

# Plastics Sustainability: The most critical issue facing the plastics industry

Plastics sustainability is one of the biggest potential disruptors on the policy front and an issue that could lead to greater regulation (including bans) and/or deselection by consumers, retailers and brand owners.

**The value chain shifts to a proactive instead of reactive approach.**

## Trends: Sustainability taking center stage

### Sustainability

- Resource crunch
- Climate change
- Circular economy
- Ocean waste
- Infrastructure

### Changing Demographics

- Growing population
- Aging societies
- Urbanization
- Social media

### Globalization

- Ambience of technology
- Knowledge societies
- Consumer activism
- Mobilization

### Paradigm Shifts

- Global trade
- Emerging markets
- Rising middle class

## The demand change in plastics cascades through the value chain

A **10 million ton** demand loss in polyethylene results in ...



**A 10 mmt PE demand loss**



A **10 mmt** loss for ethylene, reducing operating rates **3-5%** equivalent to **2 years of demand**



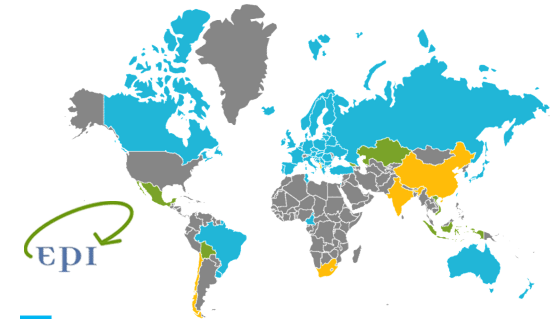
A **35 mmt / 700K** bls/day loss for naphtha



Impact in crude throughput will require refinery re-configuration

## Packaging Extended Producer Responsibility (EPR)

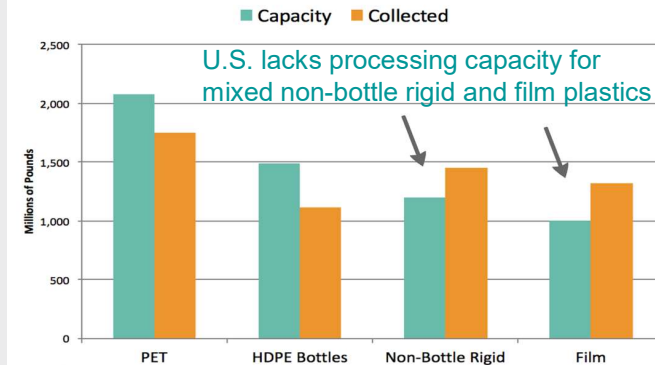
Fees on all packaging and certain plastic products paid by manufacturers; used to develop recycling infrastructure and encourage recycled content.



- In Effect (mandatory & voluntary)
- In Implementation – India and China expected by 2020
- Framework EPR Legislation

## Infrastructure & Economic Barriers to Circular Economy for Plastics

2016 U.S. Reclamation Capacity vs Collection



MORE RECYCLING

## IHS Markit Study - A Sea Change: Plastics Pathway To Sustainability

Plastics sustainability challenges the understanding of the industry from a demand, supply, regulatory and technology standpoint. It involves every participant of the value chain – from energy to consumer. A Sea Change: Plastics Pathway To Sustainability special study helps stakeholders move progressively to address the issues of plastics sustainability with extensive analysis and data quantifying the impacts.

[www.ihsmarkit.com/plastics](http://www.ihsmarkit.com/plastics)