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Case Study on Solid and Liquid Waste Management for Kanhan City

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ABSTRACT: Solid Waste and Liquid Waste has become a serious environmental problem in major cities all over world. The problem of Solid Waste and Liquid Waste is also influencing the urban environment of Kanhan City. The present study was undertaken to enlist the causes of solid waste generation and possibilities of associated problems.

A detailed study comprising the methods of practices associated with generated quantity of waste, collection, transportation, treatment and disposal of solid waste and liquid waste in Kanhan City was conducted.

Domestic Waste is waste, which is either solid or liquid generated in residential areas, Commercial settings and institutions. Waste in general terms is defined as an unwanted as it is obviously undesirable. It is nevertheless an inevitable

and inherent product of social, economic and cultural life. The indiscriminate disposal of waste, both liquid and solid, adversely affects the immediate human environment by degrading the natural phenomena hence, exerting health risk to exposed population. Health risks may be carried through different vehicles including flies, dogs, rodent and others that scavenge on the waste.

KEYWORDS: Scavenge, Solid and Liquid Waste

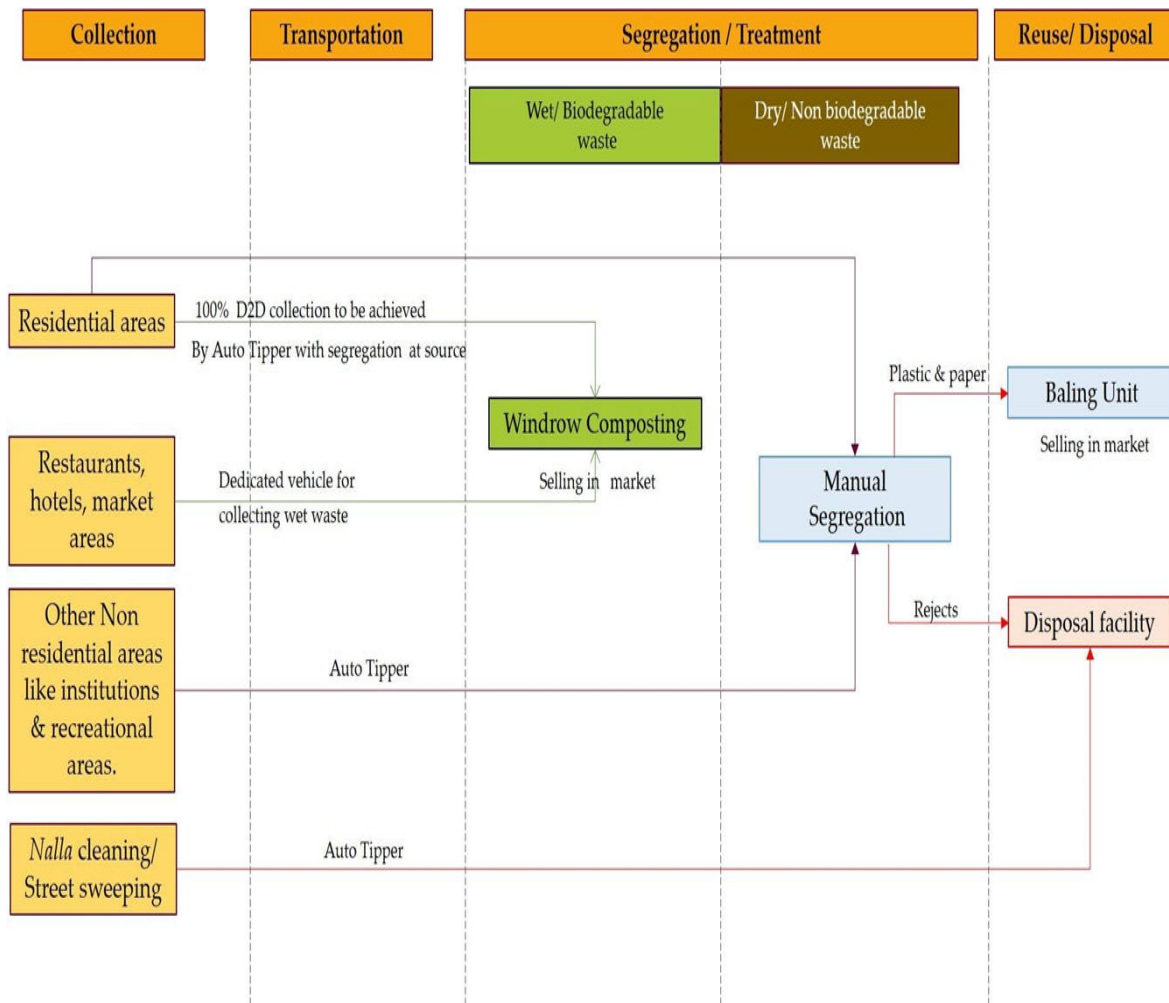
I. INTRODUCTION

Population is increasing day by day and with relevancy that the solid waste generation is to boot increasing bit by bit. The management of solid waste is that the most significant issue for healthy life style and safer area. In several case of solid waste management its determined that there's public apathy and lack of co- ordination between completely different civic bodies.

Modern and unorganized life style is put nice pressure on natural resources. To cater the requirements of individuals completely different product are created. The specialized product created by industries demand careful handling and when treatment. Disposal of solid waste while not correct treatment imposes negative impact on soil, water, air, human health and aesthetic price.

Uncollected wastes accumulate on the streets, public areas, vacant heaps, so making outlawed open dumps. Residents may merely throw their wastes at the closet stream or burn them.

The course forms the basis for helping students understand solid waste management health theories, concepts and practices. It also equips the students with knowledge, skills and attitudes to enable them to conduct hazardous and electronic waste management.



II. LITERATURE REVIEW

Lester et.al., 1999

Reported the used of recycling process in national and statelevel and stated the failure of its application due to varying in population and bad management system. It is considered that the techniques used for recycling were costly and was easy to dispose of in landfill. Finally, they concluded that proper awareness of waste minimization will ensure the reduction of waste thereby decreasing the problem faced by the locality. The MSW policies for recycling should be evaluated by seeing the cost of the community more generally.

Yusof et.al., 2002

Studied and carried out the determination of waste generation in Taman Perling, Johor Bahru, Malaysia. The roles of socioeconomic and cultural influences are discussed in their paper. The methods approaches are data collection, quantitative and qualitative analysis. They concluded by finding that the family size and the population are the root cause of the increase in the solid waste thereby creating the urban and rural area a bad place for development.

Sivapalan et.al., 2002

The chemical characteristics of the waste generated at Kuala Lumpur city. The segregation helps in resorting the useful substances from the waste available. The approaches include analysis of the current and past data in order to compare the growth of solid waste management in the city of the particular area. They concluded by studying the effects caused by the presence of high amount of the heavy metals in the soil or the leachate of the various landfills situated on that area. They also cause serious concern over the health of the human as well as the environment.

Sahasrabuddhe et.al., 2003

Urbanization and its impact towards the water bodies .Due to development many industries arises causing serious problem of solid waste, which improper management led to pollution of water bodies due to dumping of waste in the drainage system or sewage. The methods followed for analysis are field visiting of the studying area, surveying and case study of the past and present data of the Pune city. They finally come to the end that due to development the quality of soil and water deteriorate due to presence of harmful and untreated chemical which was present in the municipal solid waste.

III. METHODOLOGY

Collection of Data:

The data has been obtained from Municipal Corporation and other reliable sources, studied and correlated with the present investigation. The research work includes the efforts for waste characterization and the exploration of possibilities of energy recovery potential of solid waste. The results were analyzed in light of different aspects including the impact of solid waste on the health of ragpickers and workers and the surrounding environment.

Methods of liquid waste management:

- Sedimentation.
- Composting.
- Incineration.
- Root-Zone Treatment.
- Solidification
- Disposal.

Providing required equipment to all the workers engaged in SWM.

A light weight noise less, Low weight, four Swiveling Wheeled hand cart.
Two light weight bins of minimum 60 liters and a maximum of 120 liters, DIN international standard HDPE, injection molded with lifting collar compatible with the standard comb lifters mounted, in hand cart.
Broom Long handed
Brush Long handle
Shovel

Scraper & lifter (compatible to work in upright position)

The cart body will be made of FRP or any other light weight non corrosive material and the frame work will be made from heavy duty pipe, epoxy coated. MS wheels with solid rubberized rim will be mounted on S-S axle as in the picture or four SS / Rubber swiveling wheels will also be mounted on base frame, for sturdy noise less application as mentioned above.

As per MSW Management Manual, 2016 recommendation brooms, brushed lifters, scrapers will have long handle to work in upright position.

Results: -

Government should adopt 4R's (Reduce, Reuse, Recycle and Resource Recovery) principle. Government should increase the number of composting and energy generation plant.

IV. CONCLUSION

Some suggestions would be helpful in improving solid and liquid waste management system in Kanhan city these are as follows:

1. Open waste storage sites and other unhygienic street bins should not be allowed.
2. The placement of waste receptacles should be correct.
3. Door to door collection of waste must be made mandatory that will allow minimum of waste on roads and streets.
4. Land filling must be done properly after consideration of all the aspects of present and future of the city and its health.
5. Alternative and better options for proper waste disposal method must be adopted regularly based on the needs and situation of the area.
6. There must be total ban on stray animals who wander on the roads which include cows, dogs, goats, etc. and these animal must be regularly trapped without any political or community influences.

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