

# Packaging

## Before you Begin

“Packaging” is “material” used to wrap or protect goods. Packaging as a technology is used for enclosing or protecting products for distribution, storage, sale, and use. Packaging is used in different industries including aerospace, beverages, chemicals, hospital, pharmaceuticals, food, to name a few.

Packaging is also used as a means to provide information (contents of packaging, ingredients, quantity, date of manufacture and expiry and cost of product to name a few) to consumers.

Packaging comes in different forms, in different sizes and uses different types of materials depending on the items or the products they are protecting. Packaging can be for a product as small as a tissue wrap for a burger or as large as a shipping container.

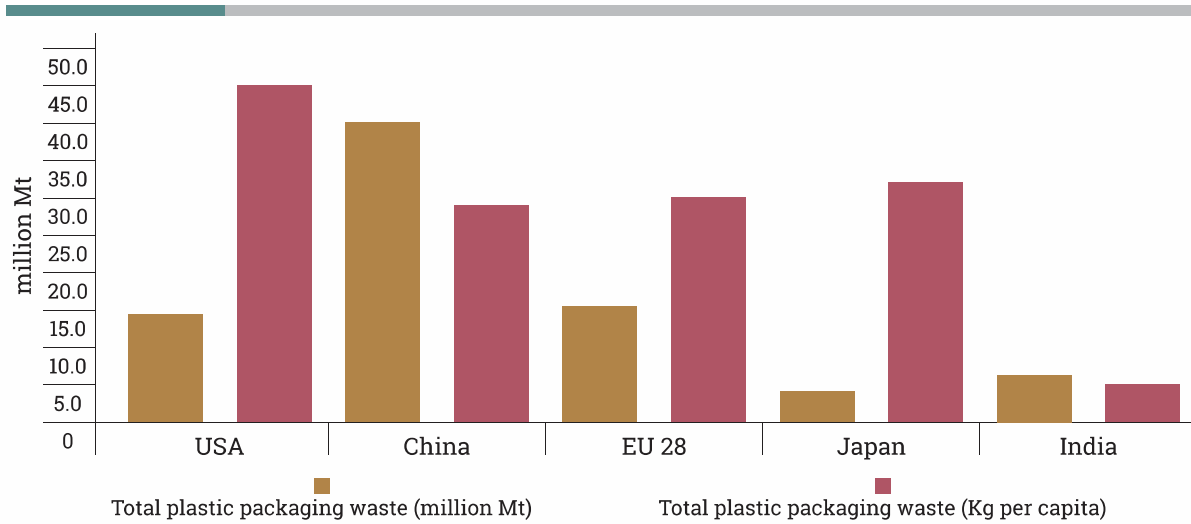
There are a number of benefits to packaging, some of these include

- barrier protection - packaging material serves as a barrier and protects the product from factors like dust, water, and other contamination.
- physical protection - is to protect the packaged product from dropping, shock, extreme temperature and vibrations to name a few.
- convenience - in terms of distribution, handling, stacking, opening and closing, reuse, recycling, etc.
- security - to increase safety in terms of tampering, theft, etc.
- sustainability - returnable and reusable packaging could be used a number of times prior to recycling.

As per Eurostat website, in Europe during 2015, 166.3 kg of packaging waste was generated per inhabitant in the EU (varying from 51.2 kg per inhabitant in Croatia and 222.2 kg per inhabitant in Germany). From 2006 to 2015, paper and cardboard was the main packaging waste material in the EU (34.8 million tonnes in 2015) followed by plastic and glass (15.9 and 15.8 million tonnes respectively).

As per UNEP, The single use packaging is one the biggest environmental challenge. Plastic packaging is mostly single-use, especially in business-to-consumer product, and a majority of it is discarded the same year it is produced. Nearly 50 percent of the plastic waste generated globally in 2015 was plastic packaging. Much of this packaging, including polystyrene and other plastics, does not break down quickly and when they are disposed in landfills, they create long-term environmental problems. The production of packaging uses natural resources including water, and electricity that has independent environmental impacts. By products of manufacturing are also a concern.

## Plastic packaging waste generation, 2014 (million Mt)



Source: UN environment *singleUsePlastic\_sustainability*