








LIVING INCOME PHASE 2 CASE STUDIES

Summary of results from 11 case studies conducted during the phase 2 of the living income project

October 2024

The phase 2 of the living incomes project conducted 11 case studies during 2024 with local organizations leading the analysis

11 case studies were conducted by local organizations			
Country	Local Organization	Assessments	Locations
 Kenya	Flip Flopi Project	3	Lamu, Nairobi, Kisumu
 Brazil	ORIS/ INSEA (ANCAT)	3	Belo Horizonte, Brasília, Belém
 India	Chintan Environmental Research and Action Group	1	New Delhi
 Nigeria	Nigeria Climate Innovation Centre	1	Abuja
 Philippines	ASKI Philippines	1	Talavera
 Ecuador	Alianza Giro	1	Quito
 Chile	Araucania Hub	1	Temuco



The phase one of the study already conducted 1 case in India, 1 in Ghana and 1 in Brazil

Organizations were given onboarding sessions, a toolkit, recurring support calls and quality checks...

Ways of working

- **Onboarding** sessions 121 with Systemiq and the local organization
- **Toolkit** materials with guideline, step-by-step tutorial, data input table and templates
- **Recurring support calls** / emails to solve questions or aligning approach
- **Quality control** by Systemiq on results

Toolkit on the Living Income methodology

Guideline on the methodology and step-by-step tutorial. ~60 pages including questionnaire, best practices, examples from other organizations

Data input template with automatic visualization to input the gathered and estimated data

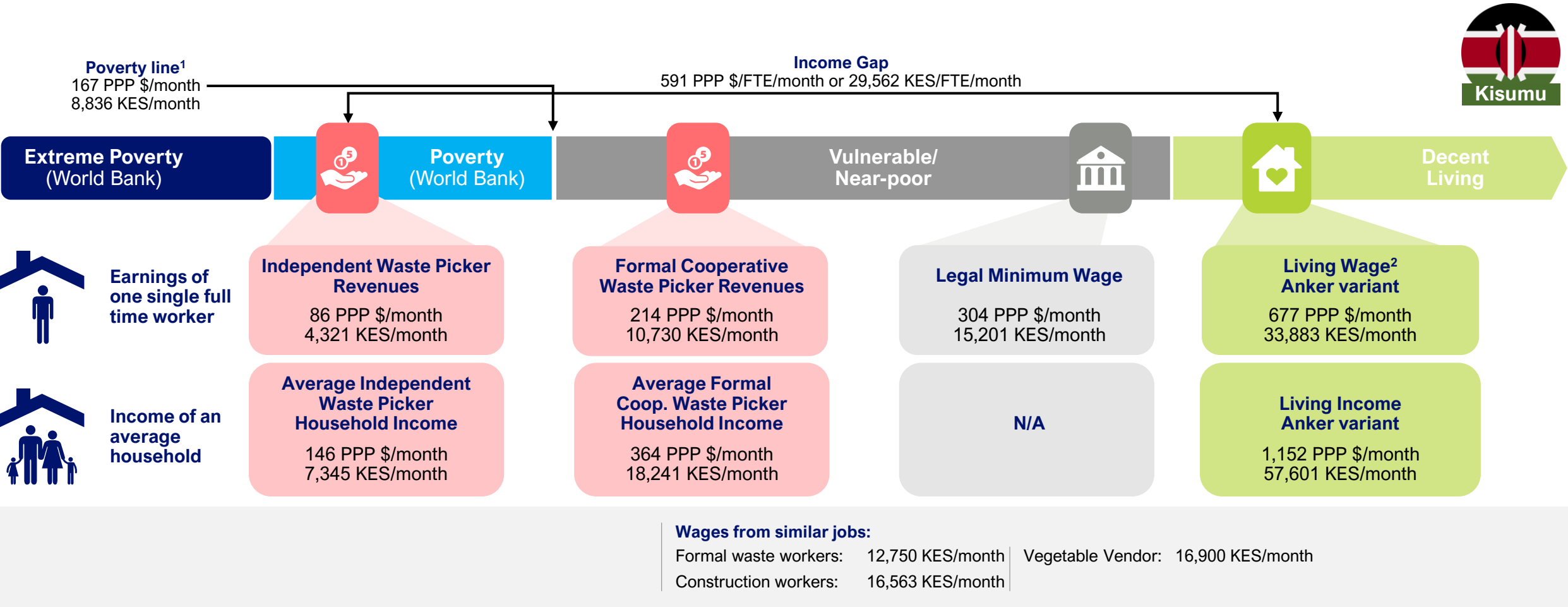
Case study report template to write key learnings and the approach or assumptions taken

... all organizations demonstrated strong research skills & professionalism



Example:

Kisumu showcased incomes substantially below a living income for independent and cooperative waste pickers, although those in cooperatives were better off



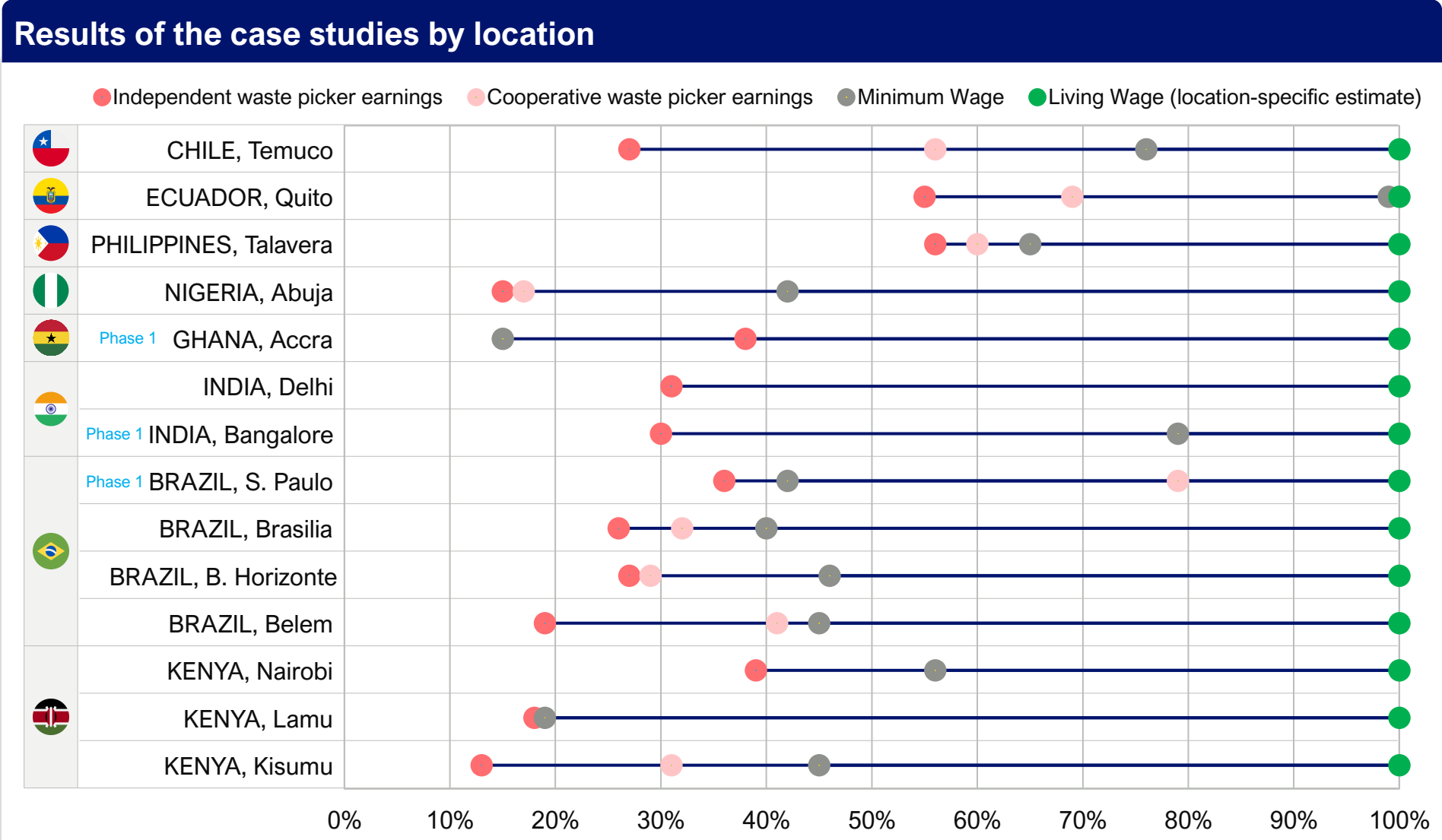
All \$ are in PPP 2023

(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.

Across all the 11 case studies, waste pickers earned less than what was considered a living income required for a decent life



- ### Key Insights
- The actual earnings of waste pickers were substantially below what would be considered a living income in their location.
 - In general waste pickers earned between **20% to 60%** of the estimated living income.
 - Waste pickers that were part of cooperatives earned more than independent waste pickers in all cases, sometimes **2x** more
 - The earnings of waste pickers were also below the minimum wage across most cases

Solutions to improve the income of waste pickers should be multi-faceted since there is a large variety of factors challenging their incomes

Common challenges faced by waste pickers

Market and pricing issues



- **Market volatility:** Prices for recyclable materials are unstable and often low, directly impacting the income of waste pickers.
- **Limited bargaining power:** Waste pickers, especially those handling smaller quantities, have little leverage and are often forced to accept minimal prices.

Capital and financial constraints



- **Lack of capital:** Many waste pickers lack the capital to invest in better equipment or scale up their operations, limiting their ability to improve efficiency and profitability.
- **High operational costs:** Expenses related to storage, transport, and licensing fees significantly reduce net income.
- **Inconsistent income:** Variable material availability and market conditions leads to fluctuating and unpredictable income.

Cooperative and organizational issues



- **Service contracts:** The absence of formal service contracts with municipalities or other entities limits waste pickers' access to regular and predictable sources of waste.
- **Knowledge gaps:** New waste pickers often lack the necessary knowledge and skills

Competition and access to materials



- **High competition:** Intense competition among waste pickers or formal companies collecting waste before waste pickers reduces access to materials
- **Intermediary and aggregators:** Aggregators and middlemen often capture a share of the profits that could otherwise stay with waste pickers if organized

Public perception and support



- **Negative perception:** Waste pickers can often suffer marginalization from their communities.
- **Lack of public awareness:** Many are unaware of the environmental benefits waste pickers provide, resulting in limited community and institutional support.
- **Lack of government support:** Insufficient government policies to support waste pickers human and workers' rights.

Health and safety risks



- **Poor working gear:** Lack of proper gear (e.g., gloves, masks) reduces efficiency and increases vulnerability to health risks.
- **Adverse weather conditions:** Extreme weather, such as rain, can halt work entirely, leading to inconsistent income.

Equipment and infrastructure



- **Underdeveloped infrastructure:** Inadequate warehousing complicates handling and management of collected materials.
- **Lack of equipment:** Lack of tools hampers productivity, raises health risks, and limits the amount of waste collected.

Transportation challenges



- **Long distances:** Waste pickers frequently travel long distances to dumpsites or point of sales, consuming time and resources.
- **High costs and inadequate vehicles:** high costs and / or lack of adequate transportation, like trucks or pushcarts.

In the next slides, this document covers the 11 case studies developed by local organizations following a common methodology

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 Ecuador	Alianza Giro	1	Quito
 Chile	Araucania Hub	1	Temuco

CASE STUDY



REGION

Nairobi

CURRENCY

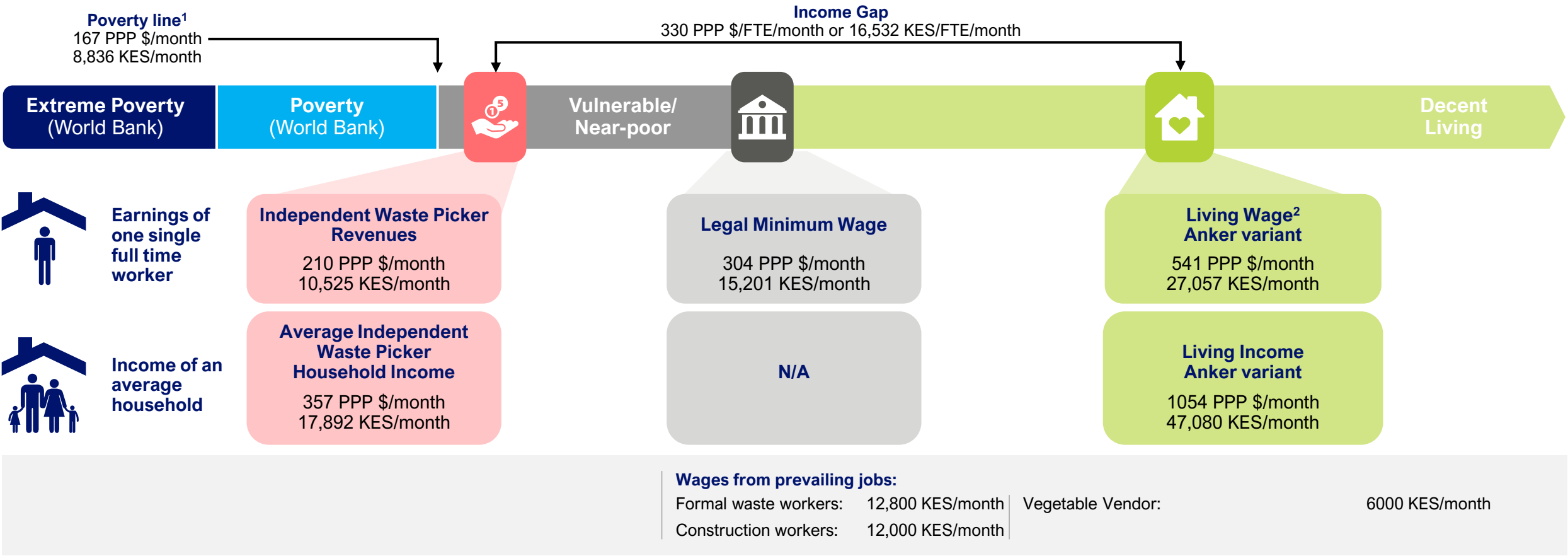
Kenyan Shilling (KES)

THE INCOME GAP



INCOME GAP

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



All \$ are in PPP 2023

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CURRENT WASTE PICKER EARNINGS



EARNINGS

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

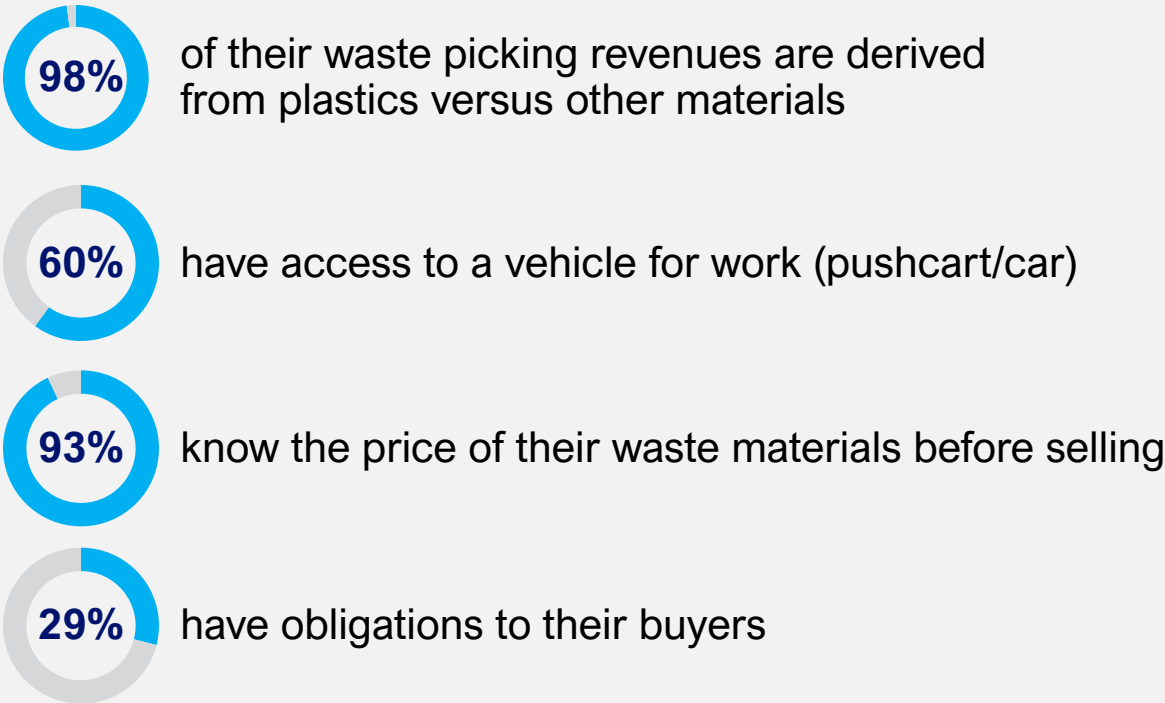
Average earnings

64 KES hour **514 KES** day **10551 KES** month

Worker efficiency

Worker efficiency greatly varies from 17 KES/hour to 213 KES/hour

Key Features



Main limitation to increase revenues³

- Third parties control private truck access at Dandora, limiting collection.
- Women collect lower-value waste; men get higher-value items.
- More waste is sorted before reaching Dandora, reducing recyclables.
- Harsh weather can halt work due to dumpsite inaccessibility.
- New waste pickers lack knowledge, leading to lower earnings.
- Recyclable materials are inconsistent due to changing consumption habits.
- Lack of storage forces daily sales by waste pickers.
- Households increasingly sell directly to nearby aggregators.

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 47,080 KES is estimated to be needed for an average household to have access to decent living conditions

Living wage Anker variant

27,057 KES (full time worker supporting an average household)
month

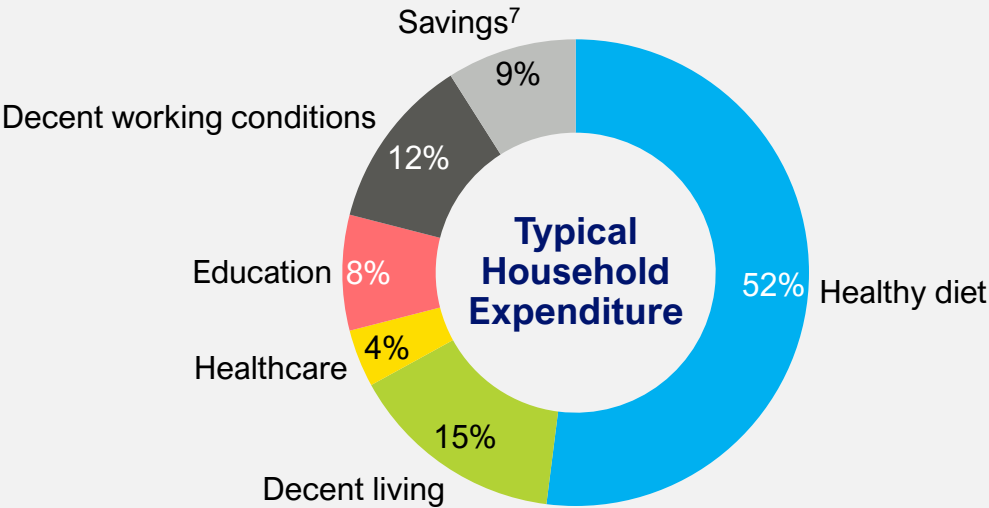
Living income Anker variant

47,080 KES (for an average household)
month

Household characteristic used for the study:

- Household size : 4 (2 adults + 2 Children)
- 1.7 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.

LIVING INCOME



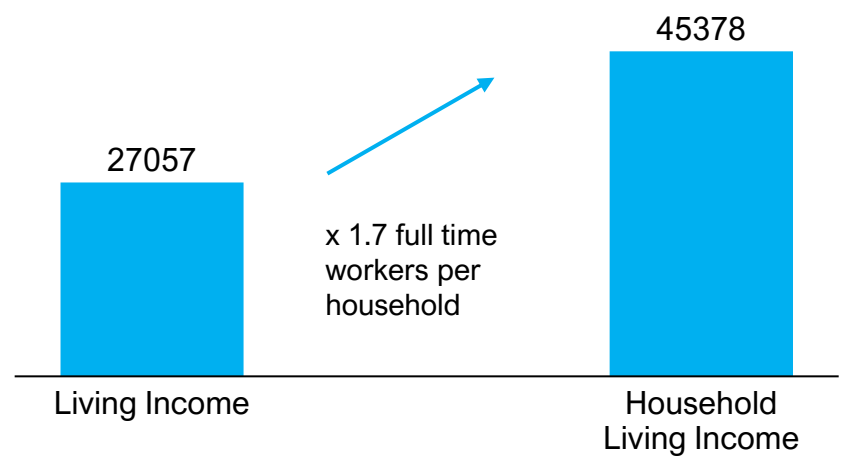
INCOME

An average of 45,378 KES is estimated to be needed for an average household to have access to decent living conditions



Individual and Family Living Wage

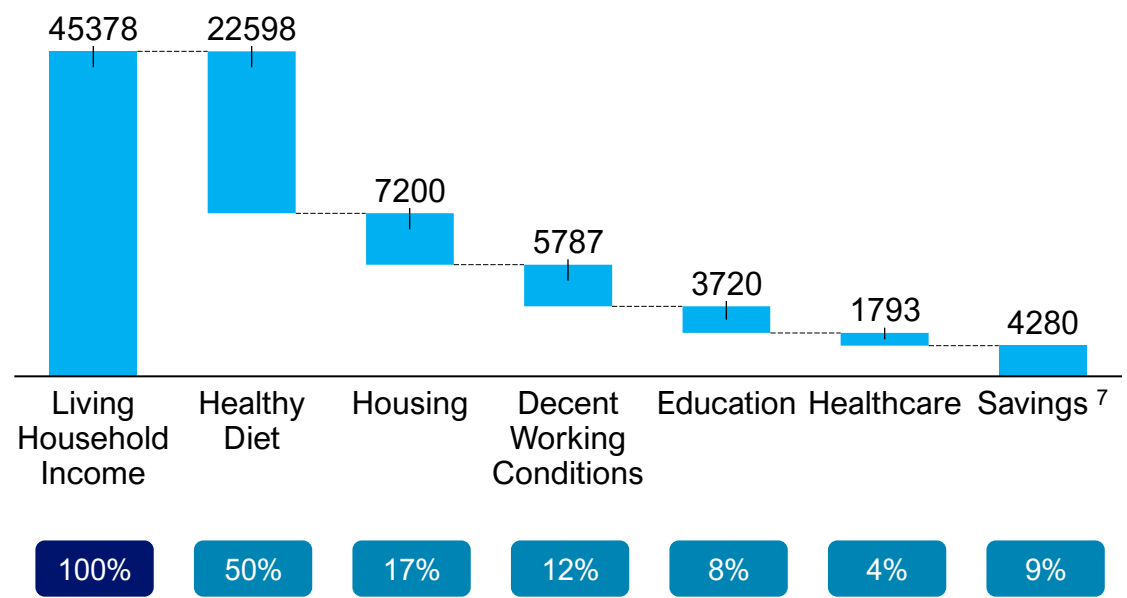
In Nairobi, each household has the equivalent earning potential of 1.7 full time workers on average. Figures are in KES.



- Household characteristic used for the study:**
- Household size : 4 (2 adults + 2 Children)
 - 1.7 full time workers per household.⁴

Typical Expenses for a Family to have a Decent Life

Healthy diet and decent living represents around two thirds of household expected living income expenditures. Figures are in KES.



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TPOLOGY OF SURVEYED WASTE PICKERS



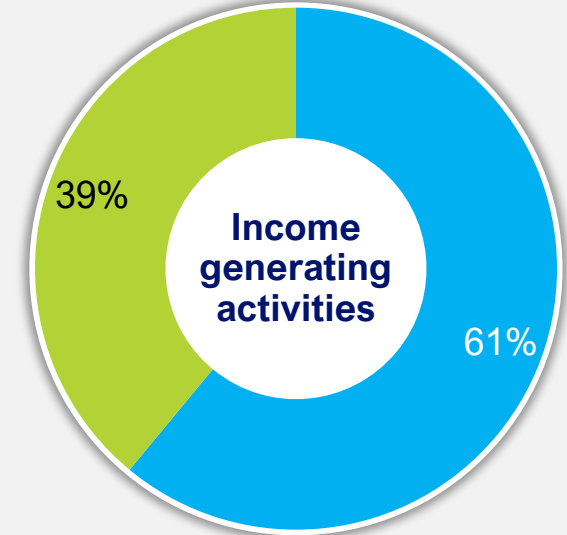
ABOUT

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

- **78%** get materials from a landfill or dumpsite
- **38%** get materials from the street
- **42%** get materials from households
- **16%** get materials from other sources



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

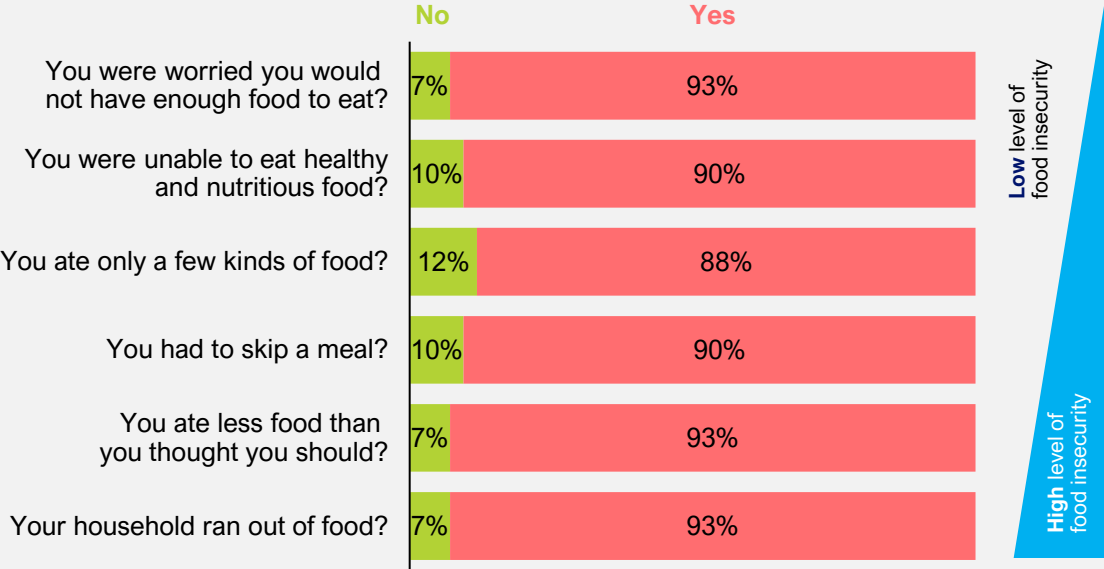


WASTE PICKER QUESTIONNAIRE

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

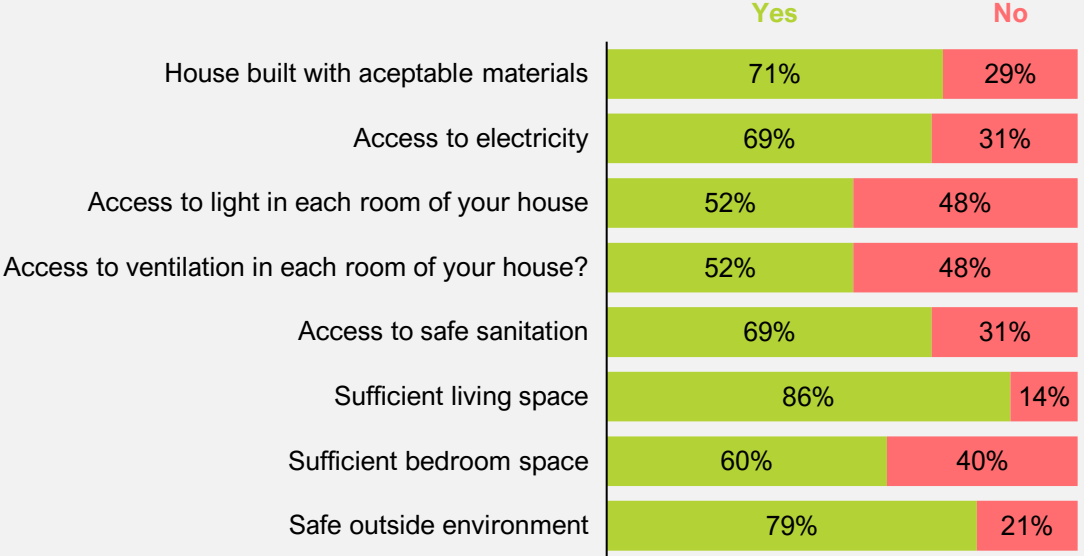
Food Insecurity Experience Scale²

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



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:



(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;

CASE STUDY



REGION

Kisumu

CURRENCY

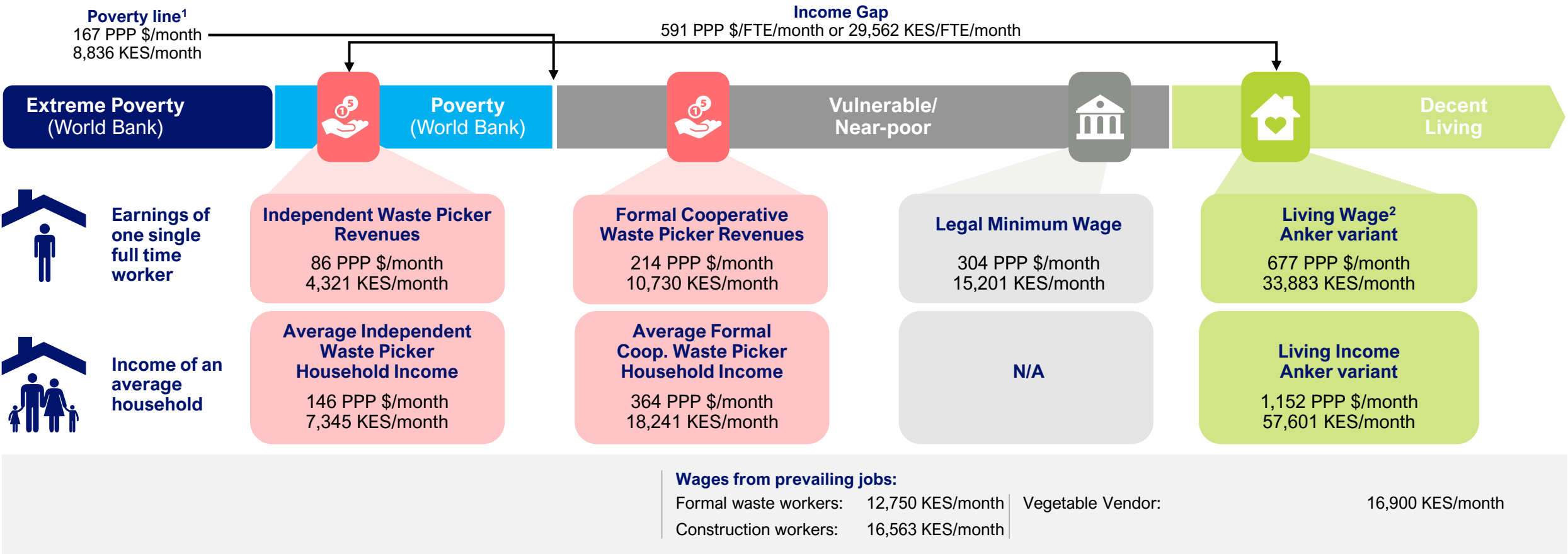
Kenyan Shilling (KES)

THE INCOME GAP



INCOME GAP

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



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CURRENT WASTE PICKER EARNINGS



EARNINGS

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

Average earnings

48 KES hour **384 KES** day **7862 KES** month

Worker efficiency

Worker efficiency greatly varies from 10 KES/hour to 60 KES/hour

Key Features

- 100%** of their waste picking revenues are derived from plastics versus other materials
- 62%** have access to a vehicle for work (pushcart/car)
- 85%** know the price of their waste materials before selling
- 7%** have obligations to their buyers

Main limitation to increase revenues³

- Transport is a big expense for waste collectors in kisumu town, as they need to pay the county trucks to take waste from informal dumpsites after they have extracted the recyclables.
- Garbage collectors and aggregators are intercepting a lot of recyclable waste before it reaches the dumpsite, which means less income for waste pickers at the dumpsite.
- Segregation at source is difficult for waste collectors to achieve - even the cost of providing two waste bins per household is too expensive.
- Frequency depends on stock sufficient for a good amount
- The old dumpsite was moved from inside the city, to the outskirts. There were between 500 - 1000 waste pickers on the old site but less than 300 on the new site. There are still collectors from the original dumpsite who travel long distances to reach the new dumpsite, with transport being a large expense.

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LIVING INCOME

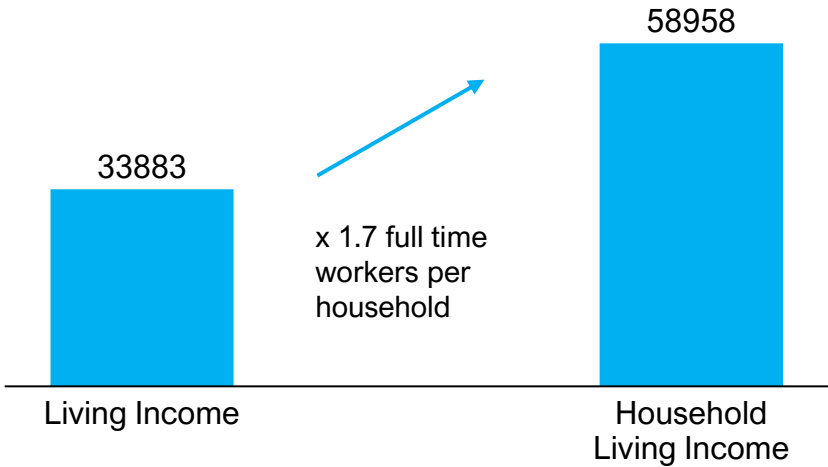


INCOME

An average of 58,958 KES is estimated to be needed for an average household to have access to decent living conditions

Individual and Family Living Wage

In Kisumu, each household has the equivalent earning potential of 1.7 full time workers on average. Figures are in KES.

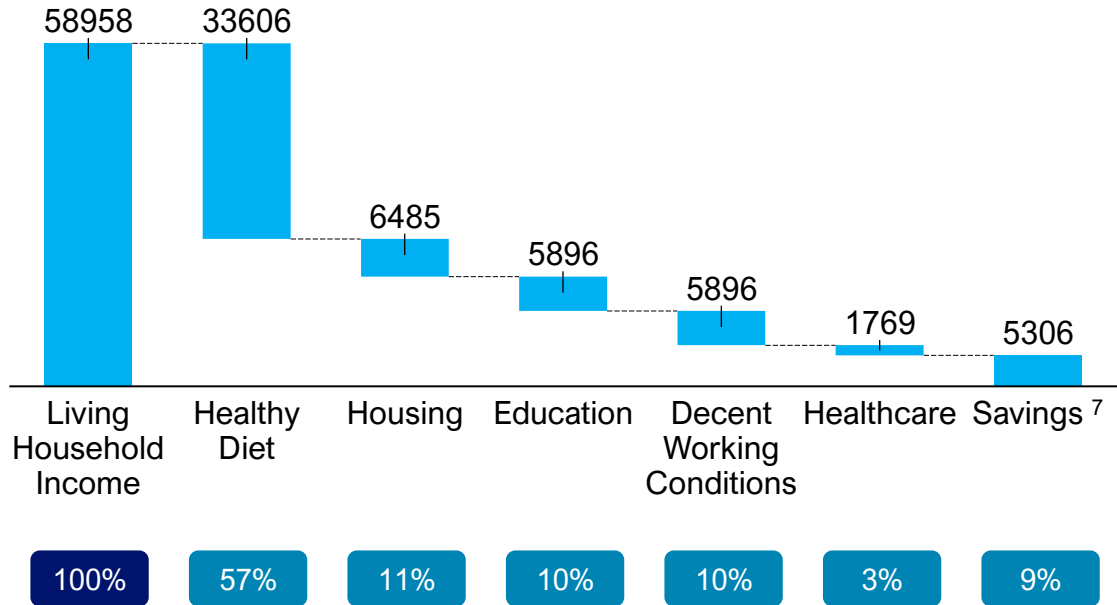


Household characteristic used for the study:

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

Typical Expenses for a Family to have a Decent Life

Healthy diet and decent living represents around two thirds of household expected living income expenditures. Figures are in KES.



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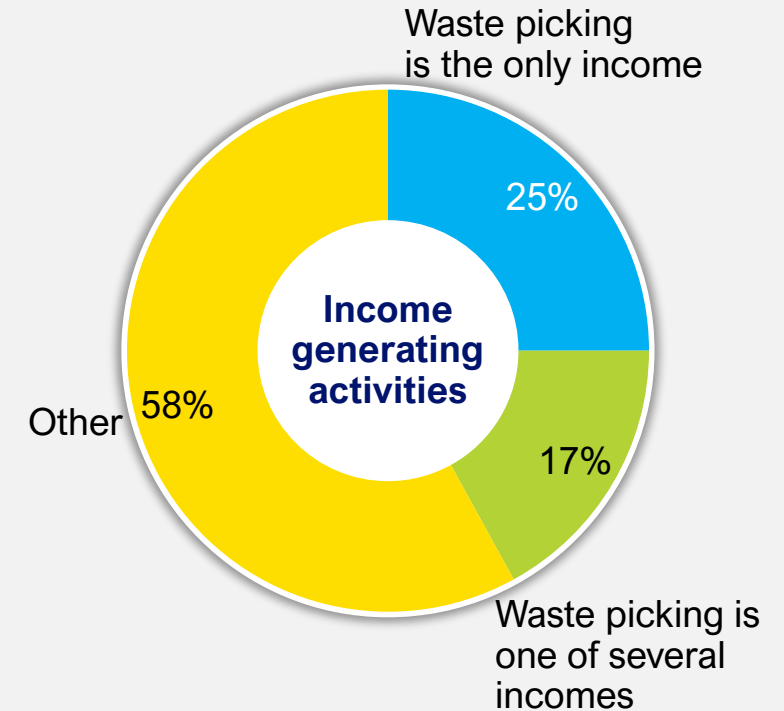
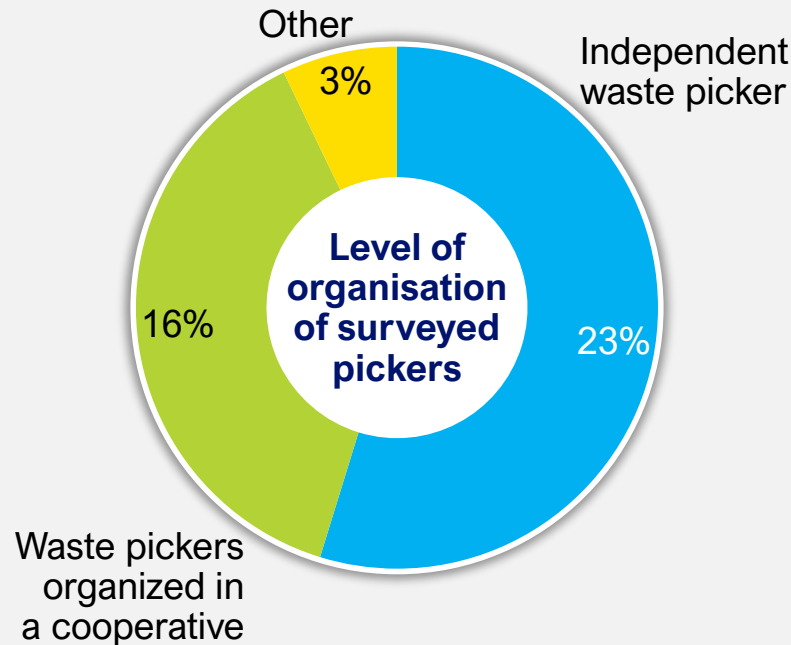
TYOLOGY OF SURVEYED WASTE PICKERS



ABOUT

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

- **42%** get materials from a landfill or dumpsite
- **21%** get materials from the street
- **52%** get materials from households
- **42%** get materials from other sources



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

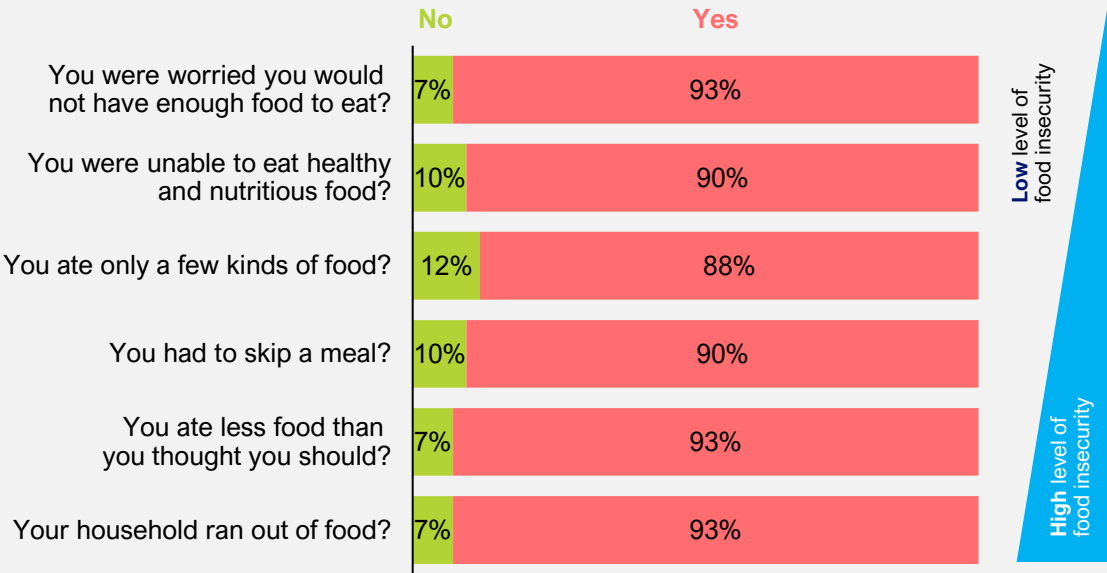


WASTE PICKER QUESTIONNAIRE

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

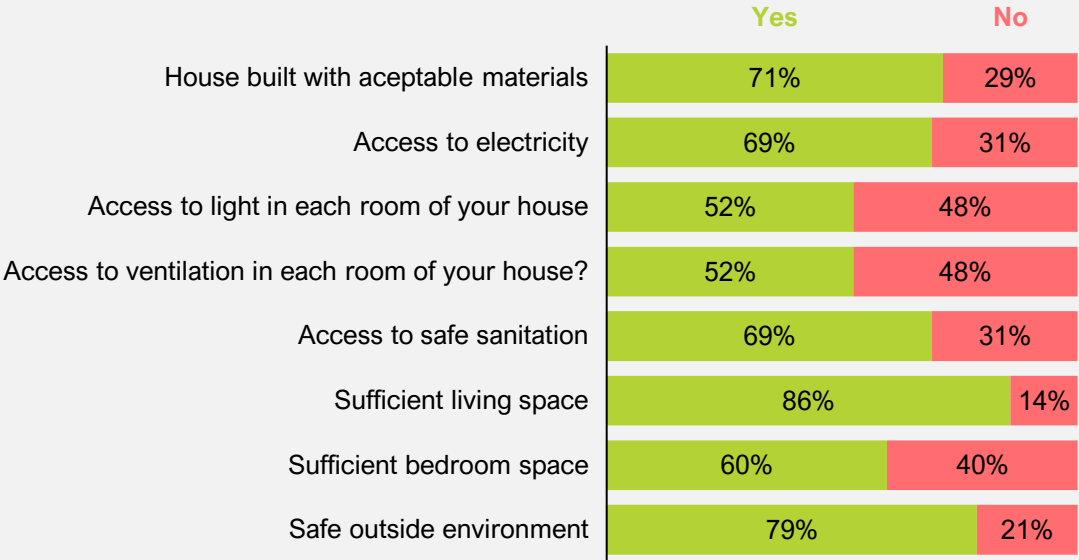
Food Insecurity Experience Scale²

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CASE STUDY



Kenya

REGION

Lamu

CURRENCY

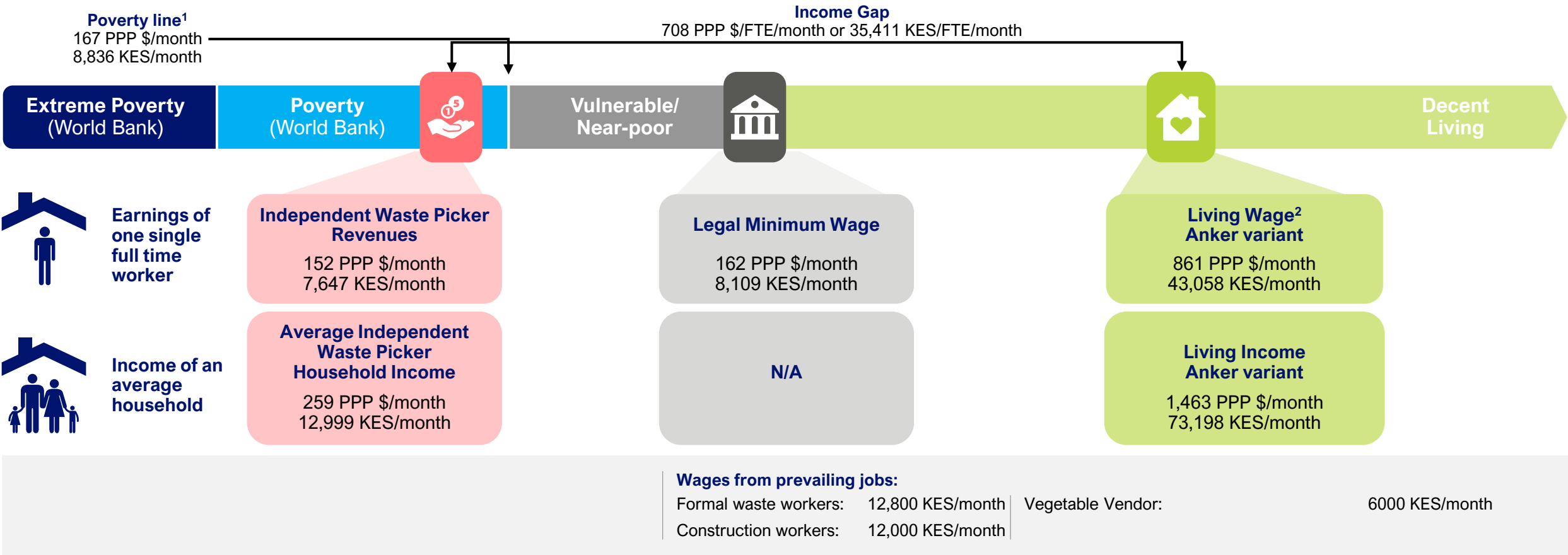
Kenyan Shilling (KES)

THE INCOME GAP



INCOME GAP

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



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CURRENT WASTE PICKER EARNINGS



EARNINGS

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

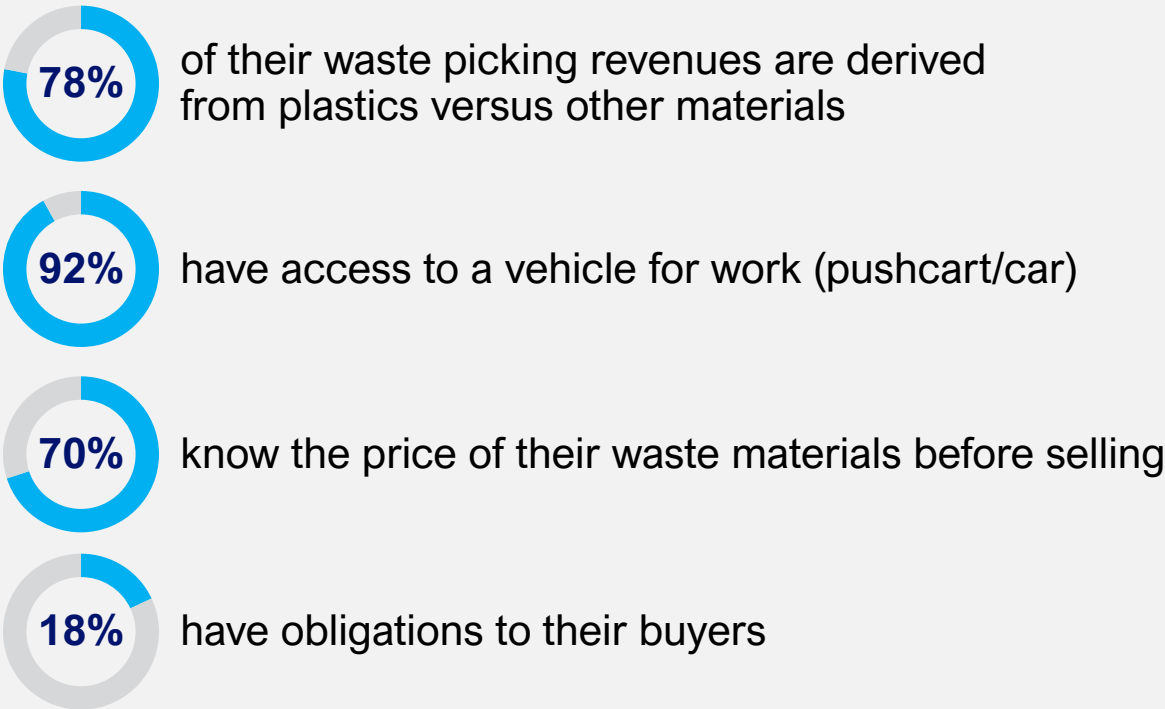
Average earnings

46 KES hour **373 KES** day **7,647 KES** month

Worker efficiency

Worker efficiency greatly varies from 10 KES/hour to 60 KES/hour

Key Features



Main limitation to increase revenues³

- High competition makes finding consistent plastic waste hard for collectors.
- Waste pickers travel long distances, consuming time.
- Transport is costly, limiting the volume they can carry.
- Contaminated, unsegregated waste reduces usable material and increases injury risk.
- Bulky plastic waste requires significant storage, which is often costly or unavailable.
- Metal aggregators face high licensing fees and legal issues, causing caution in sourcing.
- Extreme weather limits waste picking activities.
- Lack of capital prevents waste pickers from scaling up to aggregators.

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LIVING INCOME

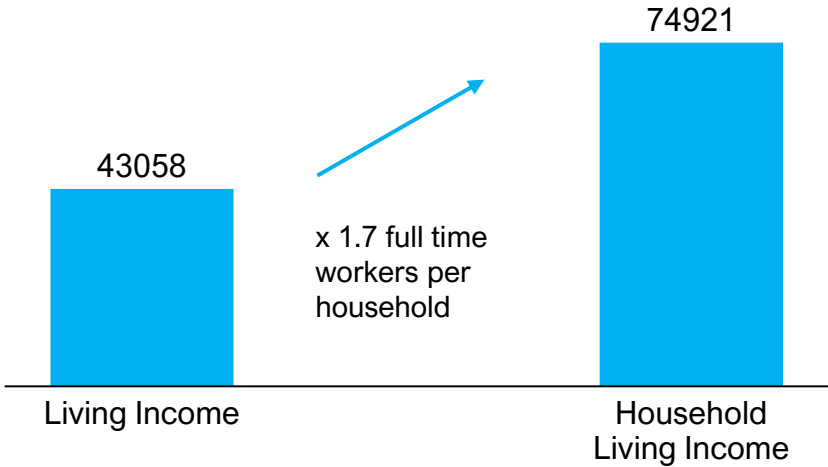


INCOME

An average of 74,921 KES is estimated to be needed for an average household to have access to decent living conditions

Individual and Family Living Wage

In Lamu, each household has the equivalent earning potential of 1.7 full time workers on average. Figures are in KES.

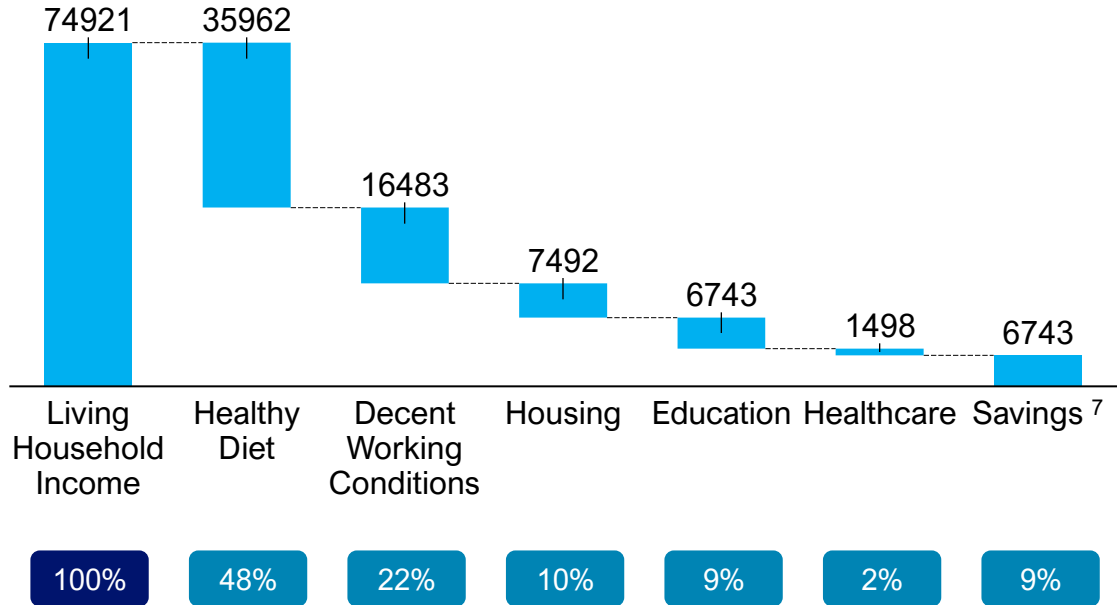


Household characteristic used for the study:

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

Typical Expenses for a Family to have a Decent Life

Healthy diet and decent living represents around two thirds of household expected living income expenditures. Figures are in KES.



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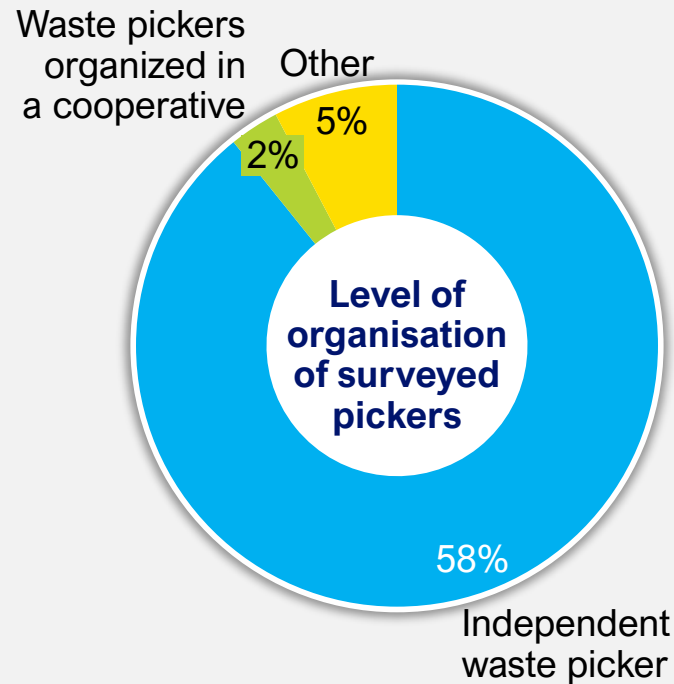
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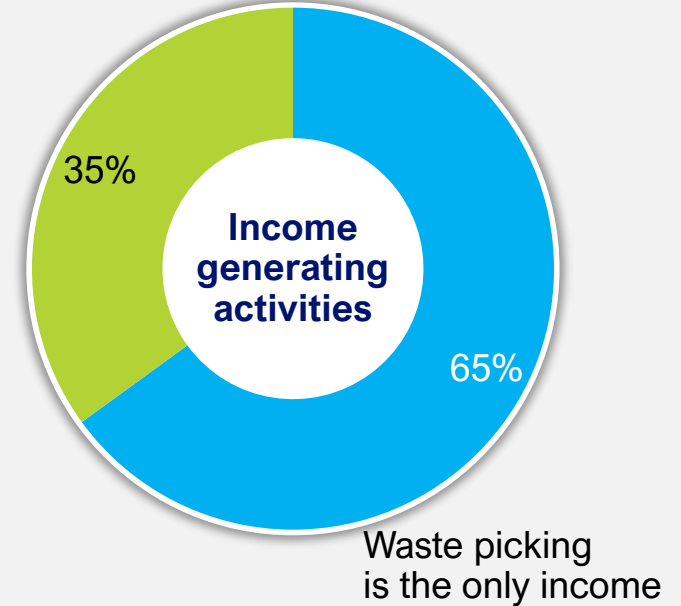
ABOUT

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

- **70%** get materials from a landfill or dumpsite
- **68%** get materials from the street
- **35%** get materials from households
- **93%** get materials from other sources



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

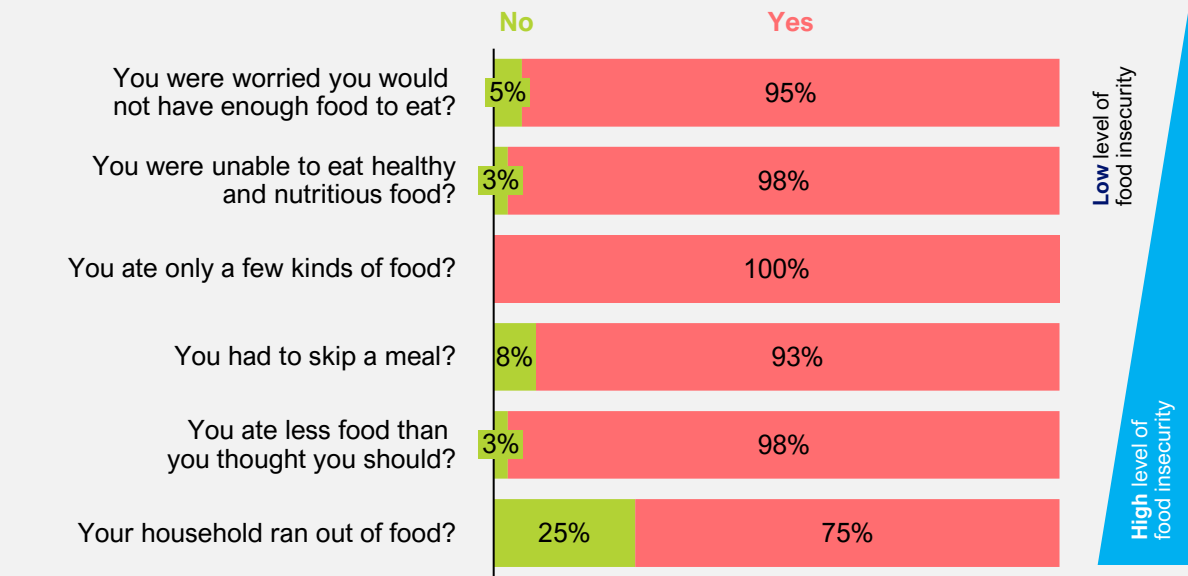


WASTE PICKER QUESTIONNAIRE

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

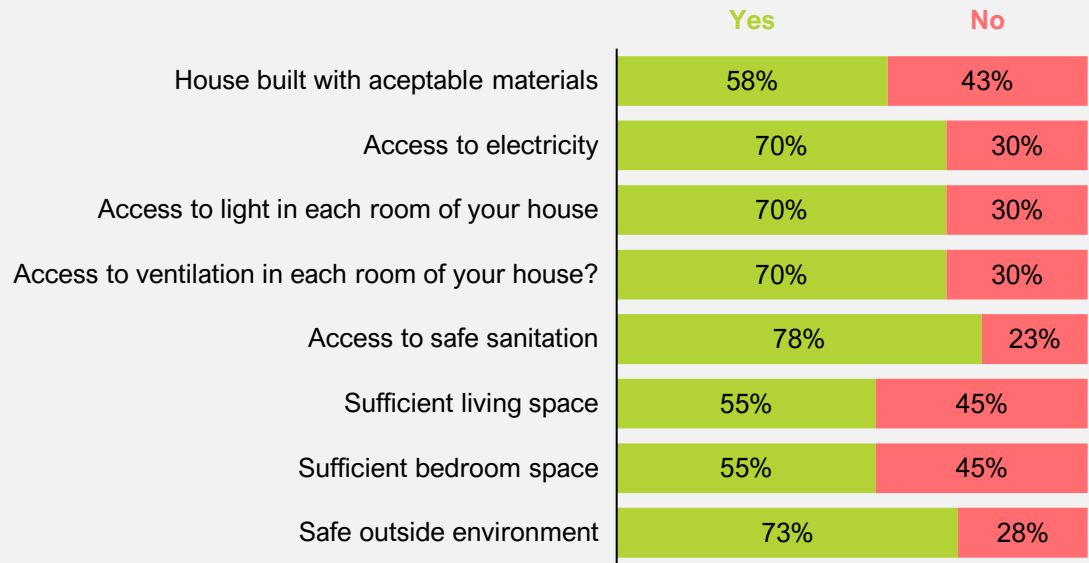
Food Insecurity Experience Scale²

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



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:



(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;

CASE STUDY



Brazil

REGION

Brasilia

CURRENCY

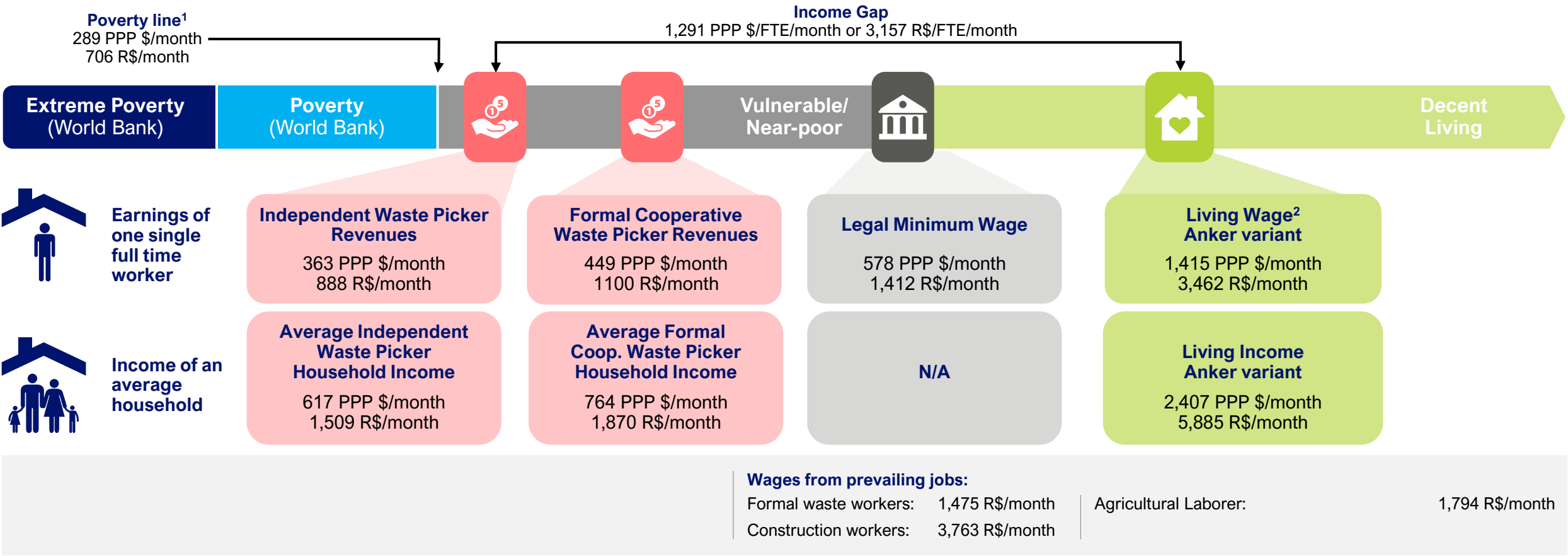
Brazilian Real (R\$)

THE INCOME GAP



INCOME GAP

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



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



EARNINGS

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

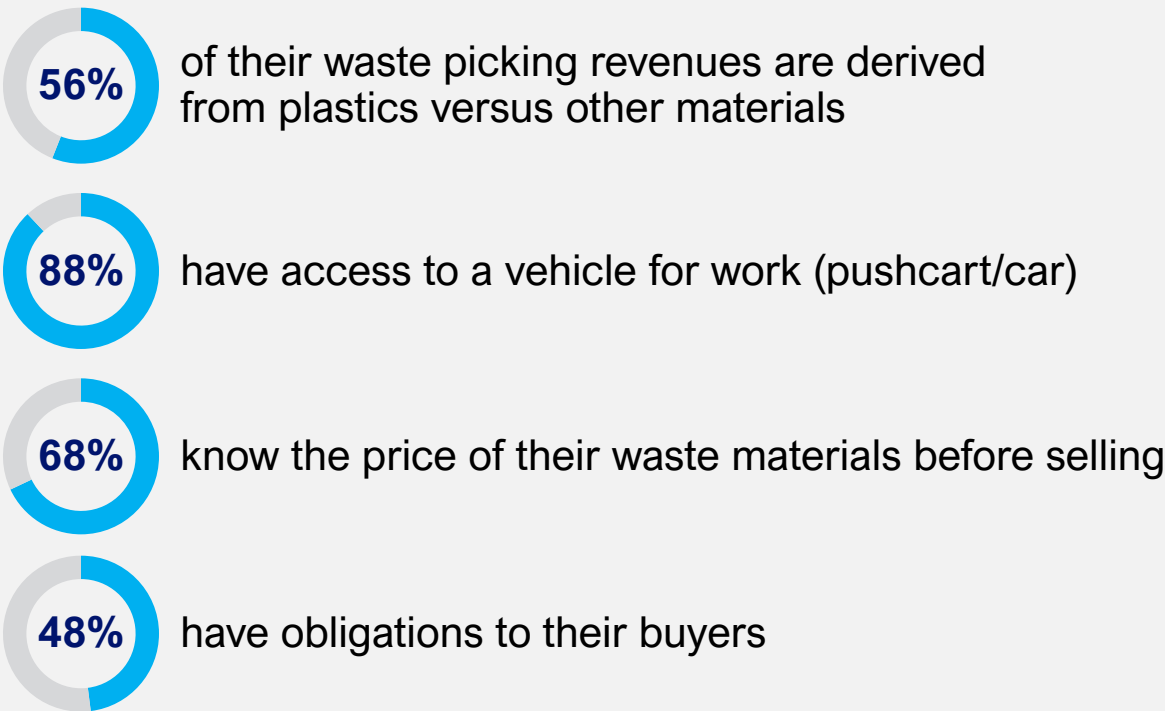
Average earnings

6 R\$ hour 47 R\$ day 964 R\$ month

Worker efficiency

Worker efficiency greatly varies from 1 R\$/hour to 16 R\$/hour

Key Features



Main limitation to increase revenues³

- Lack of proper equipment or maintenance:** Both independent workers and cooperative members prioritize better equipment. Independent workers want improved pushcarts, while cooperative members need equipment like presses, forklifts, and sorting conveyors for their sorting centers.
- Poor quality of materials from selective collection:** Cooperative members face challenges with the quality of recyclables collected through selective collection, which is linked to the need for better public education on separating recyclables from regular waste. In Brazil, this collection is managed by the municipality and usually happens once a week.
- Competition among workers:** Independent workers and cooperative members both face competition, with more structured workers (e.g., those with vehicles) accessing better recyclables. In cooperatives where income is based on production, this issue also arises.
- Lack of proper vehicles:** Independent waste pickers identify proper vehicles, such as better bikes, as crucial to improving collection speed and staying ahead of competitors.
- Service contract with the municipality:** Cooperatives often perform selective collection professionally but need official recognition from municipalities. A formal contract would allow waste picker cooperatives to provide selective collection services officially

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.

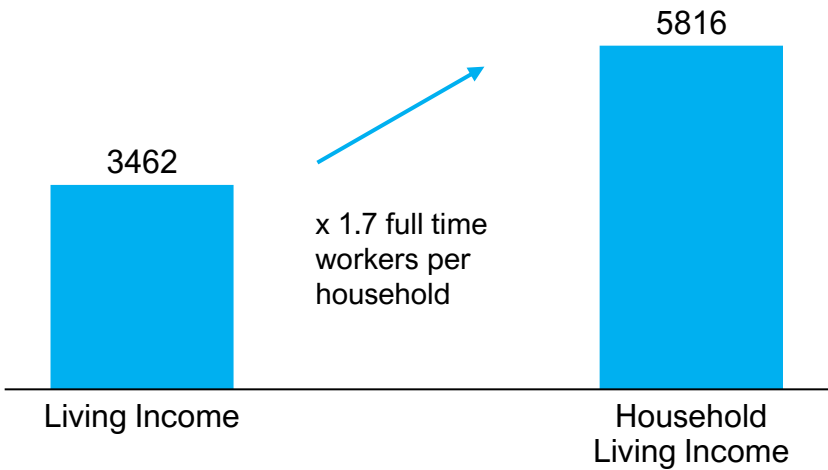


INCOME

An average of 5,816 R\$ is estimated to be needed for an average household to have access to decent living conditions

Individual and Family Living Wage

In Brasilia, each household has the equivalent earning potential of 1.7 full time workers on average. Figures are in R\$.

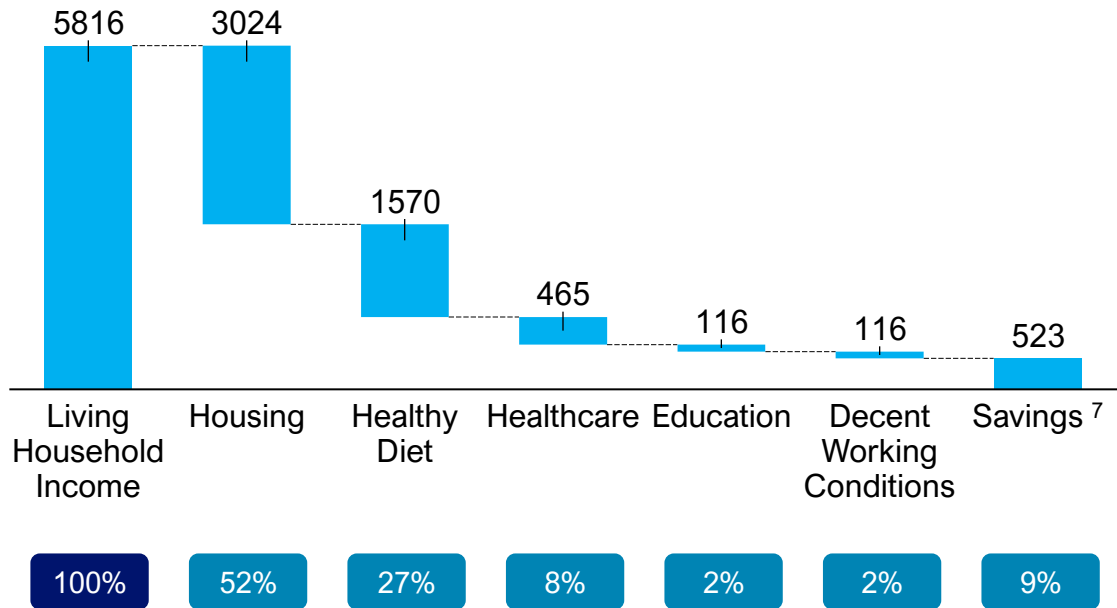


Household characteristic used for the study:

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

Typical Expenses for a Family to have a Decent Life

Healthy diet and decent living represents around three quarters of household expected living income expenditures. Figures are in R\$.



(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.

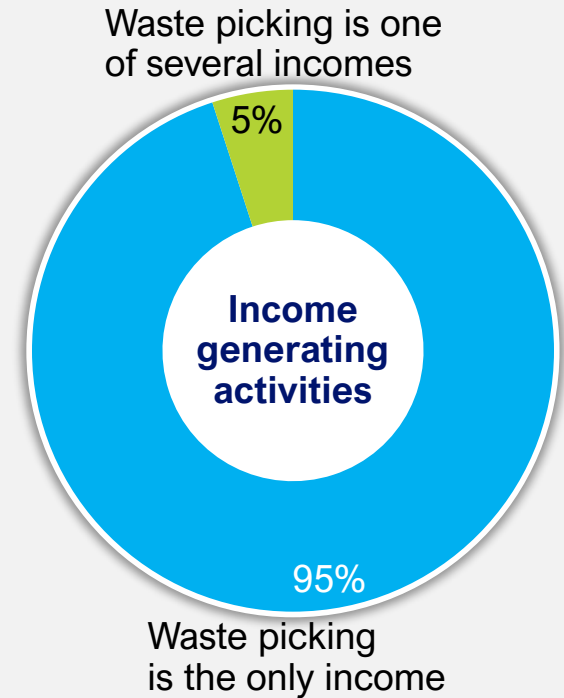
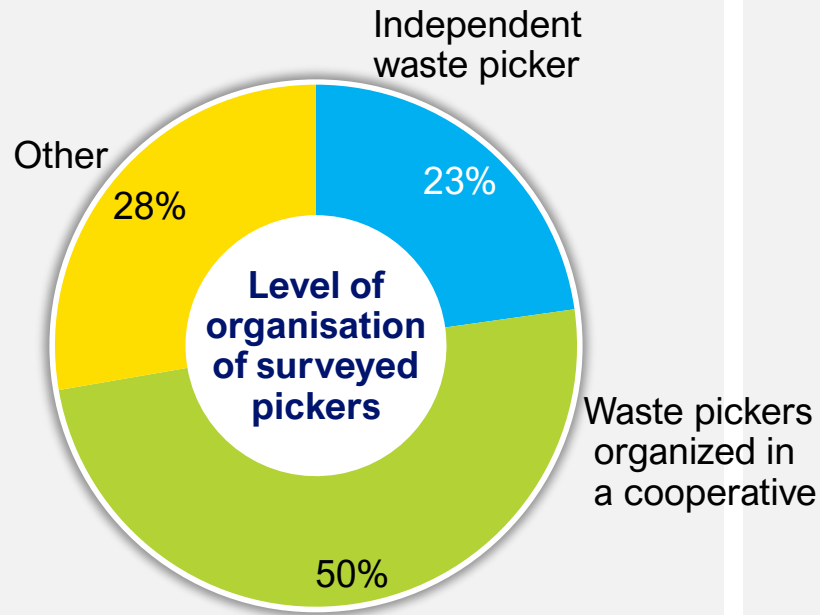
TYOLOGY OF SURVEYED WASTE PICKERS



ABOUT

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

- **0%** get materials from a landfill or dumpsite
- **38%** get materials from the street
- **63%** get materials from households



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

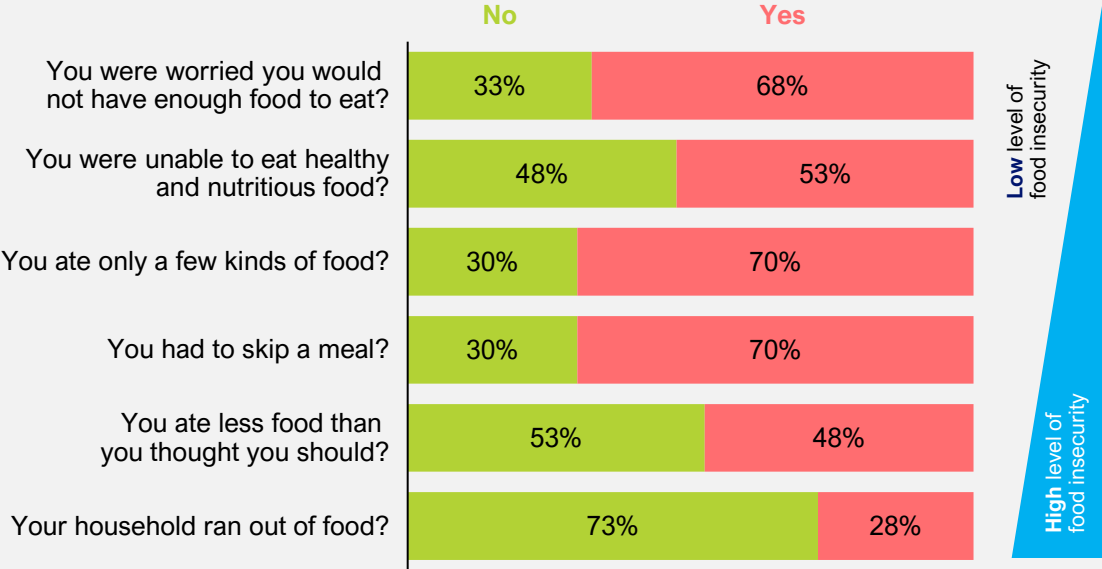


WASTE PICKER QUESTIONNAIRE

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

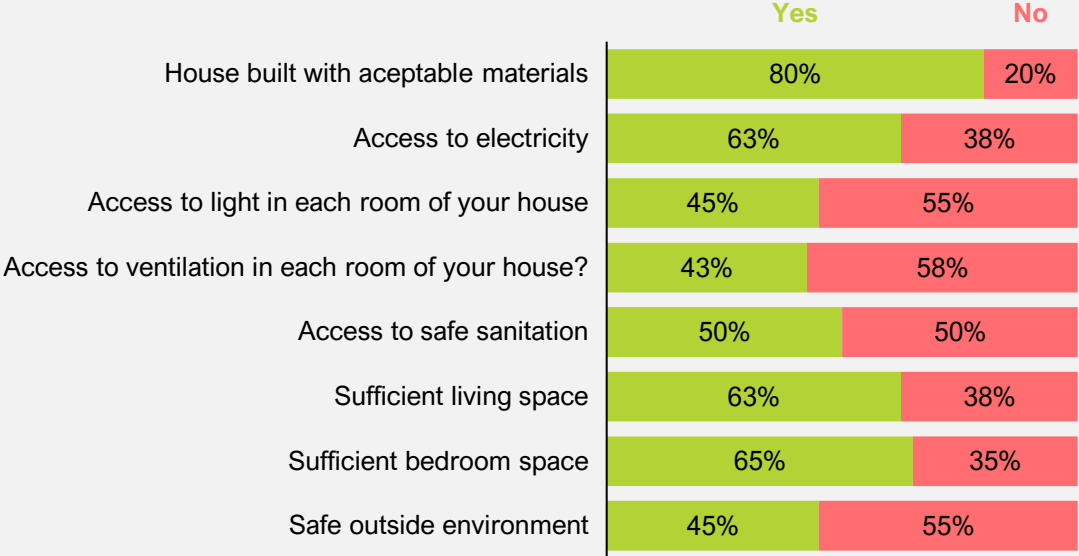
Food Insecurity Experience Scale²

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



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:



(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;

CASE STUDY



Brazil

REGION

Belem

CURRENCY

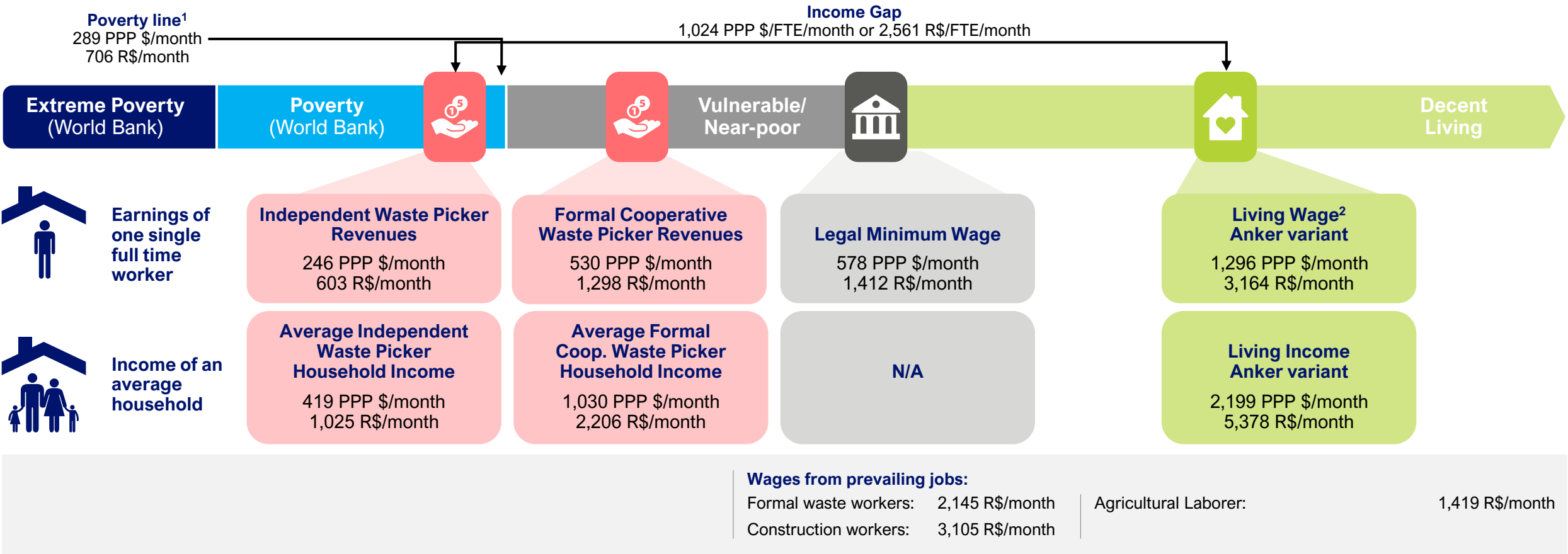
Brazilian Real (R\$)

THE INCOME GAP



INCOME GAP

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



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



EARNINGS

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

Average earnings

6 R\$ hour

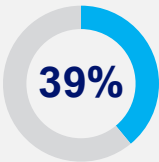
46 R\$ day

951 R\$ month

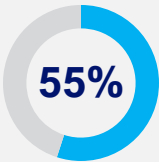
Worker efficiency

Worker efficiency greatly varies from 1 R\$/hour to 15 R\$/hour

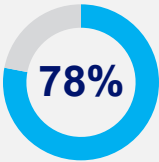
Key Features



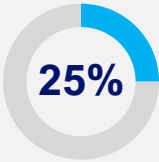
of their waste picking revenues are derived from plastics versus other materials



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



know the price of their waste materials before selling



have obligations to their buyers

Main limitation to increase revenues³

- **Lack of equipment:** Both independent and cooperative workers prioritize better equipment. Independent workers need improved pushcarts, while cooperative members require equipment like presses, forklifts, and sorting conveyors for their sorting centers.
- **Precarious infrastructure:** Cooperative members face poor conditions in their sorting centers, where recyclables are sorted, pressed, and stored.
- **Worker competition:** Independent and cooperative workers face competition. Faster, better-equipped waste pickers (e.g., those with vehicles) get better access to recyclables. In cooperatives where income is based on production, this competition also exists.
- **Lack of public support:** Cooperative members, more aware of their rights, demand better public policies to improve their legal and fiscal situation.
- **Lack of transparency in commercialization:** Cooperative members seek clearer and more frequent accountability from the cooperative board regarding commercialization practices.

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.

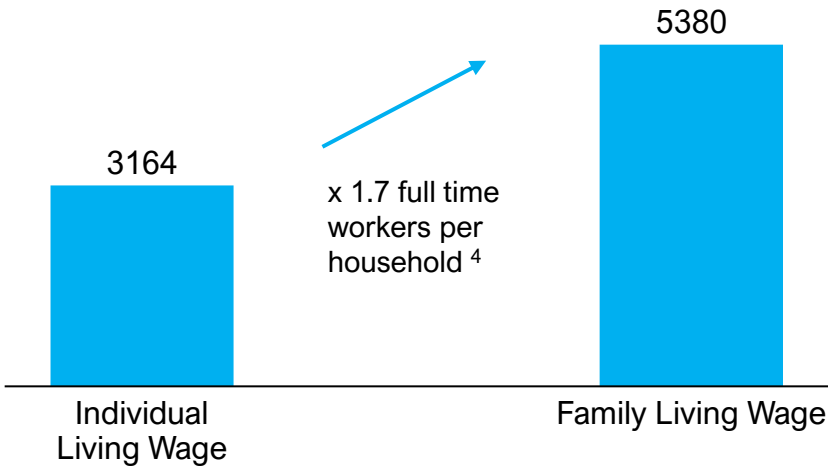


INCOME

An average of 5,370 R\$ is estimated to be needed for an average household to have access to decent living conditions

Individual and Family Living Wage

In Belem, each household has the equivalent earning potential of 1.7 full time workers on average. Figures are in R\$.

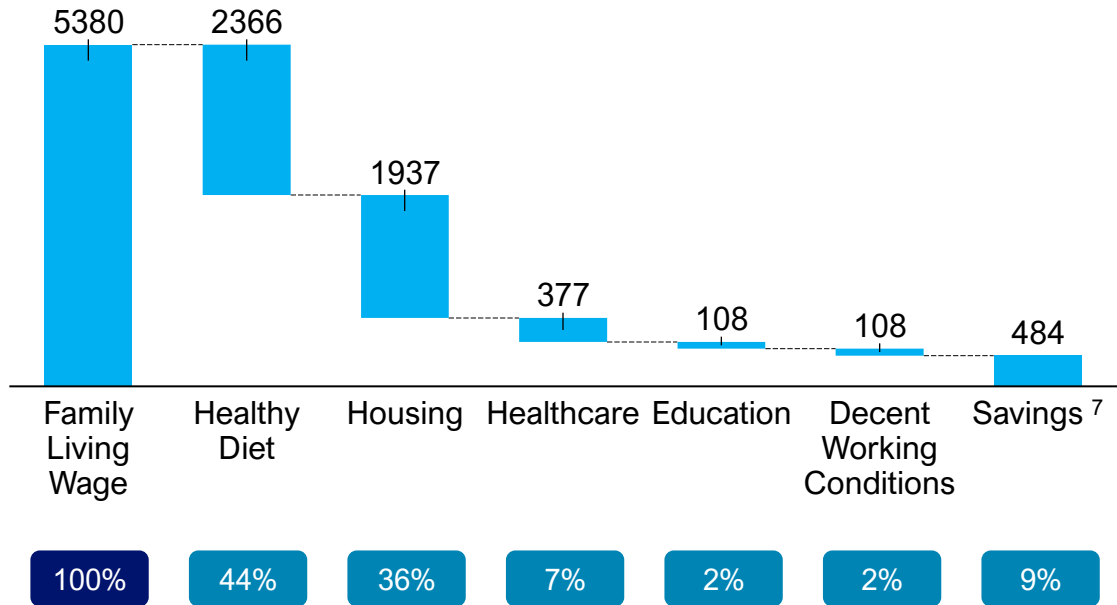


Household characteristic used for the study:

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

Typical Expenses for a Family to have a Decent Life

Healthy diet and decent living represents around two thirds of household expected living income expenditures. Figures are in R\$.



(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.

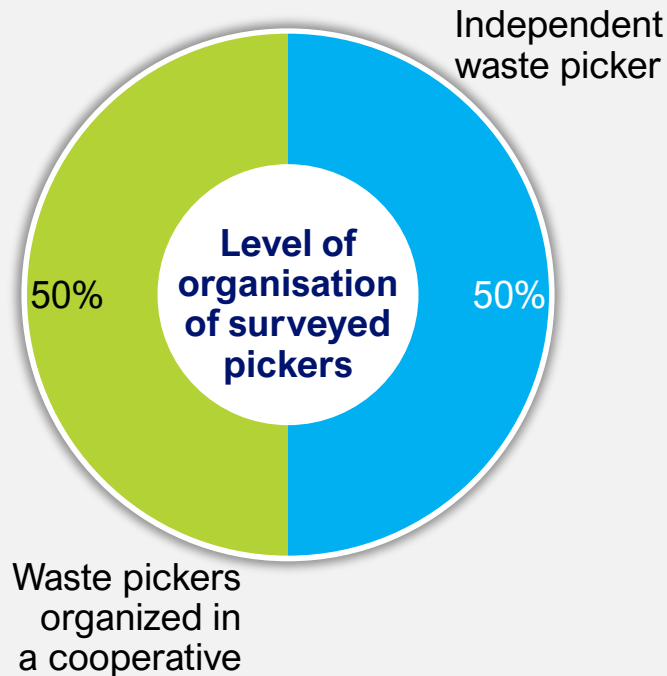
TPOLOGY OF SURVEYED WASTE PICKERS



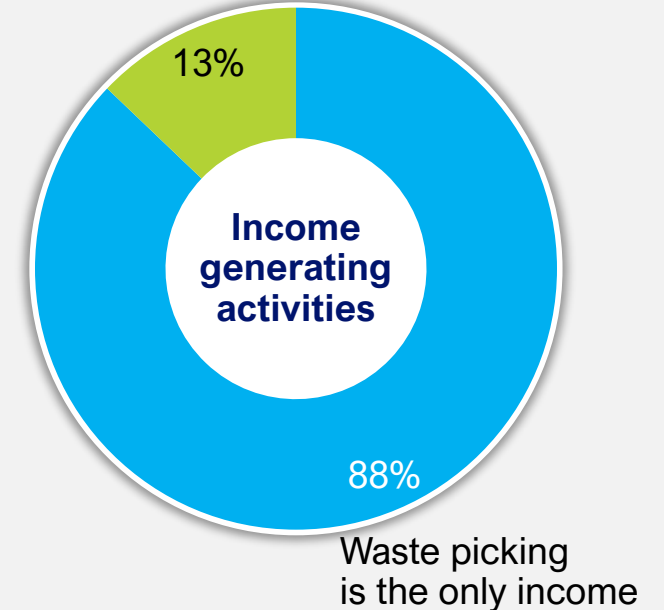
ABOUT

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

- **14%** get materials from a landfill or dumpsite
- **20%** get materials from the street
- **36%** get materials from households
- **30%** get materials from other sources



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

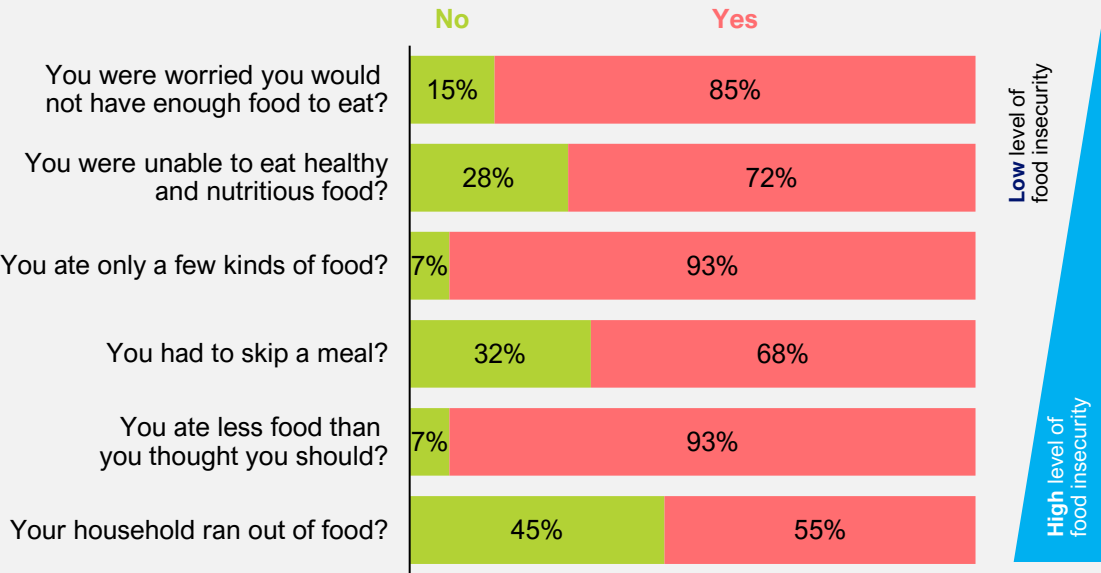


WASTE PICKER QUESTIONNAIRE

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

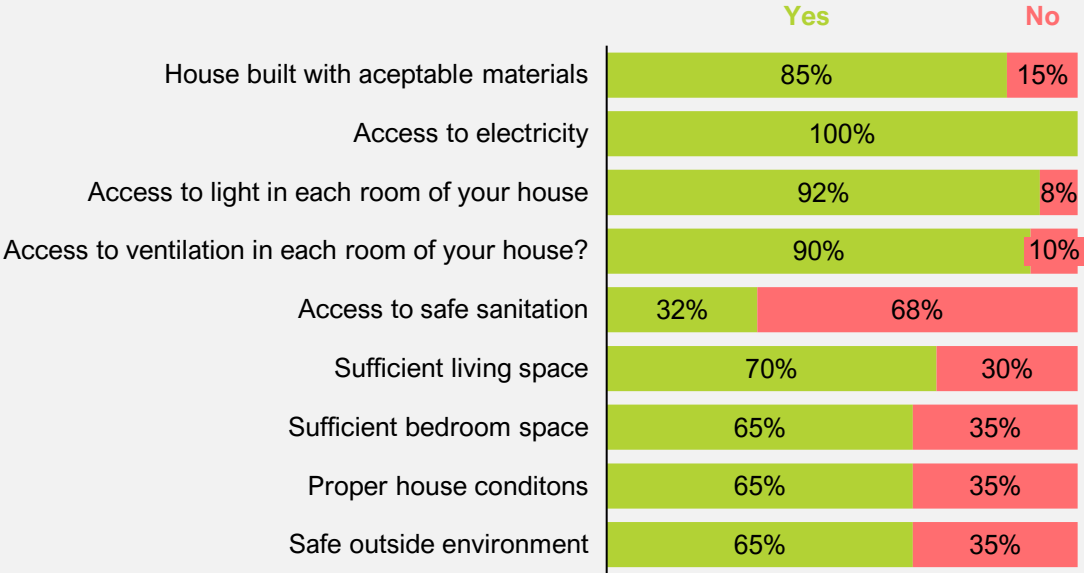
Food Insecurity Experience Scale²

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



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:



(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;

CASE STUDY



Brazil

REGION

Belo Horizonte

CURRENCY

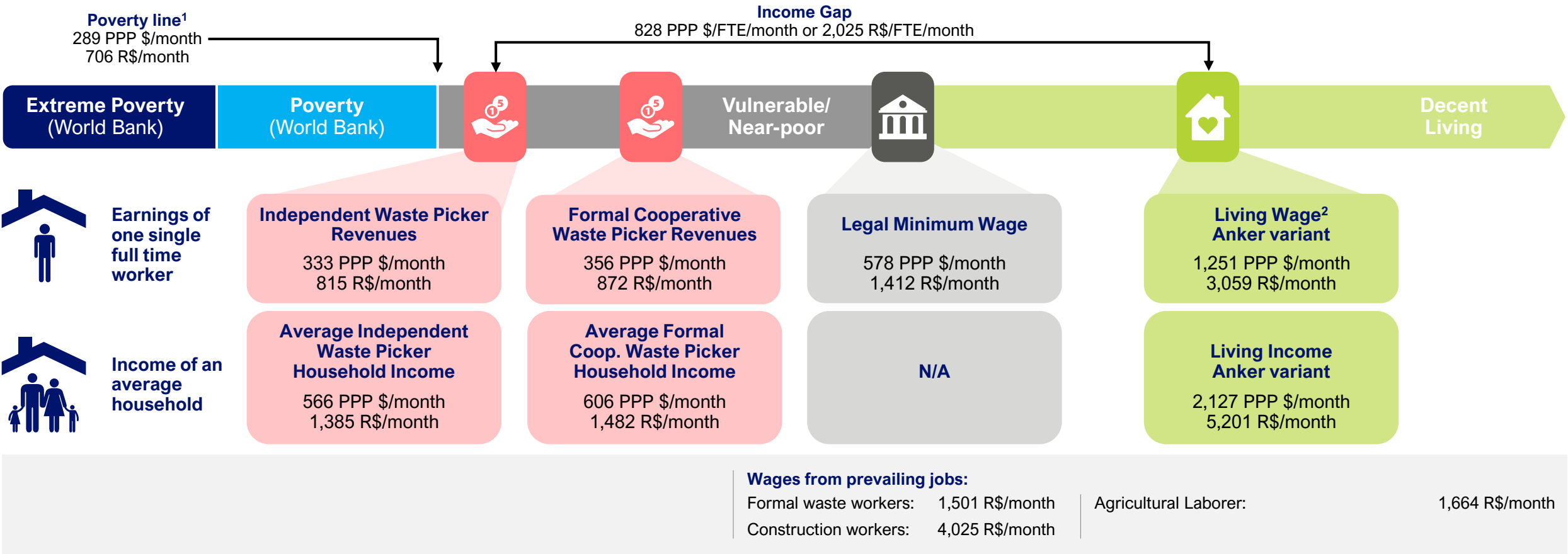
Brazilian Real (R\$)

THE INCOME GAP



INCOME GAP

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



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



EARNINGS

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

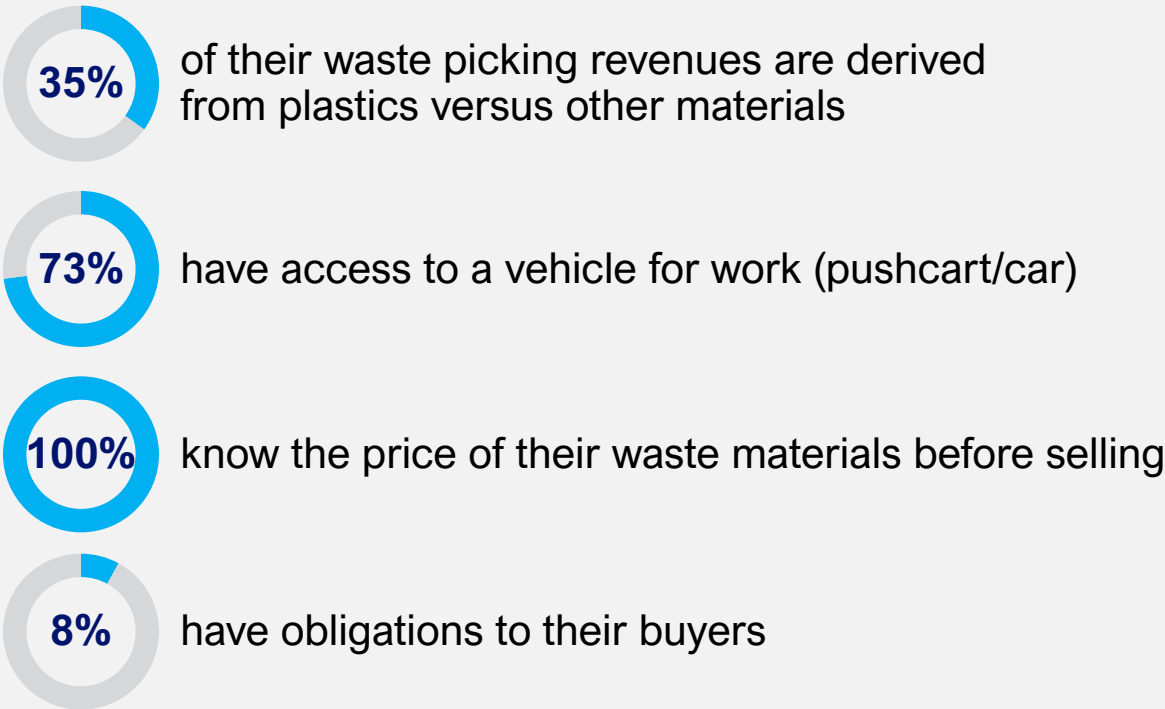
Average earnings

5 R\$ hour 40 R\$ day 836 R\$ month

Worker efficiency

Worker efficiency greatly varies from 2 R\$/hour to 9 R\$/hour

Key Features



Main limitation to increase revenues³

- **Precarious infrastructure:** Cooperative members face poor conditions in their sorting centers, where recyclables are processed and stored.
- **Lack of equipment:** Both independent and cooperative workers prioritize better equipment. Independent workers want improved pushcarts, while cooperative members need items like presses, forklifts, and sorting conveyors.
- **Poor quality of materials from selective collection:** Cooperative members struggle with the quality of recyclables from selective collection, highlighting the need for better public education on waste separation. In Brazil, municipalities manage door-to-door collection, usually once a week.
- **Low prices or market fluctuations:** Cooperative members note that economic crises often lead to lower prices for recyclable materials, affecting their income.
- **Lack of proper vehicles:** Independent waste pickers cite the need for better vehicles, such as bikes, to improve collection speed and efficiency.

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.

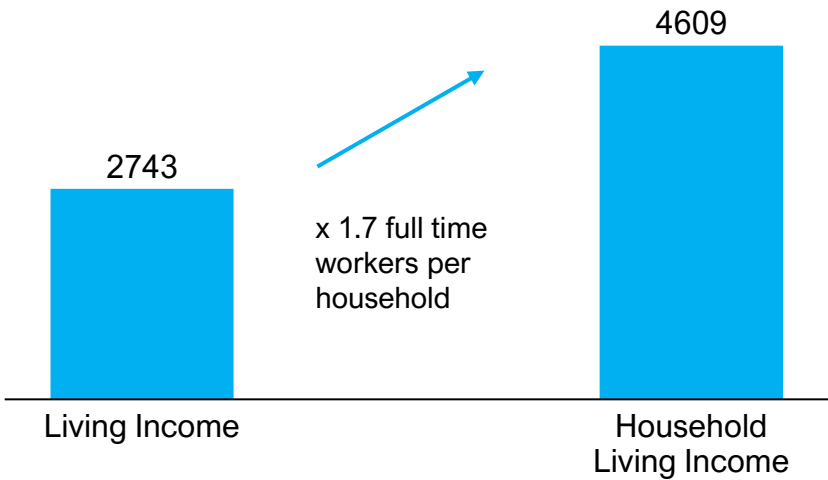


INCOME

An average of 4,609 R\$ is estimated to be needed for an average household to have access to decent living conditions

Individual and Family Living Wage

In Belo Horizonte, each household has the equivalent earning potential of 1.7 full time workers on average. Figures are in R\$.

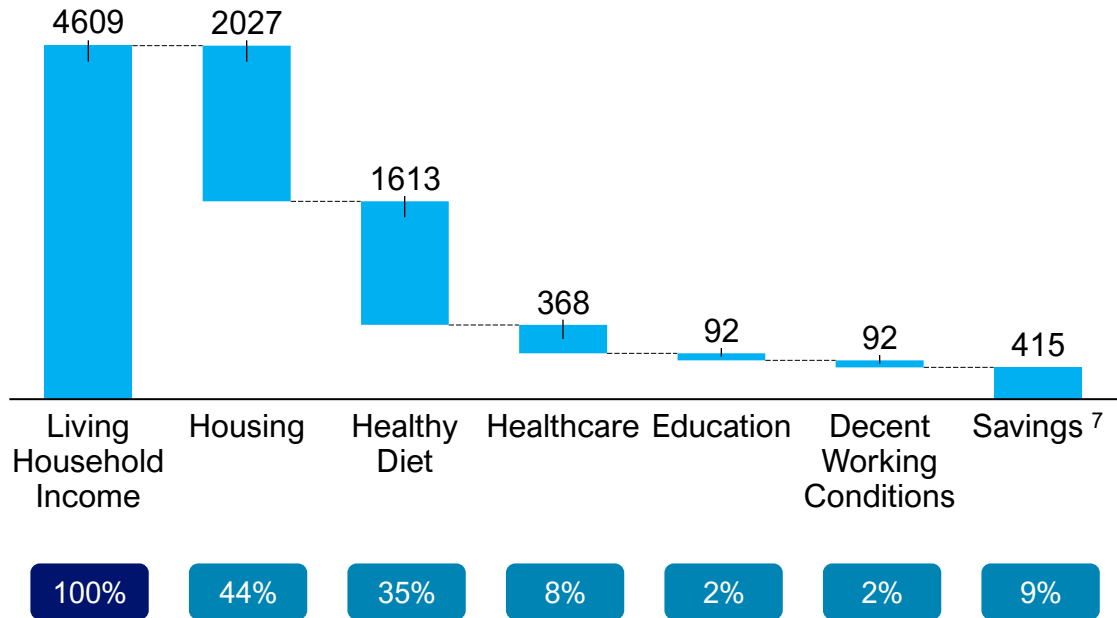


Household characteristic used for the study:

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

Typical Expenses for a Family to have a Decent Life

Healthy diet and decent living represents around three quarters of household expected living income expenditures. Figures are in R\$.



(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.

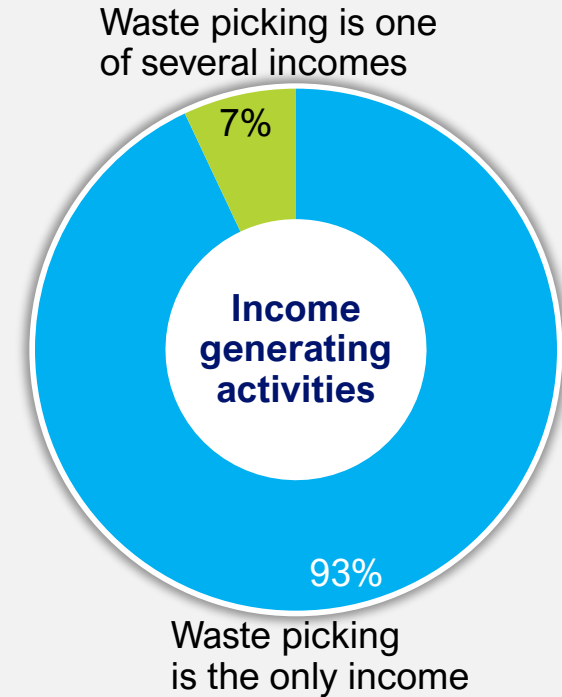
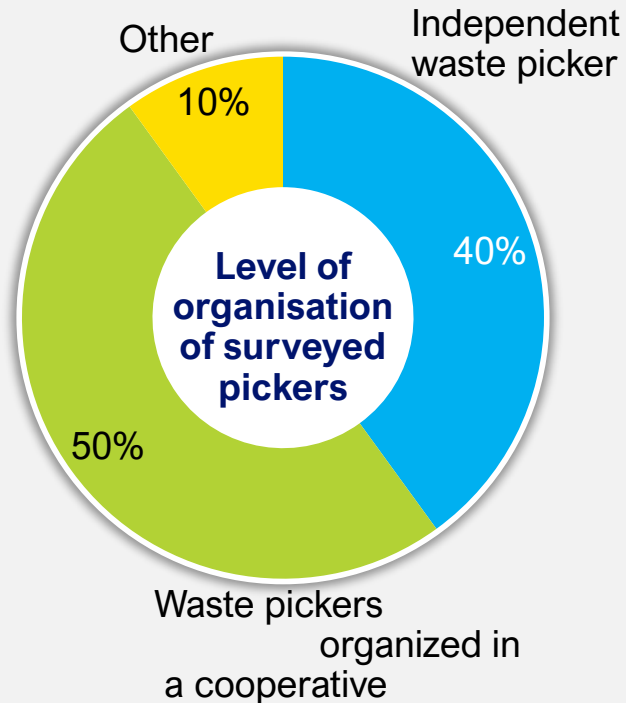
TYOLOGY OF SURVEYED WASTE PICKERS



ABOUT

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

- **0%** get materials from a landfill or dumpsite
- **32%** get materials from the street
- **34%** get materials from households
- **34%** get materials from other sources



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

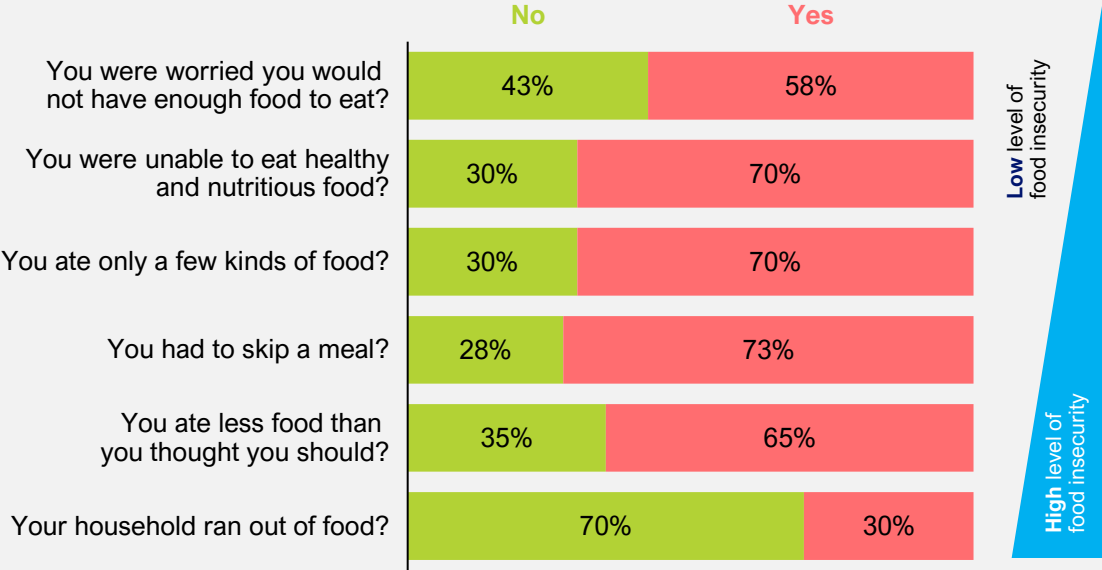


WASTE PICKER QUESTIONNAIRE

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

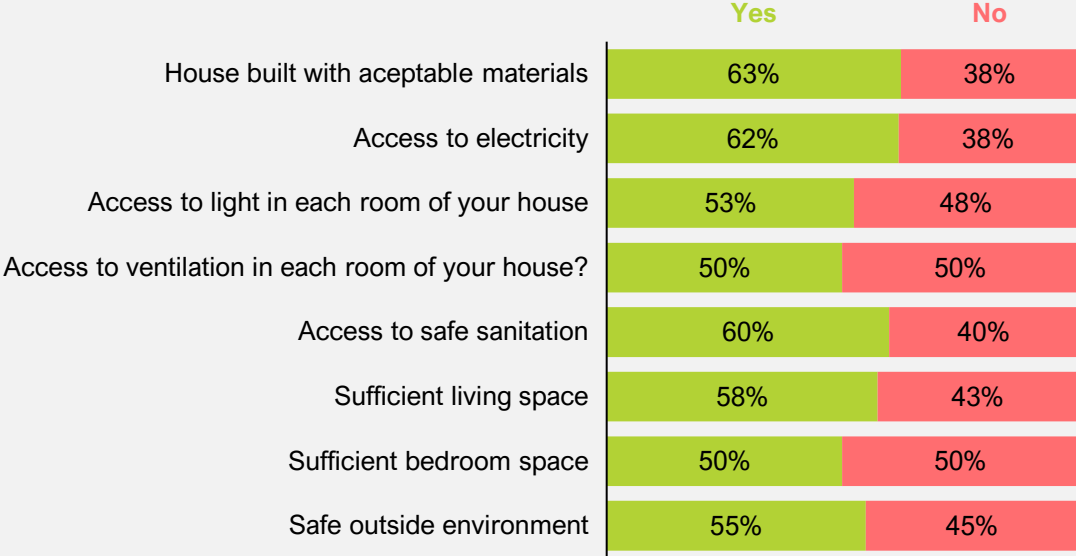
Food Insecurity Experience Scale²

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



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:



(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;

CASE STUDY



India

REGION

Delhi

CURRENCY

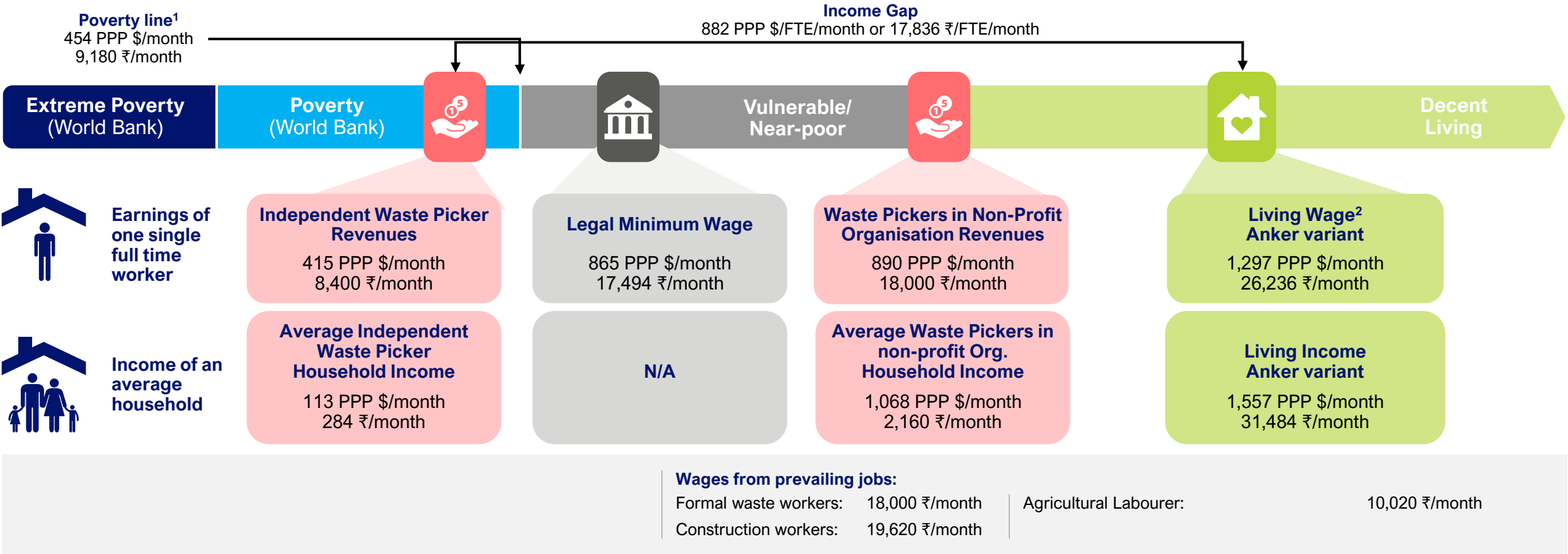
Rupee (₹)

THE INCOME GAP



INCOME GAP

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



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



EARNINGS

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

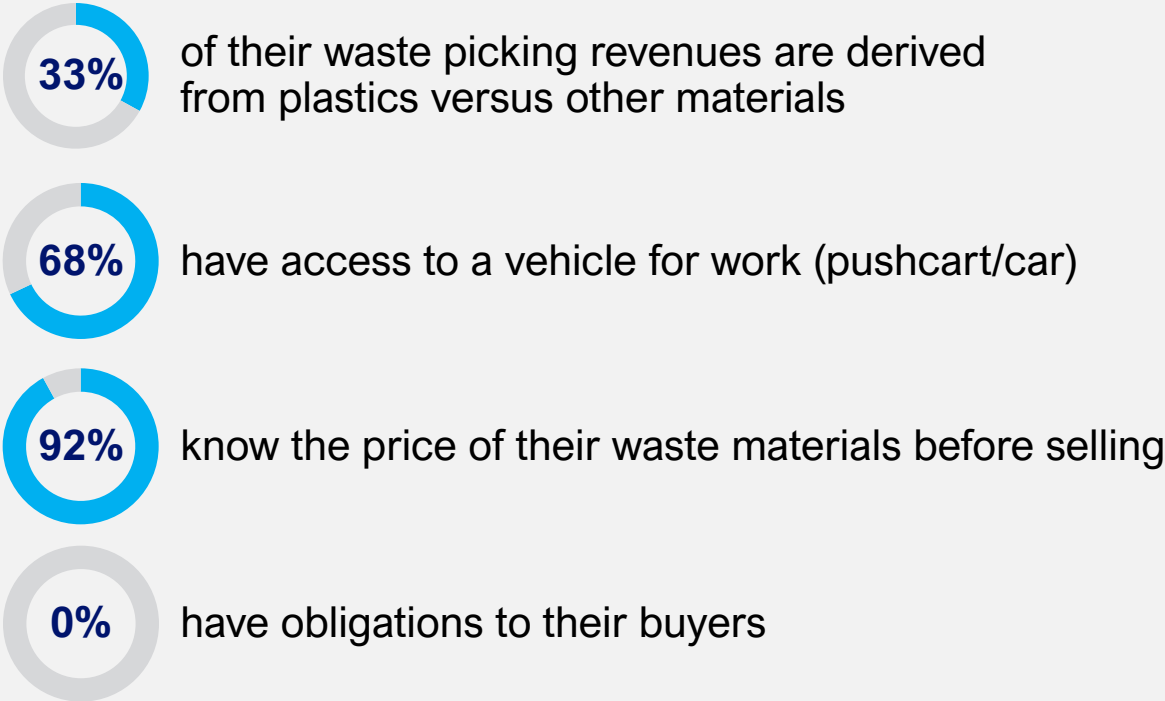
Average earnings

15 ₹ hour 371 ₹ day 11,130 ₹ month

Worker efficiency

Worker efficiency greatly varies from 4 ₹ /hour to 25 ₹ /hour

Key Features



Main limitation to increase revenues³

- **Most women surveyed were illiterate** and unaware of government social security schemes. Their focus on earning daily wages for sustenance limits their engagement with these schemes, highlighting a critical gap in awareness and education.
- **Many wastepickers migrated to Delhi from their hometowns**, in the hope that they would find employment opportunities to support their families..
- **Many reported being denied fair compensation**, with deductions made from their collected goods or being forced to sell at low rates. Additionally, they often lack the means to purchase personal protective equipment (PPE) kits, exposing them to health hazards. The confiscation of rickshaws by police and the forced sale of goods to landlords add further financial strain.
- **The introduction of garbage collection vehicles** has adversely affected the work of scrap dealers, as these vehicles collect waste directly from residents, leaving scrap dealers with fewer goods to collect and sell.
- **Women wastepickers reported being the primary providers for their households** due to their husbands' addiction issues, domestic violence, and financial exploitation. These factors not only exacerbate their economic vulnerability but also contribute to a hostile and unsafe domestic environment.

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.



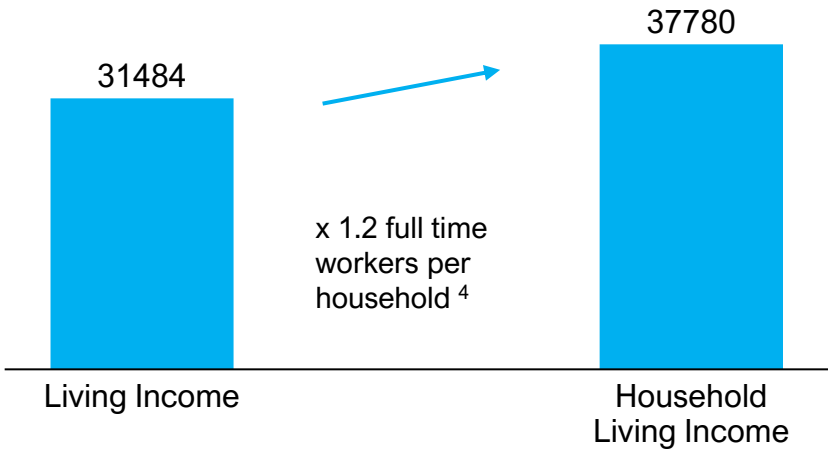
INCOME

An average of 37,780 ₹ is estimated to be needed for an average household to have access to decent living conditions



Individual and Family Living Wage

In Chintan, each household has the equivalent earning potential of 1.2 full time workers on average. Figures are in ₹.

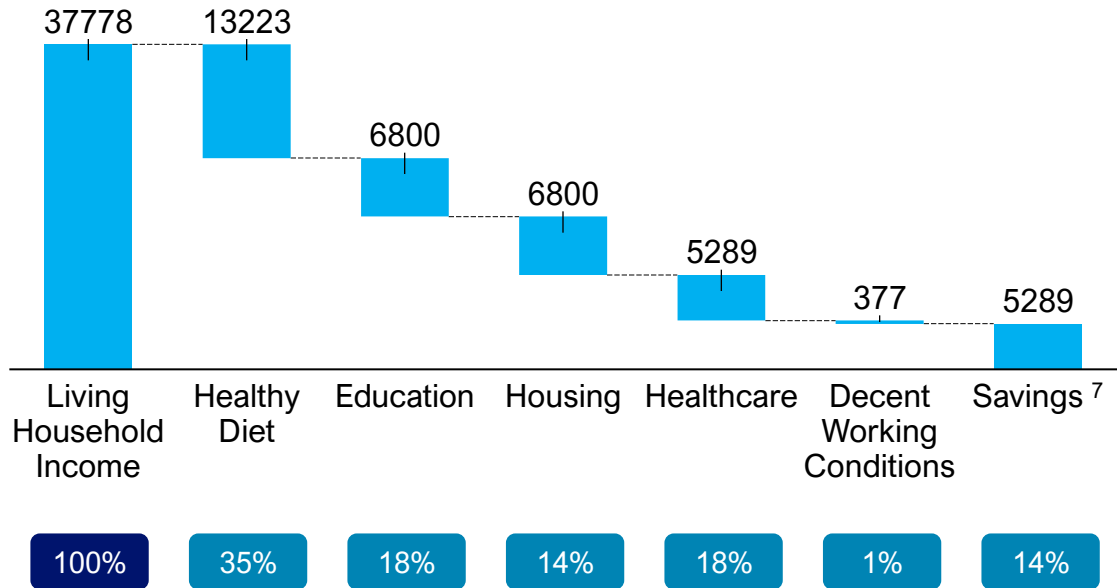


Household characteristic used for the study:

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

Typical Expenses for a Family to have a Decent Life

Healthy diet and decent living represents around half of household expected living income expenditures. Figures are in ₹.



(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.

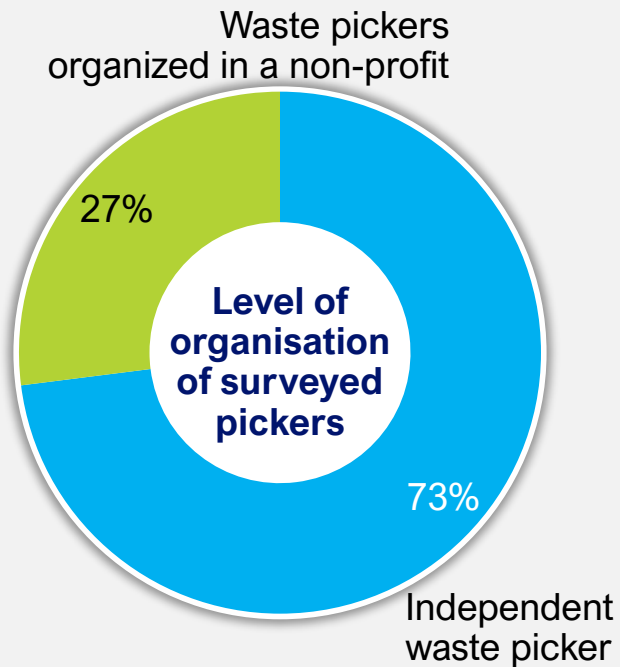
TYOLOGY OF SURVEYED WASTE PICKERS



ABOUT

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

- **31%** get materials from a landfill or dumpsite
- **4%** get materials from the street
- **18%** get materials from households
- **33%** get materials from other sources



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

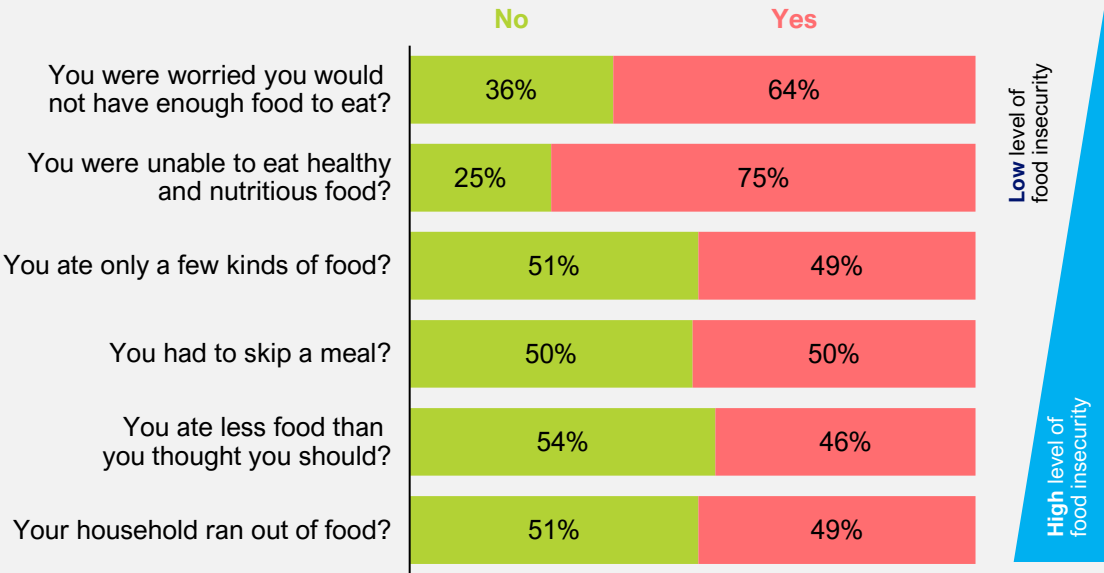


WASTE PICKER QUESTIONNAIRE

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

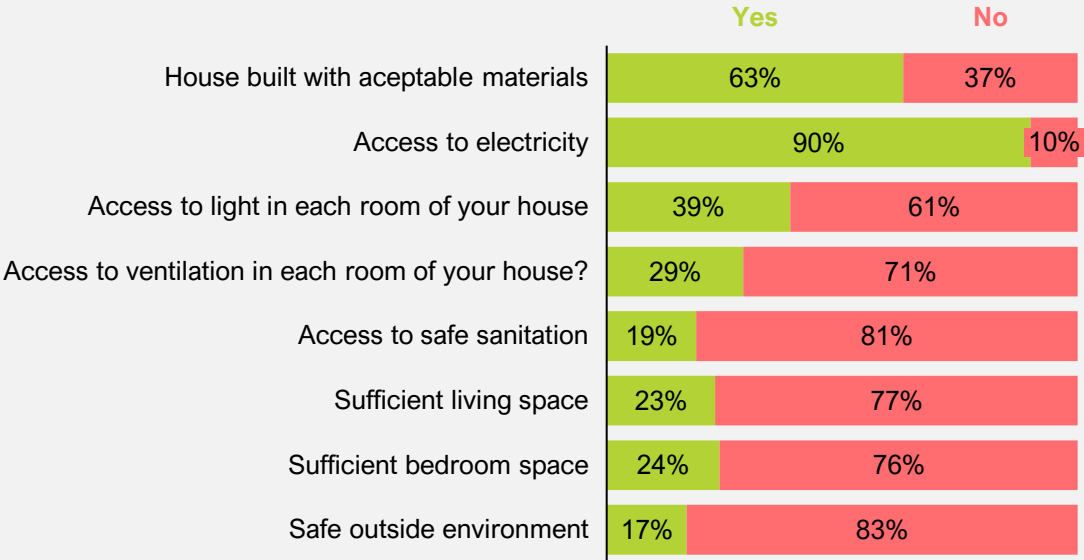
Food Insecurity Experience Scale²

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



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:



(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;

CASE STUDY



REGION

Abuja

CURRENCY

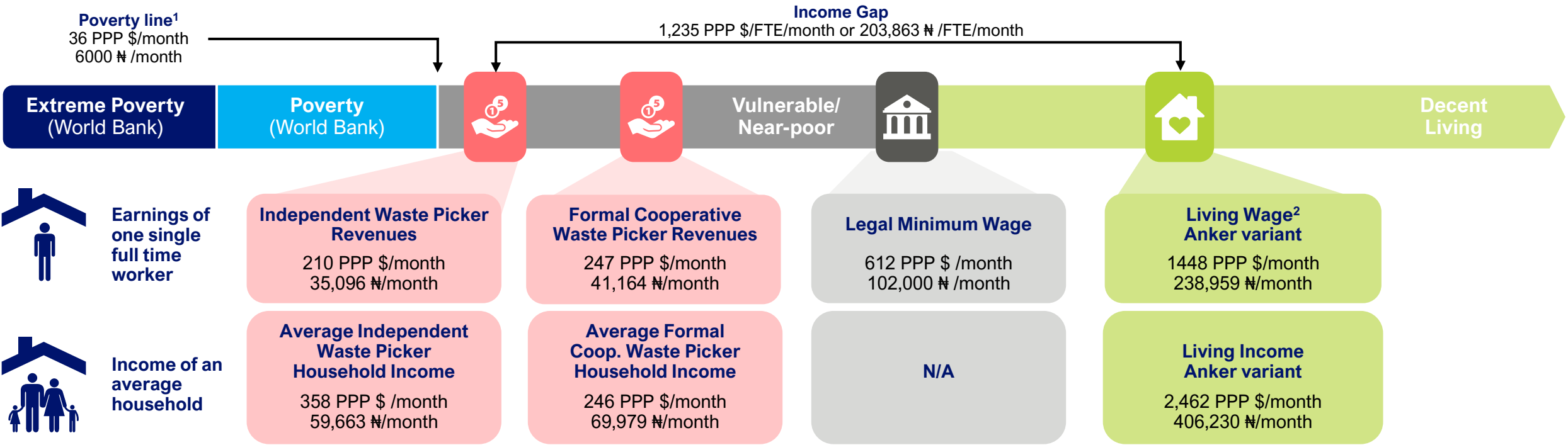
Naira (₦)

THE INCOME GAP



INCOME GAP

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



Wages from prevailing jobs:

Formal waste workers:	62,000 ₦ /month	Agricultural Labourer:	120,000 ₦ /month
Construction workers:	200,000 ₦ /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



EARNINGS

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

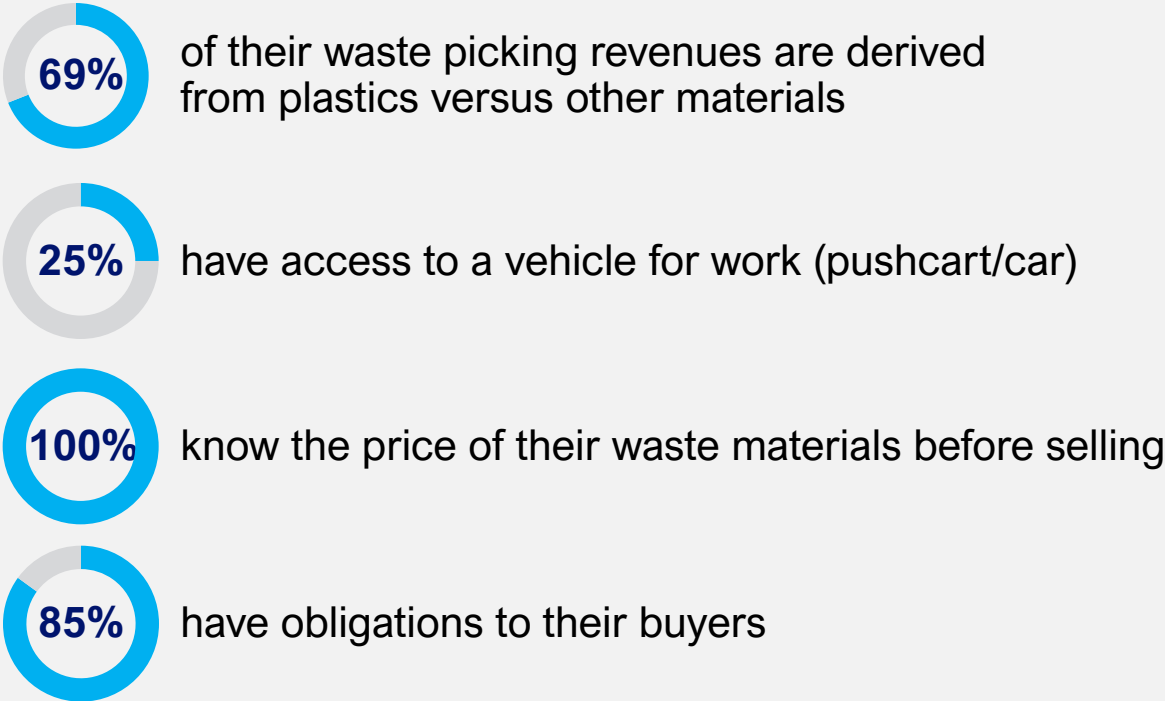
Average earnings

245 ₦ hour 1,960 ₦ day 40,180 ₦ month

Worker efficiency

Worker efficiency greatly varies from 83 ₦ /hour to 416 ₦ /hour

Key Features



Main limitation to increase revenues³

- **High competition:** Too many waste pickers compete for limited plastic waste from the same sources.
- **Rainy season:** Work is limited as most waste pickers operate on foot without mechanized transport.
- **Fixed prices:** Market prices limit bargaining power for better earnings.
- **Perception as thieves:** Waste pickers are often arrested; public awareness is needed to highlight our role in environmental sustainability.
- **Poor gear:** Reduces efficiency, increases health risks, and limits the ability to work long hours and collect more plastic.
- **Health risks:** Working in hazardous areas without health assurances increases vulnerability to illness.
- **Market disruption:** Foreign buyers sometimes offer higher prices, disrupting local market rates and reducing local buyers' purchases.
- **Government policies:** Regulations like plastic taxes reduce plastic waste generation, lowering collection rates and sales.

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



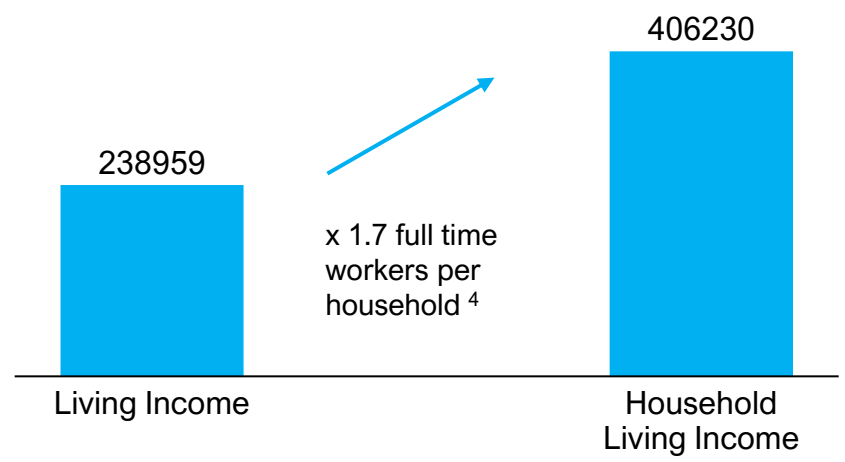
INCOME

An average of 406,230 ₦ is estimated to be needed for an average household to have access to decent living conditions



Individual and Family Living Wage

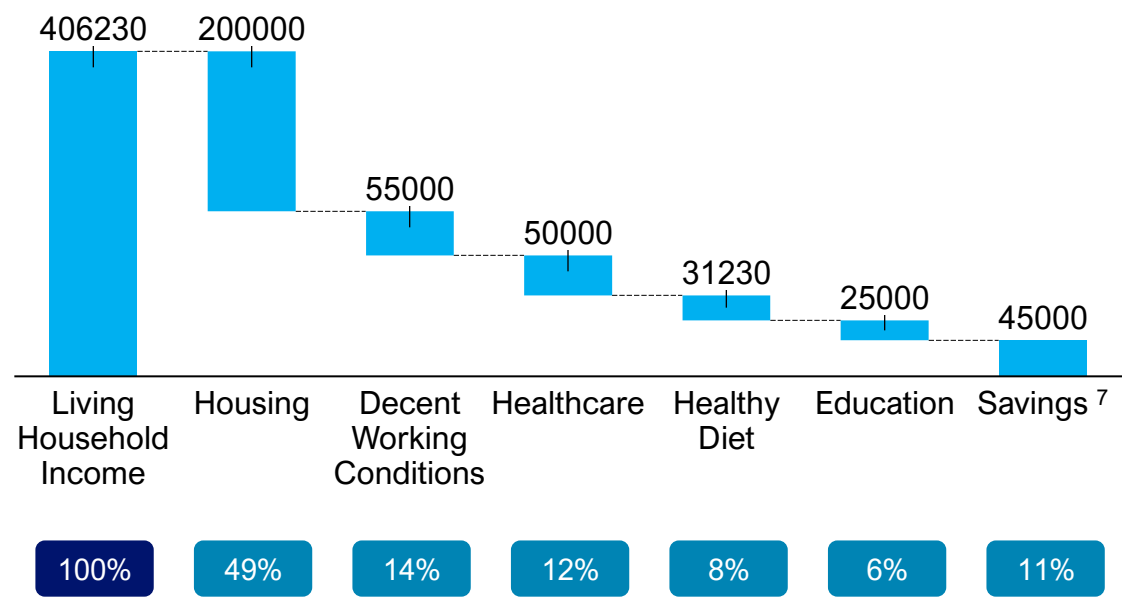
In Abuja, each household has the equivalent earning potential of 1.7 full time workers on average. Figures are in ₦.



- Household characteristic used for the study:**
- Household size : 4 (2 adults + 2 Children)
 - 1.7 full time workers per household.⁴

Typical Expenses for a Family to have a Decent Life

Healthy diet and decent living represents around two thirds of household expected living income expenditures. Figures are in ₦.



(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.

TYOLOGY OF SURVEYED WASTE PICKERS



ABOUT

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

- **65%** get materials from a landfill or dumpsite
- **30%** get materials from the street
- **53%** get materials from households
- **0%** get materials from other sources



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

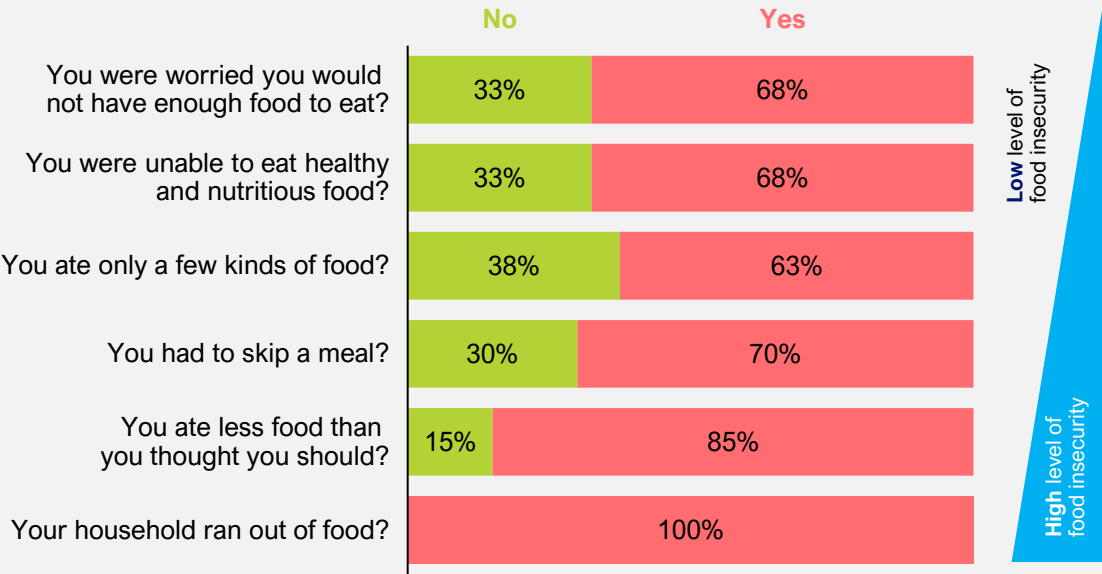


WASTE PICKER QUESTIONNAIRE

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

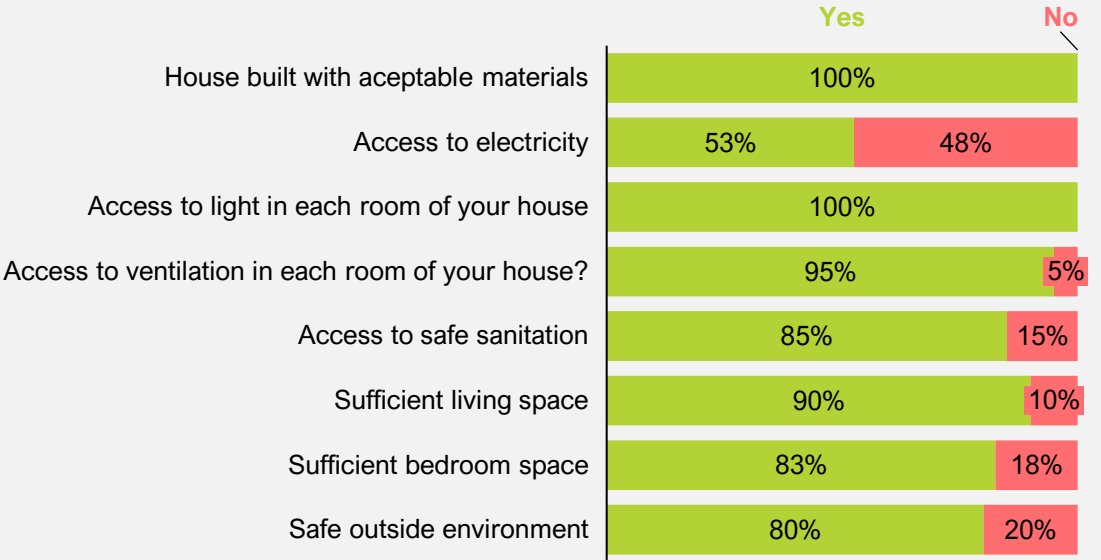
Food Insecurity Experience Scale²

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



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:



(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;

CASE STUDY



Philippines

REGION

Talavera

CURRENCY

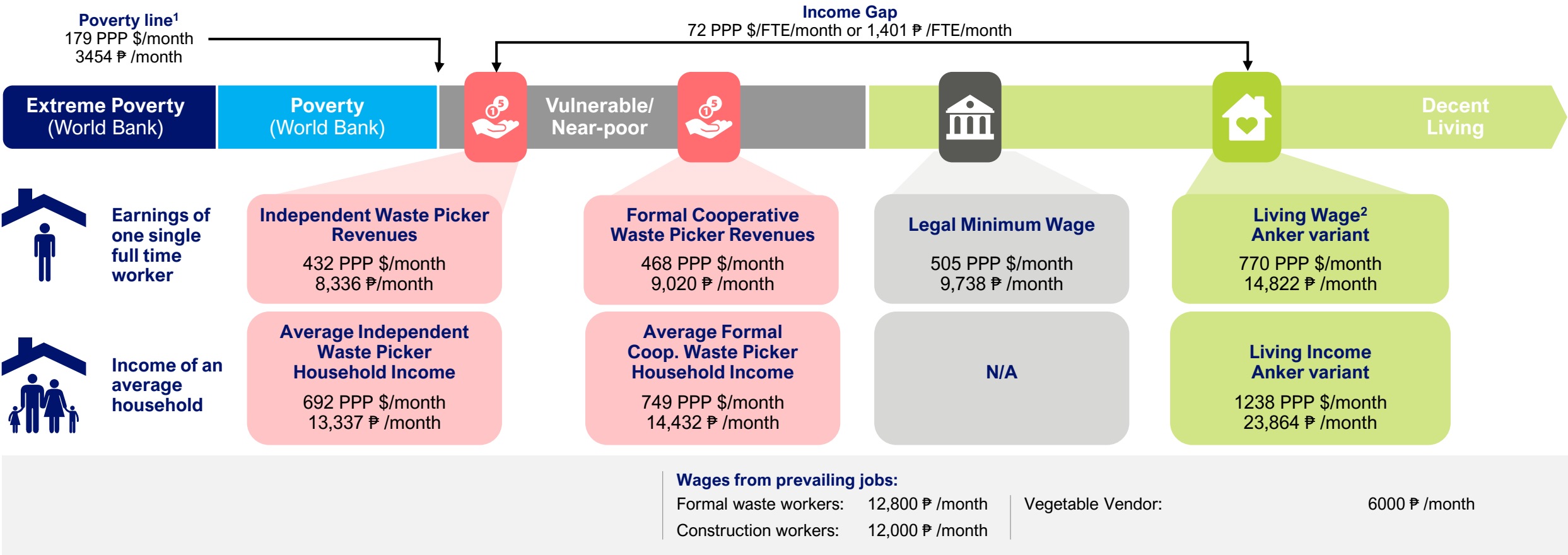
Philippine peso (₱)

THE INCOME GAP



INCOME GAP

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



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



EARNINGS

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

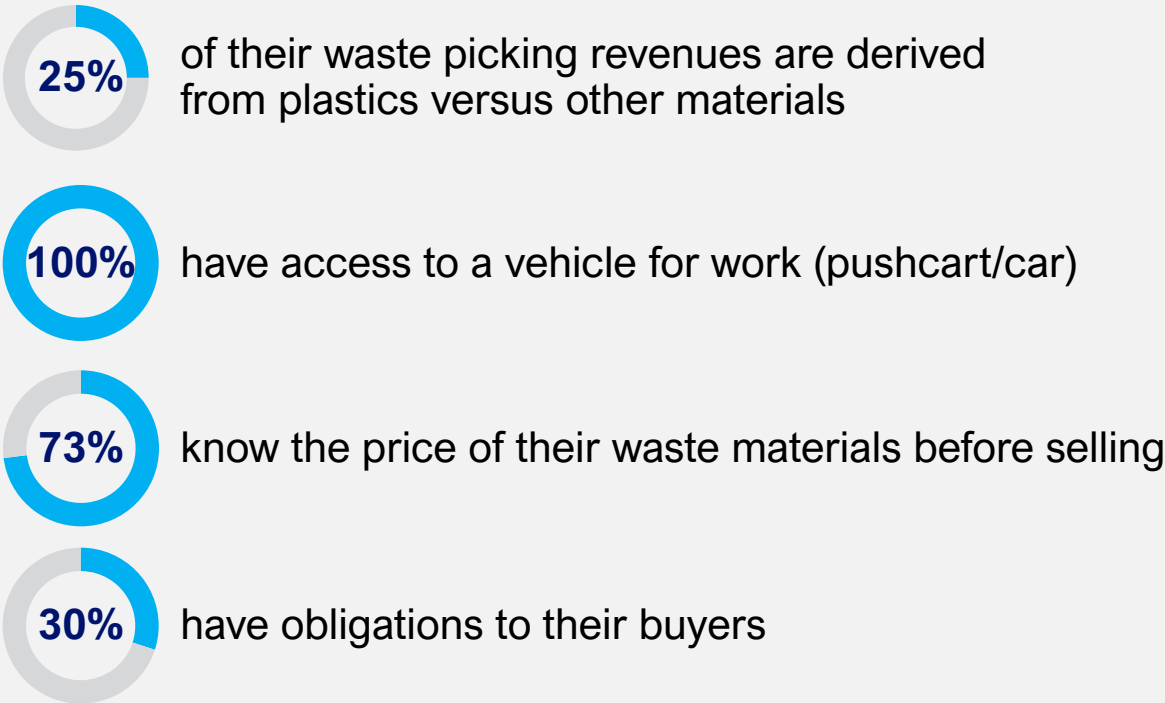
Average earnings

53 ₱ hour 420 ₱ day 8,610 ₱ month

Worker efficiency

Worker efficiency greatly varies from 60 ₱ /hour to 100 ₱ /hour

Key Features



Main limitation to increase revenues³

- **High competition** among waste pickers reduces material availability and affects pricing.
- **Scrap prices** often decline due to market conditions, lowering earnings.
- **Limited and fluctuating material availability**, worsened by competition, is a major issue.
- **Lack of capital** hinders waste pickers from improving efficiency and profitability.
- **Adverse weather**, like rain, reduces available scrap and impacts earnings.
- **Variability in sellers' willingness** and waste quantities leads to inconsistent income.
- **Personal effort** and luck play key roles in waste picking success and earnings.
- **Temporary stoppages** by scrap buyers hinder waste pickers' ability to generate income.

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



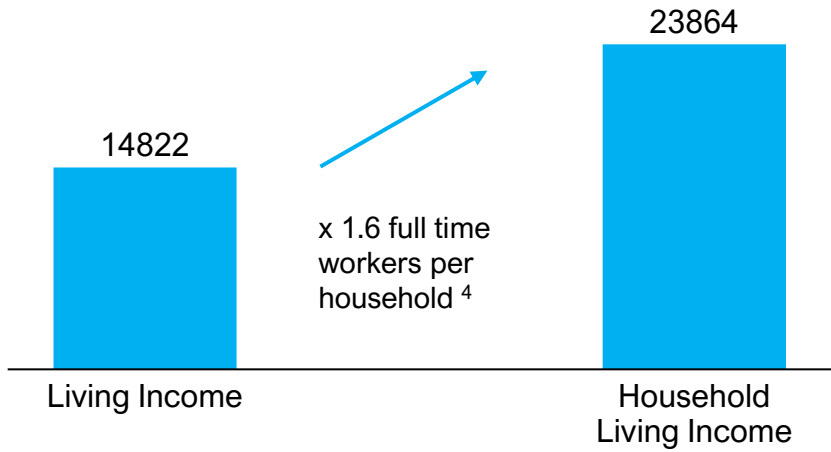
INCOME

An average of 23,864 ₱ is estimated to be needed for an average household to have access to decent living conditions



Individual and Family Living Wage

In Talavera, each household has the equivalent earning potential of 1.7 full time workers on average. Figures are in ₱.

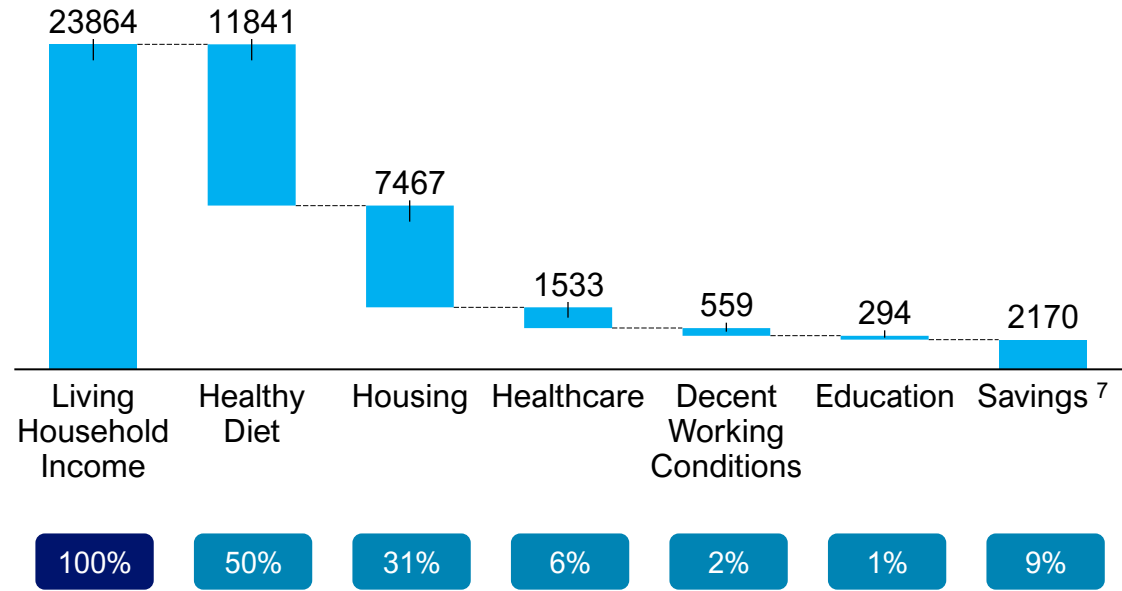


Household characteristic used for the study:

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

Typical Expenses for a Family to have a Decent Life

Healthy diet and decent living represents around three quarters of household expected living income expenditures. Figures are in ₱.



(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.

TPOLOGY OF SURVEYED WASTE PICKERS



ABOUT

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

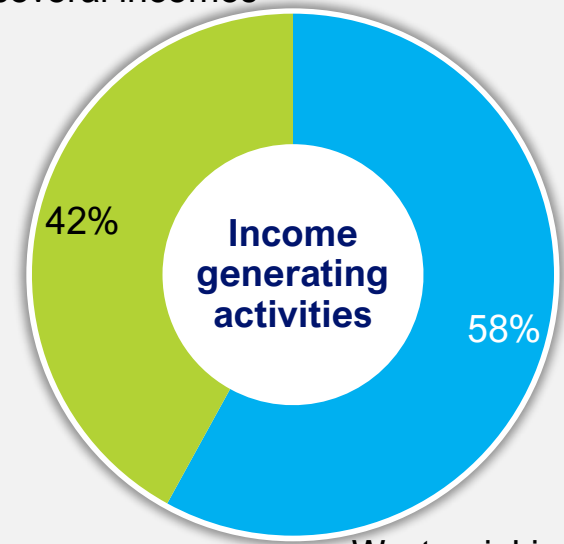
- **35%** get materials from a landfill or dumpsite
- **55%** get materials from the street
- **65%** get materials from households
- **40%** get materials from other sources

Waste pickers
organized in
a cooperative



Independent
waste picker

Waste picking is one
of several incomes



Waste picking
is the only income

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

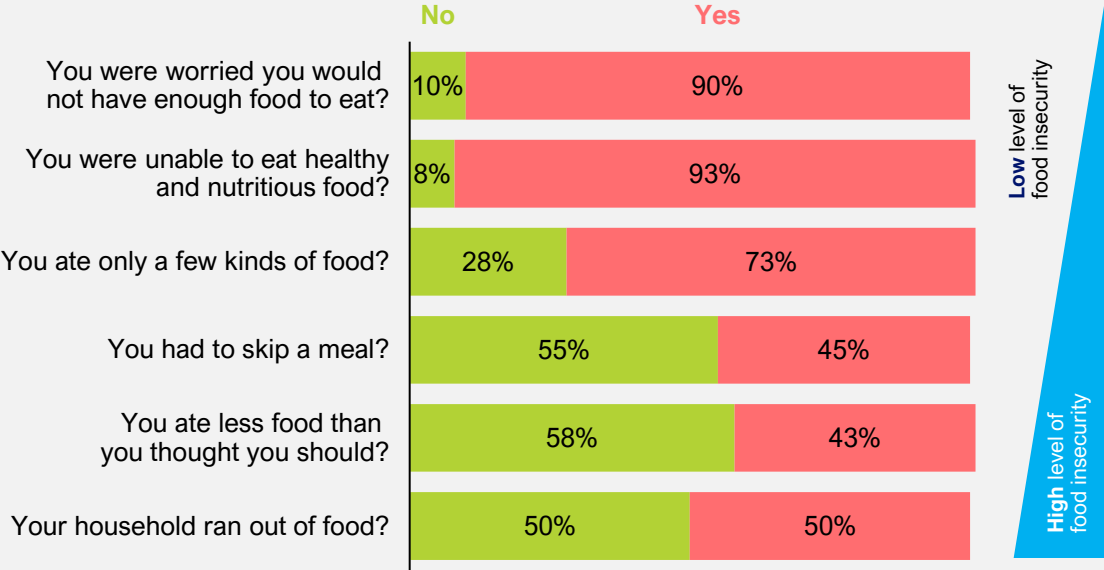


WASTE PICKER QUESTIONNAIRE

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

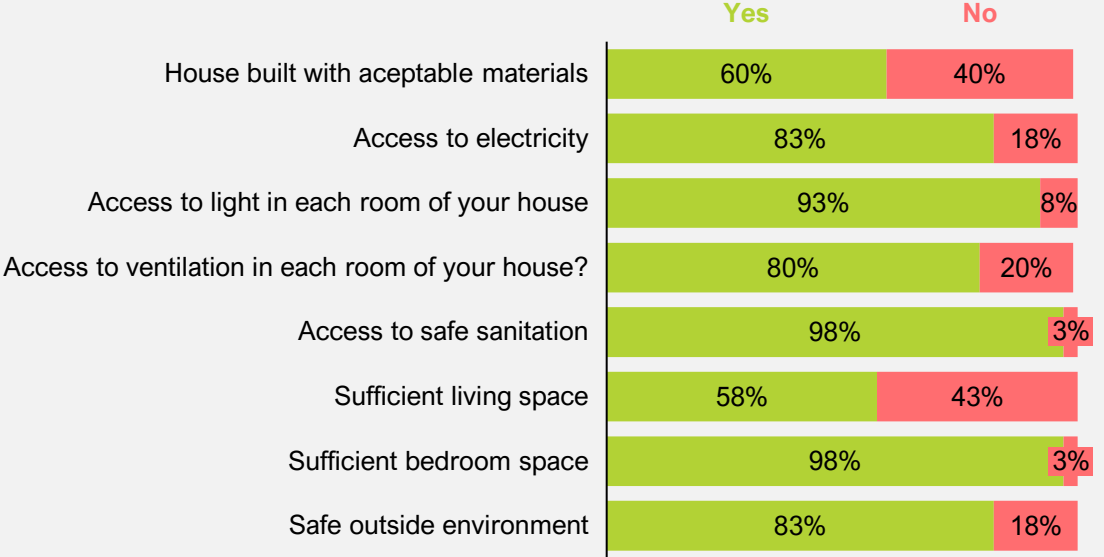
Food Insecurity Experience Scale²

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



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:



(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;

CASE STUDY



Ecuador

REGION

Quito

CURRENCY

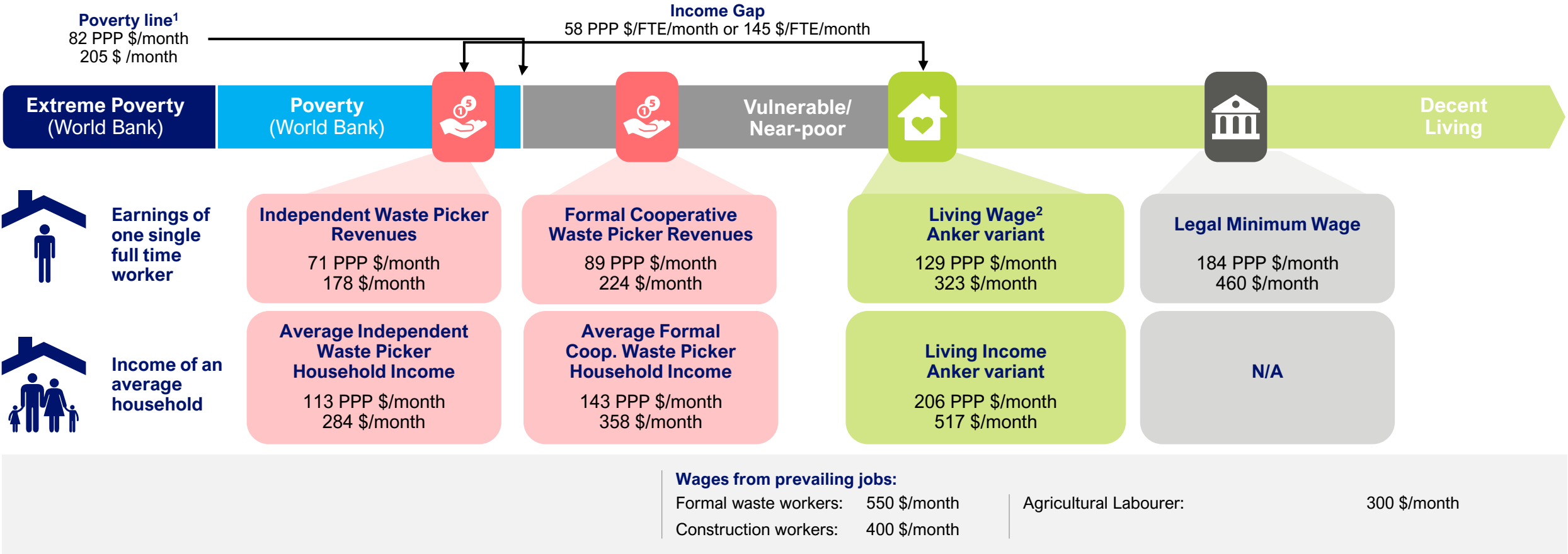
USD (\$)

THE INCOME GAP



INCOME GAP

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



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



EARNINGS

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

Average earnings

1 \$ hour

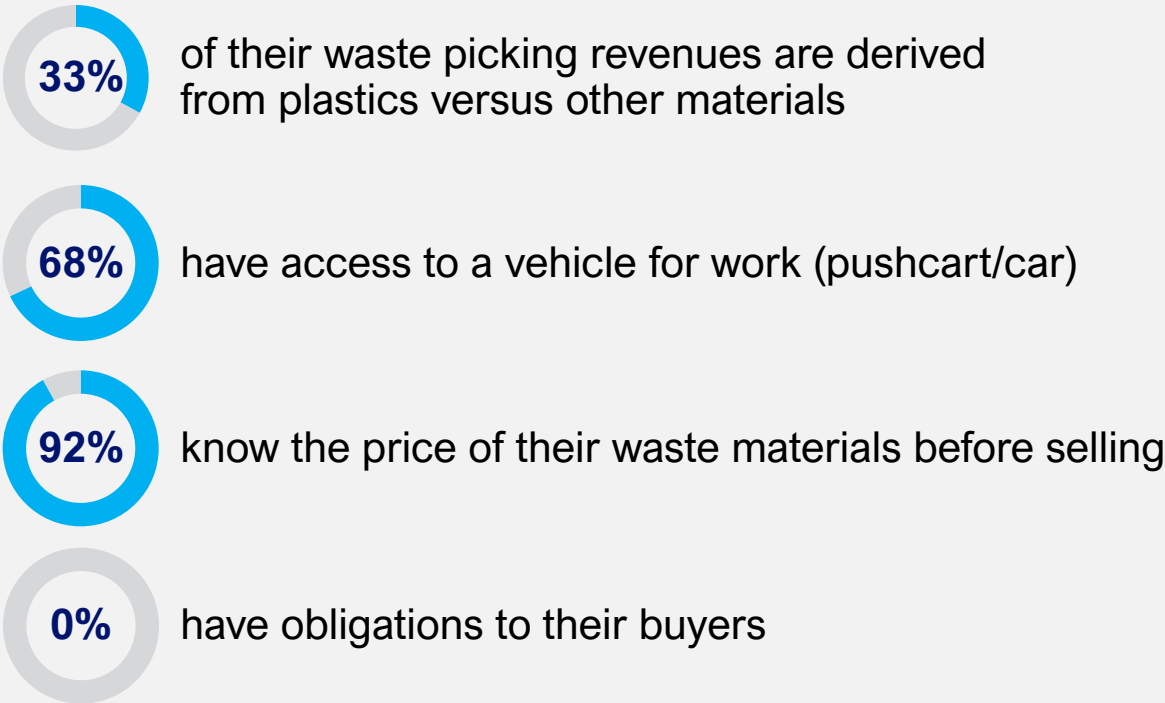
10 \$ day

196 \$ month

Worker efficiency

Worker efficiency greatly varies from 0.3 \$ /hour to 1.8 \$ /hour

Key Features



Main limitation to increase revenues³

- **Transportation costs** from recovery points to sales locations reduce grassroots recyclers' income, sometimes by up to 30%.
- **Recovery points** aim to increase clean recyclable material and access better prices but require coordinated public-private efforts, which have been lacking.
- **Grassroots recyclers** in Quito often rely on risky "mining" practices due to the absence of citywide source separation of materials.
- **Public policies** promoting source separation are needed to increase recyclable material volumes and dignify recyclers' work.
- **Material prices** are affected by a long intermediation chain, often involving up to four intermediaries, with grassroots recyclers being the most impacted.
- **International material prices**, like cardboard, have further reduced local recyclers' income, with 2023 seeing significant price drops.
- **Limited storage capacity** forces recyclers to sell quickly at lower prices to intermediaries, missing out on better industry rates

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



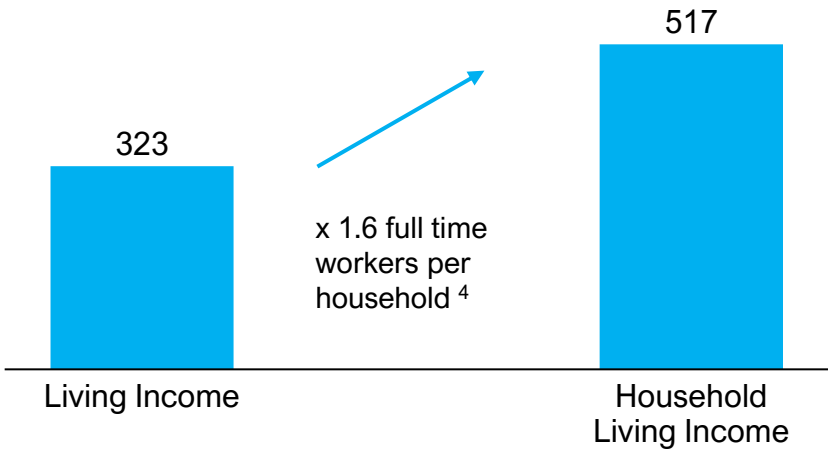
INCOME

An average of 517 \$ is estimated to be needed for an average household to have access to decent living conditions



Individual and Family Living Wage

In Quito, each household has the equivalent earning potential of 1.7 full time workers on average. Figures are in \$.

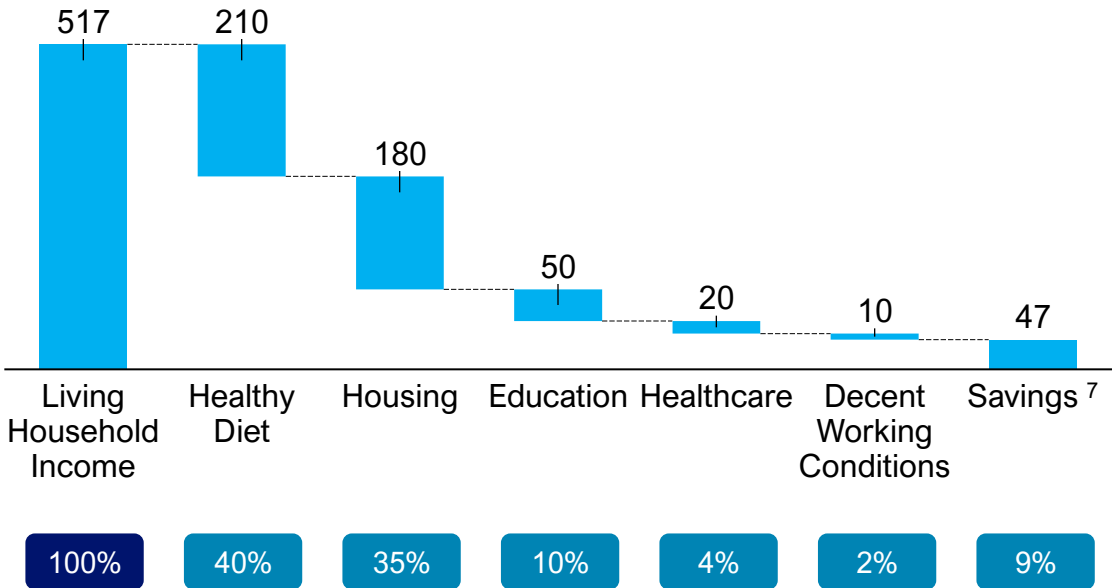


Household characteristic used for the study:

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

Typical Expenses for a Family to have a Decent Life

Healthy diet and decent living represents around three quarters of household expected living income expenditures. Figures are in \$.



(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.

TPOLOGY OF SURVEYED WASTE PICKERS

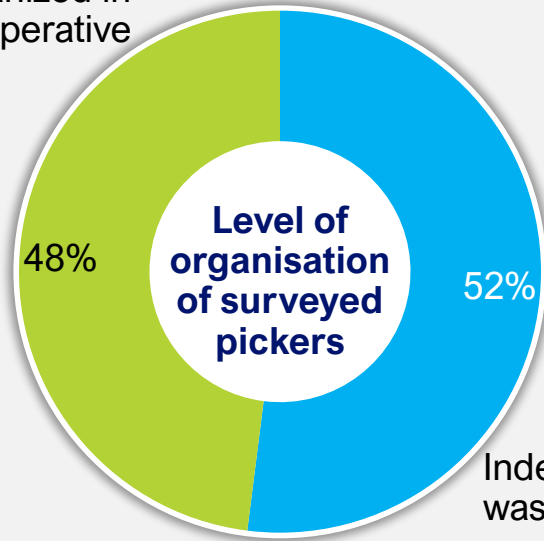


ABOUT

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

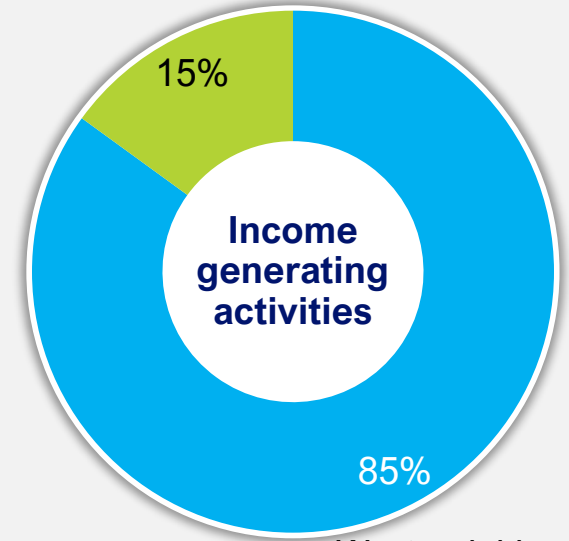
- **0%** get materials from a landfill or dumpsite
- **22%** get materials from the street
- **10%** get materials from households
- **8%** get materials from other sources

Waste pickers organized in a cooperative



Independent waste picker

Waste picking is one of several incomes



Waste picking is the only income

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

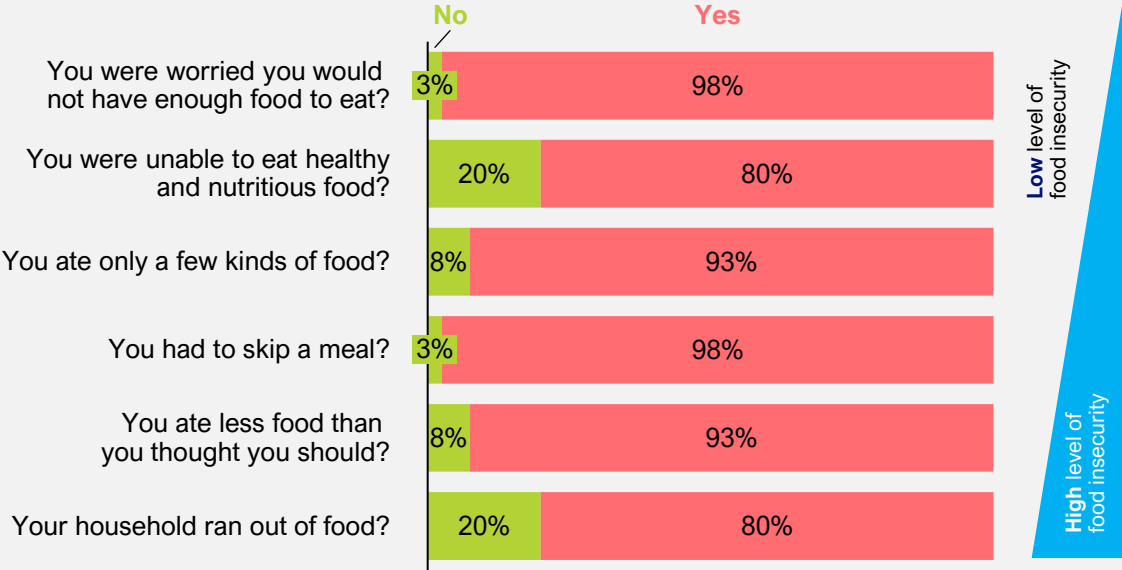


WASTE PICKER QUESTIONNAIRE

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

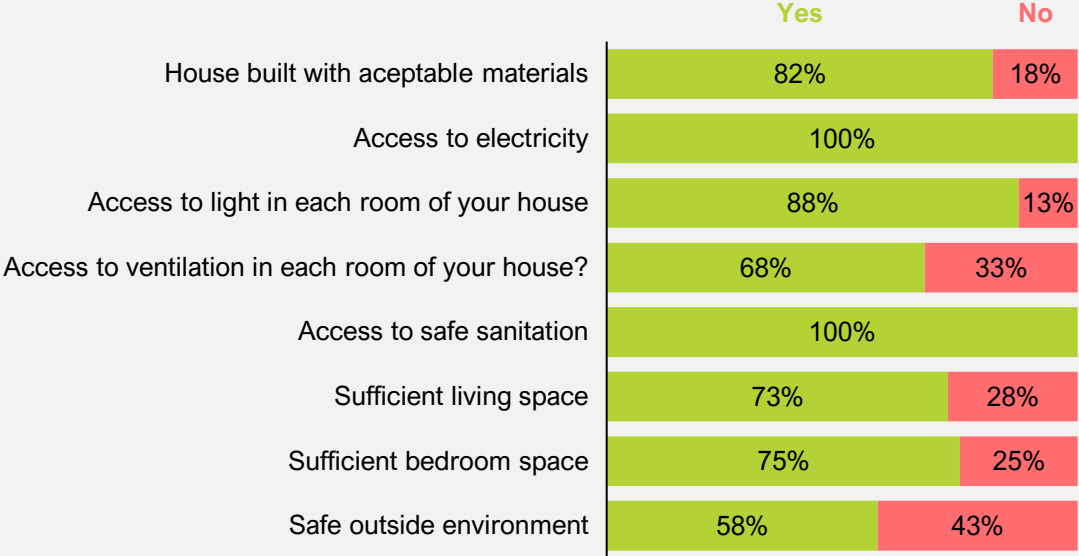
Food Insecurity Experience Scale²

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



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:



(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;

CASE STUDY



Chile

REGION

Araucania, Temuco

CURRENCY

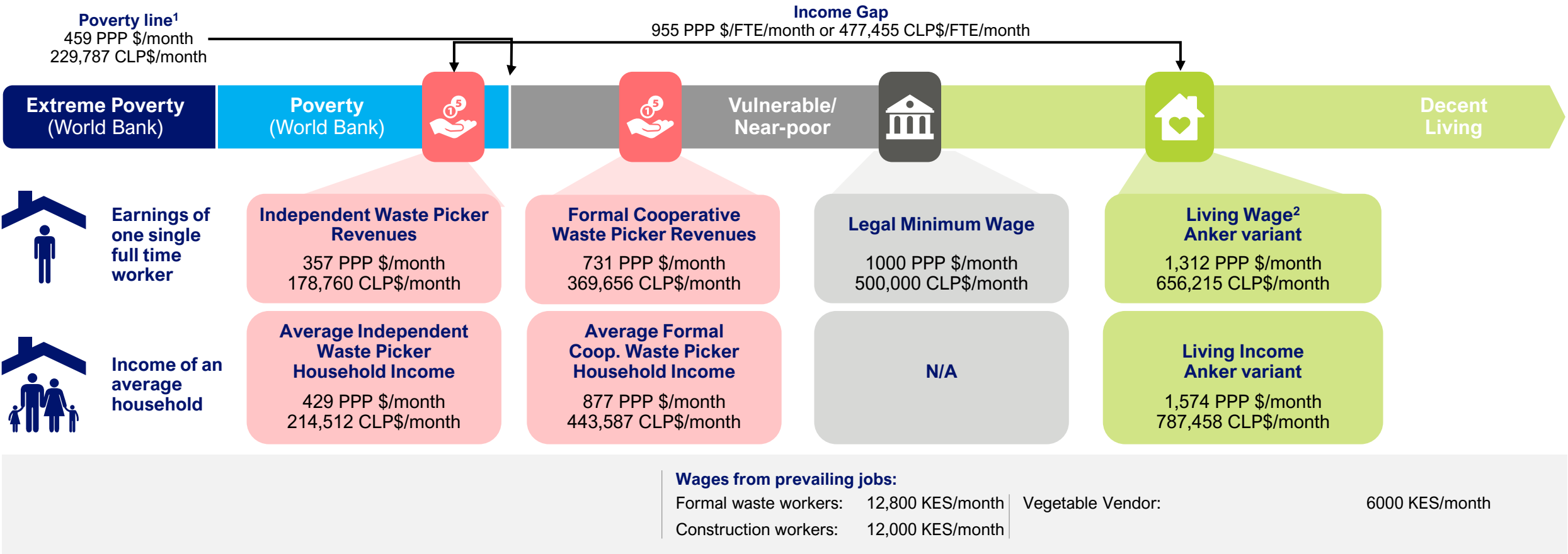
Chilean Peso (CLP\$)

THE INCOME GAP



INCOME GAP

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



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



EARNINGS

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

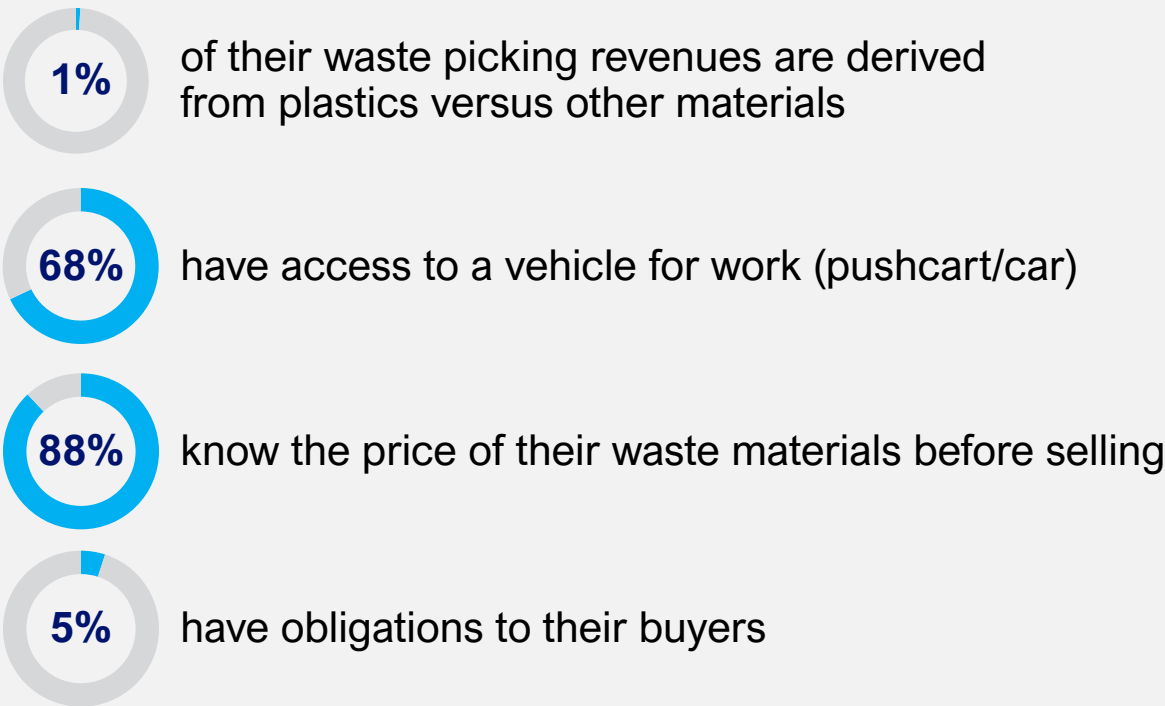
Average earnings

1,672 CLP\$ hour 13,376 CLP\$ day 274,208 CLP\$ month

Worker efficiency

Worker efficiency greatly varies from 535 CLP\$ /hour to 5,357 CLP\$ /hour

Key Features



Main limitation to increase revenues³

- Lack of adequate vehicles limits waste pickers' ability to transport and sell large volumes.
- Shared or non-owned vehicles reduce flexibility, increase costs, and limit access
- Lack of compactors or shredders makes transportation costly and inefficient
- Traveling long distances to sell materials increases costs and reduces profits
- Small-volume collectors have less bargaining power, leading to lower prices
- Low and fluctuating prices for recycled materials reduce overall income.
- Limited access to markets for certain materials restricts income diversification.
- Barriers like lack of information or competition force waste pickers to sell at lower prices
- Costs for storage and transport reduce net income from selling recycled materials.

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.

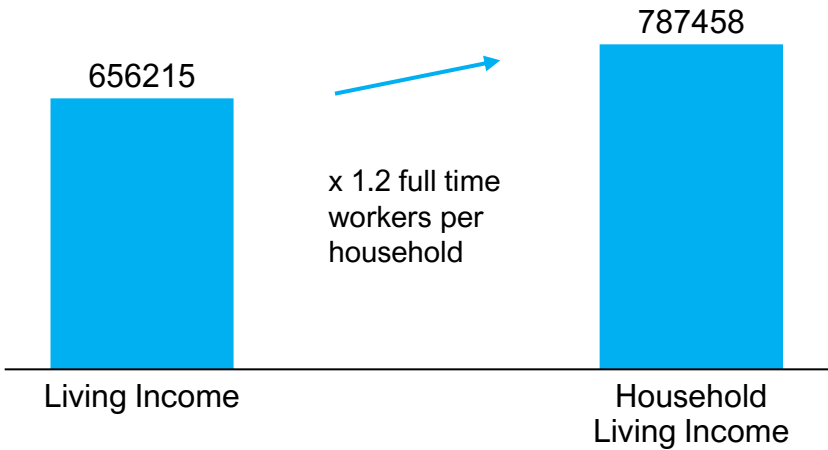


INCOME

An average of 787,458 CLP\$ is estimated to be needed for an average household to have access to decent living conditions

Individual and Family Living Wage

In Araucania, each household has the equivalent earning potential of 1.7 full time workers on average. Figures are in CLP\$.

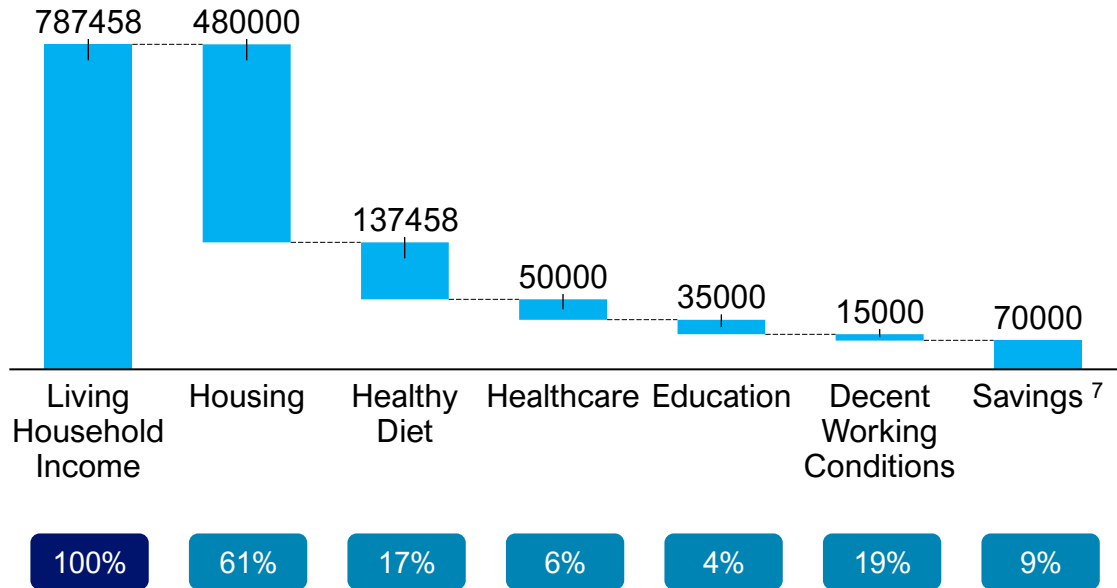


Household characteristic used for the study:

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

Typical Expenses for a Family to have a Decent Life

Healthy diet and decent living represents around three quarters of household expected living income expenditures. Figures are in CLP\$.



(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.

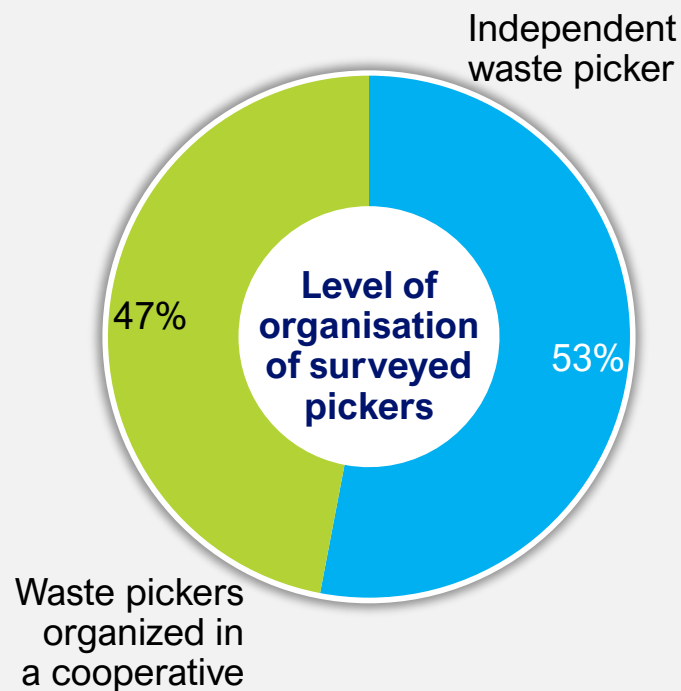
TYOLOGY OF SURVEYED WASTE PICKERS



ABOUT

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

- **1%** get materials from a landfill or dumpsite
- **97%** get materials from the street
- **95%** get materials from households
- **25%** get materials from other sources



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

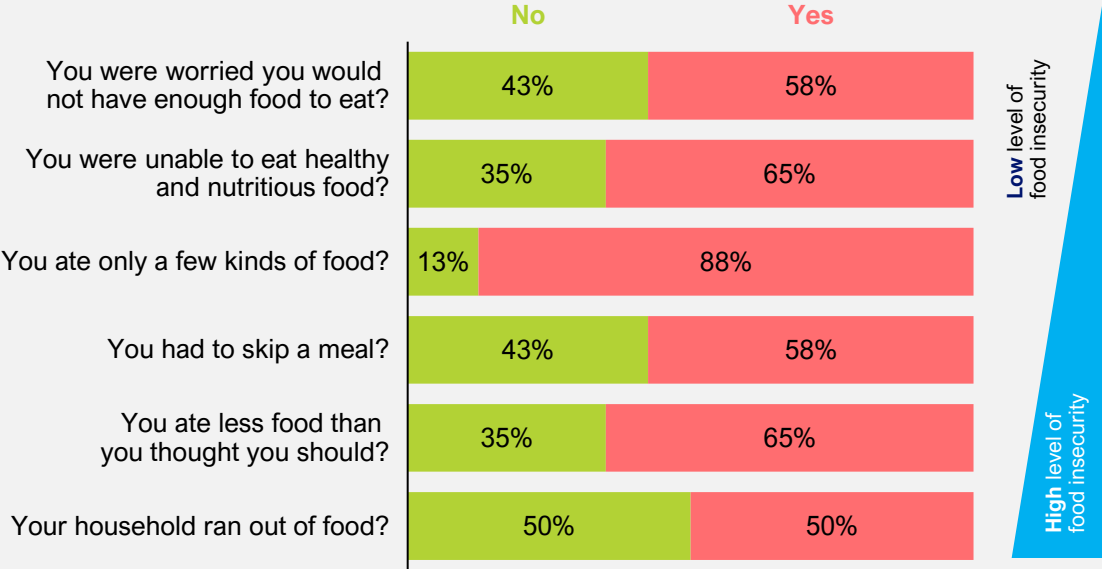


WASTE PICKER QUESTIONNAIRE

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

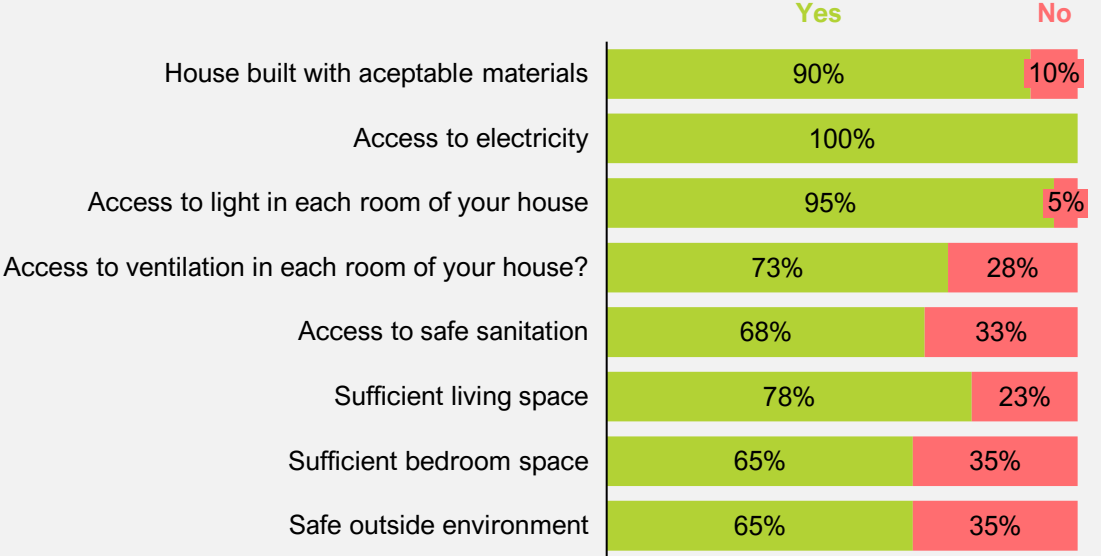
Food Insecurity Experience Scale²

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



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:



(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;

LIVING WAGES PHASE 2 CASE STUDIES

Summary of results from 11 case studies conducted
during the phase 2 of the living wages project

September 2024

[END]