
SOLID WASTE MANAGEMENT

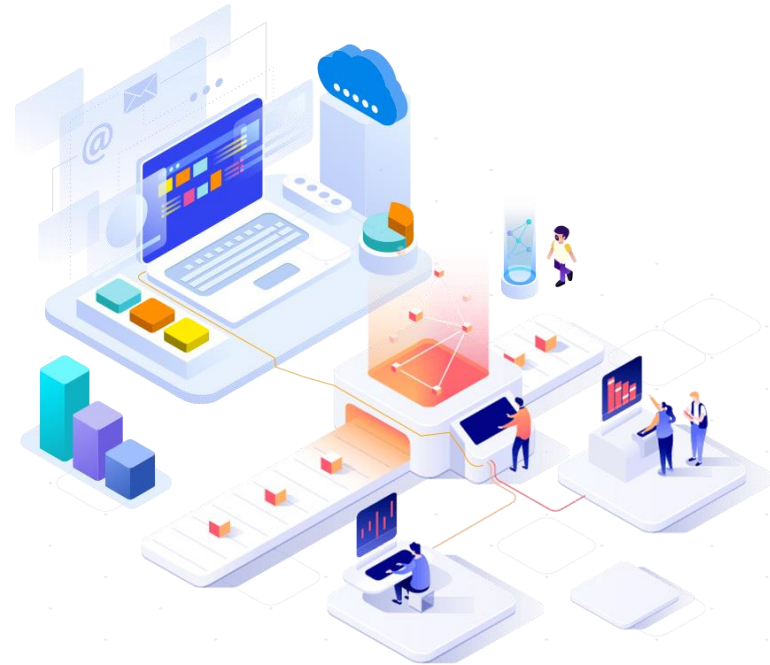
Course: Population and Environmental Health

JULHAS SUJAN, ID # 2025166681, CELL: 01989442856, EMPH, NSU



Outline:

1. Introduction
2. Solid waste management in Dhaka City and my locality
3. Waste generation
4. Waste storage
5. Waste collection
6. Waste handling & transport
7. Waste recycling
8. Disposal of waste
9. Recommendation
10. Conclusion



Introduction

Dhaka is the densely populated cities in the Asia region with many people lives in slums and squatter settlement. The two municipal corporations in Dhaka created when the former Dhaka City Corporation was divided into two. Though we can see the authority of the City Corporations has taken and adopted the solid waste management plan. In both the North and South City Corporation has setup many waste collection zones and services with vehicles and manpower.

Waste Management in Dhaka and My locality at Nikunja-2

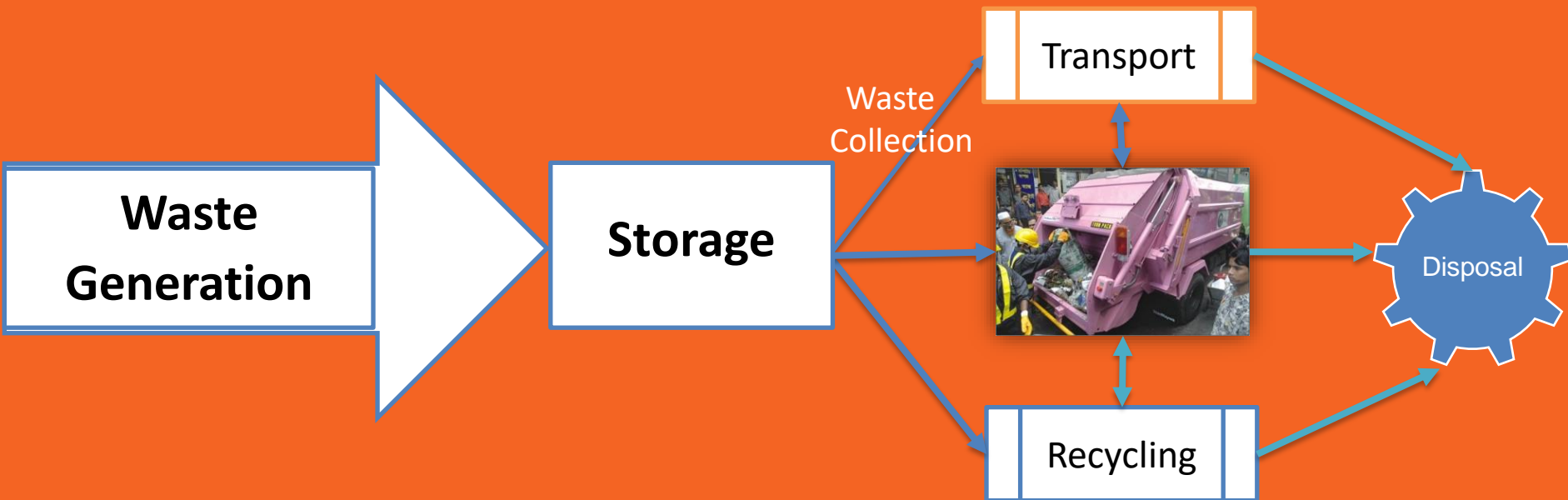
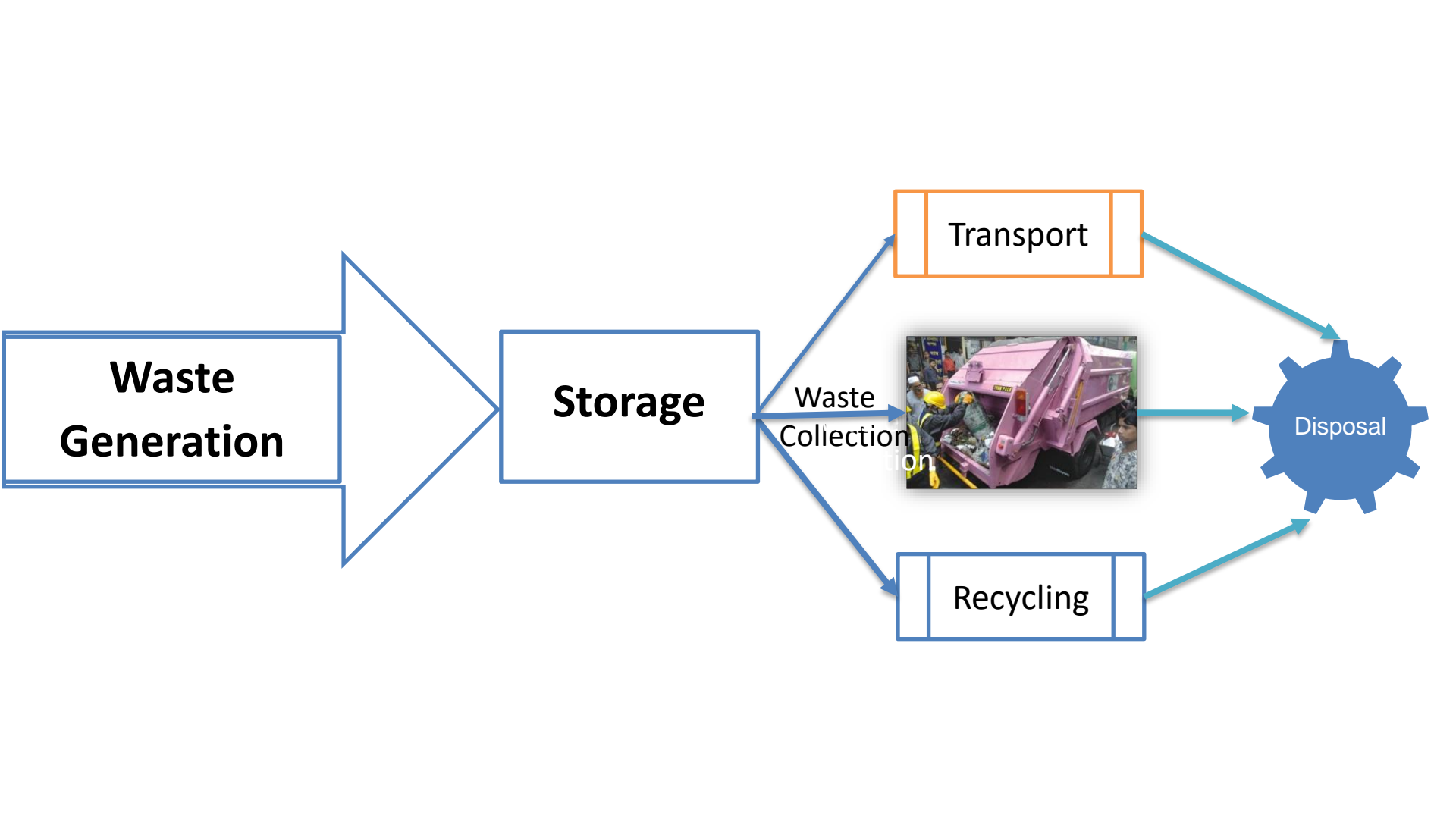


Figure: Waste management process



Waste Generation

As we know the solid waste includes garbage, rubbish, demolition, sewage treatment residue, dead animals, manure and other discarded materials. The waste in my locality is being generated by food waste, paper cloth, construction debris, clinic waste, metals and appliances.

Waste Storage

In Dhaka city, waste is kept in public bins and dedicated collection zones. The standard storages of waste are galvanized steel dust bin, paper sack and public bins.



Figure: Dhaka City Corporation Public Storage



Figure: Household level waste storage (Nikunja-2)



Figure: Waste storage in City Corporation selected location (Nikunja-2)

Waste Collection

The Dhaka City has been divided into two major units - Dhaka North City Corporation (DNCC) and Dhaka South City Corporation (DSCC). These units are responsible for solid waste collection and disposal in their respective areas. Nikunja-2 residential area is located under Dhaka North City Corporation (DNCC). All the waste from the public bins and household are collected each day in this area.



Figure: Door-to-door waste collection (Nikunja-2)

Waste Handling & Transport

Waste handling and separation involves activities associated with waste management until the waste is placed in storage containers for collection. Handling also encompasses the movement of loaded containers to the point of collection. Waste is transferred from a smaller collection vehicle to larger transport equipment in the locality.



Figure: City corporation waste collection (Nikunja-2)

Recycling Procedure

Recycling refers to the collection and reuse of waste materials such as empty beverage containers. Materials for recycling may be collected separately from general waste using dedicated bins. In Dhaka City, the informal recycling sector for the recovery of non-organic materials.

Disposal of waste

The objectives of the disposal are to maintain public hygiene and health, reuse, recovery and recycle, energy generation, and sustainable development. Collected waste is first transported on hand vans from dense neighborhoods to consolidation locations, where it is loaded onto city-owned trucks. The trucks transported the waste to a controlled landfill.



Figure: Landfill by waste, source: Internet

Recommendation

Though it is bit difficult to focus on the actual country situation or Dhaka city waste management process by giving example of Nikunja-2. There are lots of factors included in a standard waste management. For my locality I would like to recommend the following things to be improved:

- Smart dumping and transportation of waste
- Timely waste collection
- Keeping minimum distance of the City Corporation selected zones
- Improving surveillance of the overall process
- Public bins protection and regular cleaning
- Energy generation if possible
- Fertilizer generation
- Landfill gas capture

Conclusion

The practice of proper, scientific, and hygienic management of waste and at the same time to convert it into energy or resource, could ensure a safer life of people and at the same time ensure a sustainable healthy atmosphere for our future generations.

References

1. <https://www.apo-tokyo.org/publications/files/ind%E2%80%9022%E2%80%90swm.pdf>
2. <http://www.naturestudysociety.org/solid-waste-management-in-dhaka-city/>
3. <https://ejatlas.org/conflict/waste-worries-and-precarious-informal-recycling-in-dhaka-bangladesh>

.

Thanks

Any queries?