



BRINGING INFORMAL SECTOR IN THE WASTE VALUE CHAIN

Exploring Various Models and Pathways from Indian Cities

Key findings, takeaways and the way forward

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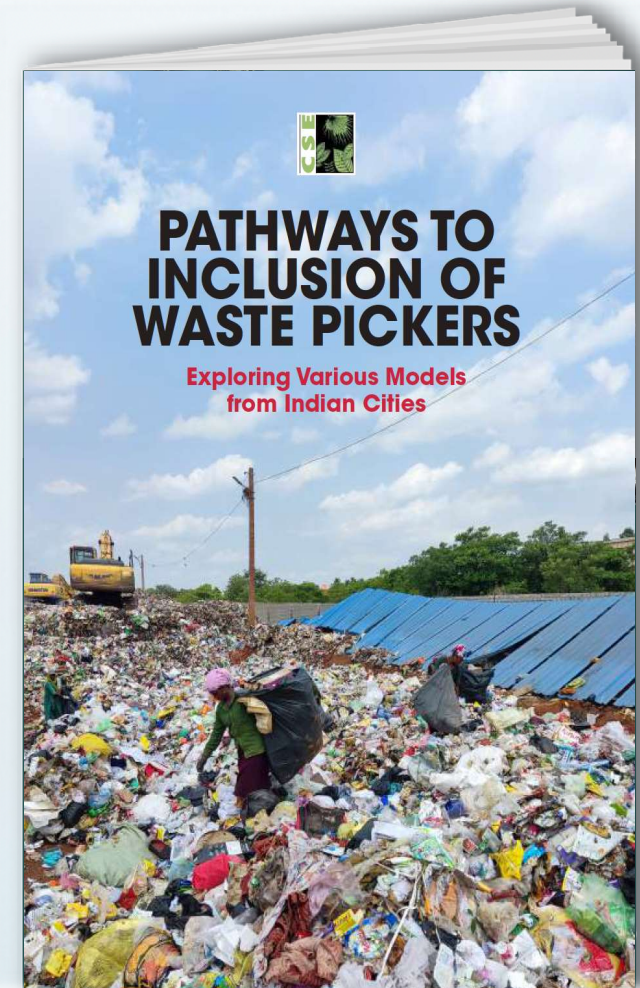
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Objective :

- *Evaluates existing models of integration*
- *Examines the modalities of integration*
- *Identifies the elements of replicability potential among the models to guide ULBs and practitioners*
- *Examines the current landscape, policies, gaps and highlighting the need for reforms*
- *Offers a simplified framework outlining key steps for integration for cities*

Methodology:

- *A mixed-method approach - combining stakeholders interview, FGD, case studies and publicly available documents, guidelines etc.*
- *Studying the efficacy of the models on the ground through intensive field visits to various facilities including MRFs, DWCCs, SLRMs, MCCs, BWG facilities, and trade union offices.*
- *Assessment of secondary data from the local authorities*

Limitation:

- *Not universally applicable models*
- *Time and resource constraints*
- *Subjectivity*

Definition.....

- **No universal definition is available**
- **The SWM Rules 2016** define waste pickers as individuals or groups **informally engaged in collection and recovery** of reusable and recyclable solid waste from the source of waste generation- the streets, bins, material recovery facilities, processing and waste disposal facilities for sale to recyclers directly or through intermediaries to earn their livelihood.
- **ILO** defines the informal sector in waste management as “individuals or small and micro-enterprises that intervene in waste management **without being registered and without being formally charged** with providing waste management services
- The **UN-Habitat**-as individuals who **collect items and materials** from public spaces, open dumpsites, landfills, waste bags, and street bins, subsequently **selling recyclables** to intermediate or apex traders
- The **International Alliance of Waste Pickers (IAWP)** describes informal waste workers **as individuals who participate individually or collectively** in the **collection, separation, sorting, and transport of recyclable and reusable materials**



Socio-economic and environmental Benefits:

- *Excel in source segregation and material recovery.*
- *Maintain resilient networks for efficient operations.*
- *Operate with minimal environmental impact and low emissions.*
- *Operate with minimum investment*

Filling Gaps in Waste Management Services:

- *Complement urban local bodies' efforts in waste collection.*
- *Provide crucial services often overlooked by centralized facilities*

Why informal waste pickers?

Cost Savings:

- *Reduce waste collection and transportation costs.*
- *Lower landfill and disposal expenses by diverting waste.*

Efficiency in Resource Recovery:

- *Lower processing costs through effective material recovery.*
- *Generate savings from recycling initiatives.*

What Integration should ensure



Cities and Models Studied



**Ambikapur
(Chhattisgarh)**



**Chhatrapati Sambhaji Nagar
(Maharashtra)**



**Bengaluru
(Karnataka)**



**Bhubaneswar
(Odisha)**



**Chandigarh
(Punjab / Haryana)**



**Pune
(Maharashtra)**



**Karad
(Maharashtra)**



**Pimpri Chinchwad
(Maharashtra)**

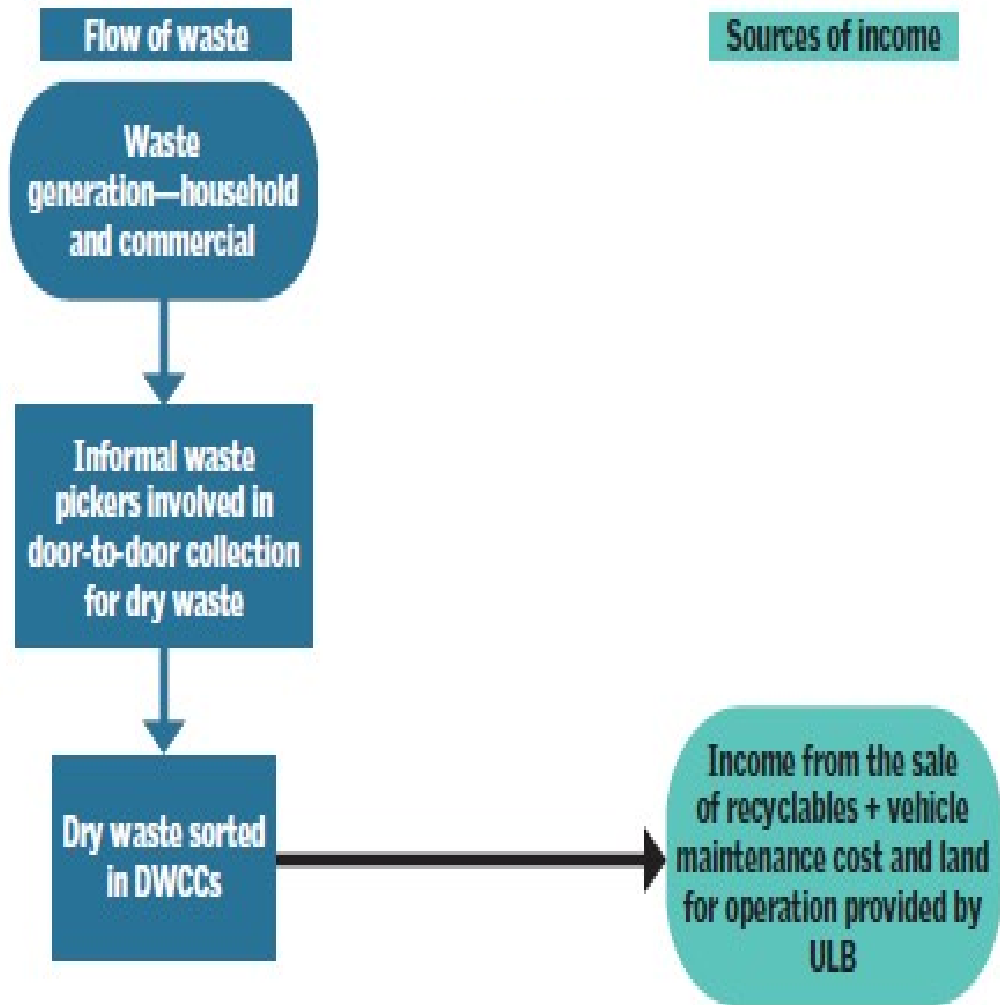


**Shillong
(Meghalaya)**



**Thiruvananthapuram
(Kerala)**

Bengaluru DWCC model



Bengaluru model

What worked well

- *Municipal Bye Laws notified in 2020, recognized the role of the waste pickers*
- *Each DWCCs is managed by a local waste picker (or waste entrepreneur) , who employs 10–12 other waste pickers*
- *This system provides livelihoods to an estimated 250–400 waste workers.*
- *Absolute rights to the waste*

Gaps identified

- *No minimum wage or right to collect user fees unlike other models*
- *Irregular support from BBMP both financial and administrative*
- *Resulting to unviability of the DWCCs*
- *Unsustainability of the model with administrative change in the city*

Chandigarh Dual model (D2D collection and Pink MRF)

Flow of waste

Door-to-door collection integration

Waste generation—
household and commercial

Informal waste pickers
assist in door-to-door
collection of waste

Wage paid by the Corporation +
allowed to sell bulky dry waste

Sources of income

Pink MRF

Waste generation—
household and commercial

Waste collected and
transported to Pink MRF
by ULB

Waste sorted by
women members

Fixed wages paid
by the Corporation +
Social benefits



Chandigarh Dual model

What worked well

- *Strong administrative will*
- *Minimum guaranteed wage for both the models*
- *Enhanced socio economic status*
- *Health and other benefits assured*
- *Ensured source segregation*
- *Revenue from recyclables to the city with their contribution*

Gaps identified

- *Challenges in renewal of the contract once the leadership changed*
- *No rights to the recyclables*
- *No provisions for increasing the earning of the door to door collection workers*

Karad: Model of integration

Flow of waste

Waste generation—
household and commercial



Waste collected and
transported to the integrated
facility by ULB



Waste pickers deployed
by the contractors in the
integrated facility



Dry waste is sorted +
Wet waste is composed



Fixed wages paid by the
contractors

Sources of income



Karad Model

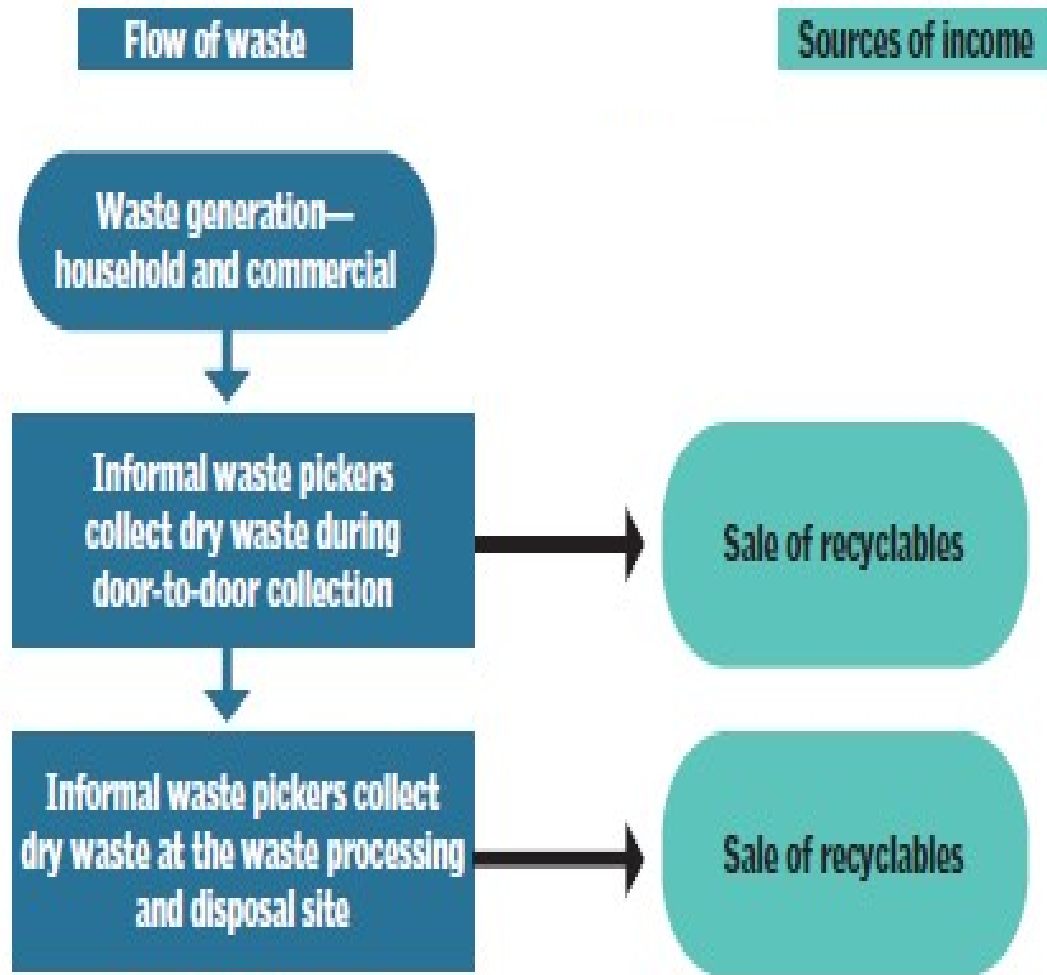
What worked well

- *ULB plays a supportive or enabling role*
- *Revenue generated by ULB*
- *Job security*
- *Minimum wage ensured*
- *Saves cost for ULB by reducing the cost of CB and enhancing the work efficiency due to their engagement*

Gaps identified

- *No agreement with the ULB*
- *Integration based on good will and mutual trust, not binding*
- *No access to waste*
- *Less opportunity to increase income*
- *Lack of stability and formal recognition*

Shillong Low-Cost Model



Shillong Model

What worked well

- *Ensure source segregation*
- *Cost savings*
- *Livelihood generation*
- *Access to waste*
- *High rate of recyclability*
- *Reduce burden*
- *Low cost model*

Gaps identified

- *Inadequate facilities and work environment*
- *Exposure to hazardous environment*
- *Social safety needed*
- *Need more formal recognition – comprehensive enumeration and registration is needed*
- *Unstable income*

Thiruvananthapuram Haritha Karmasena Model

Flow of waste

Waste generation—
household and commercial



Scheduled segregated
door-to-door dry waste
collection



Sorting and storage of
dry waste



Sources of income

User fee collection

Sale of recyclables



Thiruvananthapuram Haritha Karmasena Model

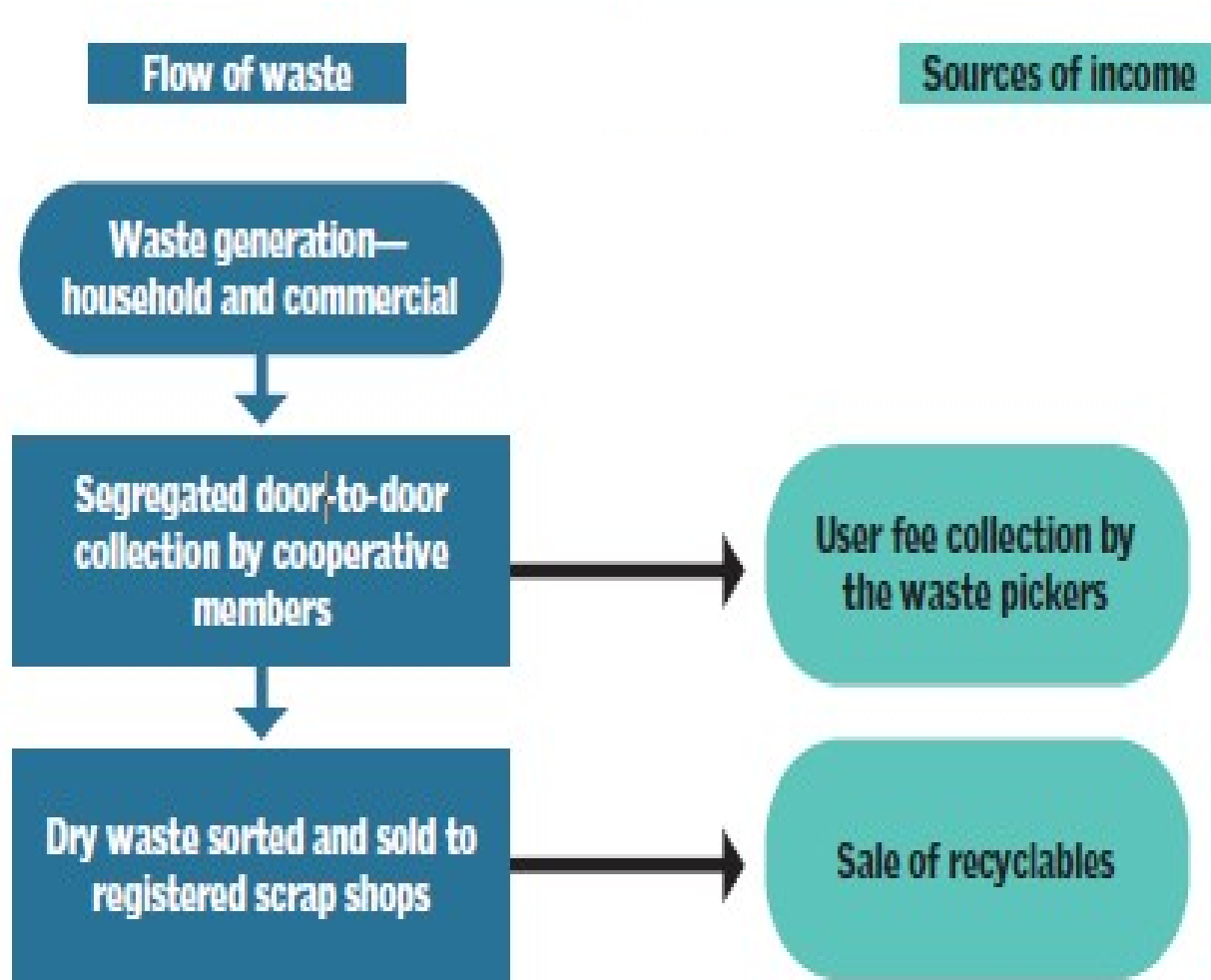
What worked well

- *State initiative and covers all the 100 wards*
- *Minimum wage assured by the LSGDs*
- *Ensure source segregation*
- *Cost savings for the city*
- *Livelihood generation*
- *Access to waste*
- *High rate of recyclability*
- *Registration of more than 300 aggregators by TMC*
- *Right to collect user fees*

Gaps identified

- *Stressed more on Urban Poor limiting the ratio of informal waste pickers into the integration model*

Pune SWaCH Model



Pune SWaCH Model

What worked well

- *Ensure source segregation*
- *Cost savings for the city*
- *Livelihood generation*
- *Access to waste*
- *High rate of recyclability*
- *Right to collect user fees*
- *Cooperative led initiative*
- *Greater community participation*

Gaps identified

- *Emergning challenges land unsustainability with the change in the leadership in the ULB*

Cities/Models	Enumeration and mapping	Registration and job card availability	Incorporated into city's waste management services	Access to waste	Access to social benefit schemes	Employer-employee engagement mode (Formalisation)	MoU between parties (ULB and waste pickers)
Ambikapur							
Aurangabad							
Bengaluru							
Bhubaneswar							
Chandigarh							
Karad							
Pimpri Chinchwad							
Pune							
Shillong							
Thiruvananthapuram							

ULB/CSO	No of workers	Daily working hours	Monthly Wage (Rs.)	Income from the sale of Recyclables (Rs.)	Income from User fee (Rs.)	Income from other sources (Rs.)	Average Monthly Income (Rs.)
Ambikapur	480	8-10	7,200 (minimum guaranteed)	3000 (approx)		500-1000 (Festival Bonus)	10,200
Aurangabad (Civil Society)	54	8	16,250 (minimum guaranteed)				16,250
Bengaluru	600	8	-	10,000 (approx.)			10,000
Bhubaneswar	642	8-10	13,500 (minimum guaranteed)			1350 (Hardship allowance 10%)	14,850
Chandigarh	940	6-8	16,000-20,000 (minimum guaranteed)				16,000 - 20,000
Karad	21	8	16,800 (minimum guaranteed)				16,800
Pimpri-Chinchwad	300	8-10	20,300 (minimum guaranteed)				20,300
Pune	4000	5	-	3000-5000 (Variable but regular)	17,000		22,000
Shillong	200	6-10	-	10,000			10,000
Trivandrum	1163	7	10000 (minimum guaranteed)	5000- 10000 (Variable but regular)			15,000

Key Takeaways – 1

Why integration is so limited?

From the waste pickers' point of view

- *Lack of collective bargaining, unions, and associations*
- *Fear of losing flexibility independence in working our and earning patterns*
- *Strong pushback from formal workers' unions / private entities / ULB officials*

From the ULB's point of view

- *Limited legal mandate – mostly in the form of advisory*
- *Delayed implementation of policies and schemes*
- *Absence of standardized enumeration processes*
- *Volatility and unpredictable availability of waste pickers*
- *Limited political and administrative will at all levels*
- *Limited capacity among ULBs to address the informal sector*
- *Over-dependence on technology and private players*

Key Takeaways – 2

Enabling legal mandate to foster integration

Existing Provisions in the SWM Rules 2016

*Formally recognizes and **defined** the role of waste pickers*

***Advised the state** to strategize and make policies to recognize and integrate waste workers*

*Called for development of **broad guidelines** to facilitate the integration of waste pickers*

ULBs are instructed to facilitate SHG formation, issue identity cards, encourage their participation in various aspects of SWM, particularly in door-to-door collection services

Recommend the inclusion of a representative from CSOs working with waste pickers in the State Level Advisory Board to ensure their participation

***Recommendations are advisory rather than mandatory** (for example-local bodies “should” has been used)*

Proposed Provisions in the Upcoming SWM Rules 2025

Clear guideline for integration must be included

MoHUA to be tasked to develop comprehensive guideline for integration and capacity building

In the draft, RDDs were explicitly tasked with preparing integration strategies, while similar provision was missing for UDDs.

Restoration of waste picker representation in key decision-making platforms, such as the State Level Advisory Body- this was removed from draft SWM Rules 2024

Centralized online portal proposed for registration and monitoring offers transparency – capacity building is needed for ULBs and waste pickers

Key Takeaways – 3

How Integration of informal sector made a difference

- *Achieved very high level of segregation*
- *Substantially reduced the cost of collection*
- *Ensured maximum recovery and recycling*
- *Managed waste for the bulk waste generators*
- *Efficiently managed MRFs, secondary sorting facilities with minimum automation*
- *Diverted waste from getting to the landfill*
- *Proved to be substantially cost saving to the ULBs*
- *Created livelihoods opportunities to waste pickers*
- *Operated with minimum emission*
- *Effective integration needed leadership from civil societies, cooperatives, federations etc.*

Key Takeaways – 4

Strengthen implementation of National Action for Mechanized Sanitation Ecosystem (NAMASTE)



Source: CSE

Key Takeaways – 5

Key criteria for integration

- *Unrestricted access to waste.*
- *Space for sorting*
- *Job identity cards issued by ULB to formally recognize the waste pickers and protect them from harassment*
- *Dignified working conditions with basic amenities.*
- *Right to sell recyclables in the open market.*
- *Secure housing without eviction threats.*
- *Health and safety protections.*



Integrate and Upgrade
Not
Exclude or Replace

Thank you