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Sub:- Solid Waste Management - Municipalities and Corporations - Municipal Solid Waste (Management and Handling) Rules 2000- measures to improve the situation-suggested-Regarding.

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The GOI have stated that some of the major issues concerning waste management are:

- (a) Absence of segregation of waste at source.
- (b) Lack of funds with ULBs for waste management
- (c) Lack of technical expertise and appropriate institutional arrangement
- (d) Unwillingness of ULBs to introduce proper collection, segregation, transportation and treatment / disposal systems
- (e) Indifference of citizens towards waste management and hygienic conditions.

The following are the possible waste management options:

At least 50% to 55% of municipal solid waste is a valuable resource, which can be recovered profitably using different technologies through following processing options:

- Recyclable materials like paper, cardboards, plastics, polythene bags, pieces of metals and glass are recycled to recover useful resource.
- The Organic fraction of municipal solid waste contains bio-degradable matter ranging from 30% to 55%, which can be profitably converted into useful products like compost (organic manure), methane gas (used for cooking, heating, lighting production of energy) etc., through the following processes:-

- (a) Waste to Compost
  - (i) Aerobic / Anaerobic Composting
  - (ii) Vermi-Composting
- (b) Waste to Energy
  - (i) Refuse Derived Fuel (RDF) / Pelletization
  - (ii) Bio-methanation
  - (iii) Incineration ( but difficult due to low calorific value and high moisture)
  - (iv) Pyrolysis / Plasama Gasification (energy intensive)

- Rejects from compost plants, recycling and other inorganic materials like construction debris in Municipal Solid Waste are sent to scientifically engineered landfills.

However, the success of the above mentioned options largely depends on segregation of waste at source.

So, the GOI has requested to direct all the Civic Bodies to undertake the following measures to improve the situation of Solid Waste Management in the urban cities/towns:-

- 1 The recovery of recyclables presently being done in an unorganized manner needs to be replaced with informal arrangements of rag pickers and NGOs/CBOs also being involved for effective door to door collection.
- 2 Appropriate collection vehicles such as push carts, tricycles should be introduced for effective primary collection.
- 3 Street sweeping / non-organic wastes should be collected and kept in separate containers and transported to the landfill site without mixing with organic waste.
- 4 The Secondary collection receptacles, such as easily liftable dumper placer etc ( to avoid manual handling of waste) should be kept at strategic locations and the wastes should be regularly removed / placed transported to the bigger vehicles to be transported to the transfer stations or disposal/landfill sites.
- 5 Manual handling of solid waste should be eliminated.
- 6 The workers should be provided with uniforms, shoes, gloves and other implements etc., for their safety and easy working. They should be subjected to periodical health checks and health insurance.
- 7 PPP may be explored/introduced for functions such as door to door collection, street sweeping, transportation, treatment etc.,
- 8 Acquisition/earmarking of land required for the project should be facilitated by proactive guidelines/direction from the State Level. Master Plan process should actively address this requirement.
- 9 Waste Characterization has to be done properly taking representative samples from the city for various types of wastes and the treatment process should be selected accordingly.
- 10 Appropriate technology options for treatment of the organic content of the wastes should be based on the physical and chemical characteristics of the wastes and local condition etc.,
- 11 IEC (Information, education, and Communication) in order to educate households, Municipal staff as well as personnel engaged in collection and management of waste about need for segregation at source and improved sanitation is the most important element in success of a SWM project. This must be accorded due and adequate priority.
- 12 'Polluter Pays' Principle (fine) should be implemented in a calibrated manner in order to instill a sense of discipline with respect to throwing of litter by people without any concern for cleanliness.

Hence all the Corporation Commissioners and Commissioners and Executive Officers of Municipalities are requested to chalk out a programme for better municipal solid waste management.

The Regional Directors of Municipal Administration are also requested to extend their Co-operation in this regard. The Corporation commissioners and Regional Directors of Municipal Administration are requested to send a detailed report on action taken in this regard to this office early.

Director of Municipal Administration.

- To
- All Corporation Commissioners
- All Regional Director of Municipal Administrations
- All Commissioners and Executive Officers of Municipalities
- Copy to
- The Secretary to Government, MAWS Dept, Chennai 9
- All Officers of D.M.A. Office
- The Director, TNIUS, Coimbatore.