

# From Enumeration to Formal DWCC/MRF Operations

Waste Pickers Integration Pathways



# Why Integrate the Informal Sector in SWM?

- ❑ Informal waste workers—waste pickers, scrap dealers, recyclers—are the backbone of India's recycling and circular economy but remain largely unrecognised
- ❑ Their skills in sorting, grading and baling supply essential raw materials to the recycling industry and enable circular business models.
- ❑ National and state policies mandate their inclusion in formal solid waste management systems—making integration a legal and ethical obligation.

# Swachh Bharat Mission 2.0

- Swachh Bharat Mission 2.0 recognises recyclers and scrap dealers from both formal and informal sectors and calls for their integration into the SWM recycling value chain.
- The Mission emphasises enabling social welfare benefits for all sanitation workers including informal workers by providing life and health insurance and supporting the formation of sanitation worker collectives.
- Swachh Survekshan 2022 uses indicators that reward cities for identifying and integrating waste pickers, creating a performance incentive for Urban Local Bodies.

**2.4**

**Linearity to Circularity**

**Dry waste** being **processed** out of total dry waste collected (**excluding** sanitary and domestic hazardous waste) through MRF, RDF or Waste To Energy plants etc. (ULBs are encouraged to engage Informal Waste Pickers/Women/SHGs/Transgenders in MRF Centres)

**Marks**  
**100**  
**(80+20)**

# National Law : Plastic Waste Management Rules Amendment 2024

- The Plastic Waste Management Rules 2024 call on Urban Local Bodies to engage civil society and groups working with waste pickers in the implementation of plastic waste management systems.
- Form V of the Rules requires Urban Local Bodies to submit annual reports detailing human resources, including waste pickers in informal sectors, deployed for collection, segregation, processing and disposal of plastic waste.
- Urban Local Bodies must report ward-wise details of waste pickers engaged in plastic waste management, which drives formal recognition and data-based planning.
- Extended Producer Responsibility under these Rules enables financial resources that can support DWCC operations and compensate waste pickers for handling plastic waste.

# National Scheme: NAMASTE and Waste Picker Integration

- The NAMASTE scheme, originally focused on mechanised sanitation, has been expanded to include waste pickers, providing a national framework for formalising their livelihoods.
- Under NAMASTE, waste pickers are identified, registered and profiled, and are linked to occupational ID cards and social security benefits.
- The scheme supports occupational safety training, provision of appropriate PPE, health coverage, accident insurance, and financial inclusion for waste pickers.
- NAMASTE explicitly supports waste picker led Dry Waste Collection Centres by enabling capital subsidy of up to Rs 5 lakh for collection vehicles when waste pickers or their Self-Help Groups operate DWCCs as entrepreneurs.

# Case study: Policy Framework for integration at State

---

## Karnataka Urban SWM Strategy 2020

- The Karnataka State Urban Solid Waste Management Strategy 2020 acknowledges the primary role of waste pickers and informal workers in reducing waste and calls for their integration.
- Annexure A stresses interdepartmental coordination to converge waste management, social welfare and benefit schemes for sanitation workers and waste pickers.
- Annexure C directs Urban Local Bodies to provide support to waste pickers for collection, aggregation, sorting and trading in terms of space, skills, access to finance and social welfare benefits.
- Annexure H reiterates the requirement under SWM Rules 2016 for state policy to integrate informal sector actors into the waste management system, creating a strong state-level mandate.

# BBMP Solid Waste Management Bye-laws 2020

- The BBMP SWM Bye-laws 2020 define a waste picker as a person or group of persons informally engaged in collection and recovery of non-biodegradable waste, who earn their livelihood from selling reusable and recyclable solid waste.
- Chapter III, Section 6 of the Bye-laws allows dry waste collection to be carried out wherever possible through informal waste pickers and Self-Help Groups integrated into the BBMP system.
- These Bye-laws provide explicit city-level authority to include waste pickers in door-to-door collection and DWCC operations as part of the municipal SWM system.
- They complement national rules and the state strategy, making integration a practical and enforceable policy for Bengaluru and a model for other cities.

# Karnataka Transparency in Public Procurements Act

- The Karnataka Transparency in Public Procurements Act, 1999 mandates competitive tendering when a public body procures goods or services from commercial vendors.
- The legal note clarifies that integrating waste pickers into DWCCs is a social welfare and livelihood support measure, not a commercial procurement of services.
- The Act includes exemptions for low-value services and activities carried out for public benefit, allowing Urban Local Bodies to engage waste pickers without full tendering.
- The recommended approach is to treat DWCC access as a licence or grant with a modest refundable security deposit, using simple paper-based Expressions of Interest instead of online competitive bidding.

# Occupational ID cards issued by Different ULBs

## Occupation Id card issued: Partial list

**ನದರನಭೆ, ಅಕ್ಕಲಿಟ್ಟಾಪುರ  
ದುರುತಿನ ಆಟ**

**ಕುಲ್ಸೂಮ್  
ಕೋಂ ದಾದಾಪೀರ್  
ಬೆಂಟಿ ಸುಬುಷವರು  
ಆಧಾರ್ ನಂ: 315288807133**

ಪೌರಾಯುಕ್ತರು  
ಸರ್ಕಾರದ, ಚಿಕ್ಕಬಳ್ಳಾಪುರ

**ಮಹಾನಗರ ಪಾಲಿಕೆ  
CITY CORPORATION**

**IDENTITY CARD**

**ಪಟ್ಟಣ ಪಂಚಾಯತಿ ಕಾರ್ಯಾಲಯ  
ಬಾಗಲೂರು -577528,ಬಾಗಲೂರು ಜಿಲ್ಲೆ  
TOWN PANCHAYATH OFFICE JAGALUR**

**IDENTITY CARD**

Name : Lakshmi Bai  
Ward : 35  
Occupation : Waste picker  
Date of Birth : 12.11.1997  
Address : D/o Tanaji Gosayi Gosal colony / C.R extension Jagalur davangere kumataka-577528

**ಉಲ್ಲಾಲ ನಗರಸಭಾ  
Ullala Nagarasabha  
IDENTITY CARD**

Name : Mohammed Nawazuddin  
Ward No. : 3  
Occupation : Sorter  
D.O.B / Age : 15.06.1983  
Address : UK Puthubava, #2, 15/3 Rowza Masjid, Near Badriya Juma Masjid, Ullal, Mangalore.  
Date of Issue : 03.08.2020

**ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ  
Bruhat Bangalore Mahanagara Palike  
IDENTITY CARD**

Name : Muniyamma  
Ward No : 145  
Occupation : Wastepicker  
D.O.B / Age : 59  
Address : Vinobha Nagar, Bangalore.Date of Issue : 26-01-2012  
Commissioner, BSMP

**ಚಾಮರಾಜನಗರ ನಗರ ಸಭೆ  
CITY MUNICIPAL COUNCIL, CHAMARAJANAGARA**

**IDENTITY CARD**

Name : RANGAMMA  
Ward No : 09  
Occupation : WASTE PICKER  
D.O.B / Age : 55  
Address : 5th Cross, K.N.P Road, ward no.9 Janatha Colony, Chamarajanagar

Date Of Issue : 09/12/2017  
ENV. ENGR  
Commissioner

**WASTE PICKER RECOGNIZED BY  
ಮಲ್ಲಳ್ಳಿ-ಧಾರವಾಡ ಮಹಾನಗರ ಪಾಲಿಕೆ  
Hubballi-Dharwad Municipal Corporation  
IDENTITY CARD**

Name : Yallappa Bhimappa Gollar  
Ward No : 57  
Occupation: Itinerant buyer  
D.O.B/Age : 37  
Address : Gollar Oni Venrapur Oni Hubli 580020

Date of Issue : 01/04/2021  
Not an employee of HDMC  
Commissioner, HDMC

**ಪಟ್ಟಣ ಪಂಚಾಯತ, ಕುಂದಗೋಡೆ  
Town Panchayat, Kundgol**

**IDENTITY CARD**

Name : Shyam Gopal Gosavi  
Ward No : 3  
Occupation : Waste Picker  
D.O.B/Age : 36  
Address : Mouneshwar Plot, Kalidas Nagar, Kundgol

Date of Issue : 17-07-2022  
(Chief Officer)  
Town Panchayat, Kundgol

**ಪುರಸಭಾ ಕಾರ್ಯಾಲಯ, ಮಧುಗಿರಿ  
ಹಾಗೂ ಹಸಿರು ದಳ ಸಹಯೋಗದೊಂದಿಗೆ  
ಗುರುದ್ವಾರ ಆಟ**

ಹೆಸರು : ಶಾರದಮ್ಮ  
ಉದ್ಯೋಗ : ಕಂಠಿ ಅಯದ ಅರವಾಂ  
ವಯಸ್ಸು : 30  
ವಿಳಾಸ : 5/2/20/21 ಅಭಿಮಾನಿ ಬಂದಗ ಮಂಡಲೆ ಶಾರದಾ, ಮಧುಗಿರಿ ಲಿಂಗೇಶ್ವರ  
ಮೊ : 9945297796

ಮುಖ್ಯಸ್ಥರ/ಅಧಿಕಾರಿಗಳ ಅಧಿಕಾರ

**MANGALORE CITY CORPORATION  
ಮಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆಯ ನಡವಯ್ಯ  
MCC - WASTE PICKER IDENTITY CARD**

Name : Gowri  
Ward Number : 39  
Occupation : Waste Pickers  
D.O.B / Age : 27  
Address : Near Hotel Shettys Lunch Home Ft  
Date of Issue : August 2020

ID NO: MCC/F/39/03  
Gender : Female  
Commissioner  
Mangalore City Corporation

**ಮೈಸೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ  
MYSURU CITY CORPORATION  
IDENTITY CARD**

Name : GAYITRI  
Ward No. : 52  
Occupation: WASTE PICKER  
D.O.B/Age : 30  
Address : #F-1,BLOCK 13,J N Num, Bharathnagar,sathagalli -Mysuru

Date of Issue: 09-08-17  
Corporation Health Officer  
Commissioner MCC

**ನಂಜನಗೂಡು ನಗರ ಸಭೆ  
CITY MUNICIPAL COUNCIL, NANJANGUD  
IDENTITY CARD**

Name : KANNAMMA  
Ward No : 09  
Occupation : WASTE PICKER  
D.O.B / Age : 45  
Address : Rajaji Colony, Nanjangudu

Date Of Issue : 26/12/2017  
S.H.I  
ENV. ENGR  
Commissioner

**ತುಮಕೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ  
ಹಾಗೂ ಹಸಿರು ದಳ ಸಹಯೋಗದೊಂದಿಗೆ  
IDENTITY CARD**

Name : Gowamma  
Ward No : 14  
Occupation: Itinerant buyer  
D.O.B / Age : 36  
Address : Behind Gubbi veeranna kalashetra, Ballinakatte, Tumkur

ID No. : TMC022  
Gender: Female  
Co-founder Hasru Dala  
Commissioner, Tumkur



# BENGALURU DRY WASTE COLLECTION CENTRE MODEL

# Dry Waste Collection Centre (DWCC)



“Dry Waste Collection Centre or DWCC” means a decentralised waste management facility to aggregate, store, sort and handle Non-Biodegradable Waste that is managed by BBMP through Resource Organisations (RO) operated by waste pickers/ informal waste collectors/ Self Help Groups related to waste picking in line with Rule 15(c) and (d) of SWM Rules, 2016.

The Resource Organisation would be an initial intermediary supporting layer whose ultimate aim would be to empower waste pickers in the medium run to manage the centres

## Demonstrated operation of Dry Waste Collection Center (DWCC)



- Sorts, grades and trades recyclables and send the Segregated Combustible Fraction to co-processing
- The infrastructure is built by local government, managed by Wastepicker with ID card or SHGs started in Bengaluru, now it's a state policy for decentralised management.
- Data Capture is the key for traceability, also linked to payment of door to door collection

## Dry Waste Collection Centre (DWCC)

### Tri party agreement

between



**Waste Picker**



**Local Body**



**Resource Organisation**

### Best Practice:

- No user fee from the generator and part payment is provided by BBMP of Rs 23,878
- Waste pickers pick dry waste from door to door through dry waste collection vehicle
- 1%-2 % citizens drop off dry waste at the DWCC
- 2%- 3% PK drop off
- Infrastructure and land to be provided by the Urban local body

# MOA with the Local Body





**INDIA NON JUDICIAL**  
**Government of Karnataka**

**e-Stamp**

Certificate No.	: IN-KA31234181664639P
Certificate Issued Date	: 10-May-2017 02:07 PM
Account Reference	: NONACC (F)/ kakafci08/ BANGALORE/ KA-BA
Unique Doc. Reference	: SUBIN-KAKAKSFCL0811064139663598P
Purchased by	: ALLABAKASH
Description of Document	: Article 37 Note or Memorandum
Description	: M O U
Consideration Price (Rs.)	: 0 (Zero)
First Party	: BBMP
Second Party	: ALLABAKASH
Stamp Duty Paid By	: ALLABAKASH
Stamp Duty Amount(Rs.)	: 200 (Two Hundred only)



UNIVERSAL CREDIT SOCIETY (M)

---

Please write or type below this line.

**Memorandum of Understanding**

The proposal for operation and maintenance of Dry waste collection centers (DWCC) in RR Nagara (160) Ward, RR Nagara Zone, Bengaluru.

This Memorandum of Understanding is made and executed on 3rd July 2017 at Bengaluru.

  
 ALLABAKASH

  
 Archana



## MEMORANDUM OF AGREEMENT

### (MOA)

*between*

**Bruhat Bengaluru Mahanagara Palike ("BBMP")**

acting through

**its authorised Officer on this behalf**

*and*

**ALLA BAKASH**

**(Dry Waste Collection Centre Operator)**

*for*

**Collection and Transportation of Dry waste and its disposal**

**Ward Number 160**

*R.R*  
**South Zone**

## Information Education & Communication



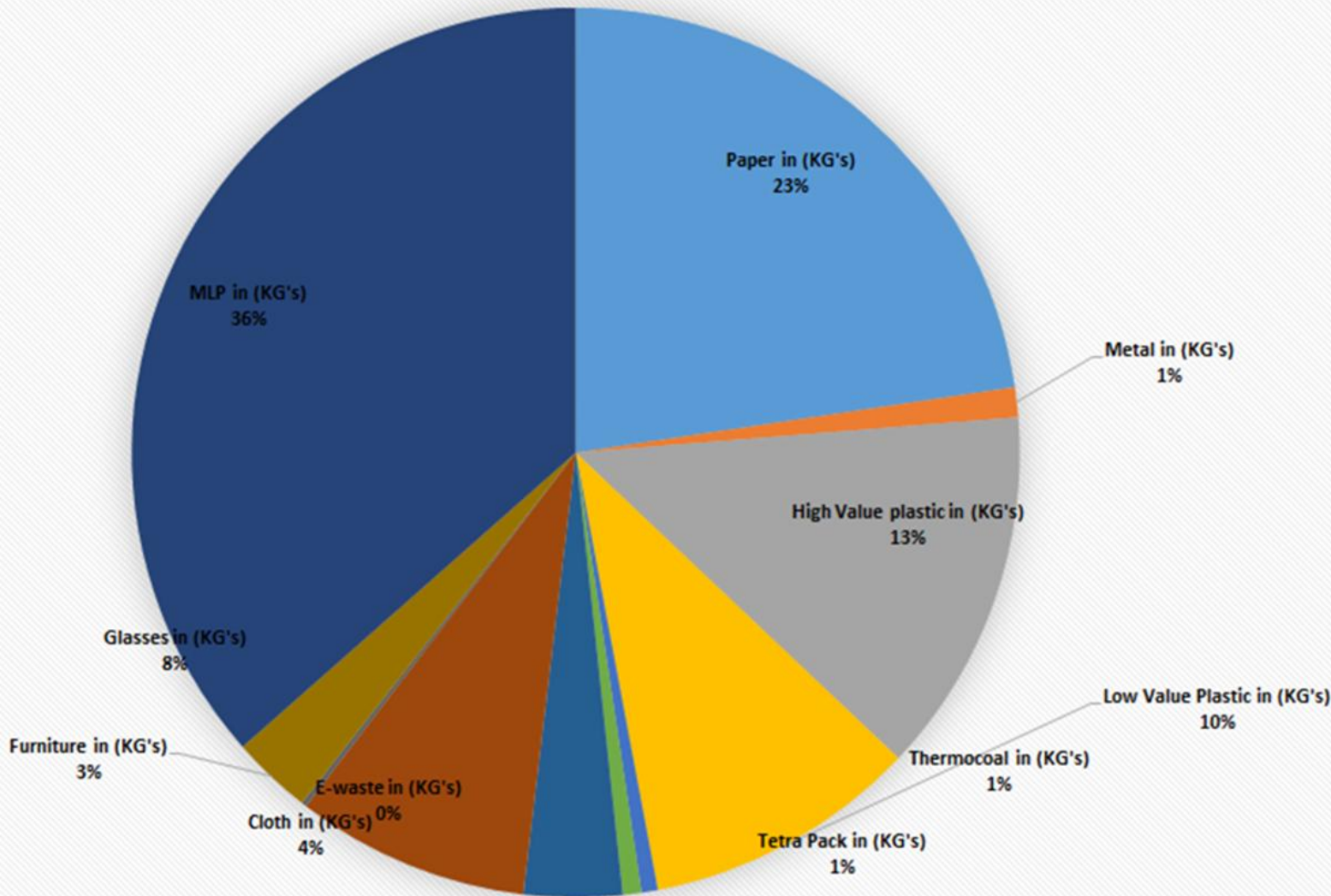
- Awareness program to educate the residents about the segregation of waste.
- Monitor segregation levels in the ward.
- Conduct compost santhe.
- Engagement of citizens for the awareness programs.



# SWM VEHICLES



# COMPOSITION OF DRY WASTE FOR 39 WARDS



High Value waste : 15%  
-Metal- 1%  
-High Value Plastic-14%

Low value/ no value: 85%  
-Paper- 23%  
-MLP- 36%  
-Glasses- 8%  
-Furniture-3%  
-Cloth-4%  
-E-waste-0%  
-Tetra Pack-1%  
-Thermocol- 1%  
- Low value plastic-10%

# IMPACT OF DWCC :INCLUSION OF WASTE PICKERS



*Decentralised aggregation center for non- organic waste through micro entrepreneurs*



## Once waste pickers, now successful managers

CHITRA V. RAMANI

Most of the city's waste managers, including pourakarmikas, are women. Of the 181 dry waste collection centres (DWCC), many are managed by women who were formerly waste pickers. These women have not only transformed their lives, but are also helping other women move up. The batch of women managers has also earned the respect of the communities they work with. Waste management experts say women have the drive and desire to do something good for the city and also improve their lives in the same process. For this, they are ready to face all odds and circumstances, the experts point out. These are some of the women waste managers who have turned around their lives.

PHOTOS: CHITRA V. RAMANI AND SUDHAKARA IAN

### Subbamma

"I used to face verbal abuse on a daily basis, and also harassment from the police. People used to look at me with suspicion. I lived in a hutment and had no idea where my next meal would come from," said Subbamma, a former waste picker. She now manages the Kamanagar DWCC, sometimes guiding local residents about waste segregation.

"It has been a long five years. My journey has been

ups and downs. I now live with my three school-going sons, and my daughter and her husband in a rented house," she said proudly.

Though she was earlier collecting dry waste going door to door in the ward, the garbage contractors now drop off the dry waste at the DWCC every day. "We get around 400 kg of dry waste on an average every day. Though I am not making much, I'm satisfied," she said.

### Annamma

Annamma has been managing the DWCC at Kamalashipalya for the past five years. From being a waste picker for nearly 30 years, Ms. Annamma now is no less than an entrepreneur, employing eight women who were also formerly waste pickers themselves.

"Initially, I hesitated to take responsibility of managing a centre. Later, I changed my mind ... I knew

the basics of segregation. I'm happy that my decision has brought me this far," she said. Life as a waste picker was difficult and she is now leading a comfortable life. "What gives me immense satisfaction is that I have helped other waste pickers out of their situation," she said.

Ms. Annamma's centre collects nearly two tonnes of dry waste every day.

### Geetha

Four years ago when Geetha was entrusted with the Rajagopalnagar DWCC, she faced a lot of difficulties for the initial three months. She used to work at another DWCC before she was asked to manage the Rajagopalnagar one. "I used to regret my decision ... I didn't have money for the vehicles, the contractors were creating problems. I was incurring a loss," she said, and added that she persevered to overcome her problems.

Today, Ms. Geetha leads a team of eight men, who work with her at the DWCC. "With four vehicles, I am able to collect more than one tonne of dry waste going door to door every day. We have divided the area into blocks and have a rota for collection of dry waste from each of these blocks."

### Kumuda

As early as 6 a.m. every day, Kumuda and her team of 12 women, who were formerly waste pickers like her, come to the Kattiguppe DWCC to start work. Ms. Kumuda, who manages the DWCC, instructs the three drivers on the areas they need to go to collect dry waste. "I have to start early. The DWCC is on the main road and the shops next to the centre raise objections. We are also grappling with limited space," she said. Ms. Kumuda manages to collect more than two tonnes of dry waste a day, earning her a revenue of around ₹1 lakh a month. "But that is hardly enough. After payment of wages and expenditure towards diesel and maintenance of the three vehicles, there is hardly anything left. Some months, I am forced to borrow to meet expenses," she said.

### Sampangi

Over the past seven months, Sampangi's confidence has grown by leaps and bounds. As a waste picker, she was wary of interacting with people. Today, she has no problems. She has been effectively managing a team of 10 former waste pickers at the Kumaraswamy Layout DWCC.

"I knew nothing when I started. Over the past few months, with a lot of cooperation from the BBMP's health inspector and supervisor, I am able to collect around two tonnes of dry waste a day," she said, and added that the local residents have also been cooperative. The centre lacks water connection and

does not have a functional toilet. That has not deterred Ms. Sampangi and her team. "The only problem I face is that most recyclables get picked by the pourakarmikas and contractors themselves and I'm left with low-value waste that just eats into the space at the centre," she said.

THE HINDU  
28/12/2017

**Total number of DWCC is 88 and more 50% percent of are women lead**

# Climate (GHG) Impact of 7 DWCCs

## Highlights

Hasiru Dala's Dry Waste Collection Centres (DWCCs) in Jayanagar have achieved a remarkable reduction of **1,743 tonnes** of CO<sub>2</sub> equivalent per year — equivalent to the carbon sequestered by over **2,000 acres of forest!** Additionally, the Textile Waste Management project mitigates **17.11 tonnes** of CO<sub>2</sub>, while the Lane Composter contributes another **3.03 tonnes**.

## Recommendations:

- State investments in GHG emissions reduction infrastructure.
- Upgrading DWCC facilities, including fire insurance for increased processing capacity.
- Expanding DWCCs across all wards and integrating waste workers into the formal system.



# The investment needed to develop strong service providers out of waste pickers



- Organizing waste picker from 2010 – changing their perspective on their work
- Getting occupational ID card that brought in respect and dignity to their work
- Trained waste pickers to understand the larger waste eco system and prepare them for Just Transition
- Creating financial inclusion opportunities in group, Govt and private space
- Capacity building : Keeping data, managing finance, providing financial service





- Creating oral and visual materials for learning
- Films on Banking
- Overdraft process
- EPR understanding
- How to register a company
- How to pay ESI and PF
- Why social security for the workers
- Professionalism: continuous process

- Leadership training : 2 levels
- Climate Champions training
- Creating support services - for financial and traceability
- Professionalising their place of work

# FINANCIAL MECHANISM FOR ALL LOCAL BODIES

- **Collaborated efforts:**

- Local government, UDD, Welafe, NULM etc..

- **NAMASTE -**

Along with Alliance of Indian Waste Pickers advocated for integration of waste pickers in NAMASTE scheme which focuses on

- Enumeration of waste pickers and providing Occupational ID card,
- Occupational safety training on occupational hazard and safe handling
- Provision of PPE kits specific to season and need based
- Health insurance coverage under Ayushman Bharath - PMJAY
- Capital subsidy up to Rs 5 Lakh for waste collection vehicle for Dry Waste Collection Centres (DWCC) to waste pickers and their Self Help Groups (SHGs), incase they are organised as operators cum entrepreneurs.

- **Money for RO from SBM**

Leverage the City Livelihood Center (CLC) to include the informal sector in the SWM system.

- We can delve deeper into additional financing options in a one on one meeting, if interested.



# CASH INFLOW & OUTFLOW

Without Baler & Conveyor Belt

Expenses per month	Income per month
Salaries - Rs 2,34,000	Income from sales - Rs 4,95,181
One time cost - Rs 11,666	Less: 25%
Maintenance cost - Rs 54,040	
<b>Rs 2,99,706</b>	<b>Rs 3,71,386</b>

With Baler & Conveyor Belt (*BBMP has to provide the baling machine & conveyor belt*)

Expenses per month	Income per month
Salaries - Rs 2,60,000	Income from sales - Rs 4,95,181
One time cost - Rs 1,39,666	Less: 25%
Maintenance cost - Rs 58,240	
<b>Rs 4,57,906</b>	<b>Rs 3,71,386</b>

# CASH INFLOW & OUTFLOW WITH VEHICLE COST



Without Baler & Conveyor Belt

## Expenses per month

Salaries - Rs 2,34,000  
One time cost - Rs 11,666  
Maintenance cost - Rs 54,040  
Vehicle cost & salaries - Rs 1,49,530

**Rs 4,49,236**

## Income per month

Income from sales - Rs 4,95,181

**Rs 4,95,181**

With Baler & Conveyor Belt (*BBMP has to provide the baling machine & conveyor belt*)

## Expenses per month

Salaries - Rs 2,60,000  
One time cost - Rs 1,39,666  
Maintenance cost - Rs 58,250  
Vehicle cost & salaries - Rs 1,49,530

**Rs 6,07,446**

## Income per month

Income from sales - Rs 4,95,181

**Rs 4,95,181**

## SOME OF OUR RECOMMENDATIONS TO FILL THE GAP

### 3 OPTIONS :

- 1) The direct collection cost of waste by waste pickers to be borne by the BBMP at a cost of Rs. 23,878 per vehicle per month. (it could be through user fees or direct payment by ULB.
- 2) The BBMP to bear the labour cost of providing salaries to the workers of the DWCC.
- 3) The Extended Producer Responsibility (EPR) to cover the cost of the DWCC operators at a rate of Rs. 2.5 per kilo.

**Note:** *The high material quality of the waste considered is the reason why the operator of DWCC is able to make a profit. However, this profitability depends on the demographics and the composition of incoming waste in the ward. Often Rs. 3 to 5 per kilo viability gap funding is required.*



THANK YOU