

# 2024 Global Methane Forum

## Mobilizing Methane Action

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# Regional Biogas Methane Action Showcase: India – *The case of Indore*

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# National context

- Municipal Solid Waste (Management and Handling) Rules, 2000
- Swachh Bharat Abhiyan (Clean India Mission), 2014
  - Phase 1 of the SBM lasted till 2 October 2019, and Phase 2 is being implemented between 2020–21 and 2024–25
  - Ministry of Housing and Urban Affairs, GoI in urban areas
  - Ministry of Drinking Water and Sanitation, GoI in rural areas
- GOI revamped the Municipal Solid Wastes (Management and Handling) Rules 2000 and issued the new Solid Waste Management Rules, 2016 (note the elimination of the word ‘municipal’)

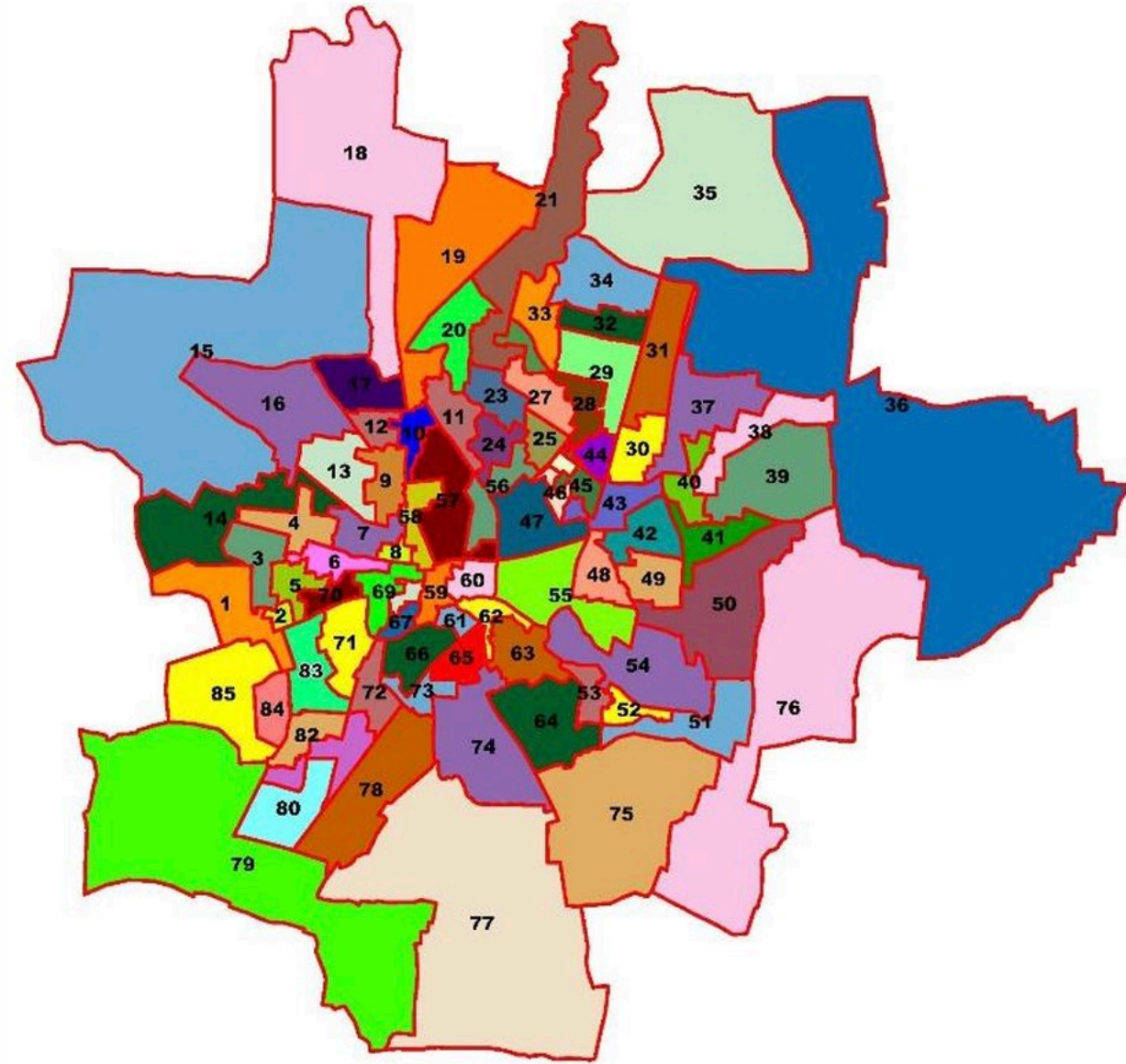
*...every waste generator shall segregate and store the waste generated by them in **three separate streams** namely bio-degradable, nonbiodegradable and domestic hazardous wastes in suitable bins and handover segregated wastes to authorized rag-pickers or waste collectors...*

# Swachh Survekshan (cleanliness survey)

- Carried out and assessed by the Quality Council of India (QCI)
- Has been conducted by the MoHUA since 2016, is the world's largest urban sanitation and cleanliness survey. It has been instrumental in fostering a spirit of healthy competition among towns and cities across India to improve their service delivery to citizens and towards creating cleaner cities
- It has evolved, covering an increasing number of cities each year. The 2023 round consisted of 4,416 urban local bodies, 61 cantonments, and 88 Ganga towns
- Parameters used in evaluation for the Swachh Survekshan 2023 rankings considered various factors, including:
  - Door-to-door waste collection
  - Source segregation
  - Cleanliness of public areas
  - Clean water bodies
  - Citizens' feedback on city cleanliness

# Indore

- Largest and most populous city in Madhya Pradesh, central India
- Population estimate ~3 million (2.1 million when the last census was conducted)
- Municipal area is divided into 19 zones, 85 wards
- Waste generation ~1150 TPD
  - 58% wet, 41.5% dry, 0.5% hh



# Indore – an overnight year long success story

- Swacch survekshan rank: #25 in 2016 to #1 in 2017 consistently till 2023
- Strong political and administrative will
- Built trust – listened to issues, made sure to resolve
- Door-to-door collection through partitioned tippers started in 2016
- Partnered with NGOs for IEC
- Robust collection of user fees (INR 60 to INR 150 depending on the waste produced), high penalties
- Tracking of GPS enabled vehicles through their command center
- Ownership by IMC



# Biogas plants

- 20 tonnes per day organic MSW treated at the biogas facility opposite to the vegetable and fruit market. Organic waste is converted to ~800 kg bio-CNG and used by city buses and as cooking fuel.
- 550 tonnes of organic MSW per day to produce 17,000 kg of bio-CNG and 100 tonnes of organic compost.



# Things to note for the future

- Sustained separate collection of waste for clean feedstock – citizen behavior and infrastructure
- Cost of sound waste management – treatment and disposal
- Moving to a circular economy



**Thank you!**



