

# Localizing Plastic Action and Achieving Circularity through Youth, Children and Communities as Agents of Change

Shruti Joshi

All India Institute of Local Self Government, Mumbai  
(Secretariat, Maha Urban WASH & ES Coalition)

**Global South Academic Conclave on WASH and Climate 2025**

21st - 23rd February 2025, Ahmedabad



Gates Foundation

viega foundation



# All India Institute of Local Self Government , Mumbai

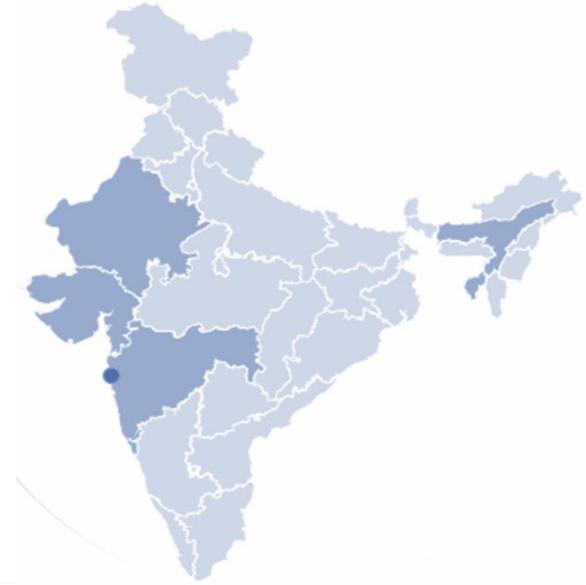
*The Regional Centre for Urban & Environmental Studies (RCUES) of  
All India Institute of Local Self Government (AIIISG), Mumbai*

*established and supported by the Ministry of Housing and Urban Affairs, Government of India (GoI)*



## AIIISG

a premier, Government recognized Institute working in close association with States and Central Government, National and International Agencies in the field of - Education, Training Research, Advisory, Advocacy, Consultancy

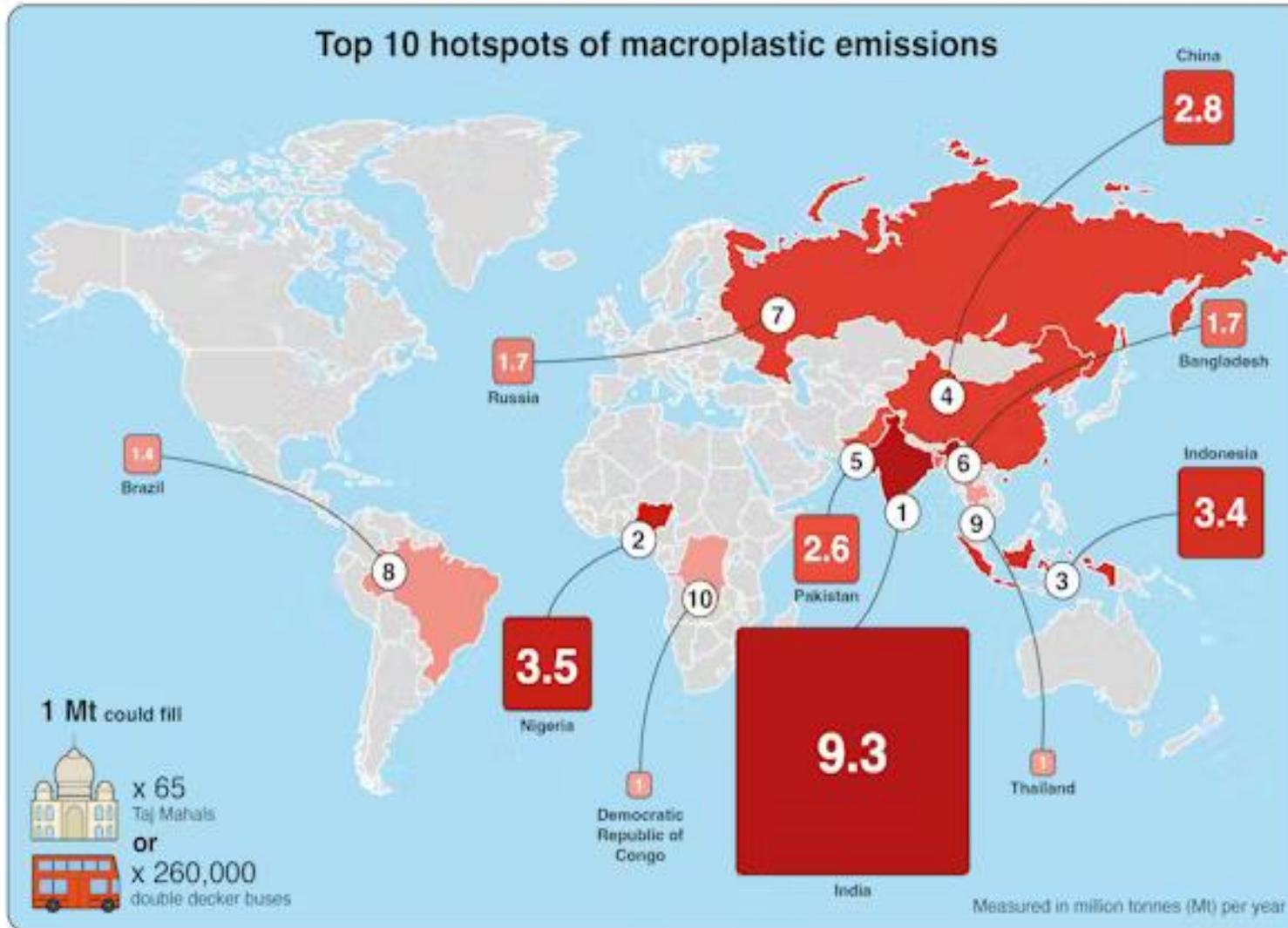


## RCUES

Serving primarily to – Rajasthan, Gujarat, Maharashtra, Goa, Assam, Tripura, Lakshadweep, Diu, Daman, Dadra- Nagar Haveli

- Empanelled as **'Swachhata Knowledge Partner (SKP)'** under SBM 2.0 by MoHUA, GoI
- Empanelled by MoHUA for providing Technical and Capacity Building Support to State and Local Governments. Also, partner with **NSDC**
- Partnership with **Urban Development Department, Department of Environment and Climate Change and Water Supply and Sanitation Department, GoM**, for providing technical, capacity building and research support in waste management
- Member of the Sector Expert Group for SBM 2.0, established by MoHUA & Leadership Group of the Global Plastic Action Partnership (Maharashtra) by World Economic Forum (WEF)

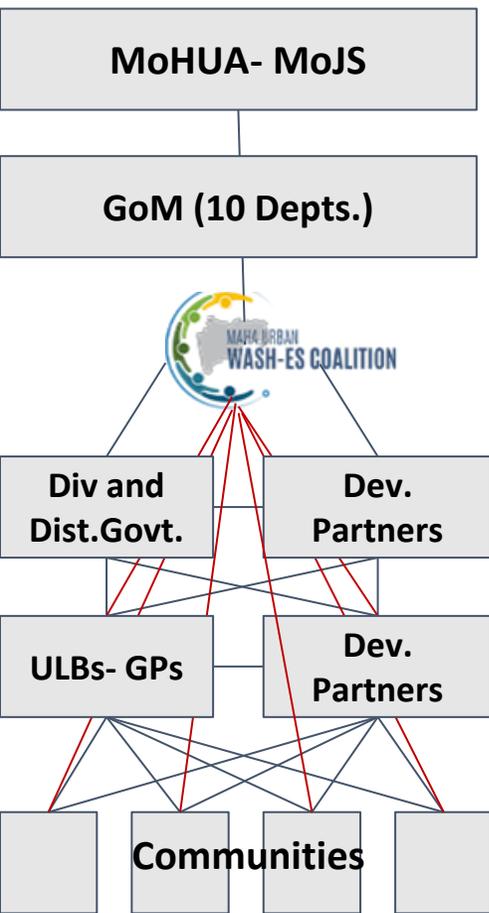
# Background



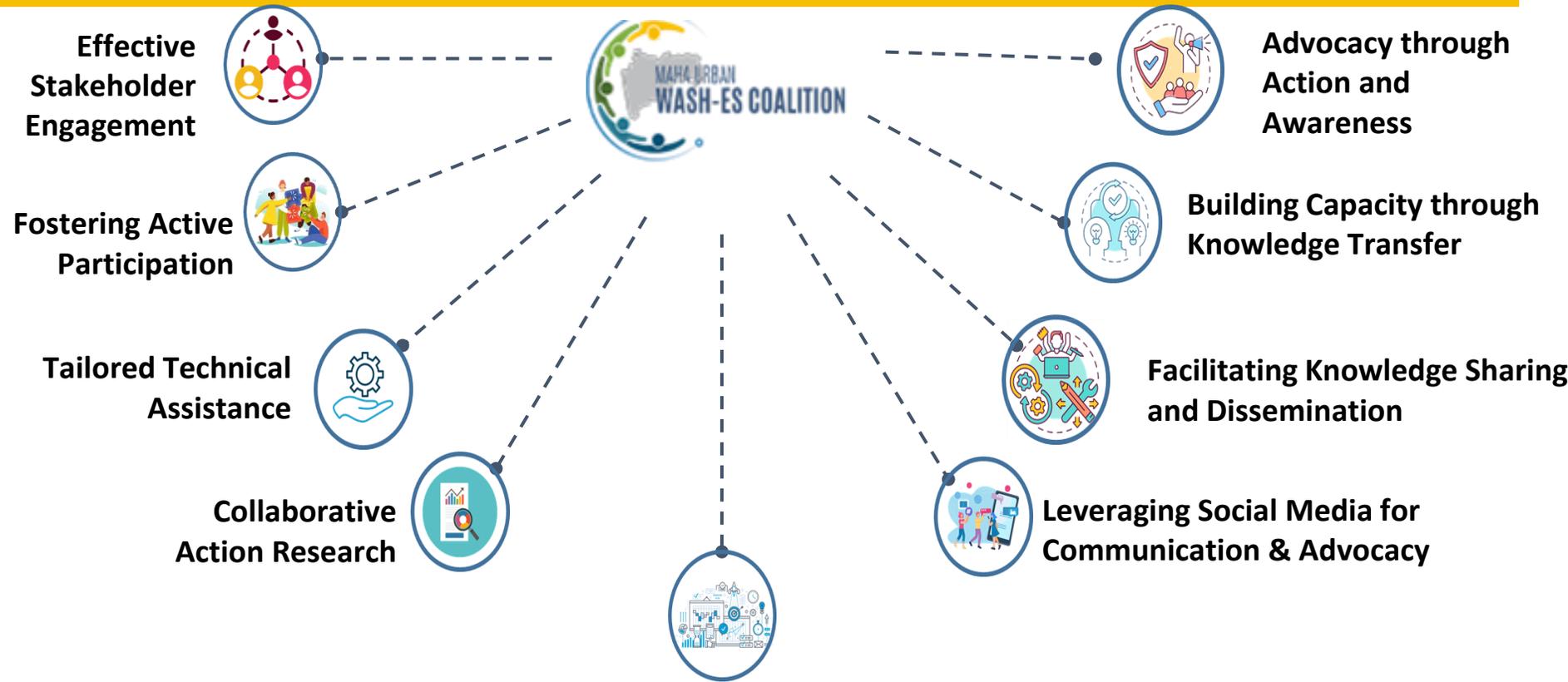
India is the world's largest plastic polluter, releasing enough plastic waste into the environment each year to fill **604 Taj Mahals**.

**Regional Hotspot: Maharashtra** - India's highest plastic waste-producing state, generating **311,254 tonnes per year**. (Source: <https://www.globalplasticaction.org/maharashtra-state>)

# The Maharashtra Urban WASH-ES Coalition fosters a holistic approach for service delivery in WASH & environmental sustainability by uniting state government, local NGOs, and national policymakers through strategic partnerships and evidence-based upstream advocacy.



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.



**Multi-Tiered Support for Implementation**

# Achieving Environmental Sustainability through involving young minds for a circular future - A Pilot Project

3

Urban Local Bodies

126

Schools

2000+

Teachers

1,50,000+

Students

11.7 MT

Total Plastic Waste collected in 4 months

45.1

Tonnes  
-ve CO<sub>2</sub> Emissions

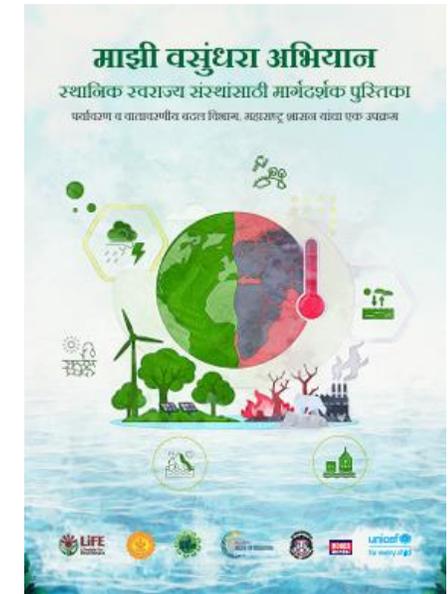
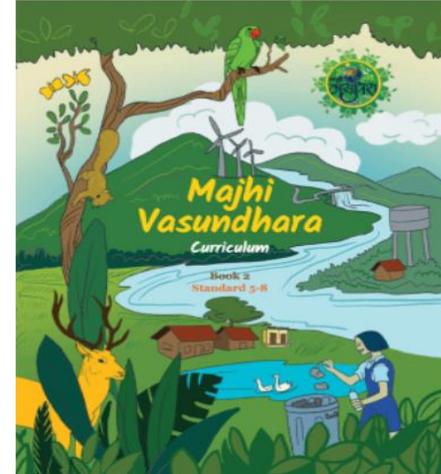
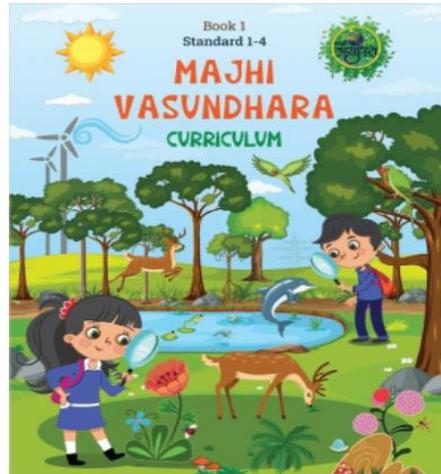
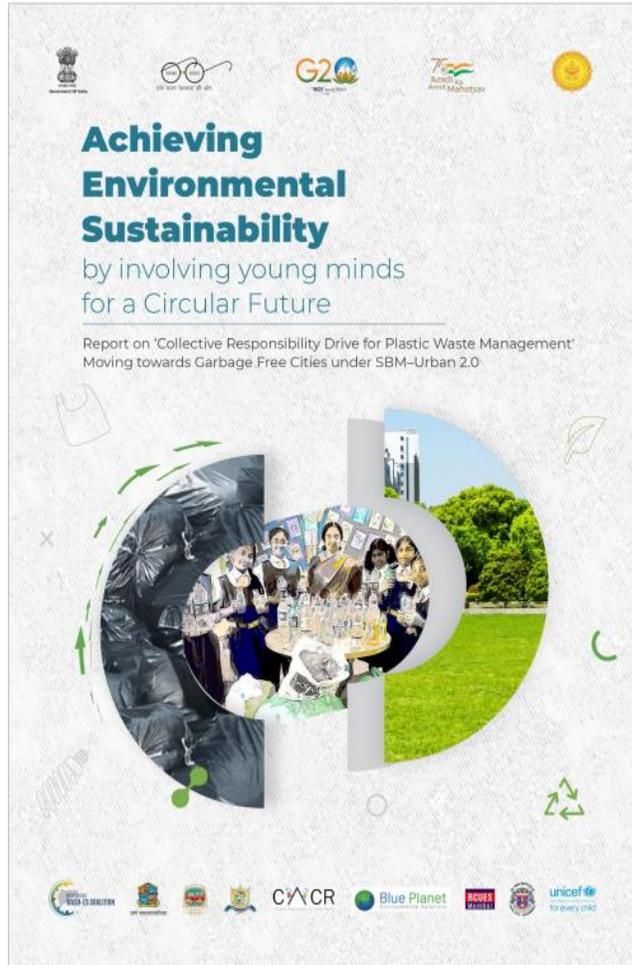


Figure B: Plastic waste collection at Goldcrest School, Vashi



*The four-month project fostered behavior change in communities by engaging students & teachers across 3 ULBs in the MMR region . As part of the initiative, students received pens and school benches made from the collected plastic waste, reinforcing the impact of recycling & resource recovery.*

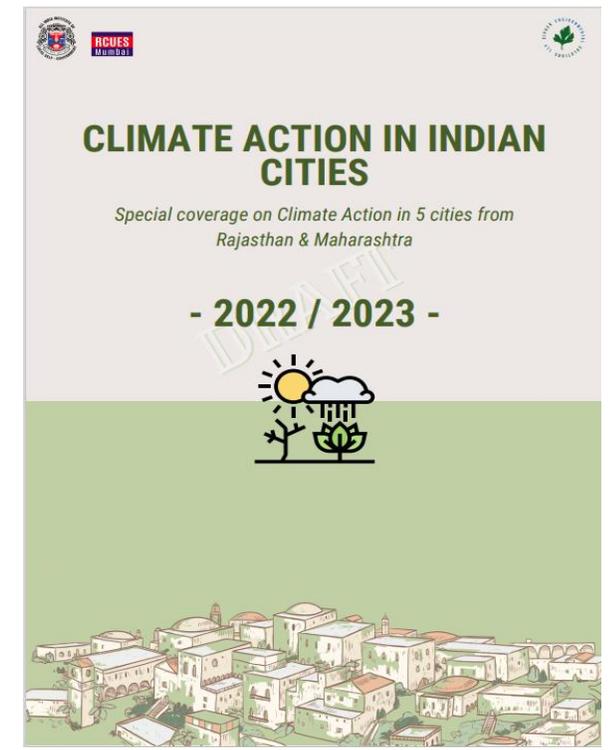
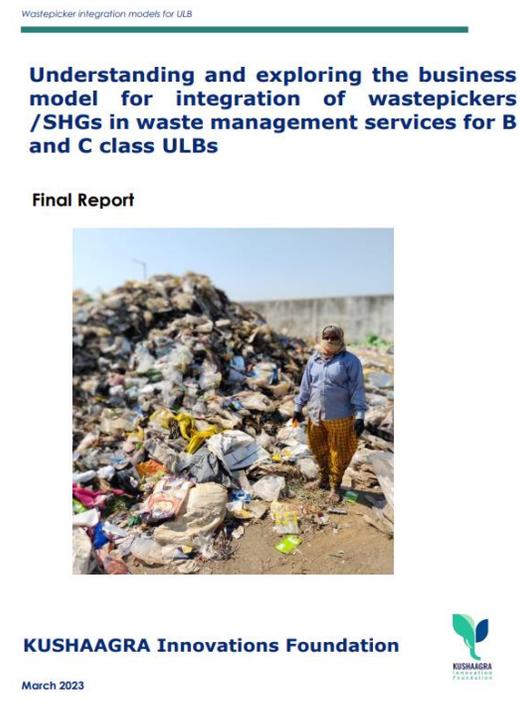
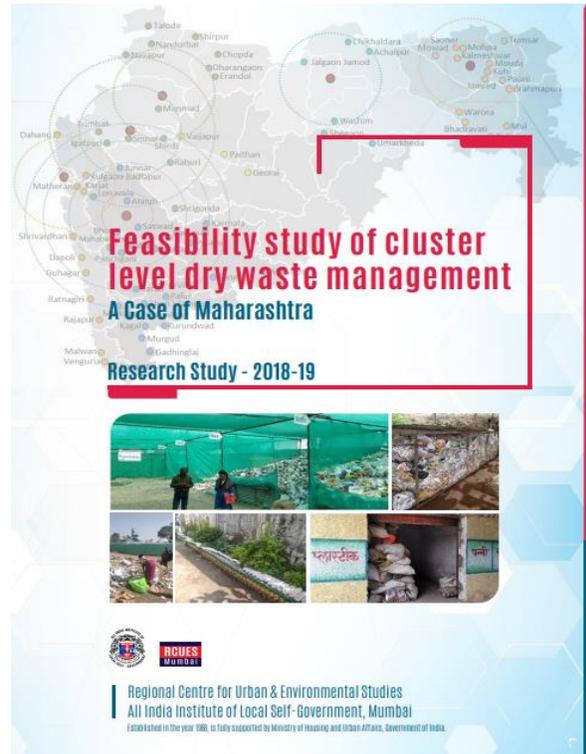
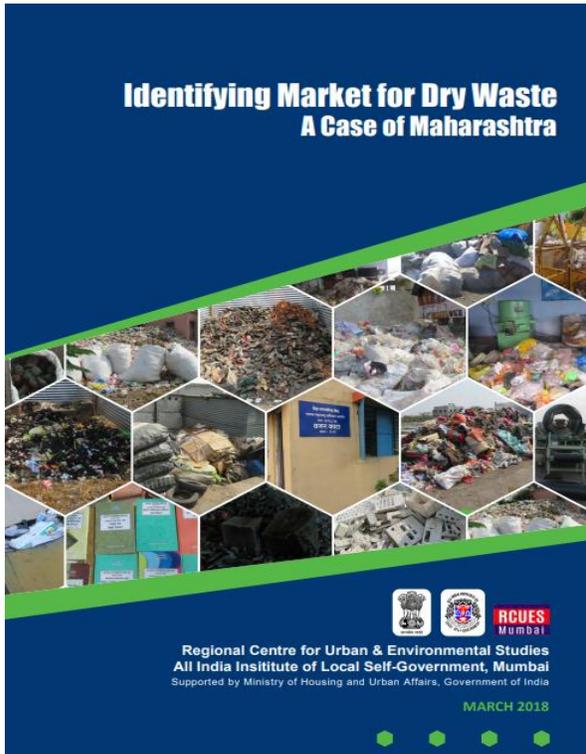
# Policy Advocacy through the Pilot Project



*The project outcomes were shared with government and non-government stakeholders in a workshop led by the Coalition Secretariat. The findings also informed the development of a student curriculum and a guidebook for ULB officials under MV 4.0.*

# Research Experience in Dry Waste Management

*Extensive research done in the area of PWM*



**Identification of Market for Dry Waste- Maharashtra**

**Feasibility Study of Cluster Level Dry Waste Management - Maharashtra**

**Integration of Waste-pickers and SHGs in Plastic Waste Management**

**Local Governance Perspective of Climate-Resilient Cities**

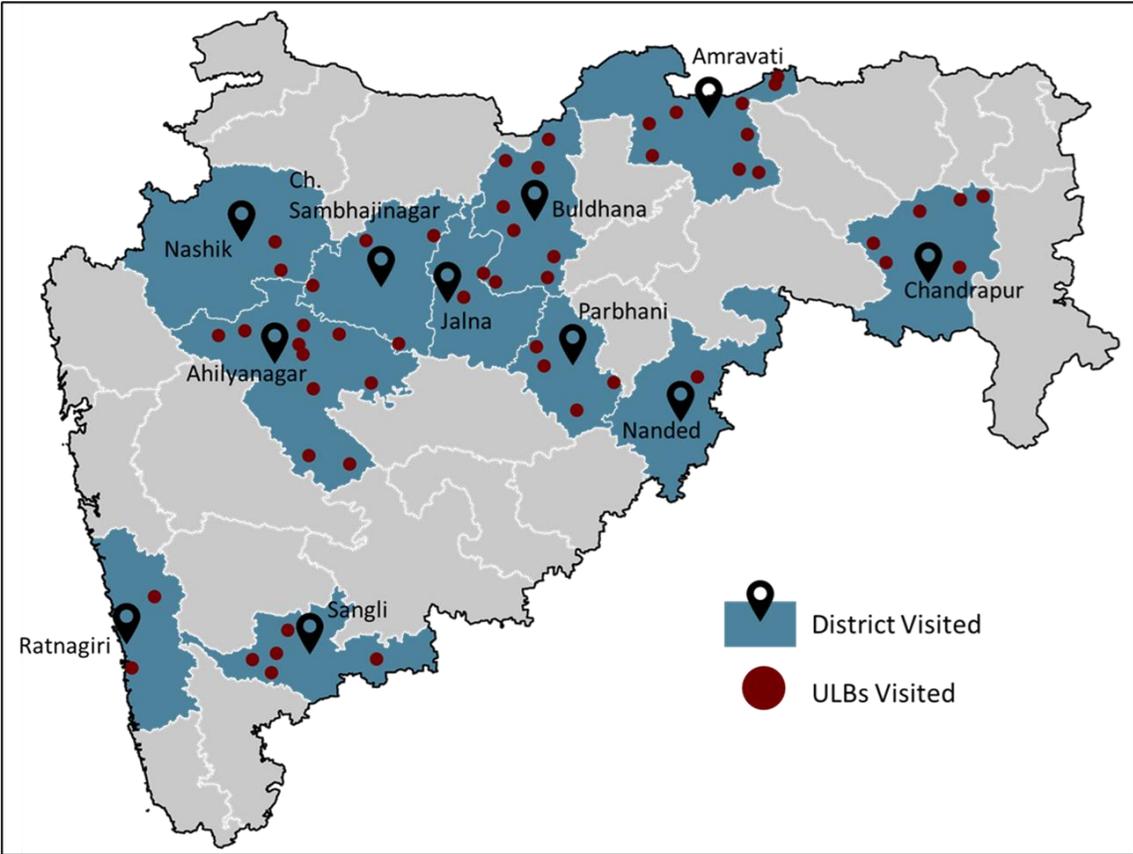
# Key Findings - Assessment of Dry Waste Management in Maharashtra



Dumping in Water Bodies



Open Burning



**50+** MRFs visited in to assess Dry Waste Management practices in Maharashtra



Mixed Waste Disposal

193

Low number of registered recycling units

# Implementation challenges in Dry Waste Management

01

## Decentralized Waste Management

- Material Recovery Facilities (MRFs) - **underutilized or non-operational**, increasing landfill waste.
- **Lack of forward linkages** - reduced resource recovery and circularity

02

## Community Engagement

- **Limited to awareness** and collection drives.
- **Negligible involvement of community groups** such as SHG's, CBO etc. in DWM activities.
- **Involvement in process design** - enhance source segregation and proper disposal.

03

## Institutionalization

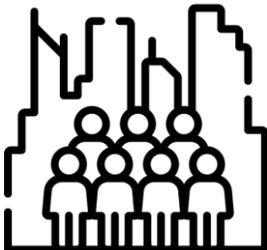
- **Waste generation outpaces processing** keeping operations in 'collection' mode rather than 'processing' mode.
- **Institutionalization of circularity** critical to reduce landfill dependency and sustainability

# 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

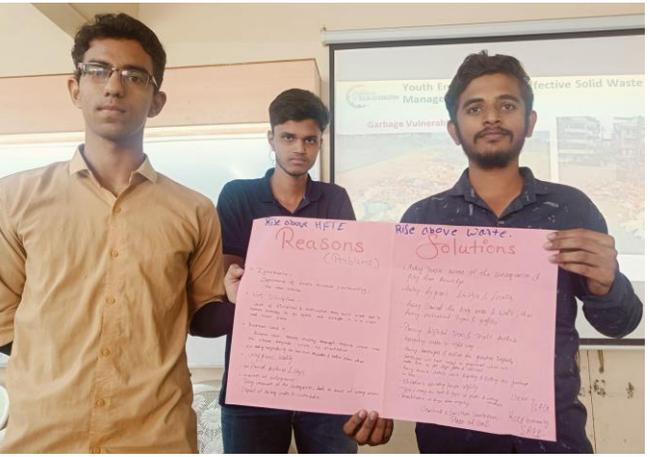


Scaling through Convergence



# Multi - Stakeholder approach to achieve circularity

Engagement in collection drives, awareness activities resulting in behaviour change



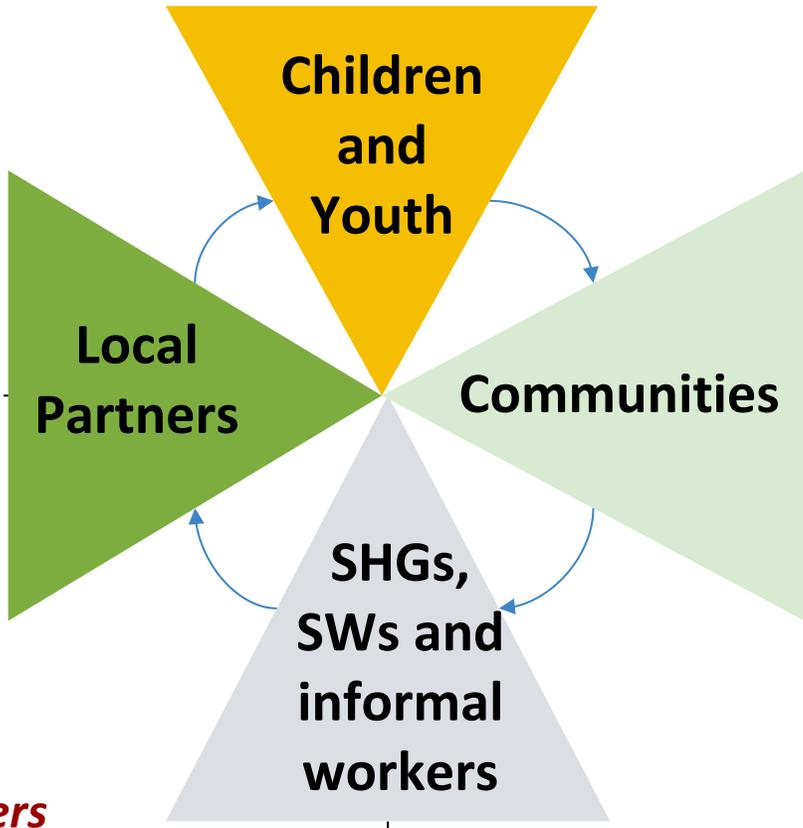
121 Govt. Colleges

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

# Progress & Key Milestones



## Institutional Partnerships with ULBs

Following extensive discussions on city-wide PWM challenges, **formalized MoUs with ULBs**; established a structured framework for implementing circularity in plastic waste.

## Contribution to Existing ULB Initiatives

**Engaged schools, colleges, SHGs, and communities** through IEC campaigns and capacity-building initiatives, **fostering visibility, trust, and groundwork** for the program.

## Baseline Assessment of Dry Waste Management

Household, institutional, and community-level FGDs & interviews, **identifying challenges and mapping local Plastic Waste Management initiatives.**

## Stakeholder Consultations for Circular Economy Integration

**Engaged local NGOs, startups, and youth-led initiatives to establish forward linkages**; now developing strategic partnerships to scale circular solutions within ULBs.

**Due to low source segregation rates observed during the baseline assessment, the team conducted a **waste audit**, providing critical data to inform future interventions**



**3**

**Wards**

**20+**

**Institutions**

**15+**

**Youth, ULB staff**

**101.40  
kg**

**Dry Waste  
Collected**

**36.01  
kg**

**Plastic  
Collected**

**0.54  
gm/day**

**Per Capita  
Waste  
Estimation**

# Implementing Institutional Change through Holistic & Localized Approach

Proposed 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 SHG's, 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 PW** - *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.

# Demonstrating Circularity - Pimpri Chinchwad Municipal Corporation

Population: **35,34,382** (current: estimated)

Area - 181 Sq. km | Zones - 8 | Wards: 32



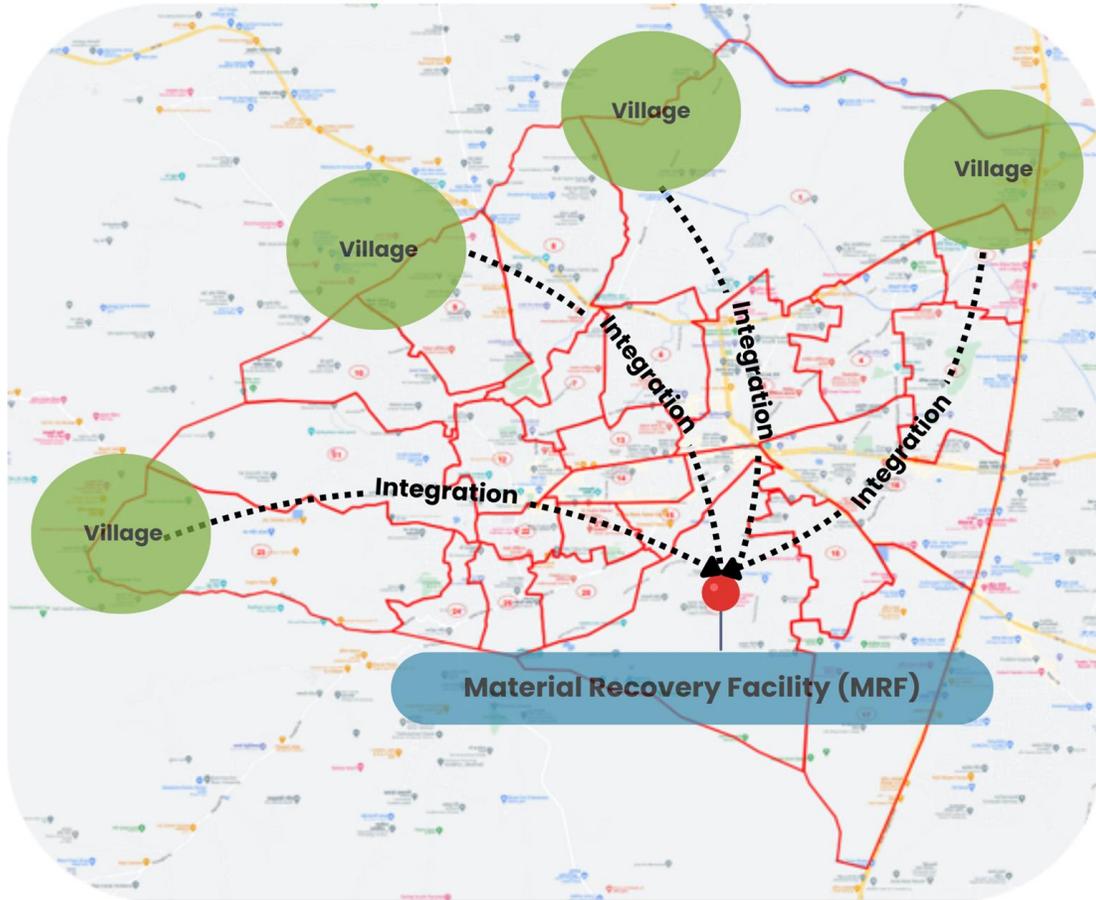
*Scaling up pilot initiative for PWM circularity to city wide model through institutionalisation*

- **Leveraging existing initiatives** - Zero Waste Slums and Zero Waste Schools
- **Establish decentralized waste processing units & implement source segregation of Plastic waste** capitalizing on high source segregation rates
- **Phase-wise implementation** in a selected ward/zone followed by expansion across multiple zones through **SHGs & community engagement**
- **Multi Stakeholder engagement** to foster institutionalization & shared responsibility

# Demonstrating Circularity - Satara Municipal Council

Population: **2,31,885** (current: estimated)

Area: 22. Sq. Km | Wards: 25



*City wide approach for demonstration of PWM circularity model - branching out to Rural areas*

- Implementation of **city-wide segregation & source disposal**
- **Integration of nearby villages** during implementation of city-wide source segregation, collection & disposal
- Demonstrating circular model through **conversion of plastic waste into marketable products.**
- **Empowering SHGs and SWs** in product development and entrepreneurship.

# Empowering Youth for Upstream Advocacy in Air Quality Management

## Objectives

- Equip **500 youth** (ages 17-22) with real-time air quality monitoring skills to bridge data gaps in urban air pollution assessment.
- Develop **youth-led policy advocacy** through data-driven insights and engagement with local governance.

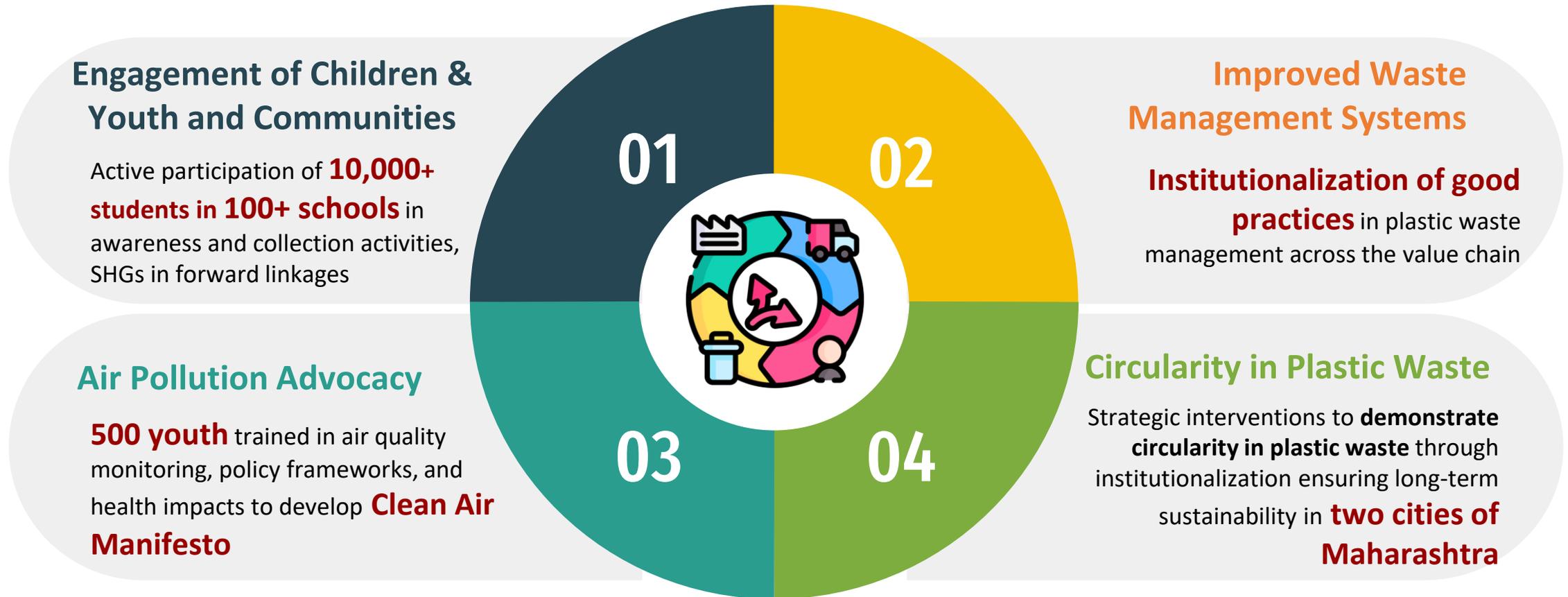
## Methodology

- 1 Deployment of Real time Air Quality Sensors
- 2 Capacity Building & Experiential Learning
- 3 Policy Literacy & Youth Advocacy
- 4 Youth-Led Clean Air Manifesto



*Assessing existing initiatives of PCMC towards Air Quality Monitoring*

# Projected Impact



*Through strategic **policy advocacy, localized implementation, and partnerships**, we aim to enhance waste management & air pollution advocacy by aligning with government missions like **Swachh Bharat Mission, Majhi Vasundhara Abhiyan**, etc. to drive **scalable, replicable, and sustainable impact**.*



All India Institute of Local Self Government, Mumbai  
(Secretariat, Maha Urban WASH & ES Coalition)

# Thank You

**Global South Academic Conclave on WASH and Climate 2025**



Gates Foundation

viega foundation