IPU - LKI
GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
LEAD KNOWLEDGE INSTITUTION
State Support Mission, Niti Aayog

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY IPU
NEW DELHI

BRAINSTORMING SESSION & PANEL DISCUSSION

SSM Priority Area : Urban Development

Smart Solid Waste Management and Emerging Technology-Led Solutions for Delhi

Date : 21st September 2026 (Monday)

Venue : East Delhi Campus, GGS Indraprastha University
Surajmal Vihar, Delhi-110092



Organised By :
Lead Knowledge Institution (LKI),
Guru Gobind Singh Indraprastha University (GGSIPU), New Delhi
Under the State Support Mission of NITI Aayog

In association with
University School of Architecture & Planning

About Lead Knowledge Institution- Delhi

Guru Gobind Singh Indraprastha University (GGSIPU) has been designated as the Lead Knowledge Institution (LKI) under the State Support Mission (SSM) of NITI Aayog by the Government of NCT of Delhi (GNCTD). The University is providing research-based knowledge and policy support for the development of the State Vision for Viksit Delhi @2047. In this role, GGSIPU facilitates collaboration among academic and research institutions, organizes capacity-building programmes, documents best practices, and provides research support for sustainable and inclusive development.

About GGSIPU

Guru Gobind Singh Indraprastha University (GGSIPU), established in 1998 by the Government of NCT of Delhi, is a premier institution of higher education. Recognised by the UGC under Section 12B of the UGC Act, the University promotes excellence in teaching, research and extension activities across diverse professional fields. GGSIPU has been accredited with an A++ Grade by NAAC for seven years. It was ranked 93rd among Indian universities in NIRF 2025, placed among top 1000 Universities of the world by QS World University Ranking 2026 as well as THE World University Rankings 2026.

About University School of Architecture & Planning, GGSIPU

The University School of Architecture and Planning (USAP), GGSIPU, is a premier institution committed to excellence in architectural education, urban planning, research, and innovation. The School offers Bachelor of Architecture, Master of Urban Design (MUD), Master of Urban and Regional Planning (MURP), along with the doctoral programme, fostering advanced learning and interdisciplinary research. Its illustrious faculty brings diverse expertise across urban and regional planning, environmental planning, healthcare architecture, landscape, conservation, infrastructure and services, architectural design, and allied domains.



PROGRAM
OVERVIEW

Delhi generates about 11,000 tonnes of municipal solid waste every day, against an installed processing capacity of roughly 8,000 tonnes — leaving a persistent daily gap of around 3,000 tonnes, that has over decades, accumulated into the landfill mountains at Ghazipur, Bhalswa and Okhla. All three have exhausted their capacity years ago; Bhalswa rose beyond sixty metres. Under a scaled-up bio-mining and scientific-processing programme, the Municipal Corporation of Delhi has reclaimed roughly half of the Okhla and Bhalswa footprints and now targets their clearance by December 2026, with Ghazipur — slowed by the difficulty of disposing of inert material, now being lifted by NTPC — targeted for December 2027. Whether these deadlines hold, and what becomes of the reclaimed land and the fresh waste still arriving daily, is precisely the kind of question this workshop would examine.

The unification of Delhi's municipal corporations in 2022 created, for the first time in a decade, a single agency responsible for the city's solid waste. There is thus an opportunity to introduce smart and emerging technology-led solutions in Delhi and reconsider the whole chain — from the household bin to the processing plant and the landfill — rather than to manage each fragment in isolation. The binding constraints appear to lie less in the absence of policy than in segregation behaviour, the economics and siting of processing, the performance and acceptance of the waste-to-energy plants, the credibility of the landfill-clearance timelines, and coordination across the many agencies whose mandates converge on the same street.

This Brainstorming Session and Panel Discussion is conceived as a working session rather than a conference. The format is deliberately deliberative — very short framing inputs followed by structured discussion — so that officials of MCD and the Delhi Pollution Control Committee, alongside technology providers, waste-worker representatives, academics and civil society, can jointly diagnose where the solid-waste system fails and propose specific technology led implementable solutions in an end-to-end manner. Participants are encouraged to argue from field evidence and ward-level data, and to conclude with recommendations precise enough to be acted upon by the corporation.



Objectives

- Evaluating the roughly 3,000-tonnes-per-day gap between waste generated and waste processed by making source segregation an embedded civic habit across Delhi's varied neighbourhoods and processing at source or in the University.
- Examining the performance and public acceptance of the waste-to-energy plants and the prospects for a genuine circular economy in organics, C&D waste, plastics and e-waste.
- Assessing landfill-clearance timelines and a framework for planning the reclaimed land.
- Strengthening coordination among MCD, DPCC and the Government of NCT of Delhi, and to arrive at specific, actionable recommendations for each.

Expected Outcomes

- Shared diagnosis of where Delhi's solid-waste system fails, distinguishing behavioural and technical issues from institutional and financial ones.
- Prioritised set of actionable recommendations on segregation, collection and decentralised processing.
- Assessment of the landfill-clearance timelines and a framework for planning the reclaimed land and preventing fresh dumping.
- Practical guidance on waste-to-energy performance, C&D recycling and the market conditions for a circular economy in plastics and e-waste.
- Clear commitments on the recognition, safety and livelihoods of waste-pickers and the informal sector.
- Concise proceedings for circulation to MCD, DPCC, the Government of NCT of Delhi and professional and civil-society institutions.

Thematic Sessions

Session I

Segregation, Collection and Decentralised Processing :
How Delhi handles the front of the waste chain, where the daily processing gap originates.

- **Source segregation and behaviour change** — Why segregation into wet, dry and hazardous streams remains uneven despite the SWM Rules, and what drives lasting household compliance.
- **Collection, transport and dhalao reform** — Door-to-door primary collection, secondary transfer, GPS and weighbridge monitoring, and the redesign of dhalaos and transfer points.
- **Integrating the informal sector** — Recognising waste-pickers and kabadiwalas within the formal system through material-recovery facilities, identity and livelihood protection.
- **Decentralised, ward-level processing** — In-situ composting and bio-methanation of wet waste and neighbourhood material-recovery facilities that cut transport and landfill load.
- **Bulk generators and accountability** — On-site processing obligations for hotels, markets, RWAs and institutions, and the incentives and penalties that make them work.

Guiding question : What single intervention would most improve segregation at source across Delhi's varied neighbourhoods?

Session II

Legacy Landfills, Waste-to-Energy and the Circular Economy :
The accumulated burden of the three landfills and the treatment routes meant to prevent new ones.

- **Bio-mining and landfill clearance** — Progress at Ghazipur, Bhalswa and Okhla against the 2026–2027 deadlines, the disposal of inert material, and the credibility of the timelines.
- **Planning the reclaimed land** — The end-use of freed footprints — green, public and infrastructure use — and safeguards against fresh dumping once sites are cleared.
- **Waste-to-energy: performance and acceptance** — The Okhla, Ghazipur, Tehkhand and Narela-Bawana plants — emissions, calorific value, ash disposal and community concerns over siting.
- **Construction and demolition waste** — Expanding C&D recycling capacity and mandating the use of recycled aggregate in public works and road construction.
- **Plastics, e-waste and the circular economy** — Extended producer responsibility, single-use plastic enforcement, and the market and policy conditions, the circular economy needs.

Guiding question : What mix of treatment routes is right for Delhi, and how are the legacy sites brought to credible closure?

PROGRAM SCHEDULE

Date : 21st September 2026 (Monday)

Venue : East Delhi Campus, GGS Indraprastha University, Surajmal Vihar, Delhi-110092

Time	Session	Resource Person
9:30 AM Onwards	Registration of participants	
10:00–11:00 AM	Inaugural	Lighting of the Ceremonial Lamp Brief about Lead Knowledge Institution (LKI) – NITI Aayog State Support Mission, Delhi by Prof. Gagan Deep Sharma, Chief Coordinator – LKI, GGSIPU Address by Padma Shri Awardee Prof. (Dr.) Mahesh Verma, Vice Chancellor, GGSIPU Address by Sh. Shyam Lal Bairwa, Chief Engineer (Civil), Department of Environmental Managment & Services, Municipal Corporation of Delhi Vote of Thanks by Ms. Shikha Agarwal, Nodal Officer, LKI-Delhi, GGSIPU Group photograph
11:00–11:15 AM	High Tea	
Session I — Segregation, Collection and Decentralised Processing		
11:15 AM–01:30 PM	Lead Presentation	Prof. Neerja Lugani Sethi, Dean, Univeristy School of Architecture & Planning, GGSIPU
	Expert Panel Discussion	Dr. Radha Goyal, Deputy Director, Indian Pollution Control Association Prof. Babu J Alappat, Department of Civil Engineering, Indian Institute of Technology, Delhi Prof. S.K. Singh, Department of Environmental Science and Engineering, Delhi Technological University Sh. Satish Sinha, Associate Director, Toxics Link Ms. Archana Datta, Program Management Officer, UN Environment Programme Dr. Namrita Kalsi, Chief Architect, Haryana Mass Rapid Transport Corporation Limited (HMRTC) / Gurugram Metro Rail Limited (GMRL)

Session II — Legacy Landfills, Waste-to-Energy and the Circular Economy		
11:15 AM–01:30 PM	Lead Presentation	Dr. Rashi Gupta, Assistant Professor, Univeristy School of Architecture & Planning, GGSIPU
	Expert Panel Discussion	Sh. Atin Biswas, Program Director, Centre for Science and Environment Sh. Ajay Garg, National Secretary/Co-Founder, Indian Pollution Control Association Dr. Shyamli Singh, Associate Professor, Centre for Climate Change and Sustainability, South Asian University Sh. Lovelesh Sharma, National Program Lead, National Institute of Urban Affairs Dr. Namya Sharma, Research Associate, Emerson Centre of Excellence for Sustainability Studies (CoE), TERI School of Advanced Studies
01:30-01:45 PM	Concluding session	Prof. Neerja Lugani Sethi, Dean, Univeristy School of Architecture & Planning, GGSIPU
01:45 PM Onwards	Lunch	



Mentor
Prof. (Dr.) Mahesh Verma, Vice Chancellor, GGSIPU

LKI Steering Committee
Prof. Gagan Deep Sharma, Chief Coordinator
Dr. Sudeep Kumar, Member
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