



PUNE MUNICIPAL CORPORATION & SWaCH Pune Cooperative (Solid Waste Collection & Handling)

Integrating the Informal Sector in Municipal Waste Management



Waste-pickers Organizing in Pune



- 1993:
 - Formation of the Kagad Kach Patra Kashtakari Panchayat – Trade Union of Informal waste-pickers, waste-buyers in Pune & Pimpri-Chinchwad
 - Occupational Identity
- 2007:
 - SWaCH established as a Joint Project of the PMC and Kagad Kach Patra Kashtakari Panchayat
 - 1st such entity created through municipal action in India (GB Res. No. 476 dated 22/02/2007 confirmed by State GR PMC 3007/181A/Pr.Kr.324/Navi-22)
 - Cooperative of waste-pickers and other urban poor – under guidance of PMC MC and UCD Dept





History of SWaCH in PMC

1996

ID Cards to Waste-pickers

2007

Joint establishment by
PMC & KKPKP

2005

Pilot integration of
waste-pickers (10,000
properties)

Formation

2008 – 2013

1900 waste-pickers
covering 3.5 L
properties

2014-2015: 1800
waste-pickers, 3 Lakh
properties

Self-sustainability

2016

Second 5 year contract
cycle

Expansion

2020

95% operation in Covid-
19 Lockdown

2019

8.4 lakh covered
(70%), including 11 new
villages

2020+

EPR based recycling
Cooperative Scrap
Stores

Zero Waste
Composting,
Biogas, Recycling



ENHANCED LIVELIHOODS & SOCIAL SECURITY

- Integration of informal waste-pickers
- Maximum livelihoods generation
- **Direct User Fee** – Transparency, Accountability, Efficiency, Relationship with Citizens, Women Empowerment

Year	Residential	Commercial	Slums*
IV – 2019	Rs. 65 p.m.	Rs. 130 p.m.	Rs. 45 p.m.
V - 2020	Rs. 70 p.m.	Rs. 140 p.m.	Rs. 50 p.m.

*Slum subsidy of Rs. 10 p.m. per property

- Waste-pickers: right to recyclables - direct diversion from source
- 8+ municipal schemes accessed on occupational identity (subsidized hospitalization, health & life insurance, contributory pension etc.)



Current Status	
Properties covered (All)	8.4 Lakh / 12 Lakh
Slum properties covered (sub-set)	1.65 Lakh / 2.3 Lakh
Total % Covered	70%
Total waste handled	1450 Tons per day / 1950 TPD
Diverted to Recycling	220 Tons per day
Segregation	98%
Waste-pickers	3500



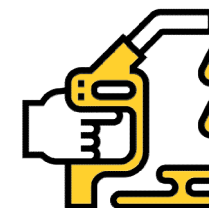
5-Year Recycling Benefits to PMC



**23 Lakh trees
saved**



**8 Lakh MT CO2
Emission
avoided**



**34 Cr litres
Consumption
avoided**



**Rs. 90 Cr saved
through diversion**



**Each waste-picker saves
Rs. 60,000 p.a.**



COST-BENEFIT ANALYSIS



COSTS

	Annual	5 Years
Administrative Expenses	3.75 Crore (no-profit)	17.79 Cr
Equipment	2 Crore	7 Cr
Slum Subsidy (Rs. 10 per household per month)	2.4 Crore (@100%)	5.5 Cr (Actual)
Total Expenditure	<u>8.15 Crore</u>	<u>30.29 Crore</u>
User Fee paid to waste-pickers (Approx)	<u>60 Crore</u>	<u>210 Crore</u>

SAVINGS

	Annual	5 Years
Transportation Cost (Rs. 2200 Per Ton * 220 TPD)	17 Crore	73 Crore
Waste Processing Cost (Rs. 500 * 220 TPD)	4 Crore	17 Cr
Salary Costs Reduced (Rs. 22,000 * 3500 * 12)	92 Crore	380 Cr
Total Savings (At current coverage)	<u>113 Crore</u>	<u>470 Cr</u>
Contractor based alternative	<u>180 – 290 Cr p.a.</u>	<u>825 – 1400 Cr</u>

- The PMC-Swach Model saves the city atleast thrice as much as it costs, in addition to segregation and decentralization facilitating processing of waste.



INTEGRATION OF ZERO WASTE ELEMENTS

- ZW Project (BWGs): Promotion of In-situ composting through consistent, intensive IEC, direct citizen engagement
- Red Dot Campaign for segregated management of Sanitary Waste
- Extended Producer Responsibility (EPR): based diversion of low value recyclables (ITC)
- Consolidation & integration of the informal scrap shops & market
- Value addition to recyclables through technology intervention and project support (e.g. EU - Protoprint 3D)
- Exchange & Resale of E-Waste, Old Clothes, Furniture, Books (V-Collect)





Replication



Replication: Elements

- State Intervention – Partnership with waste-picker organisations – SWM 2016 Rules
- Identifying, Organising, training, empowering waste-pickers
- Designing waste management systems to integrate waste-pickers
- Direct User Fees
- Provision of Space for sorting, recycling, trade of recyclables
- Priority in EPR based collection systems
- Right Over Recyclables (Vs. Tipping Fees)
- Zero waste – Composting, Biogas,
- Recycling Markets
- Moving away from Incineration / WTE technology