

Presentation- 22/02/2019  
on  
**C&D Wastes- Fortunes &**  
**Urban Air Quality Management**

to address

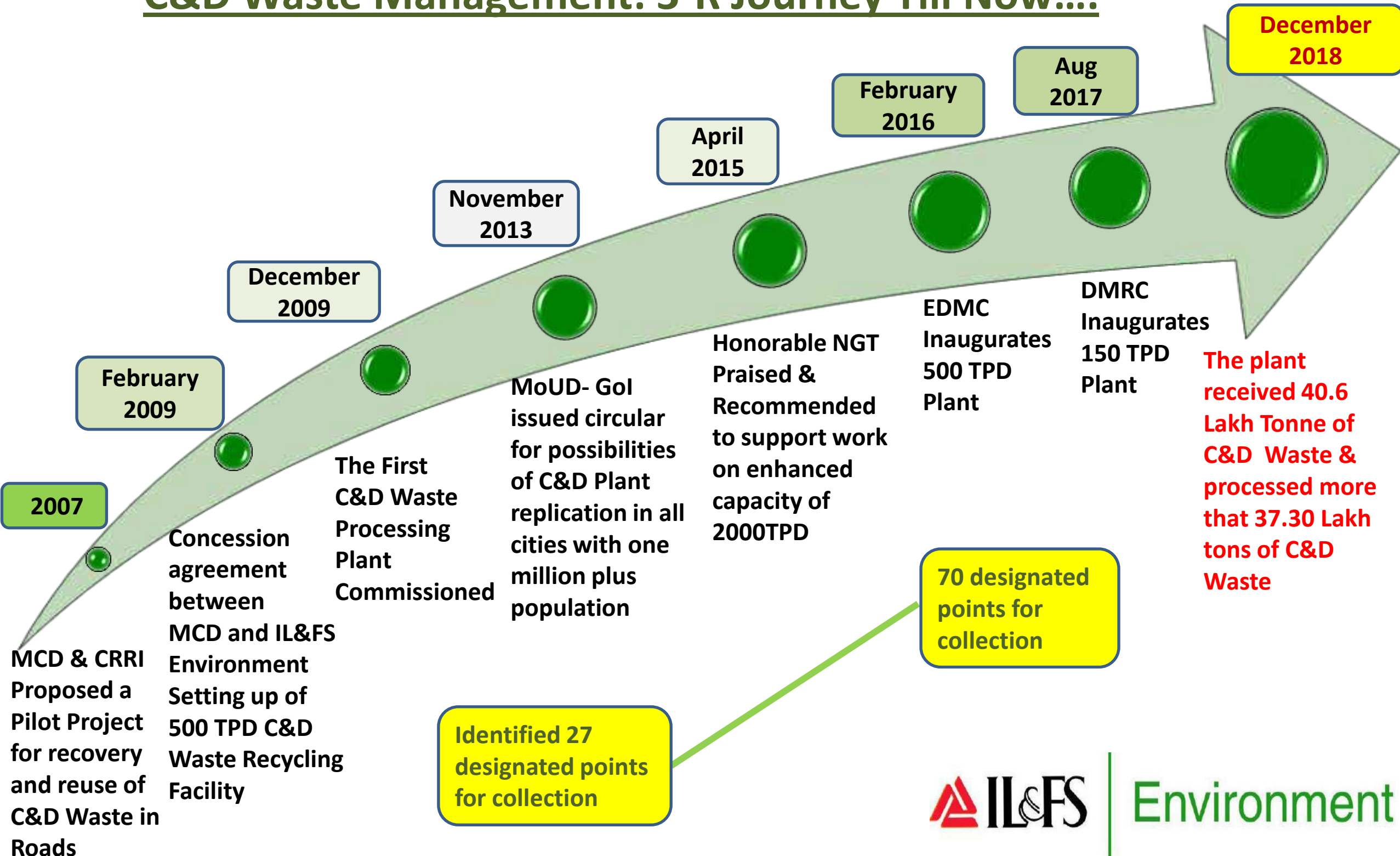
- i) Construction, Demolition & Infrastructure Development**
- ii) C&D Waste Management Rules-2016,**
- iii) Urban Local Bodies on C&D Wastes**
- iv) Environment, Water Bodies & Tables Reclamation**
- v) Integral Environmental Sanitation I/II**

## Construction & Demolition Waste Management Rules, 2016

- Theory of Zero Wastes can be devised on basic principle that speaks “Residual of what is used or produced by one, mostly carries Value for the down- liners\* ”
- \*Down- liners are the operators or recyclers engaged in the business of at- source segregation of waste material which are rejected by users/ producers,
- C&D Waste Management Rules, 2016 primarily drafted to cover Urban Solid Wastes Menace includes and need strong support from-
  1. Waste Generators includes any person, association, institution, establishments including railways, airports, ports & harbors and defense establishments or other who undertakes construction or demolition which generates C&D Wastes
  2. Service Providers means authorities who provides services like water, sewerage, electricity, telephone, roads, drainage and other allied activities

Time is to explore the big money agencies as mentioned above where big budgets are allocated and all are included within C&D Waste Rules, 2016

# C&D Waste Management: 3-R Journey Till Now....



## Implementation of Waste Management Rules, 2016

The Ministry of Environment and forest and climate change, Government of India has revised Municipal Solid Waste (Management and handling) Rules 2000 and notifying six waste management rules in 2016 as follows-

- **Solid Waste Management Rules, 2016**
- **Plastic Waste Management Rules, 2016**
- **Construction and Demolition Waste Management Rules, 2016**
- **E-Waste Management Rules, 2016**
- **Bio-Medical Waste Management Rules, 2016**
- **Hazardous and Other Waste Management Rules, 2016**

**Segregated  
Domestic  
Compostable  
Waste**



**Municipal  
Solid  
Combustible  
Waste**



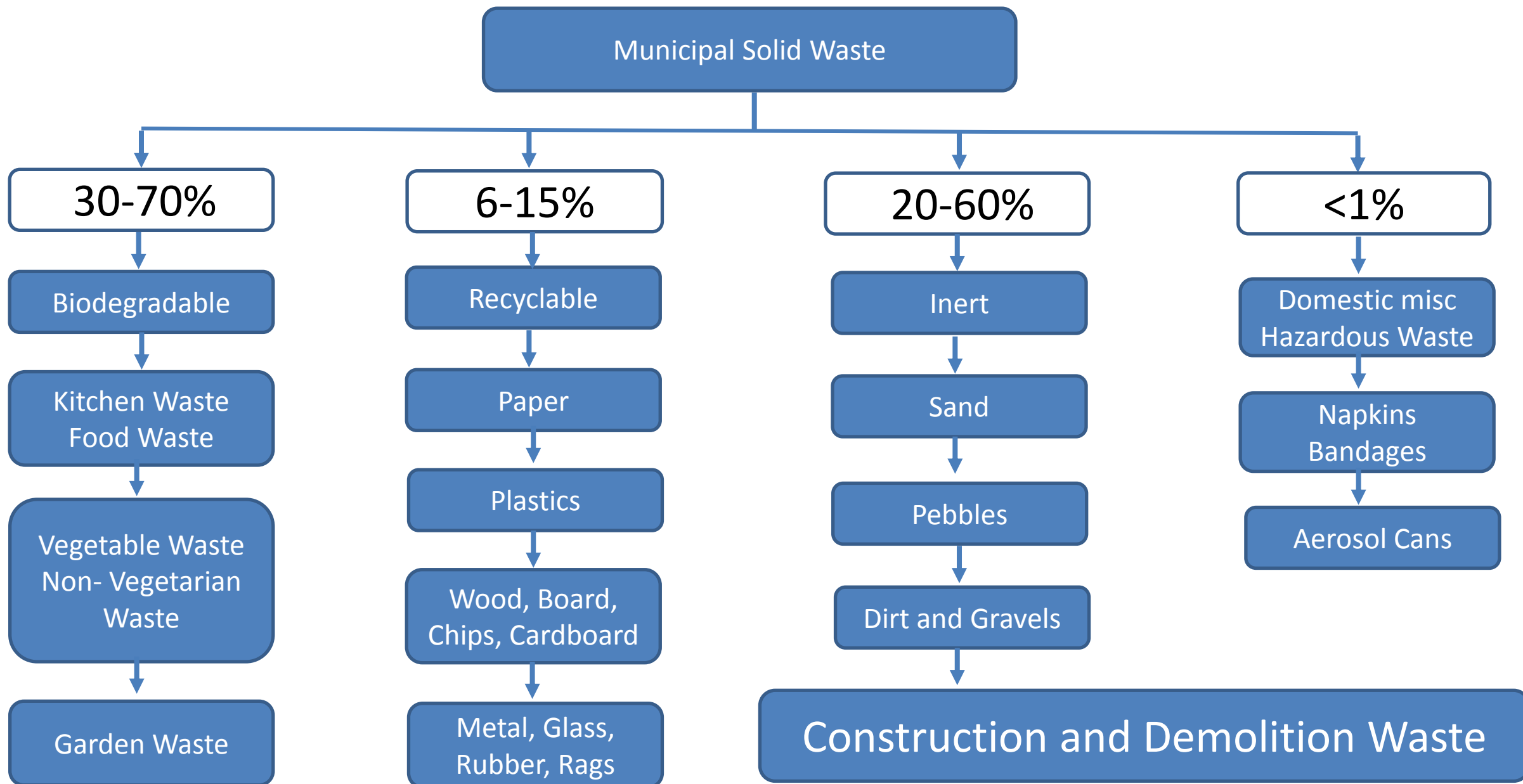
**Inerts/Desilting  
C&D Debris**



**Public Utility  
Desilting Waste**



# Composition of Municipal Solid Waste



## Residual Resource Value Recovery from MSW

S.No.	Particulars	% Fraction in MSW	% Moisture if any	Net % processable	% Res RV Recovery	% Utilization
1.	Biodegradable	50	50-60	40-50	40-50	80-100
2.	<b><u>WtE Combustible (Recyclable)</u></b>	6-15	8-10	7-8	80-100	80-100
3.	<b>C&amp;D Waste/ Inerts</b>	<b>20-60</b>	<b>Negligible</b>	<b>100</b>	<b>100</b>	<b>100</b>
4.	Others, if any	Negligible	Negligible	Negligible	Negligible	Negligible

- It is worth considering from above mentioned table (prepared on the basis of data since 24.07.2009 with us) that all wastes can be processed.
- Technology and trained manpower are available in plenty to setup the facilities for residual resource value recovery and scientifically dispose all wastes thus gaining sufficiently in Value Recovery.

## C&D Wastes included in Swachh Survekshan, 2019

- Latest of its kind in India is Star Rating for Open Defecation & Garbage Free Cities- simplified step by step approach to keep the city clean and green, it includes
- Effective mechanism for Segregation at Source & Collection of Wastes including Door to Door collection turns minimum bare requirement to keep the city clean,
- Cleaning of Public Utility Drains, Sweeping of public, commercial & residential areas with no visible eyesores on streets to be aligned with wastes collection,
- System in place for efficient management of Waste Storage Bins and Litter Bins supported by Zero Tolerance Citizen Grievance Redressal & Feedback System
- Development of Storage & Buffering Zone for gaining on removal of Wastes for Scientific Processing for “Residual Resource Value Recovery” Wastes carries away...
- On Residual Resource Value Recovery and our successful claims of 100% Reusable Construction Grade C&D Wastes Recycled Produce it secures berth in Prime Ministerial National Agenda. We have been ZERO Wastes discharge facility at Jahangir Puri for over five years in a row and continues to be on that very track...

## Construction, Demolition & Infrastructure Development-2030

1. If India goes on its plan for New India, almost 65% of the projects have to flow & shall be executed between now and year 2030 & requirement of construction materials may be as high as 750 million tonne per annum
2. this will lead to generation of around 155-160 million tonnes of residual material per annum for processing to recover the construction grade materials
3. Urban Local C&D Wastes estimates suggest generation level of 28- 35 million tonnes per annum which appears to be critically under estimated.
4. Another big threat to environment is Infrastructure Development. Particularly hill areas where one km of road construction generates around 50,000 tonnes of waste
5. To add to the kitty, the natural source of recoverable material what is carried by flow of water from hill top to plains is yet to be taken into account for processing
6. Production of Construction Materials is another big neglected source of C&D waste generation all around where substantial quantities are left unattended.
7. **It all speaks on the very fact, which has eaten up so far around 42% of Water bodies & reservoirs, badly affecting permeability & water tables are at its worst hit.**



## Environment, C&D Wastes and Water Bodies/ Table

1. Generation of the Revenue Plan for operational sustainability
2. Process, Equipment & Machinery Design and Implementation Plan
3. Cost of Process Execution and Cash benefit to the Organizations
4. Financial Implication and source of funding Skelton designing
5. Self sustainable financial model draft
6. Zero Tolerance Standard Operating Procedure Design and Executive System Management
7. 3 to 5 year Zero Discharge Process Design plan for the sectors

## Integral Environmental Sanitation- I & II (Proposed)

### IES- I: Attaining Status of Star Rated Garbage Free City needs-

- ***To prepare Standard Operating Procedures to attain Star Rated Garbage Free Nation***
- To create, design & develop the tools and equipment for implementation of Waste Management Rules, 2016 thus ensuring 7-Star Rated Garbage Free City structures,
- It requires to carry out Process Audit of specific existing work awards & service contracts of execution over past 3- 5 years to ensure delivery of very objective for every award,
- Preparing EPC/ O&M or otherwise process design pattern for Land Reclamation/ Bio Remediation/ Soil Reclamation of Existing Dumpsites
- Preparation of Integral Environmental Sanitation Plan- I & II (proposed) to achieve the status of India's first Full Fledged 7-Star Rated Garbage Free City.
- Any and every activity proposed by us shall be designed in a limited time bond manner with either side improvisation & penalty provisions.
- Proposal being innovative kind one, fair Price Discovery on inclusive Nomination/ Regression pattern shall be opted

## Zero Waste City Advantages

- Health, hygiene, clean and pollution free environment is the specific result from achieving 100% processing of waste.
- Municipal Corporation and other bulk waste generating agencies will be in a state of comfort by contributing in management of waste/ their liability.
- Zero waste atmosphere will support Municipal Corporation to deliver their best towards very purpose of their constitution to serve the society.
- In addition Lakhs of tonnes of Crude Dumped Garbage will be reprocessed and chances of land utilization will substantially improved.
- Several acres of land presently not being utilized shell be rearranged for developing waste processing facility management.
- Costs of waste handling and dumping are sufficiently higher at present and zero waste approach will reduce cost burden in a big way.

# THANK YOU



## Residual Resource Value Recovery

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