

Solid Waste Issue: Sources, Disposal and Recycling

Ekta^{1*}, Rahul Kumar² and Manju Mehta³

¹Research Scholar, Deptt. of Family Resources Management

²Research Scholar, Deptt. of Zoology and Aquaculture

³Professor, Deptt. of Family Resources Management
CCS Haryana Agricultural University,
Hisar-125004, Haryana, India



Open Access

*Corresponding Author

Ekta*

Article History

Received: 25.01.2022

Revised: 16.02.2022

Accepted: 20.02.2022

This article is published under the terms of the [Creative Commons Attribution License 4.0](https://creativecommons.org/licenses/by/4.0/).

INTRODUCTION

Solid waste is the useless, unwanted and discarded material resulting from day to day activities in the community. Solid waste contains recyclable (paper, plastic, glass and metal etc.), toxic substances (paints, pesticides, used batteries, medicines etc.), compostable organic matter (fruit and vegetable peels, food waste), soiled waste (sanitary napkins, etc.)

Sources of Solid Wastes

- Food waste
- Solid agricultural waste
- Commercial waste
- Medical waste
- Construction waste
- Sanitation waste
- Street sweeping waste
- Industrial waste

Types of Solid Waste

- ✓ Municipal waste
- ✓ Hazardous waste
- ✓ Bio-medical waste

Solid Waste Management

Solid waste management is the process of collecting, treating, and disposing of solid wastes material that is discarded because it has served its purpose or is no longer useful. The waste management process includes collection, transportation, treatment, analysis and disposal. Solid waste management provides solutions for recycling materials that don't belong to garbage and it can be changed as a valuable resource. It is very important for the safe disposal of wastes and to reduce environmental pollution and avoid health hazards.

Functional elements of solid waste management

- Waste generation
- Storage
- Collection
- Transportation
- Segregation & Processing
- Disposal

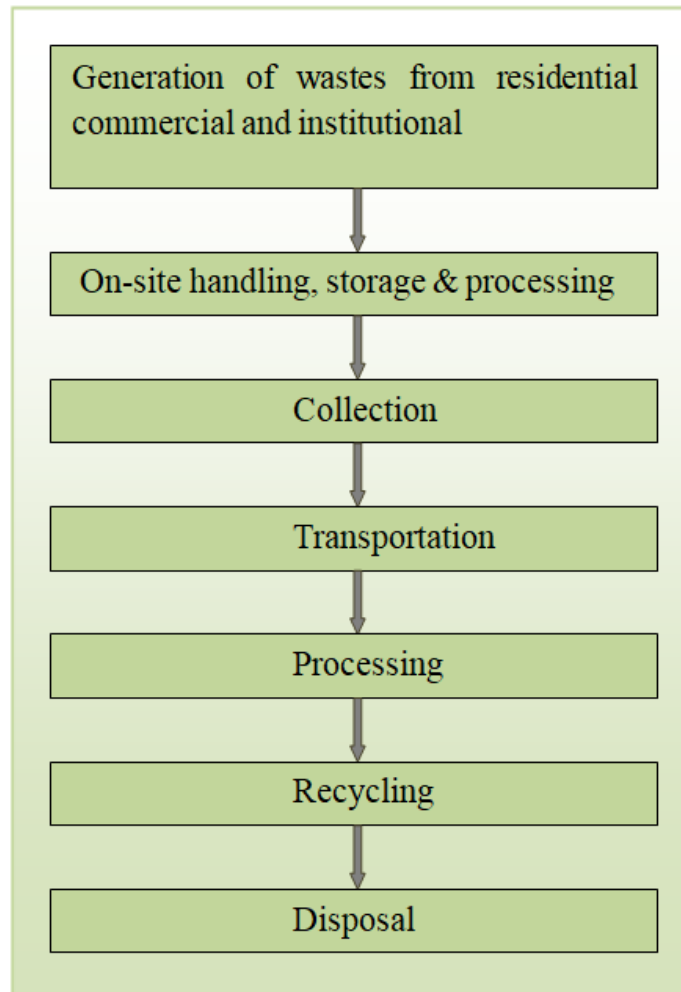


Fig. Fundamental Elements of Solid Waste Management

The 7 R's of Recycling of solid waste management

- ✓ Recycle
- ✓ Refuse
- ✓ Reduce
- ✓ Reuse
- ✓ Repair
- ✓ Re-gift
- ✓ Recover

Disposal of Solid Waste

Disposal of solid waste is done by different methods:

1. Composting: It is a easy and biological process in which microbes metabolize the all organic waste material and reduce its volume.
2. Land filling: Waste is stored on the top of the hill in 5 acres area. All inorganic material is used for the land filling and dumping.
3. Incineration: It is also known as thermal treatment where solid wastes are burned at high temperatures so as to convert them into gaseous products.
4. Biogas Generation: Food waste and animals waste are sent to bio-degradable plants and they are converted to biogas by degradation with the help of microbes.

CONCLUSION

The solid waste management system should be based on environmental protection rules

(reduce, recycle, reuse and recover). Public awareness and public participation must be necessary for sustainable management of solid wastes. There should be sufficient health and safety provisions for waste handling workers at all stages of solid waste disposal and management.

REFERENCES

- Kumar et.al. 2017. Challenges and opportunities associated with waste management in India. *The Royal Society Open Science* 1-11
<https://doi.org/10.1098/rsos.160764>
- Kumar. A. and Agrawal. A. 2020. Recent trends in solid waste management status, challenges and potential for the future Indian cities- A review. *Current Research in Environmental Sustainability* 2(2020) 2-12
<http://dx.doi.org/10.1016/j.crsust.2020.100011>