

Enhancing the Capacity of the Informal Waste Recycling Sector Towards a Zero Waste Society in Cambodia



Project Roadmap: From Study to Integration



Baseline Study

The project begins with foundational research to understand the current situation.



Capacity Building Programs for the IWC

Develop skills and resources for the Informal Waste Collector (IWC) community.



Bringing the informal sector stories to the World

Share narratives and experiences to raise global awareness and understanding.



Training Module for the informal sector

Create and deliver targeted educational programs to enhance capabilities.



Activities to Integrate with the formal sector

The final stage focuses on creating pathways for formal economic participation.

Waste Pickers Videos

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My name is Samreut Ky.

00:00:00



Thank you

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Introduction

- Cambodia is experiencing rapid urbanisation, rising consumption, and population growth, especially in its major urban centres such as Phnom Penh and Battambang.
- These trends have resulted in increasing volumes of solid waste, straining municipal collection systems and contributing to illegal dumping, open burning, and pollution of water bodies¹.
- In Phnom Penh alone, over 2,000 tons of municipal solid waste are generated daily, much of which ends up in poorly managed landfills or is left uncollected in informal settlements
- Even though the informal sector handles Cambodia's larger portion of waste, they work in challenging conditions in their personal lives and occupations.



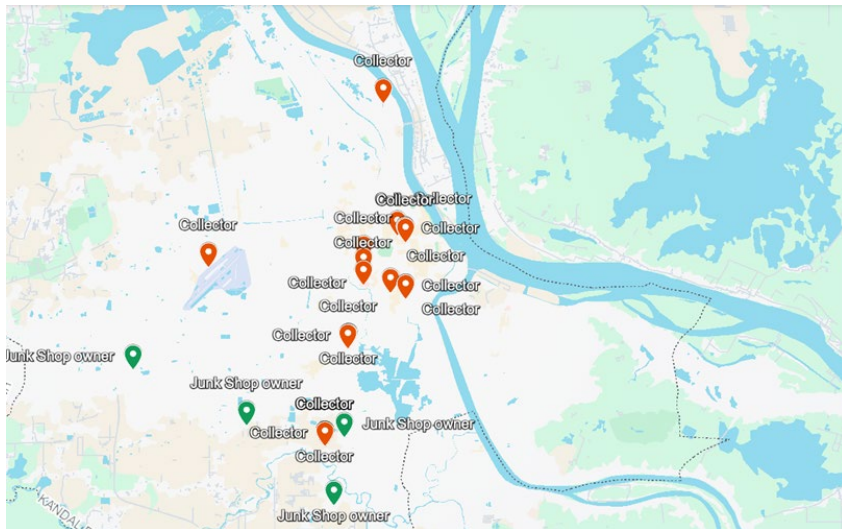
1. (Phnom Penh Capital Administration [PPCA] et al., 2018; Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, 2020).

2. (PPCA et al., 2018).

Baseline Study

- Semi structured questionnaire
- 25 people from each cities (Phnom Penh and Battambang)
- 41 informal collectors and 09 junkshops

Informal Sector Distribution in Phnom Penh



Informal Sector Distribution in Battambang



Types of Waste Pickers

Street waste pickers



Door-to-Door Waste



Waste Pickers in



Junkshop



Middlemen/Broke



Public Market Collectors



Waste collection company workers



Recycler



Composition of waste pickers of the Study



The Gender Divide in the Informal Waste Sector

Gender disparities are deeply ingrained in Cambodia's informal waste sector, where women are systemically confined to lower-value, labour-intensive roles with fewer resources, a trend reflecting global inequalities.



WOMEN IN THE SECTOR



MEN IN THE SECTOR

Solitary, Low-Capital Roles



Work alone; confined to labour-intensive tasks like sorting.



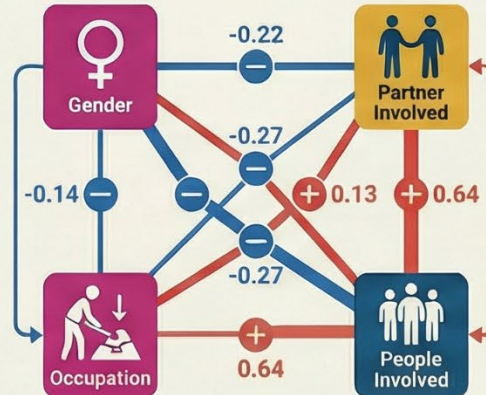
Major Barriers to Progression

Lack access to finance, mobility, and essential networks.



Global issue: Disparities mirror worldwide trends with overrepresentation in vulnerable, informal roles.

Gender & Business Characteristics: A Statistical Correlation



Collaborative, Higher-Value Businesses



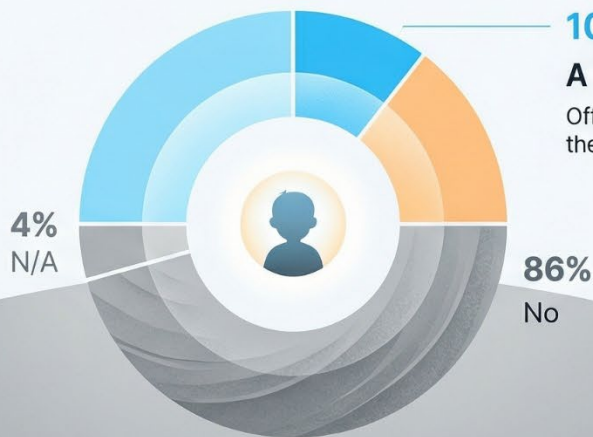
Run larger, collaborative businesses; dominate higher-value junkshop ownership.

Structurally Advantageous Positions

Benefit from better access to finance, mobility, and essential networks.



Child Labour in the Shadows: The Risks of Informal Waste Work



10% Yes

A Hidden Problem

Officially, 10% of children are involved, but the true figure is likely much higher.

**86%
No**



Driven by Poverty

This work is linked to poverty, lack of childcare, and irregular school attendance.



Exposed to High Risks

Children face serious health and developmental dangers in unregulated waste environments.



Decoding the Informal Waste Workforce



Women More Likely to Work Full-Time

This reflects the significant economic pressures faced by low-income households.

Gender Dynamics

$r = 0.24$



Women Less Likely to Own Businesses

A negative correlation highlights gender inequality in junkshop ownership and decision-making.

$r = -0.19$



$r = 0.13$

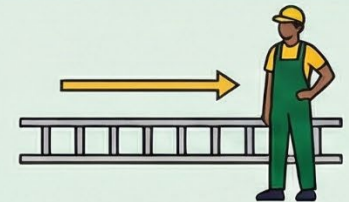


Older Businesses Show More Stability

Businesses that have existed longer are slightly more likely to be full-time operations.

Business & Career Mobility

$r = -0.01$



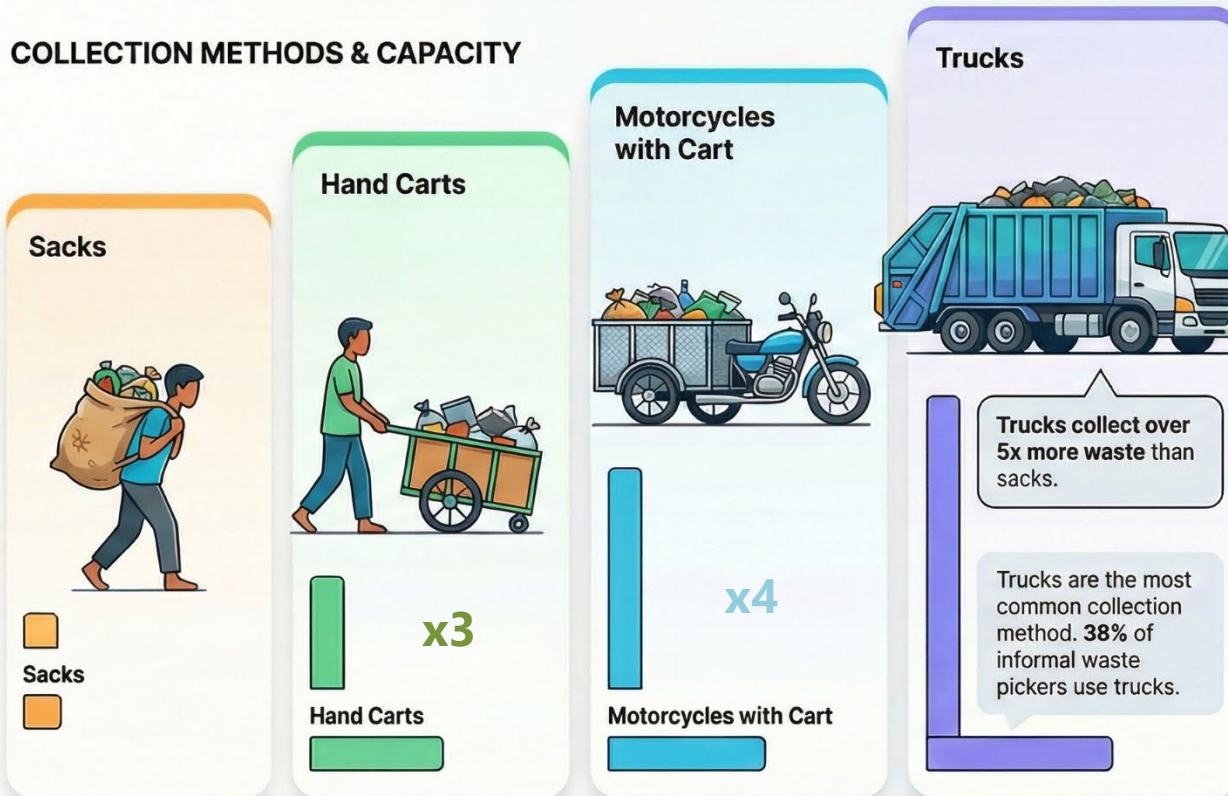
Career Advancement is Limited

There is no real link between business age and a worker's role (e.g. collector).

The Transport Gap: Inequality in Informal Waste Collection

This infographic shows the direct link between the transport method used by an informal waste picker and their daily collection capacity. It highlights how barriers to accessing better transport, like trucks, create significant income inequality within the sector.

COLLECTION METHODS & CAPACITY



BARRIERS & INEQUALITY



Financial barriers block access to better equipment.

Lack of capital, credit, or asset ownership prevents workers from affording better transport.

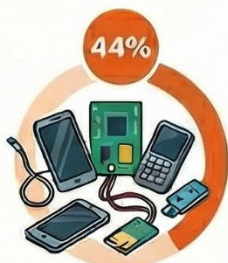


Better transport leads to higher income, reinforcing inequality.

This system disproportionately favours male junkshop owners with greater resources.

Informal Waste Sector: Collection Priorities

Top Collected Materials



E-Waste (44%)

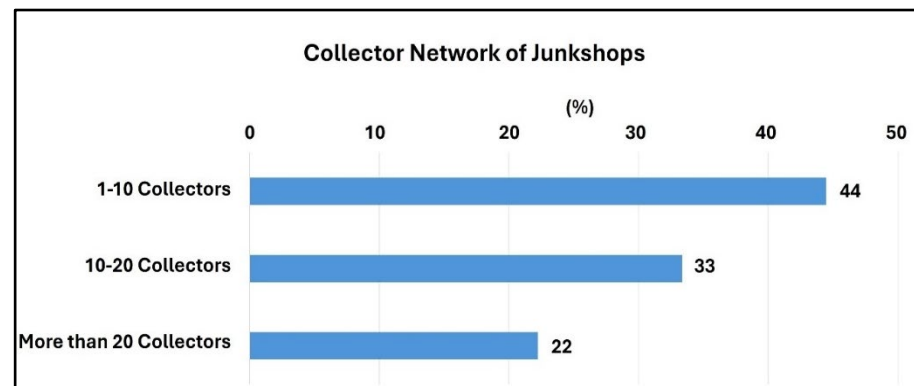
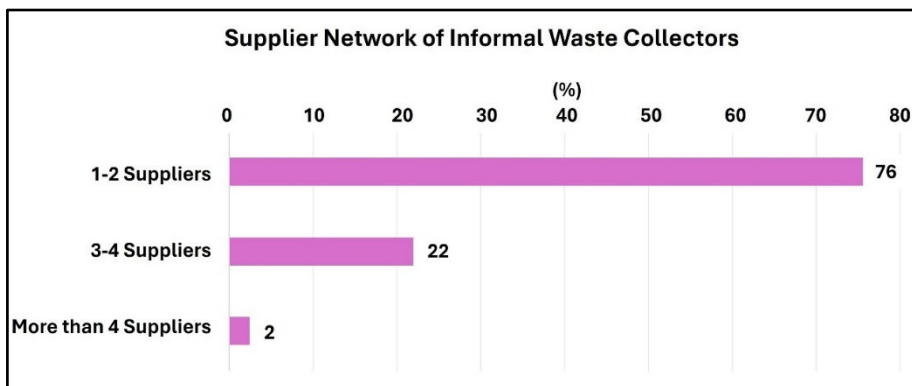


Spotlight on Plastics



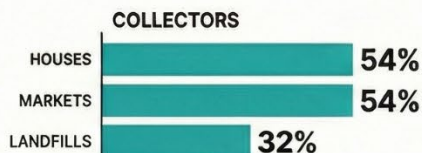
Supply Chains and Business Networks

- Small-Scale Collector Networks: 76% of collectors rely on just 1–2 suppliers, showing the highly localized and informal nature of their operations.
- Junkshops as Hubs: Junkshops connect with broader networks—44% source from 1–10 collectors, and 22% from over 20—linking the informal sector to recycling markets.
- Limited Scale and Integration: Despite their importance, informal supply chains remain fragmented and face barriers to scaling and formal integration..



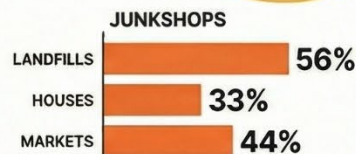
Inside the Informal Waste Sector: Collection Points & Key Players

The informal waste sector operates as a resilient, community-integrated system with distinct roles for Collectors and Junkshops, forming a fragmented yet adaptable network.



COLLECTORS: FOCUS ON PUBLIC & RESIDENTIAL AREAS
They are the main point of contact for waste from houses and markets.

JUNKSHOPS: ACCESS BULK WASTE SOURCES



Their capacity allows them to tap into landfills, factories, and commercial zones.



FACTORIES & COMMERCIAL ZONES

SYSTEM SNAPSHOT & THE PATH FORWARD

A FRAGMENTED BUT RESILIENT SYSTEM

Despite manual processes, the sector shows deep community integration and adaptability.

KEY AREAS FOR IMPROVEMENT

Collector-we bragement, the sector of arintability and community opparaations.



STRENGTHEN COLLECTOR-JUNKSHOP LINKS



IMPROVE BULK WASTE ACCESS

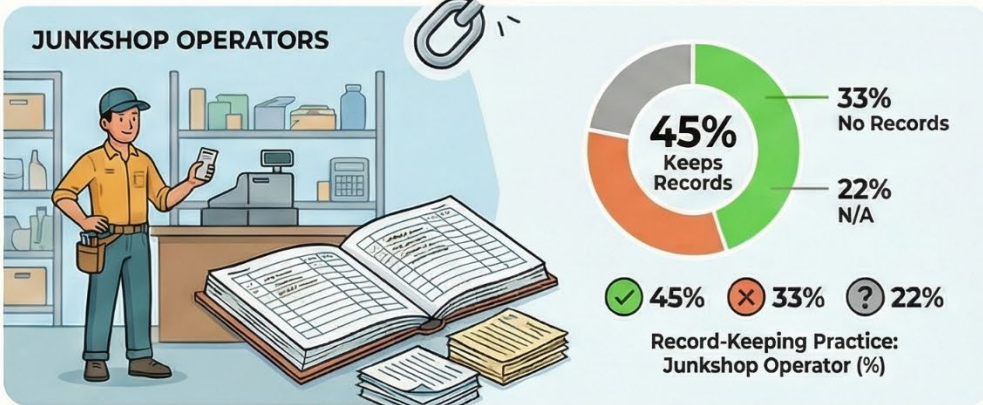
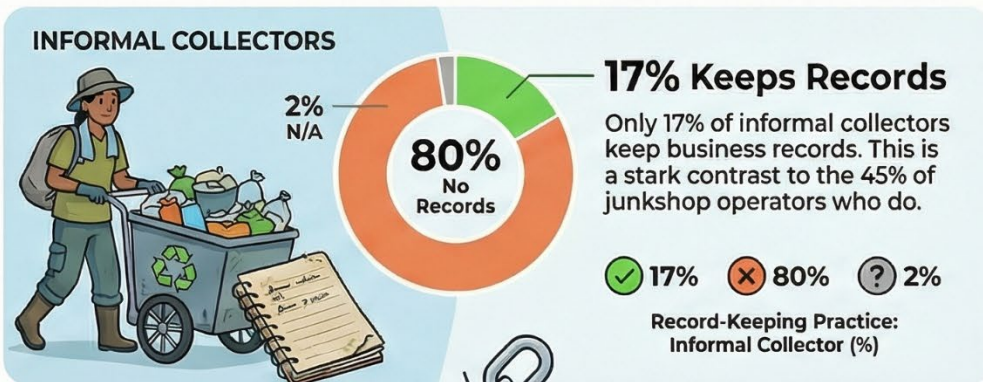


BUILD INCLUSIVE INPRASTRUCTURE

Strengthen collector-junkshop links, improve bulk waste access, and build inclusive infrastructure.

The Documentation Divide: Record-Keeping in the Informal Waste Sector

A Tale of Two Workers: Record-Keeping Practices



The High Cost of No Records





The Debt Cycle of Informal Waste Workers



Challenges Facing the Informal Sector: A Three-Part Breakdown

SOCIAL CHALLENGES

High Occupational Health & Safety Risks

Workers often face dangerous conditions without adequate protection.

Widespread Marginalisation

This includes issues of gender inequality and child involvement in labour.



POLICY & SYSTEMIC BARRIERS

No Legal or Social Safety Net

Workers are denied legal protection and access to social security.

Exclusion from Governance

The sector is often ignored in local governance and planning.



ECONOMIC VULNERABILITIES

Pervasive Insecurity

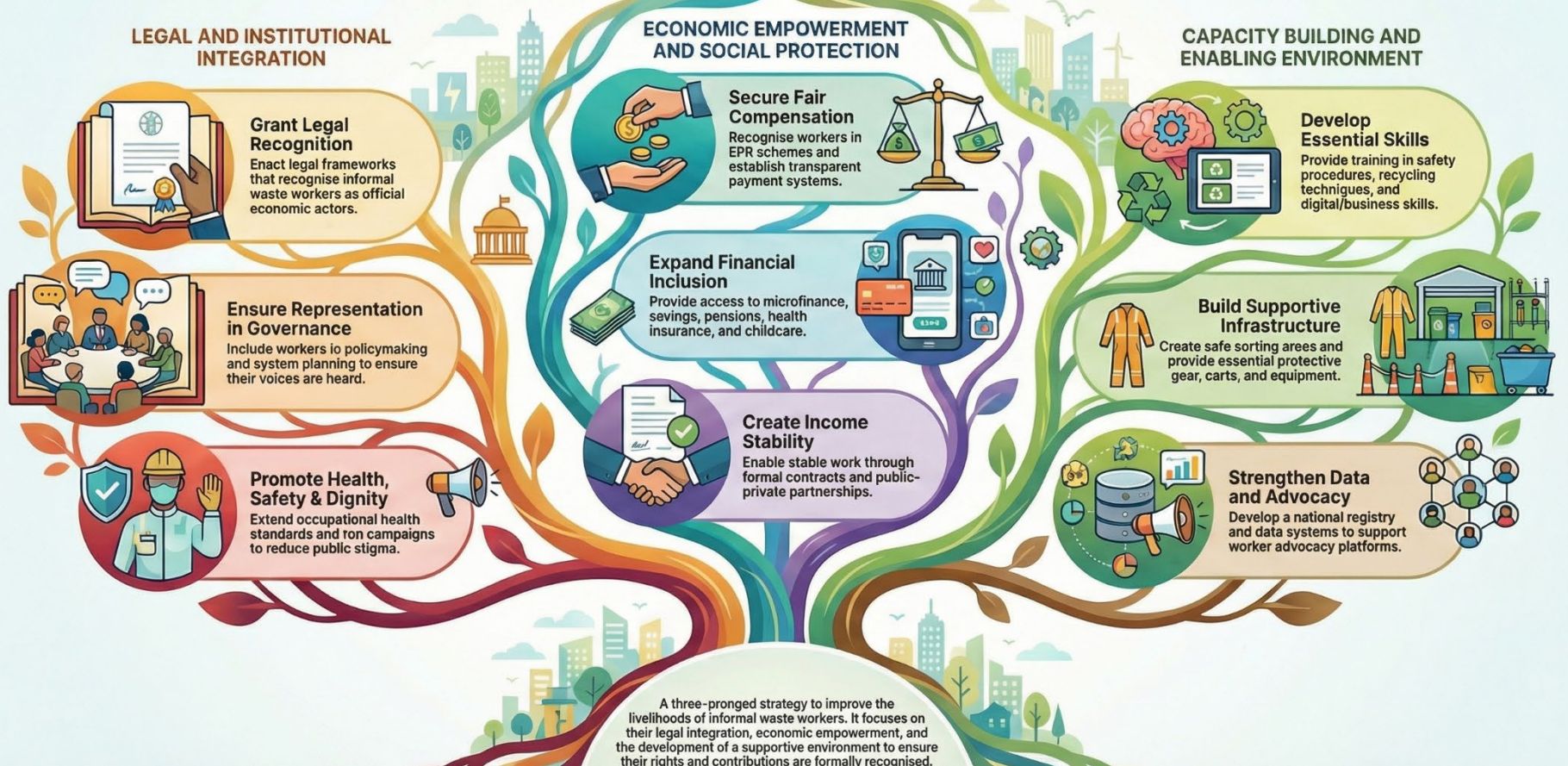
Unstable work and unpredictable income are constant threats.

Lack of Access to Finance

Formal financial services and credit are typically out of reach.



A Strategic Framework for Empowering Informal Waste Workers



Integrating Informal Waste Workers: A Blueprint for Legal Recognition

1. Establish Legal Recognition & Worker Rights



Create Formal Registration Systems

Legitimise waste pickers, junkshop operators, and cooperatives as economic actors.



Issue Identification Cards

Enable workers' access to municipal services and official protections.



Enforce Health & Safety Standards

Implement and monitor occupational safety measures for all informal roles.



2. Foster Inclusion in Public Waste Systems



Involve Workers in Policymaking

Ensure informal workers and their representatives have a voice in planning.



Design Inclusive Partnerships

Develop public-private partnerships that include cooperatives and small enterprises.



Develop Local Guidelines

Support collaboration between community, district, and municipal levels.



3. Promote Public Acceptance & Reduce Stigma



Launch Public Campaigns

Use municipal messaging to recognise workers' contributions to urban cleanliness.



Recognition Builds Trust

This improves dignity, safety, and the relationship between workers and authorities.



Building Economic Security for Informal Waste Workers

Strategies for enhancing financial well-being and social protection, integrating workers into formal systems, and ensuring stable income.

1. Ensure Fair Income & EPR Integration



Integrate Workers into Extended Producer Responsibility (EPR) Systems

Recognise them as eligible service providers and compensate them for their work.



Allocate EPR Funds for Support

Use funds to provide essential tools, training, and operational support.



Implement Transparent Pricing

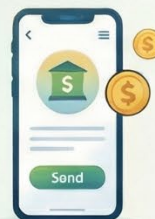
Establish fair and clear pricing systems for all collected recyclables.

2. Expand Financial Services & Social Protection



Offer Tailored Financial Programmes

Provide access to microfinance and savings schemes designed for their needs.



Promote Mobile Banking

Introduce mobile banking platforms to reduce dependency on cash.



Guarantee Access to Social Safety Nets

Include workers in national programmes for health insurance, NSSF, and childcare.

3. Support Stable Income Generation



Formalise Work with Service Contracts

Offer predictable monthly earnings through recycling and service delivery contracts.

Empowering Informal Workers: A Blueprint for a Circular Economy

To improve working conditions and integrate informal workers into circular economy systems, a multi-pronged approach is essential, equipping them with organisational, technical, and material support.



Support Worker Cooperatives

Provide legal and financial assistance for the formation of waste picker cooperatives.



Enhance Bargaining Power

Secure decision-making power and bargaining rights for organised workers.



Foster Peer Learning

Create networks between cities like Phnom Penh and Siem Reap for knowledge sharing.



Strengthen Organisation & Networks



Build Infrastructure & Provide Equipment



Invest in Safe Workspaces

Develop sorting/storage spaces at collection points and safe drop-off depots.



Supply Protective Equipment

Provide subsidised uniforms, gloves, carts, and sorting tools to ensure worker safety.



Improve Data & Promote Advocacy



Amplify Worker Voices

Support advocacy platforms to represent workers in public policy discussions.



Establish a National Registry

Create a formal registry of informal workers to strengthen recognition and inclusion.



Integrate Informal Sector Data

Include data on informal work in official waste audits and planning systems.

THANK YOU!

The image features the words 'THANK YOU!' in a bold, sans-serif font. Each letter is a different color: 'T' is blue, 'H' is purple, 'A' is pink, 'N' is orange, 'K' is yellow, 'Y' is green, and 'O!' is teal. The letters have a slight 3D effect with shadows. The text is surrounded by a cluster of small, multi-colored dots in shades of blue, purple, orange, yellow, and green, scattered around the letters.