

Lecture 15: Waste Management

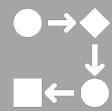


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Definition of Waste



Any material which cannot be used in the form in which it is produced



It is no longer needed by us because it has lost its original value.



If it is not properly disposed of, it can cause soil, air or water pollution.



Its accumulation also poses serious threat to living organisms and the ecosystem.

Examples of Wastes

- 1. industrial wastes
- 2. domestic wastes
- 3. electronic wastes
- 4. construction wastes
- 6. agricultural wastes
- 7. nuclear wastes

Classification of Wastes

Based on physical state

- 1. solid waste
- 2. liquid waste
- 3. gaseous waste

Based on degradability

- 1. biodegradable waste
- 2. non-biodegradable waste

Effects of Wastes

- Green house gases (GHGs) are accumulating in the earth's atmosphere as a result of human activities causing increases in the global mean surface temperature and subsurface ocean temperature.
- Rising global temperatures can result in increased sea levels and changes in precipitation and other local climatic conditions.
- Changes in regional climates can alter forests, crop yields and water supplies.
- Such changes can also affect human health, animals and many types of ecosystems.

Effects of Indiscriminate Disposal of Wastes

1. Water pollution

2. Air pollution

3. Soil pollution

4. Eutrophication

5. Development of wastelands

Waste Management

REDUCE

Reduction is the best option. If we reduce at source, there is a smaller chance of waste generation and the pressure on our already stretched natural resources is reduced.



REUSE

Reuse is the next best option, as the product is reused in its current form without any energy expended to convert it into a new item.

RECYCLE

Recycling is the last option, as although it converts a waste into a resource, it uses energy to transform that resource into a new useable product.





Thank you.