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Solid Waste Management : Its Challenges In Urban India

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Solid Waste Management: Its Challenges In Urban India Abstract: The motivation of present study is major problem and challenges faced by municipal solid waste management in urban India. The study also represents the current status of solid waste management in various cities of India. Smart City concept of government has also helped in proper solid waste management. Paper also provides suggestions, measures to dispose the solid waste.

Abstract :-

The motivation of present study is major problem and challenges faced by municipal solid waste management in urban India. The study also represents the current status of solid waste management in various cities of India. Smart City concept of government has also helped in proper solid waste management. Paper also provides suggestions, measures to dispose the solid waste.

Keywords :-

Urbanisation, ULBs, MSWM, MSWR

Introduction :-

India being a developing nation is becoming a industrial and service oriented country from agricultural based nation. India is 7th largest nation in area and 2nd largest populated nation of the world is divided into 28 states and 9 union territories. According to census of 2011 there are 3 mega cities Kolkatta, New Delhi and Mumbai with population of more than 10 million, 53 cities with more than 1 million population and more than 400 cities with population of more than 1 lakh. These cities are generally business and industry oriented and people have differently waste generation attitude in different areas. Urban environment gets effected with the increase of solid waste due to urbanisation, civilizing living standards, industrial and economic development. No specific steps have been taken by government for systematic management of solid waste. Improper dumping of solid waste is degrades environment of these cities and increasing volume of landfill heaps. Per capita waste generation is increasing day by day and its

more with urban population as compared to rural population of the nation.

Municipal solid waste management (MSWM) ,works for consistent development of metropolitans. This works in different stages like prevention, minimization, reuse, recycle, recovery of energy and disposal of solid waste to lessen the harmful effects on environment. Its very important to properly manage solid waste to protect environment and avoid innumerable ailments. Municipal Solid waste (Management and handlings) Rules 2000 (MSWR) governs MSWM in India with a thrust to implement this rule in urban local bodies (ULBs) across the country.

Review of literature :-

Solid waste management is very vital for research in developing nations like India. Various studies depict the reuse of solid waste management as a desirable element economically, socially and environmentally (Sudhir Muraleedharan, Shrinivasan, 1996). Major problem in urban India is not separating Municipal solid waste and disposal of C&d , Commercial, e-waste, plastic wastes etc (Position paper on the solid waste management sector in India, 2009)

Objectives of the study :-

1. To Study the working of municipal solid waste management in urban areas.
2. To Study the challenges in solid waste management in present time.
3. To Study the recent trends and practices of solid waste management.
4. To know the harmful effects of solid waste on environment.
5. To understand proper disposal of solid waste management.

Research Methodology :-

The research paper is purely based on the available secondary data. Data is collected from various sources such as books, Journals and reports of CIPET, FICCI (New Delhi) and Central Pollution Control Board (CPCB) to understand the practices of solid waste management in urban India.

Some Previous research articles, magazines and different websites were also referred.

Various sources of solid waste :-

There are many sources of solid waste apart from industries. Therefore SWM should be embraced by each household including business houses. Each and every development come with good and bad things as well. The creation of solid waste is one of the negative effects of industrialisation. The following are major sources of solid waste.

Residential :- Some of major sources of solid waste is garbage from residential places which includes plastics, paper, glass, cardboard, metal, electronic waste like tyres, batteries etc

Industrial :- Industries are major contributors of solid waste in urban India. Form of solid waste in urban India. Form of solid waste from industries are like housekeeping waste, food wastes, packaging wastes, ashes, construction and demolition materials, special and medical wastes.

Commercial :- Commercial areas refer to buildings like hotels, restaurants, godowns, stores and market places. It also comprises waste of paper, glass, cardboard and special waste.

Institutional :- Institutions like school, colleges, military barracks and government centre. Wastes from these places are like rubber, plastic, food waste, metals etc.

Construction and demolition areas :- Construction sites including new construction sites for buildings and roads, road repair, building repair and building demolition. Wastes generated from these areas are like steel materials, concrete, wood, plastic, rubber, copper wires, dirt and glass.

Features and components of solid waste in urban India :-

- Household hazardous waste and toxic waste.
- Composite Waste- Waste plastics, tetra packs and waste clothing.
- Recyclable material- Paper, certain plastics, cans, metal, glass, certain bottles.
- Inert waste matter- C&D , debris, dirt
- Biodegradable waste- green or wet waste, Kitchen & food waste, paper.

Practices and challenges of solid waste management in India :-

Practices :-

Separation :- In India whether at household level or community level there is no management of separation of wet and dry waste. If in certain places this kind of separation is done properly but it again gets mixed at the time of collection and hence proper disposal is not done in such cases.

Collection :- Waste produced from households are generally collected from houses or transferred to community bins. Some commercial sectors also use community bins and some other industries engage municipal authorities to collect waste by paying some amount.

Re-Use/Recycle :- Most of waste collected did not get separated and is transferred to bins which include some of re-cycle material but cannot be re used. But some rag- pickers collect plastic and leather from these waste heaps and provide to recycle plants.

Transportation :- Transportation in towns and cities is done with the help of trucks, dumpers, tractors. These vehicles are generally managed by ULBs and incase of technical problem there is drastic problem in transportation.

Disposal :- In India mostly MSW is disposed in very unscientific methods. These waste generally do not reach designated disposal areas remain near roads, low lying areas and drains. Some disposal activities are open dumping, land filling, landfill , gas –to –energy plants, biological treatment of organic waste etc.

Challenges :-

- Lack of awareness and citizen participation to segregate waste, proper collection and proper disposal
- Classification of waste generated in different regions is not known
- Lack of appropriate level funding with the increase of urbanisation.
- No proper implementation of rules of MSWR by ULBs.

- Lack of co-ordination among centre and state.
- Less involvement of organised sector.

Conclusion and Recommendations :-

The above paper describes about the solid waste generation and its proper management in urban areas of India. This explains about different kind of solid waste generated through different sources. India till date is facing a major problem for proper disposal and re use of solid waste management. The government of India should be very keen for proper management of solid waste as it has very harmful effects on humans and environment. Awareness programs to educate public about proper segregation of dry and wet waste. ULB should also take initiative to properly manage solid waste right from proper collection, reuse, recycling and disposal. Systematic methods are very important to preserve our environment.

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