



## **RESIDENTIAL TRAINING**

# INTEGRATED SOLID WASTE MANAGEMENT

TO STRENGTHEN IMPLEMENTATION OF SWACHH BHARAT MISSION 2.0

**DECEMBER 13-16, 2022** 

Last date to apply: 9th December 2022
Anil Agarwal Environment Training Institute
(AAETI), Nimli, Tijara, Rajasthan



The flagship Swachh Bharat Mission (SBM) 2.0, with its heavy focus on solid waste management, is being seen as a potential game-changer for India. The key mission agenda talks about making India "garbage-free", with components like remediation of legacy waste, and building infrastructure for treatment, processing, recovery, and recycling of municipal solid waste to divert 80 per cent of it from reaching the landfill by 2026. With committed financial devolution of Rs 1.4 lakh crore for the second phase of the Mission, it also brings in an element of "performance-linked disbursal" as an innovative financing instrument to help achieve the mission objectives.

Local governments in India have been given a clear mandate with substantial financial devolution. But achieving the milestones under SBM 2.0 would call for careful assessment of the current situation, efficient planning and implementation of activities aligned with the Mission objectives, and most importantly, a very capable institution on the top to drive the mammoth agenda forward. The magnitude of the Mission creates space for private companies, research institutions, academia, civil society organisations, consultancy firms, startups and others to create an ecosystem to turn waste management services into business models for economic and environmental sustainability, which would be critical to the envisioned success of the Mission.

Centre for Science and Environment (CSE) is offering a tailor made four-days residential training programme for stakeholders and solid waste management practitioners. The high impact training is designed to provide an end-to-end solution to design and implement a robust system of managing solid waste aligned with the principle of circular economy.

#### **COURSE HIGHLIGHTS**

#### 1. Solid waste management in India: Challenges and agenda

#### **SESSION SUMMARY**

An introductory session, focusing on the challenges on the ground towards sustainability and the agenda for change.

#### 2. Assessment of the current status

- Waste quantification
- Waste characterisation
- Gap analysis target, infrastructure, humanpower
- Bulk waste generators
- Integration of the informal sector in the value chain

#### SESSION SUMMARY

Preliminary assessment of the current situation to understand the gaps; helps create a baseline to prepare a comprehensive plan of action.

#### 3. Behaviour change and strategy to achieve source segregation

- IEC and BCC to achieve source segregation
- Strategy to promote source segregation
- Planning and implementation
- Capacity building
- Monitoring of source segregation results

#### **SESSION SUMMARY**

Source segregation is non-negotiable, but we have not paid enough attention to it. This session will focus on the strategies, planning, capacity building and monitoring of source segregation in Indian cities.

#### 4. Collection and transportation

- Planning and execution
- Monitoring
- Case Study

#### **SESSION SUMMARY**

Collection and transportation of municipal solid waste occupies the largest share of operational expenditure in the SWM value chain. This session will deliberate on creating



an efficient collection and transportation mechanism to make it cost effective, environment friendly and sustainable.

#### 5. Processing and treatment of various waste streams

- Organic waste management
- Quality monitoring of compost
- Inorganic waste management
- Plastic waste management

#### **SESSION SUMMARY**

This session will talk about the policy mandate with reference to the existing rules and management practices to be adopted for dealing with each of the waste streams with technologies, resource requirement, infrastructure, and strategy for implementation in order to make the system affordable and sustainable.

#### 6. Extended Producer Responsibility (EPR)

Plastic waste management

#### SESSION SUMMARY

This session will focus on the EPR policy framework and implementation modalities, and the institutional arrangement in the implementation value chain based on the principle of "polluter pays".

#### 7. Remediation of legacy waste

- Environmental and health hazards of dumping
- Current status of dumpsites in India
- Approaches to dumpsite remediation
- Key considerations for dumpsite remediation action plan
- Successful dumpsite remediation projects

#### SESSION SUMMARY

Remediation of legacy waste is one of the strongest mandates under SBM 2.0 to clean up the garbage mountains, reclaim the lost land and use the extracted waste fractions for gainful application. This session will talk about how the cities can plan the entire operation in the most environmentally sustainable manner.

#### 8. Scientific disposal

- Site selection and site investigation
- Landfill design and construction
- Operations and management of sanitary landfill and Cost
- Key considerations for tendering and procurement
- Case studies

#### **SESSION SUMMARY**

Unscientific dumping of mixed municipal solid waste is going to cost us more than Rs I lakh crore over the next five years. Scientific disposal of inert and process rejects accounts for not more than 20 per cent of the total waste generated in India. This session discusses the key considerations for a sanitary landfill, cost, procurement issues and some good practices so that the unscientific dumping grounds are replaced with sanitary landfills

to deal with non-hazardous and non-reactive waste fractions without polluting.

#### 9. Construction and demolition waste management

- Estimation
- Collection and transportation
- Treatment and reuse for revenue generation
- Case studies

#### **SESSION SUMMARY**

Heaps of C2D waste is a common site in cities. This session will talk about how C2D waste can be a great source of revenue if managed well.

#### 10. Instituting sustainable solid waste management by local authorities

- Institutional arrangement for efficient waste governance
- Technologies for digital monitoring
- Adoption and enforcement of local policies (by-laws)
- Creating an enabling environment for private companies

#### SESSION SUMMARY

Appropriate arrangement at the local government level to institute a robust solid waste management is pivotal to its sustainability. This session will focus on critical elements in waste governance, institutional monitoring, by-laws and on creating a level playing field for the private companies.

#### 11. Understanding the economy of SWM

- Good practices learning from the local governments
- Good practices a sustainable business model

#### **SESSION SUMMARY**

This session is about learning the economics of waste management to identifying potential areas to reduce expenditure and augment revenue. The session will also talk about how some of the Indian local authorities have taken themselves to a new height as economic model of solid waste management.

# 12. Economic Sustainability of Solid Waste Management Value Chain-How to increase revenue and Reduce Opex

#### SESSION SUMMARY

SBM 2.0 mandates optimum recovery and recycling of municipal solid waste to ensure financial sustainability of the entire operations which has been a matter of traditional challenges to the city governments. This session is all about understanding the economy of Solid Waste Management value chain to understand the avenues for reducing operational expenditure and increasing sources of revenue from municipal waste.





### TRAINING METHODOLOGY

- Presentation-based discussions, including question hour for each session
- Video demonstration
- On-site demonstration
- Group activities
- Role play
- Demonstration of monitoring technologies
- Quiz

## **COURSE FEES**

Participant's profile	Course fee	Travelling Cost	00.00
Indian participants	Rs 28,000	Cost of travel to Delhi and Back to be borne by the participant	<ul> <li>Cours inclus from training according food, mater perso kit etc.</li> <li>50% NGOs Institut Stude</li> <li>25% for Inc. Represional Profes</li> </ul>
Foreign participants	US \$400	Cost of travel to Delhi and Back to be borne by the participant	
Free Registration forMunicipal Government/ Other Government Officials (nominated officials from Government of India, state government and City/Panchayat officials)	Partially funded	Cost of travel to Delhi and Back for the nominated officials to be borne by the nominating Government Authority	

- Course fee is inclusive of travel from Delhi to the training institute, accommodation, food, training materials, resource person, training kit etc
- 50% Discount for NGOs, Academic Institutions, Students, Farmers
- 25% Discount for Industry Representatives, Consultants, Other Professionals



# ESSENTIAL TRAVEL INFORMATION

Registered participants must reach New Delhi by 6:00 PM of December 12 and must not plan their return travel before morning of December 17, 2022. CSE will arrange pick-up at New Delhi and transportation from New Delhi to Nimli of all registered participants on December 12, 2022. All participants will be transported back to New Delhi (airport/railway station) on December 17 depending on their return travel plans. Participants from Delhi/NCR may plan their return travel on December 16, 2022 in the evening upon closure of the training programme at 6:00 PM.



#### **Centre for Science and Environment**

41, Tughlakabad Institutional Area, New Delhi 110 062 Phones: 91-11-40616000 Fax: 91-11-29955879 Website: www.cseindia.org

#### FOR QUERIES, PLEASE CONTACT

Mou Sengupta, Deputy Programme Manager, Solid Waste Management Unit, Centre for Science and Environment, Mobile: +91 98364-48262 Email: mou.sengupta@cseindia.org