

Pet Bottles Life Cycle Assessment

What is LCA?

Life cycle assessment (LCA) provides the environmental impact associated with the production, consumption, and recycling of a PET bottle

Stages of Life Cycle

- Raw material acquisition
- Production and distribution
- Consumption
- Disposal or recycling

Raw material Acquisition

The extraction and refining of resources in the raw material acquisition stage results in GHG emission, disruptions to wildlife, landscape changes, and oil spills

Production Stage

During the production stage, there is a substantial amount of energy and oil used to make plastic resin and plastic bottles, which in turn leads to a large amount anthropogenic GHG emissions. Additionally, the consumption stage is associated with negative life cycle impacts on human health, such as endocrine disruption and cancer

Disposal Stage

There are environmental concerns associated with littering and waste management

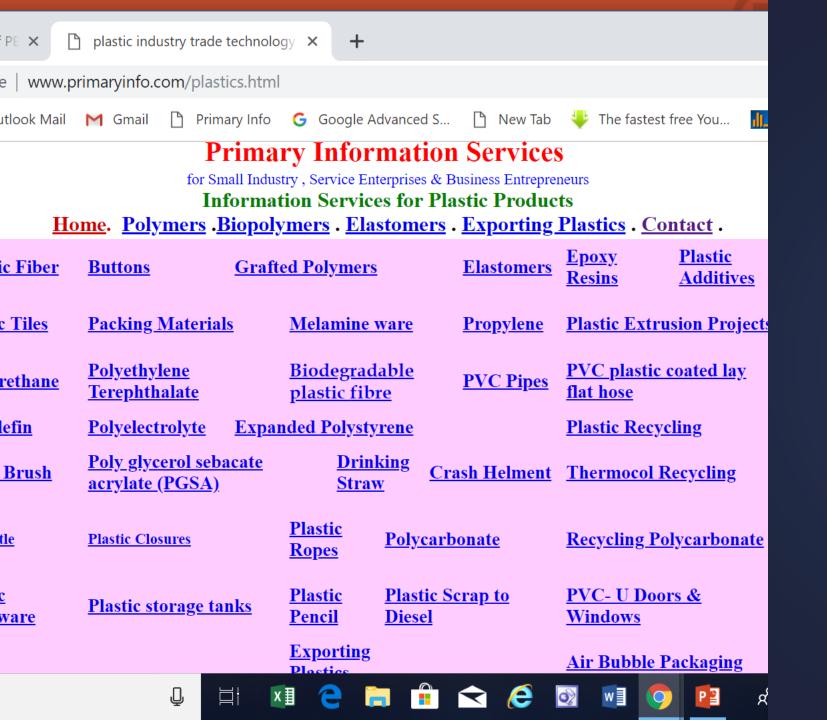
techniques such as incineration and landfills

Recycling is one strategy for end-of-life waste management, but there are still many challenges

associated with the collection, sorting, cleaning and separation of plastic

The processes for PET production, PET bottle production, bottling and PET recycling should be optimized

The prices of plastic bottles to not reflect the true economic costs, which in turn results in the overproduction and consumption of plastic products. Information asymmetry between producers and consumers is also an issue in this market



QUESTIONS?

mailto:primaryinfo@gmail.com