Some	None	None
	Extra costs	Extra healthcare costs	The Brazilian team used secondary data from the local area to estimate the total healthcare costs. This costs is incurred by household even though they are covered by universal health insurance. Some people decide against universal healthcare because of long waiting times, social stigma and other factors. The data comes from the costs 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		The only costs came for the extra healthcare costs,	51\$ per month	250 R\$ per month

Healthcare costs represent 6% of the final living income. The final number is 51\$ per month per household



B3 – HEALTHCARE COSTS – HOW WAS THE DATA COLLECTED?

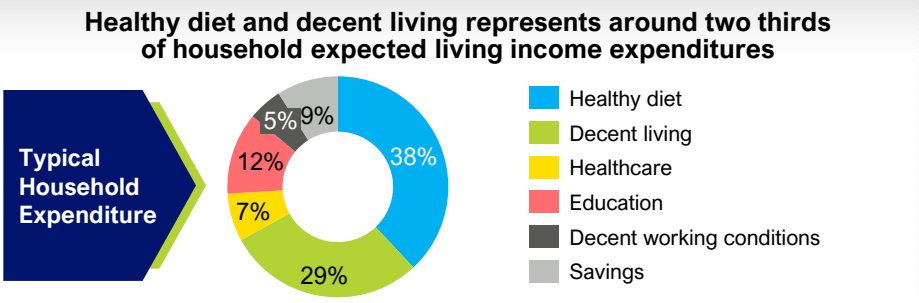


Example from locations in Bangalore, India

Example output from case in Bangalore

		Costs	Indian Approach	Result (in PPP Dollars) ¹	Results in local currency (Rupees)
Healthcare costs		Costs of exclusion	The India team notes that this came not up in interviews	None	None
	Basic costs	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	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
	What is the average unit costs of each treatment of the above		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 costs is an estimate of the unit costs per treatment, multiplied by the number of treatments per year.	17.7\$ (average unit costs per treatment) x 7 (number of treatments per year) = 124\$ per month	2650 Rupees per month

Healthcare represent 7% of the final living income. The final number is 124\$ per month per household.



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



EDUCATION COSTS

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.

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

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

If results from the sample varies greatly, interview 3-5 more.

Those may be available from national statistic offices in which cases fewer interviews may be sufficient to confirm those numbers.

B4 – EDUCATION COSTS – DATA COLLECTION

This needs to be estimated by the local project partner

Educational Costs	Costs	Primary data	Secondary data
	Primary school costs	Typical local cost for education of children until the end of primary school through discussions with workers, school personnel, and other key informants.	Local secondary research from NGOs and others that investigates primary education costs. Alternatively, government information on costs.
	Secondary school costs	Typical local cost for education of children until the end of secondary school through discussions with workers, school personnel, and other key informants.	Local secondary research from NGOs and others that investigates secondary education costs. Alternatively, government information on costs.
	School items	Typical costs of key items for education such as school uniforms, stationery, books and others through discussions with workers, school personnel and others.	Local secondary research from NGOs and others that investigates typical costs of school items.
	Exam fees	Typical costs of exams taken in both primary and secondary school through discussions with workers, school personnel and others.	Local secondary research from NGOs and others that investigates typical costs of school exams.

B4 – EDUCATION COSTS – HOW IS THE DATA COLLECTED?



Example output from case in Bangalore

Example from locations in Bangalore, India

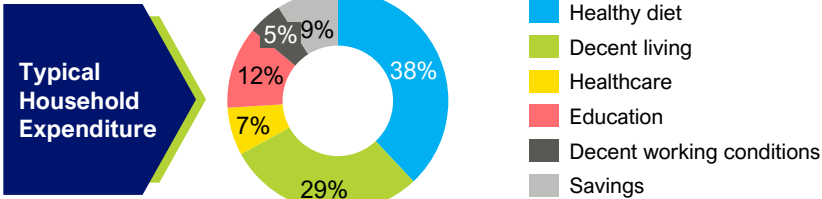
Education Costs	Costs	Indian Approach	Result (PPP US Dollars) ¹	Result in local currency (Rupees)
	Primary School	Surveyed 3-4 respondents with children in primary education on the costs of prim. education per child. Lower end of costs for government subsidised education	Average costs of 300\$ per year (ranging from \$234 – 1600) per year	Ranging from 5000 - 35000 Rupees per year
	Secondary School	Surveyed 3-4 respondents with children in secondary education on the costs of secon. education per child. Lower end of costs for government subsidised education	Average costs of 400\$ per year (ranging from \$470 - 2100 per year)	10000 – 45000 Rupees
	School items (e.g., clothes and books)	Government school uniforms are free but stitching needs to be paid by the family.	70\$ per year	1500 Rupees per year
	School exam fees	Surveyed 3-4 respondents with children in education on the costs of school exams	Average exam costs of 164\$ per year	Primary school: Rs 1000-1800 Secondary school: Rs 6,000 -7,000
	Average number of children per household	Based on Anker data that can be found here (LINK)	3 children	
	Total costs per month	The Indian team took the approximate average for the primary and secondary school fees and added an average for the uniform and exam costs	Average primary & secondary costs: 700\$ Average uniform and exam costs: 234\$ Total yearly costs: 934\$ This was then multiplied by the number of children and divided by 12 for the monthly costs Final costs: 234\$	5000 Rupees

Education represent 12% of the final living income. The final number is 234\$ per month per household

Note: All \$ are in PPP 2023

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

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





COSTS OF DECENT WORK

Costs of decent work:

- What are the costs of gloves?
- What are the costs of masks?
- What are the costs of boots?
- What are the costs of a work uniform?
- What are the costs of safe transport (this could include e.g., public transport, a pushcart, private vehicle. Depending on local context) ?
- What are the costs of aprons?

B5 – COSTS OF DECENT WORK– HOW WAS THE DATA COLLECTED?

Example from locations in Bangalore, India



Example output from case in Bangalore

Costs of Decent work

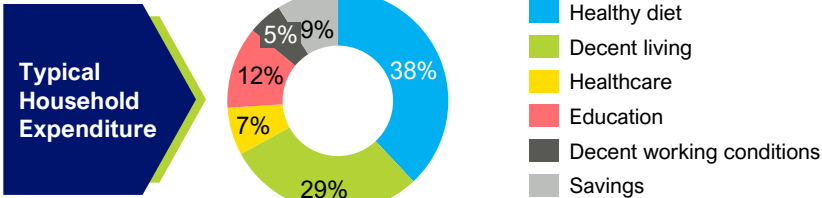
Costs	Indian Approach	Result (in PPP Dollars) ¹	Result in local currency (Rupees)
Gloves	Estimated the unit costs of gloves in the location from surveying relevant shops. Informal waste pickers are assumed to use four gloves per moth	7\$ per month	156 Rupees per month
Masks	Estimated the unit costs of masks in the location from surveying relevant shops. Informal waste pickers are assumed to use four masks per month.	3\$ per month	61 Rupees per month
Boots	Information was not available	Information was not available	Information was not available
Uniform	Estimated the unit costs of a suitable uniform in the location from surveying relevant shops. Informal waste pickers are assumed to buy two uniforms per year.	31\$ per year	661 Rupees per year
Apron	Estimated the unit costs of safe transport to the waste picking location by surveying 3-4 informal waste pickers.	23\$ per year	500 Rupees per year
Safe transport	Estimated the monthly costs of safe transport for informal waste pickers to the areas that they work at. Deduced via average prices for public transport or auto rickshaw	35\$ per month	758 Rupees per month
Total costs	Added the total costs of safe work for all categories. This was then multiplied by the Full time worker equivalent (FTWE) per household that is specific to India and explained in Slide X. This is because all workers in the household require protection.	55\$ per month x 1.65 (FTWE) = 90\$	1160 Rupees per month x 1.65 (FTWE) = 1928 Rupees per month

Costs of decent work represent 5% of the final living income. The final number is 90\$ per month per household

Note: All \$ are in PPP 2023

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

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





Savings

Savings:

- 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

AVERAGE HOUSEHOLD SIZE, HH INCOME VS WORKER WAGE

Household size



Surveys and benchmark data will allow us to access the basic living income or amount a worker needs to be paid to ensure a decent living on their own.

To calculate a relevant living income, household size needs to be accounted for.

To simplify, we suggest using average household size locally available (or available from Anker methodology) from statistical agencies: The number of full time equivalent workers in the family is provided by the Anker methodology. The sources can be found in this Excel sheet.

- The living wage is defined as the required earnings to have a decent life per full time worker.
- The living income is defined as the required earnings to have a decent life per household.



Formula to translate obtained data into a living wage



Unit: USD (or local currency) earnings per day per working adult

$$\text{Living wage} = \frac{\text{Living income}}{\text{Typical number of full – time equivalent workers in the family}}$$

Note: this formula is based on our understanding on the Anker methodology for calculating a living income.

B1 TO B6 - FINAL ESTIMATE OF LIVING INCOME PER HOUSEHOLD AND PER FULL TIME WORKER EQUIVALENT

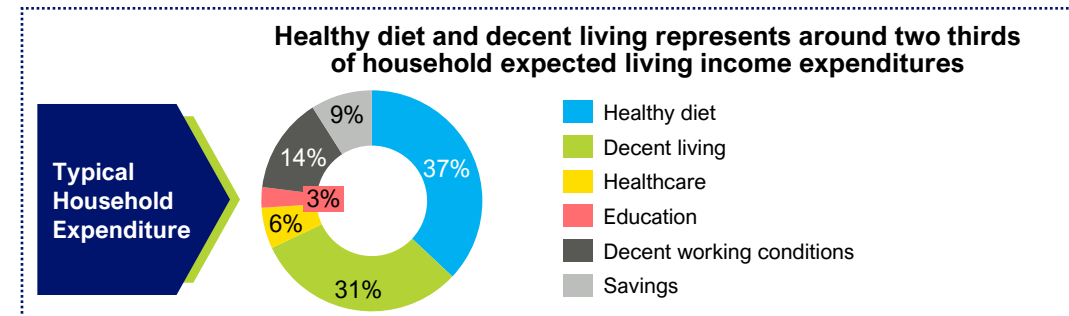
Example from locations in Sao Paulo, Brazil



Example output from case in Sao Palo

Costs per household	Result (in PPP US Dollars) ¹	Result in local currency (Reais)
B1 – Healthy Diets	281\$ per month	1464 R\$ per month
B2 – Decent Housing	254\$ per month	1250 R\$ per month
B3 – Healthcare Costs	51\$ per month	250 R\$ per month
B4 - Education Costs	24\$ per month	117 R\$ per month
B5 – Costs of Decent work	112\$ per month	550 R\$ per month
B6 – Savings	74\$ per month	363 R\$ per month
Total costs per household	813\$ per month	3994 R\$ per month

Costs per Full Time Worker Equivalent	Result (in PPP US Dollars) ¹	Result in local currency (Reais)
B1 – Healthy Diets	174\$ per month	856 R\$ per month
B2 – Decent Housing	149\$ per month	731 R\$ per month
B3 – Healthcare Costs	30\$ per month	146 R\$ per month
B4 - Education Costs	14\$ per month	68 R\$ per month
B5 – Costs of Decent work	66\$ per month	322 R\$ per month
B6 – Savings	43\$ per month	212 R\$ per month
Total costs per full time worker equivalent	476\$ per month	3994 R\$ per month



Note: All \$ are in PPP 2023
1. PPP conversion factor 2023 BRL to USD is 0.20359 USD

B1 TO B6 - FINAL ESTIMATE OF LIVING INCOME PER HOUSEHOLD AND PER FULL TIME WORKER EQUIVALENT

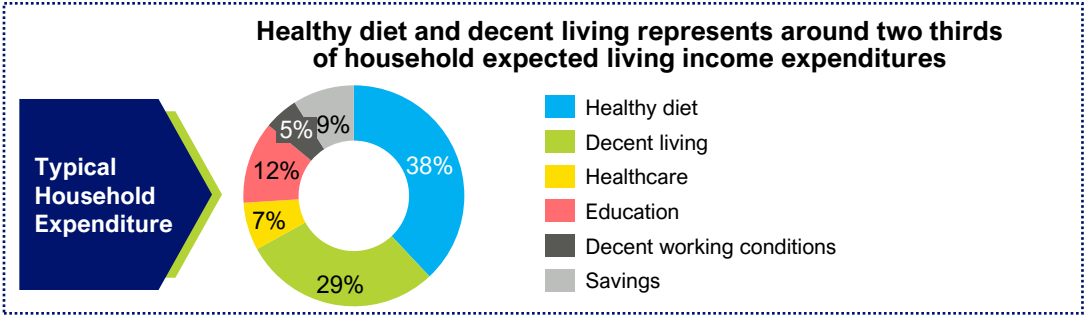
Example from locations in Sao Paulo, Brazil



Example output from case in Bangalore

Costs per household	Result (in PPP US Dollars) ¹	Result in local currency (Rupees)
B1 – Healthy Diets	709\$ per month	15143 Rs per month
B2 – Decent Housing	551\$ per month	11770 Rs per month
B3 – Healthcare Costs	124\$ per month	2650 Rs per month
B4 - Education Costs	234\$ per month	5000 Rs per month
B5 – Costs of Decent work	90\$ per month	1928 Rs per month
B6 – Savings	171\$ per month	3649 Rs per month
Total costs per household	1880\$ per month	40140 Rs per month

Costs per Full Time Worker Equivalent	Result (in PPP US Dollars) ¹	Result in local currency (Reais)
B1 – Healthy Diets	430\$ per month	9178 Rs per month
B2 – Decent Housing	34\$ per month	7133 Rs per month
B3 – Healthcare Costs	75\$ per month	1606 Rs per month
B4 - Education Costs	142\$ per month	3030 Rs per month
B5 – Costs of Decent work	55\$ per month	1169 R\$ per month
B6 – Savings	104\$ per month	2212 R\$ per month
Total costs per full time worker equivalent	1139\$ per month	24328 R\$ per month



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

OTHER LIVING INCOME ESTIMATES HELP SENSE CHECK

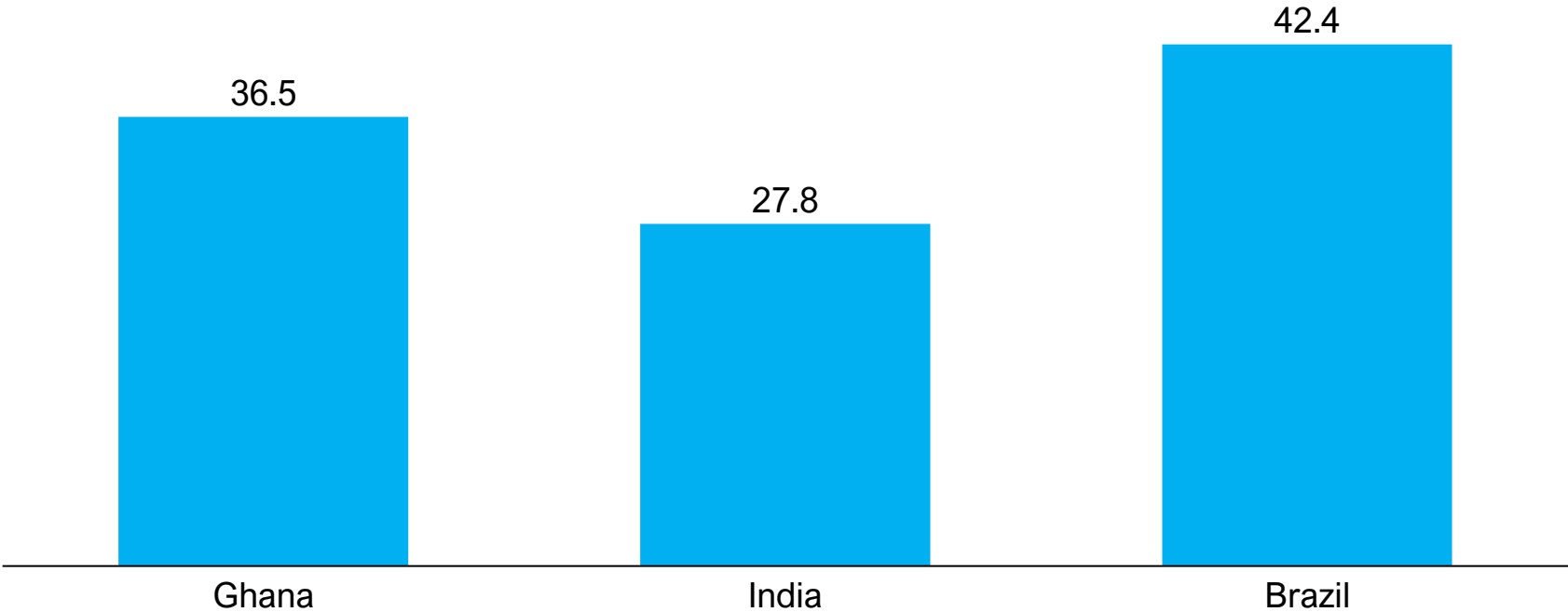


Living income data available

Via secondary data

- We can use existing Anker data available as benchmark although those are not a national average and may not be locally relevant.


Living wage available from Anker methodology
PPP \$/day, corrected for 2022



Living income benchmarks prepared for the Global Living Wage Coalition (GLWC) using the Anker Methodology in rural areas of Ghana (Smith et al. 2017), Brazil (De Freitas Barbosa et al. 2016), India (Mamkootam and Kaicker 2016). All data converted to 2017 values to make them comparable.

C) COMPILING BENCHMARK INCOMES

OBJECTIVE OF BENCHMARK DATA: DEFINITION, GOAL, KEY QUESTIONS AND METRIC

Establish benchmark		
<div></div> <div>Minimum wage and comparable local incomes</div> <div>Via primary and secondary data</div>	Definition	Establishing a benchmark is used to build an income ladder of benchmark incomes, current earnings and the living income. The benchmark consists of the minimum wage and comparable local income.
	Goal	How much do comparable jobs offer locally?
	Key questions	<ul style="list-style-type: none">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.)
	Metric	Salary in local currency and PPP USD per month

HOW TO CALCULATE THE BENCHMARK DATA



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, we then suggest to conduct surveys with local experts to answer the key questions.

- The same size for the interviews does not have to be as big as for the waste pickers surveys (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.

See the next page for the Bangalore example for actual benchmark data that was collected.

EXAMPLE: HOW TO CALCULATE THE BENCHMARK DATA



Example output from case in Bangalore

Example from locations in Bangalore, India

A Establish baseline / benchmark

	Minimum wage	Government wage	Average prevailing incomes for other 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	<ul style="list-style-type: none"> Via government statistics Put action number 	<ul style="list-style-type: none"> Via government partner Indian Example: Legal Minimum Wage 910 PPP \$/month 19,200 ₹/month 	<ul style="list-style-type: none"> Via survey (max. 10 respondents) Income generated through waste picking, construction work, agricultural labour Indian Example: Wages from prevailing jobs: Formal waste workers: 7,800 ₹/month Agricultural laborers: 10,100 ₹/month
Sources	<ul style="list-style-type: none"> The minimum wage can usually be accessed through official government websites. 	<ul style="list-style-type: none"> The prevailing government wage can usually be accessed through official government websites. 	<ul style="list-style-type: none"> Conduct survey of max. 10 respondents on prevailing wages in sectors such as formal waste worker and agricultural labourers.