Techniques and Technologies: Various aspects of decentralised waste management



Definition:

Decentralized waste management involves localized collection, segregation, and disposal of waste, often at the source of generation



Environmental Factors	Social Factors	Commercial Opportunities	Legal Compliance
Support Waste Diversion	Development of human	Augmenting local recycle	Achieving Legal
	centric waste management	market	Compliance
Support Segregation at Source	Aggregation of unorganized sanitary workers	Increased segregated material access by local market	Ease of Monitoring & Reporting
Reduction in Transport related GHG Emissions	Reduced Exposure to Waste	Waste Transportation avoidance	Better EHS Compliance
On-site waste handling and	Developing Equal Inclusive	Low CAPEX -Opex Intensive	Quality of Recycled
Storage at Generation Point	Opportunities	Operation	Products
Preferred Selective waste	Skill enhancement &	Non-Gate fee centric	Project Funding
Processing	alternative employment opportunities	models	
Avoidance of local waste		Developing local based	Approval/ Permission
spillage		circular economy models	
Support Local waste Recycling		Achieving Resource	
Rate		Efficiency through material	
Achieving Diversion from		circularity	
landfill waste			
Reduced Environmental			
Land Resource Requirement Availability			



Challenges in Managing & Implementing of DSWM

Need of Space - Not in my Backyard - At building levels, society or ward levels Lack of long term commitment of citizens and volunteers Lack of knowledge at local RWA levels Strengthing of Capacities and Training Programms for Implementation & Monitoring. Safety & Hygienic processes are hard to manage Useful and resellable resources are only targeted



Composting

DSWM of Organic Waste

Vermi-Composting

Small BioGas Plant

Integration of local stakeholders - Entrepreneurs, NGOs, RWAs, Waste Management Service providers Facility Management etc is important.



Plastic Packaging

DSWM of DRY Waste (MRFs)

Glass, E-waste

Paper

Integration of local stakeholders- ULBs, Entrepreneurs, NGOs, RWAs,Kabadiwala etc is important. Use of Transfer stations as MRFs













Our Experiences in setting up DSWM in India

GIZ Project - Developing technically and financially viable solutions for decentralized waste management for Nagpur, Pune & Surat Surat - Implemented Decentralized composting pit in SVNIT Campus.



In the second phase we prepared detail report for Treatment of Textile Waste and using the same as fuel to generated Steam



Our Experiences in setting up DSWM in India

Pune - Supported local NGOs in setting up Decentralized Composting facility for one housing colony with about 650 residence





Our Experiences in setting up DSWM in India

Nagpur - Presented technical solutions for processing of cowdung into wood logs for use in crematoriums.



