
*Agenda Outline*

| Solid Waste Management Track | Water & Wastewater Management Track |
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*DAY 1*

| THEME: Rebooting legacy systems in waste movement | THEME: Advancing resilient urban & rural water infrastructure through Integration, Innovation, & Inclusion |
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| *Inaugural Session* | |
| *Harnessing the power of data to revolutionize waste management*<br><br><u>Discussion points:</u><br>• Adopting smart waste management practices – Role of data in lending insights into waste streams during operations<br>• Leveraging digital platforms to inculcate circularity practices in corporate & industrial settings<br>• Coupling civic responsibility at household & corporate level with data innovation<br>• How predictive capabilities from data capture & database management build waste management competencies at sources of origin<br>• Case Study illustrations & Best Practices in local governance initiatives & people-intensive installations<br>• Role of source segregation technologies – Building efficiencies in sorting & segregation at public places, individual households & corporate establishments<br>• Legal & financial aspects of data capture & linkages with policy and enforcement imperatives | Impacts and opportunities of AMRUT 2.0 and JJM – Urban & Rural universal water & sanitation coverage missions in India<br><br><u>Discussion points:</u><br>• Key achievements and challenges in implementation of AMRUT 2.0 and JJM<br>• Role of smart sensors & centralized dashboards for real-time monitoring<br>• Participation of private sector players & startups (especially in JJM)<br>• How do specific (AMRUT & JJM) policies impact project implementation?<br>• Execution & service quality disparities amongst states and the way forward<br>• Financial sustainability challenges & innovative strategies to address funding gaps<br>• Evolution and role of State Water Regulators on investment & drive for innovation in the water sector |

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| • Aligning source segregation with waste management policy initiatives to undertake efficient data collection, screening, evaluation, & impact | • Water regulator's role in influencing Water Tariffs, Equity & Financial Sustainability |
| *Solving for legacy problems in waste movement from source to landfills*<br><br><u>Discussion points:</u><br>• Modernizing outdated processes in waste trails from points-of-origin to treatment, recovery & disposal<br>• Role of technology in waste collection, segregation, transport, treatment, & disposal processes<br>• Spurring innovation in institutional & governance aspects to drive prescriptive decision-making on waste movement<br>• Facilitating real-time monitoring of & data-driven insights into waste-related operations – Role of Integrated Command & Control Centers in a rapidly urbanizing India<br>• Monitoring and evaluation of waste collection & tracking and citizen grievance redressal systems<br>• Role of Operation & Maintenance contracts in waste management – Examining integrated solid waste management contracts – vs – separate contracts<br>• Role of fleet & manpower operators<br>• Decentralized waste collection & transportation – How localizing waste management solutions & community engagement build more resilient waste management infrastructures | Real-time monitoring and management of Surface water quality (especially rivers) that flow through urban centers<br><br><u>Discussion points:</u><br>• Policy and frameworks for river and river basin management<br>• Deployment of smart sensors to holistically monitor river water quality<br>• Smart Data integration and decision support for respective stakeholders<br>• Mapping pollution sources and developing accountability mechanisms (eg. Polluter pays)<br>• Policy and regulatory intervention to develop strategies for cohesive operating procedures to manage river water quality |
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| *Building efficiencies in waste storage & processing facilities*<br><br>Discussion Points:<br>• Understanding design requirements of MRFs & MCFs – Efficient capacity design planning of centralized storage & processing facilities<br>• ULB Best Practices – Glimpsing robust storage & processing facility operations<br>• Discussing role of technologies for storage & processing of solid waste<br>• Addressing legal challenges faced in construction of storage & processing facilities<br>• Combatting the profitability problem with MRFs & MCFs – How ULBs, NGOs, Self-Help Groups can work cohesively to address capex, opex, manpower, & technology problems<br>• Building robust decentralized storage & processing facilities – Role of social entrepreneurship & startups in effective waste management in peri-urban areas, urban fringes, and rural settings | Circular sludge management framework and its importance in the context of wastewater treatment<br><br>Discussion Points:<br>• The under-recognized sludge challenge in India<br>• Sludge as a resource to produce usable byproducts like bio-compost, energy (biogas), construction materials, or biochar<br>• Absence of uniform national guidelines on sludge classification, treatment, & reuse and the need for national-level mandates for sludge management<br>• Innovative sludge solutions and business models to incentivize private sector |
| *Optimizing waste treatment & disposal management processes*<br><br>Discussion points:<br>• Intelligent landfill design, operations & management<br>• Site selection & characterization | Smart water & wastewater infrastructure to drive productivity and efficiency in water services<br><br>Discussion points: |

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| • Building efficiencies in landfill capacity management – Discussion on waste placement & compaction<br>• Managing ambient air, groundwater, & air contamination – Liner systems, leachate, gas & stormwater management, and cover systems<br>• Monitoring & maintenance – Timely screening of leachate, gas & groundwater to address environmental contamination and upkeep of landfill structures<br>• Role & types of Waste-to-Energy technologies in capacity management<br>• Regulatory framework on permissible methods for waste treatment & disposal – Understanding screening, evaluation, & punitive action provisions to combat violations<br>• Waste treatment & disposal contracts – Building responsible & efficient waste management guidelines for industry & local government<br>• Customizing technology deployment for waste treatment & disposal in diverse Indian settings | • Role of AMI (Advanced Metering Infrastructure), ultrasonic/IoT water meters in demand forecasting and leakage reduction.<br>• Data-Driven NRW (Non-Revenue Water) Reduction Strategies<br>• Use of digital twins for simulating water distribution and wastewater flows to optimize operations, maintenance, & asset management<br>• Leveraging smart city infrastructure to integrate water and wastewater data with traffic, health, and emergency systems |
| *Managing legacy waste & achieving land rejuvenation – Role of enablers*<br><br><u>Discussion points:</u><br>• Converting waste to wealth – Biomining techniques to convert legacy waste into recyclables & usable materials<br>• Examining types of technologies to remediate dumpsites | Advancing Circular Water Reuse Across Utilities, Industries, Commercial, and Institutional Sectors – Enabled by Innovative Technologies, Collaborative Business Models, and Adaptive Financial Instruments<br><br><u>Discussion points:</u><br>• Modular, energy-efficient systems are enabling decentralized reuse solutions even for smaller municipalities or industrial zones, or in commercial & institutional premises. |

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| • Environmental impact assessment of illegal dumpsites<br>• Role of NGT – From promoting biomining & bioremediation of legacy waste to directing authorities to develop guidelines & implement projects for rejuvenation of land<br>• Illegal dumpsite remediation – Learnings from international & domestic Case Studies<br>• ULB Best Practices – Biomining & remediation success stories<br>• Understanding conventional financing models – Govt funds, grants & subsidies, loans & green bonds<br>• Uncovering unconventional financing models – PPP models, User 'Waste Generator' Fees, WtW & WtE monetization, and innovative 'corporate accountability-based' approaches | • Role of multilateral banks, climate funds, or ESG-focused investors in scaling up reuse in water-stressed but capital-poor regions<br>• How to incentivize circularity through Policy and Tariff Mechanisms?<br>• Merging platforms that allow verification of reuse performance, helping industrial, commercial, and institutional end users gain sustainability certifications or carbon-water credits |
| *DAY 2* | |
| THEME: Role of enablers & innovation in inculcating temper for waste management in Indian industry | THEME: Securing industrial water sustainability through circular innovation, competitiveness, & compliance |
| *From obligation to ownership – Cultivating corporate responsibility for sustainable waste practices*<br><br>Discussion points:<br>• Defining responsible waste & water management<br>• Discussing drivers to help transition corporates from reactive to proactive managers of water resources & waste generated<br>• Value chain collaboration to accelerate sustainable waste practices | *Circular economy for water-secure agriculture*<br><br>Problem Statement: How rise in water demand in urban areas including for high value irrigated agriculture in sub-urban & peri-urban areas are accentuating stress on India's freshwater resources<br><br>Discussion points:<br>• How rise in water demand for market-driven irrigated agriculture stresses finite water resources |

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| • Evolution of ESG rating frameworks to assess corporate water & waste performance<br>• Bottlenecks faced by SMEs in adopting sustainable waste practices – Role of policy, partnerships & technology<br>• Examining leadership role of large enterprises in integrating sustainable water & waste practices in existing ESG & business excellence frameworks<br>• Material recovery from corporate waste streams – Role of innovation<br>• Harnessing the power of technology & external sustainability-driven service providers in meeting corporate sustainability goals | • Feasibility of integrating reuse of treated used water for irrigation in peri-urban & suburban areas and its potential benefits<br>• Addressing concerns for reusing treated used water for irrigation<br>• Best practices in treated used water reuse in agriculture<br><br>**Trouble-Shooting Statement:** Reuse of treated used water in irrigated agriculture – A timely green tonic for achieving water security & building climate adaptation<br><br><u>Discussion points:</u><br>• Ensuring high fidelity in quality of secondary treated water in agriculture<br>• Monitoring for presence of heavy metals & emerging contaminants<br>• Role of ULBs & technology<br>• Models for financing reuse projects & ULB revenue generation streams<br>• Role of local urban government in developing & implementing targeted water reuse plans |
| *Legislative & regulatory reform for effective biomedical waste management in India*<br><br><u>Discussion points:</u><br>• Redefining biomedical waste to ensure foolproof segregation– Driving zero tolerance at healthcare facilities, treatment & disposal centers<br>• Debating inclusion of auxiliary waste – Waste generation at dermatological, and health & wellness centers, and shared hospital linen & furniture | *Securing water for sustainable mining – Perspectives on critical minerals, circularity & climate resilience*<br><br><u>Discussion points:</u><br>• Policy & regulatory landscape governing water use in mining<br>• Industry Best Practices in reducing water footprint & enhancing circularity in mining<br>• Community level water stewardship – Mining's role in shared water resources and roles & rights of indigenous people |

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| • Defining & implementing pre-treatment practices of biomedical waste – Role of innovation & legislative reform<br>• Impact assessment on biomedical waste management – Infection control protocols at HCFs<br>• Monitoring mechanisms to prevent post-treatment malpractice – Surveillance of CBWTDFs to ensure error-free waste disposal, and to assess ambient infection & contamination risk<br>• Challenges faced in biomedical waste management in peri-urban, urban fringes & rural settings | • Financing smart water mining – Risks, impacts & opportunities for circularity<br>• Role of digital tools & AI in water risk management in mining |
| *Formalizing the circular economy in apparel industry – Framing PIBO & consumer responsibility*<br><br><u>Discussion points:</u><br>• EPR – vs – voluntary 'incentive' models for tackling PIBO accountability<br>• Role of structured incentivization in the post-consumer process – Understanding & shaping consumer behaviour<br>• Addressing apparel waste with rewards-based value-chain mechanisms<br>• How rag picker communities, NGOs, end-users & PIBOs can synergize efforts to help manage landfill deposits<br>• Combating the fast fashion menace in the social media age – Tackling fast-moving next-gen buying trends to better manage the waste menace<br>• How evolved brands can shape consumer buying behaviour – From repair services to incentivisation of recycling & upcycling garments to structuring forward-looking sustainability-based reward & loyalty programs | *Understanding challenges of & solutions to water treatment in textile sector*<br><br><u>Discussion points:</u><br>• Technology adoption choices for SMEs to balance sustainability goals<br>• SME challenges – Managing carbon, energy, & infrastructure footprints onsite<br>• Financing ETP / WTP infrastructure installation in manufacturer premises – Feasibility of adoption of treatment technologies by SMEs<br>• Policy measures for greater ease of access to & incentivization for adoption of commercially viable technologies by SMEs<br>• Policy & financing support for adoption of sustainable, climate-conscious, future-ready, water treatment technologies<br>• Cluster-level, case studies – Examining fee-based, sharing, models in capital & space-starved SME clusters |

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| • Consumer awareness & education programs – Framing progressive buyer behaviour by emphasizing recycling, upcycling, thrift shopping, & exposure to healthy material options<br>• Role of technology at source – Improving or substituting manual slow-moving segregation & sorting processes | • Aligning SME operations to international standards on water reuse, sludge generation, & management |
| *How global consensus is driving India's plastic waste management agenda*<br><br>Discussion points:<br>• Global Plastics Treaty & Intergovernmental Negotiating Committee (INC)-5.2 (August 2025) in Geneva – Reshaping the regulatory landscape for businesses worldwide<br>• INC-5.2 – Assessing business implications for corporate India<br>• Not just compliance but leading business transition – Proactively managing supply chain disruption, technology innovation & infrastructure creation<br>• How new compliance standards will drive transparency & traceability across value chains to minimize future regulatory risk<br>• Opportunity for Indian businesses – Future proofing business models in era of accountability & sustainability<br>• Integrating circular business models to offset forecasted higher sustainability costs<br>• Understanding policy mandates prescribing PIBO responsibility for use & reuse of plastic waste | Transformative solutions for water pollution abatement in India's pharmaceutical sector<br><br>Discussion points:<br>• Role of regulation in minimizing pharma water pollution<br>• Water management in pharma manufacturing – Challenges & solutions<br>• Successful case study illustrations – Managing water use efficiency & reducing effluent toxicity<br>• Environmental impact assessment & abatement of pharma pollutants<br>• Global Best Practices for pharma wastewater treatment & compliance<br>• Cost-Benefit analysis of pharma wastewater treatment |

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| • Impact of INC-5.2 on EPR legislation & alternatives to single-use plastics | |
| | The HoReCa industry's outsized wastewater problem<br><br><u>Discussion Points:</u><br>• Understanding food service industry's responsibility in managing disposal of discharged water<br>• Combatting indiscriminate dumping of untreated sewage<br>• Need for legislative guidelines to spell out adherence protocols for local HoReCa businesses<br>• Regulatory oversight in mitigation of groundwater & river contamination<br>• Role of hospitality groups as responsible generators of food & non-food waste & consumers of water<br>• QSR, fine & casual dining chains – Transitioning the Indian food service industry into a conscious consumer of water & user of wastewater<br>• Encouraging waste mitigation practices in 'Night life' districts of urban Indian pockets |