

# Circular Cities in Practice: Transforming Plastic Waste through Community Innovation

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Gates Foundation

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# About All India Institute of Local Self Government

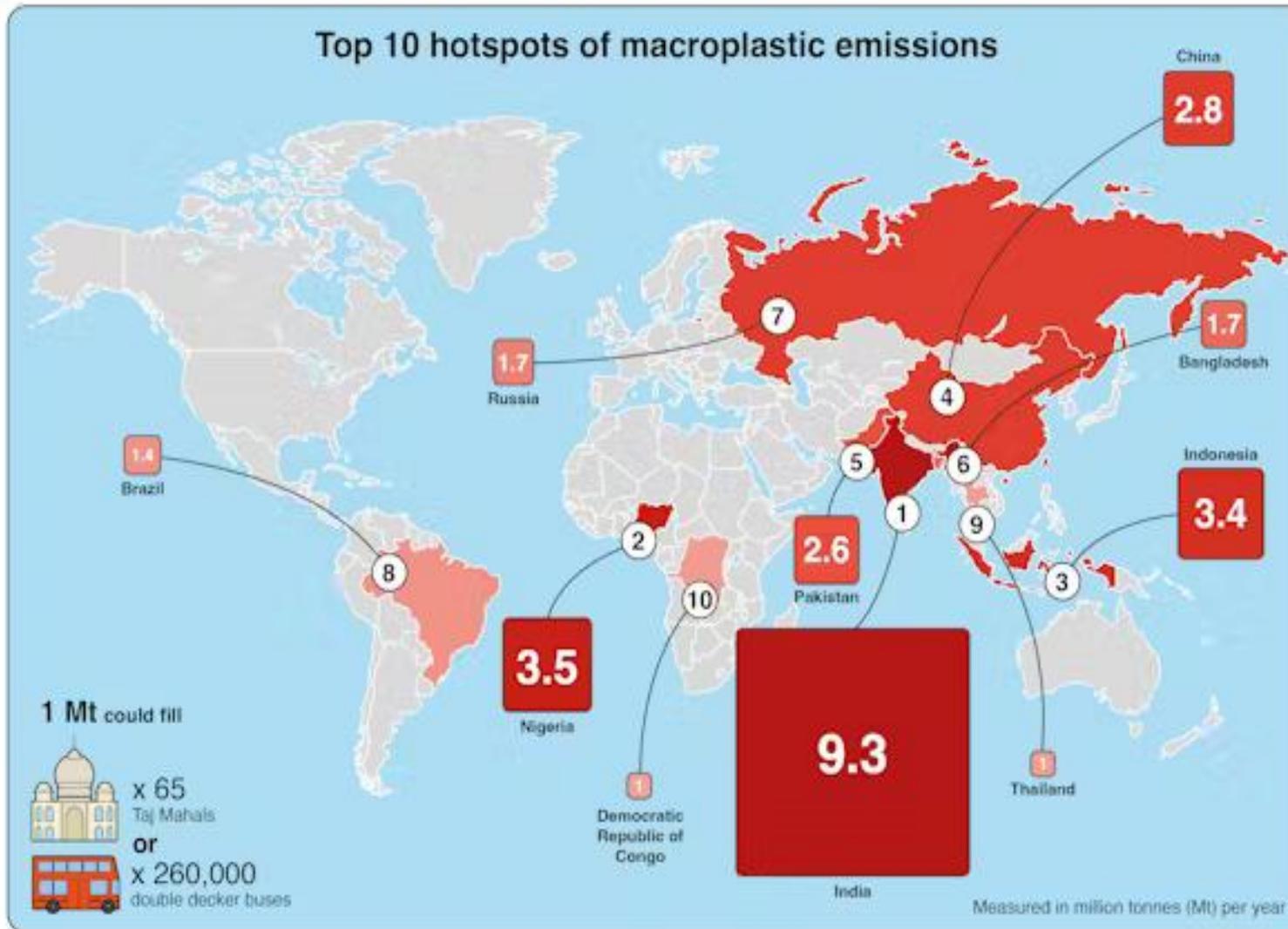
*Established in 1926 with an aim of supporting Governments : Marking a Century of Transformative Impact*

**Presence across India** through 45+ regional centers



- **A premier, Government recognized Institute with 100 years of legacy of working in close association with the State and Central Government, National and International Agencies in the field of - Education, Training Research, Advisory, Advocacy, Consultancy.**
- **Empaneled by national and state government** under various missions like SBM, AMRUT, Smart Cities Mission, PMAY, JJM, NSKFDC, NAMASTE etc. for providing technical / policy / capacity building support to national / state and local governments across India
- **Institutions anchored at AILSG** – RCUES Mumbai (regional center of MoHUA), Secretariat of Maha WASH & ES Coalition, supported by UNICEF Maharashtra.

# Background



**India is the world's largest plastic polluter, releasing enough plastic waste into the environment each year to fill **604 Taj Mahals**.**

**Regional Hotspot: Maharashtra - India's highest plastic waste-producing state, generating **311,254 tonnes per year**.**

(Source: <https://www.globalplasticaction.org/maharashtra-state>)

*First of its kind state-level coalition of govt and non-govt. stakeholders*

Diverse set of **innovative approaches** to resonate with multiple beneficiaries from the Central Government to the communities including sanitation workers, SHGs, youth, vulnerable communities etc.

Engagement with state departments **10+**

Direct involvement with ULBs **95+**

Development organizations' participation **45+**

Reached to - **411 ULBs** and **25,000+ RLBs** in Maharashtra

*Holistic approach for service delivery in WASH & environmental sustainability by **uniting state government, local bodies and development organizations through strategic partnerships and evidence-based upstream advocacy.***

## Centre and State Departments

**MoHUA, State - Govt. of Maharashtra (10 Depts.) – MoUs : Strategic Support**

### Upstream Advocacy



### Strategic positioning of the Secretariat

Donors/ CSR / Pvt. +

Division and District Govt.

Development Partners

ULBs and GPs

(Non-Profit/ for-profit/ NGOs/ Academia +)

### Communities & Govt. Functionaries



Community Based Organizations



Women



Children & Youth



Sanitation Workers

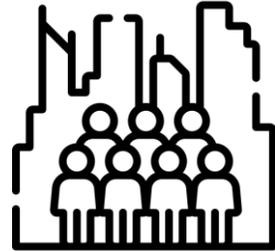


# Driving Sustainable Change - Localizing Plastic Action through Communities (LPAC)

Demonstration of inclusive model/s for circular economy and resource recovery in plastic/dry waste management.



Connecting Policy to Local Implementation



City-level Implementation for Replication



Institutionalizing Circularity



Scaling through Convergence



# Intervention areas of #LPAC

## PIMPRI CHINCHWAD MUNICIPAL CORPORATION (PCMC)

- Area: **181 Sq. Km**
- Number of wards: 32
- Population: Current (estimated)- **35,34,382**  
As per Census 2011 – 17,65,539

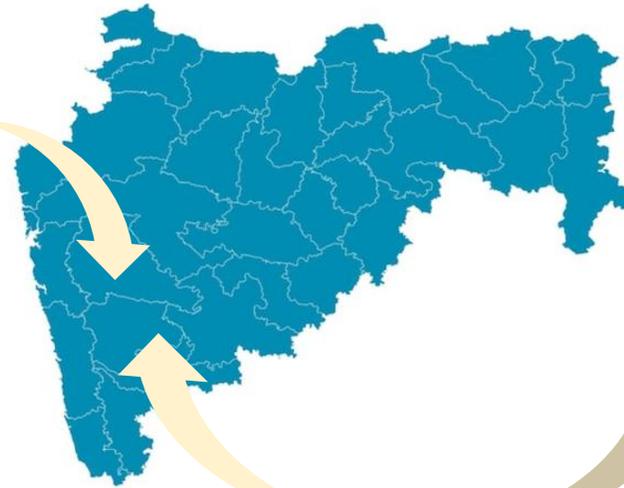
*Fifth most populated city in Maharashtra & a prominent industrial hub.*



## SATARA MUNICIPAL COUNCIL (SMC)

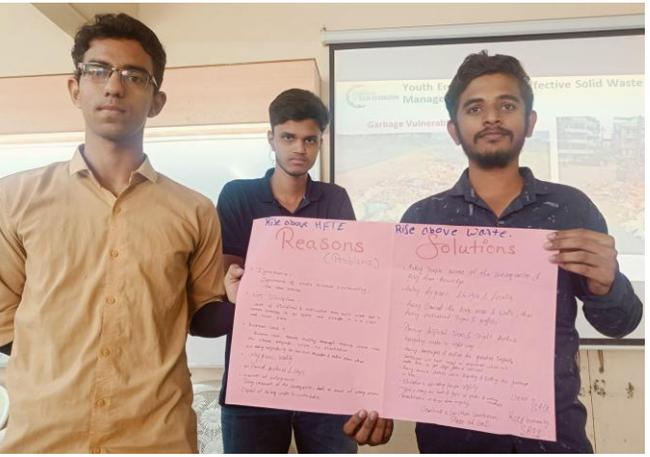
- Area: **26 Sq. Km**
- Number of wards: 25
- Population: Current (estimated)- **2,31,885**  
As per Census 2011 – 185680

*City of historical background. Gets its name by the seven forts (Sat - Tara) around the city.*



# Multi - Stakeholder approach to achieve circularity

Engagement in collection drives, awareness activities resulting in behaviour change



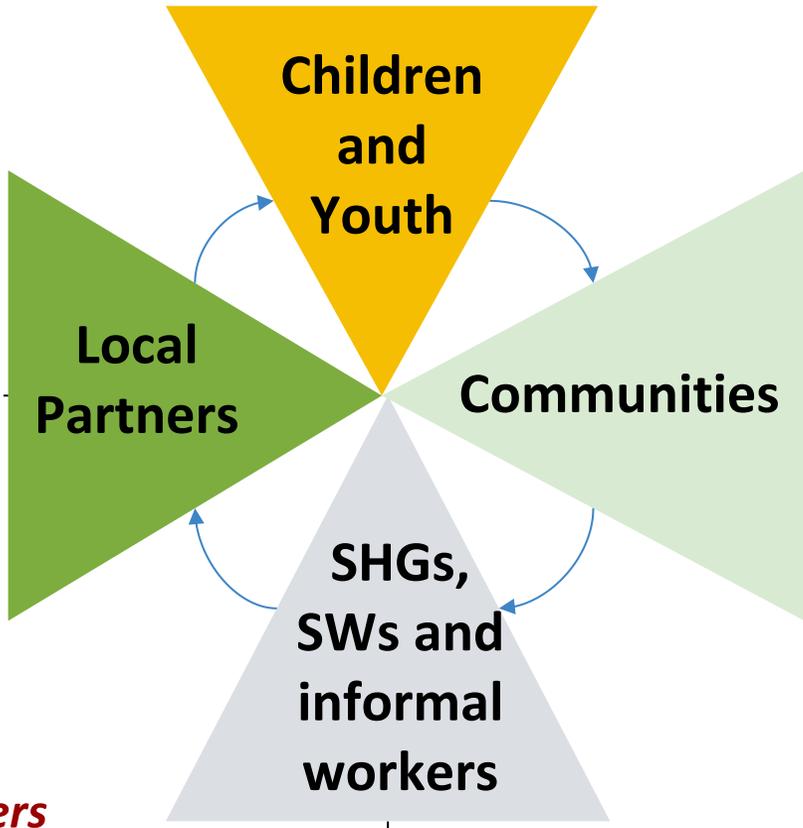
121 Govt. Colleges

162 Govt. Schools

Creating forward linkages to demonstrate circularity



30 + Stakeholders / startups, mapped



Source Segregation & Behaviour Change to promote circularity



RWA's, Slums, existing initiatives mapped

Engagement in transport, processing of plastic waste generating alternative livelihood opportunities



2000+ SHG in both the cities

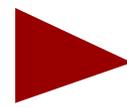
# Implementing Institutional Change through Holistic & Localized Approach

Localized Mechanisms for Implementation - via *two two-pronged approach*

## 1 **Demonstration** of model of Plastic waste circularity model

*Strengthening systems throughout value chain*

- **Awareness and Behaviour change** via - children and youth as agents of change
- **Strengthening Segregation and Collection** - via SHGs, children, involving local NGOs etc. to improve plastic waste segregation and collection efficiency
- Creating **Forward Linkages & Alternative Livelihood** - localised model for **maximizing the value of MLP waste** - *integrating SHGs, startups, and entrepreneurship initiatives for sustainable livelihoods.*



## 2 **Institutionalisation** of the model of plastic waste circularity

- **Embedding Circularity in Municipal Systems** - ULB policies, action plans, and budgets, ensuring alignment with state and national waste management guidelines.
- **Fostering Multi-Stakeholder Collaboration** - Engaging private sector, startups, and civil society to create structured partnerships
- **Strengthening Governance & Capacity Building** Building capacities of SHGs, NGOs, and waste workers to sustain and scale the model.

# Implementation of Localized Approach to Develop City-Specific Pilot Demonstration of Plastic Circularity



**Baseline Assessment**  
to understand the city landscape, social behaviour, and challenges related to plastic waste management practices



**City Visioning workshop** brought multiple stakeholders together with the local body to align municipal priorities with community aspirations



**Identify Implementation Partners**  
co-designed solutions with selected organizations and grassroots leaders to implement plastic circularity pilots in project cities



**Demonstration of Circularity**  
in schools and colleges including collection drives, SHG segregation, local recycler involvement, and a mobile app for real-time data capture

# Demonstration of Circularity of Plastic Waste in PCMC

Bringing together city-wide initiatives in plastic waste management to enable localized circularity of waste

## Decentralized segregation and storage of post-consumer plastic waste

- Engaging schools and colleges through NGOs for collection and segregation of post-consumer plastics
- Building on initial wet-waste management, SHG members identified through City Visioning Workshops were empowered with added income via linkages to local recyclers.
- This transition led to the successful collection of 40 kg of MLP plastic in the first campaign.
- Leveraging decentralized NGO storage units to strengthen community-based waste management



## Leveraging Localized Recycling Initiatives



Supporting grassroots organizations to formalize partnerships with youth-led startups, advancing decentralized plastic recycling and reducing landfill burden.

## Scale up



Phase-wise implementation in a selected ward/zone followed by expansion across multiple zones

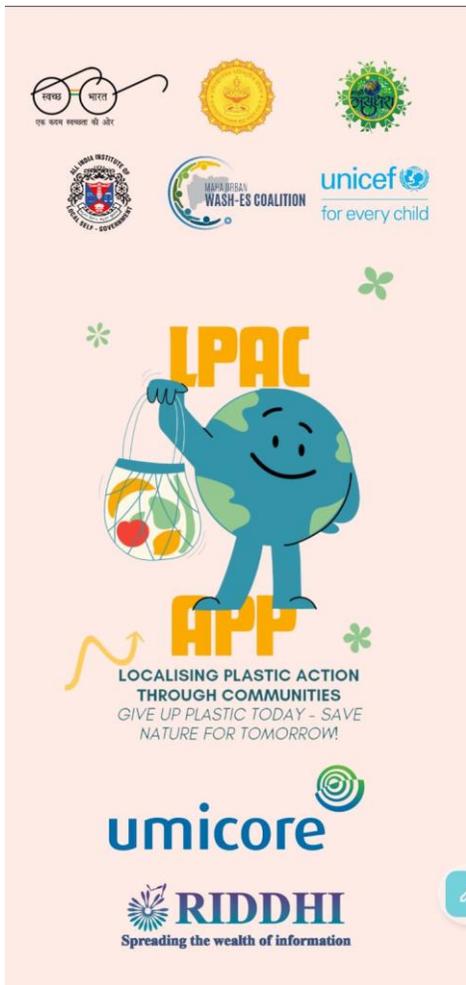
# Demonstration of Circularity of Plastic Waste in SMC

Establishing systems for waste segregation and decentralized plastic management by empowering youth-led entrepreneurship models

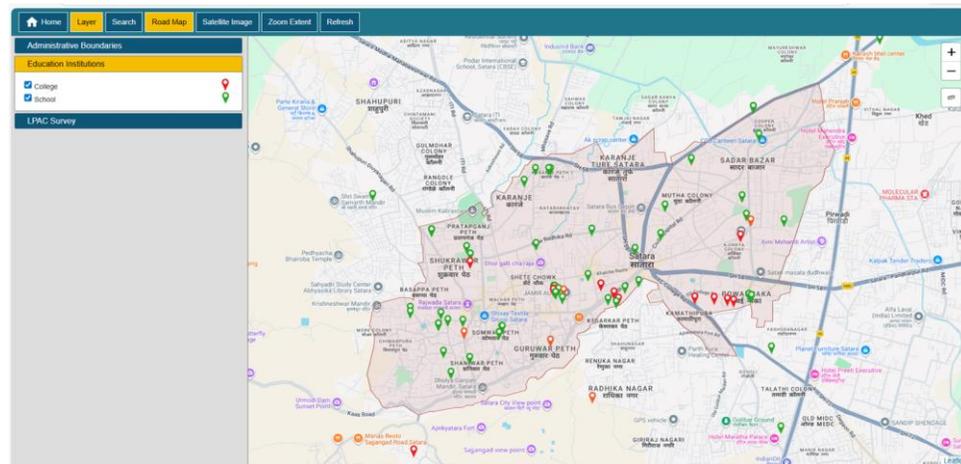
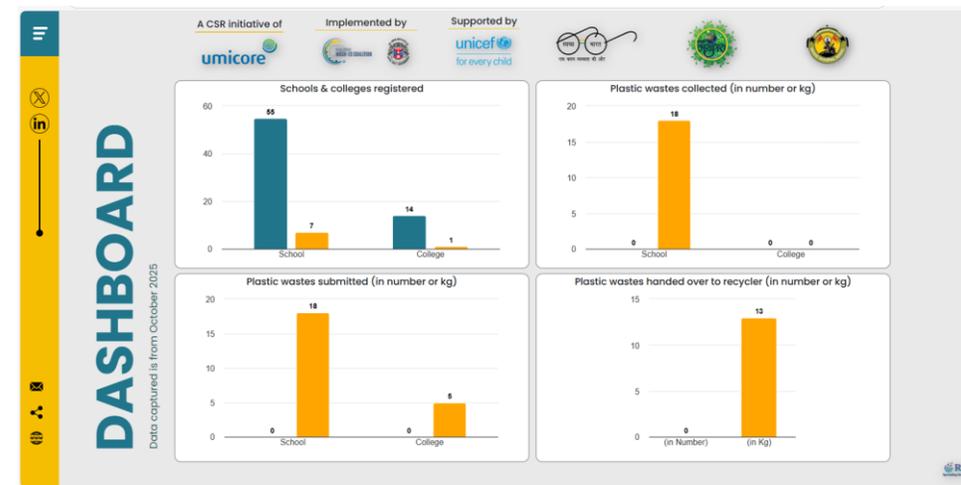
- **Conducting periodic plastic collection drives in educational institutions through IEC and awareness sessions, in partnership with youth-led grassroots movements**
- **Leveraging ULB vehicles for periodic collection of segregated waste, establishing forward linkages for plastic recycling to reduce landfill burden**
- **formalizing partnerships with waste picker organizations by providing incentives and additional income for segregation ensuring scale-up of the initiative across neighbouring villages**



# A dedicated mobile app and web dashboard track waste collection and processing, generating local data and ensuring transparency to drive localized climate action

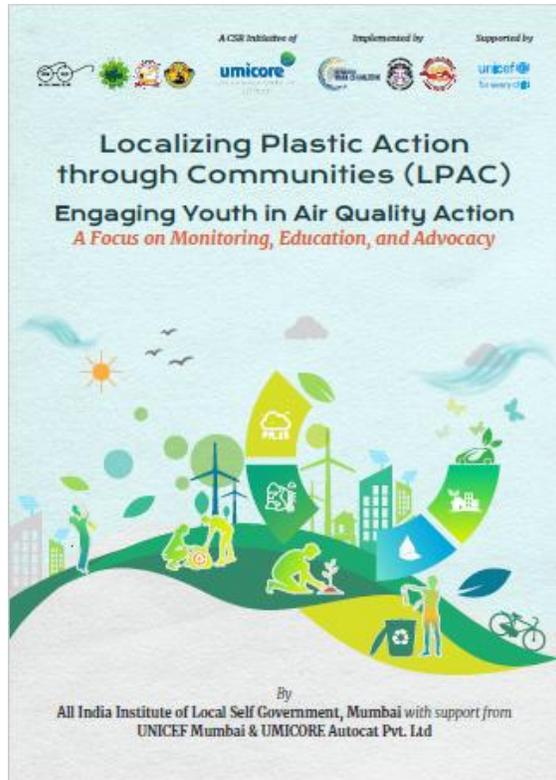


LPAC Mobile App



LPAC Web Dashboard

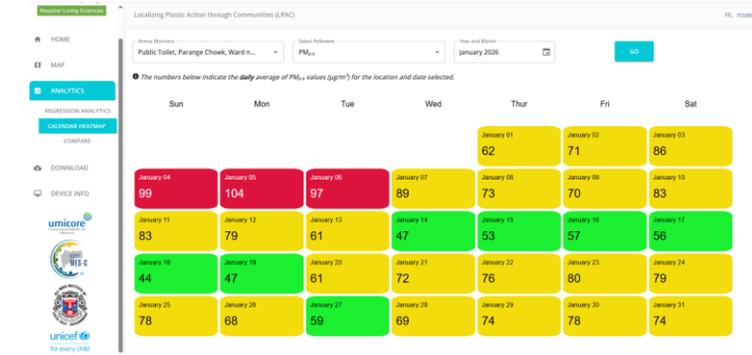
# Air quality advocacy for youth in project cities through a three-step process: workshops on the policy landscape, hands-on training with monitoring devices and dashboards, and drafting an Air Quality Manifesto to present to city officials, raising awareness on pollution and public health



Guidebook on Air Quality Policy Landscape



Low-cost real-time Air Quality Monitoring sensors installed across pollution hotspots in Satara



Youth engagement in air quality advocacy through workshops and hands-on demonstrations with monitoring tools



# Thank You

**Global South Academic Conclave on WASH and Climate 2026**

**CWAS** CENTER  
FOR WATER  
AND SANITATION  
**CRDF** CEPT  
UNIVERSITY

**CEPT**  
UNIVERSITY  
FACULTY  
OF PLANNING

**Gates Foundation**

**viega** foundation