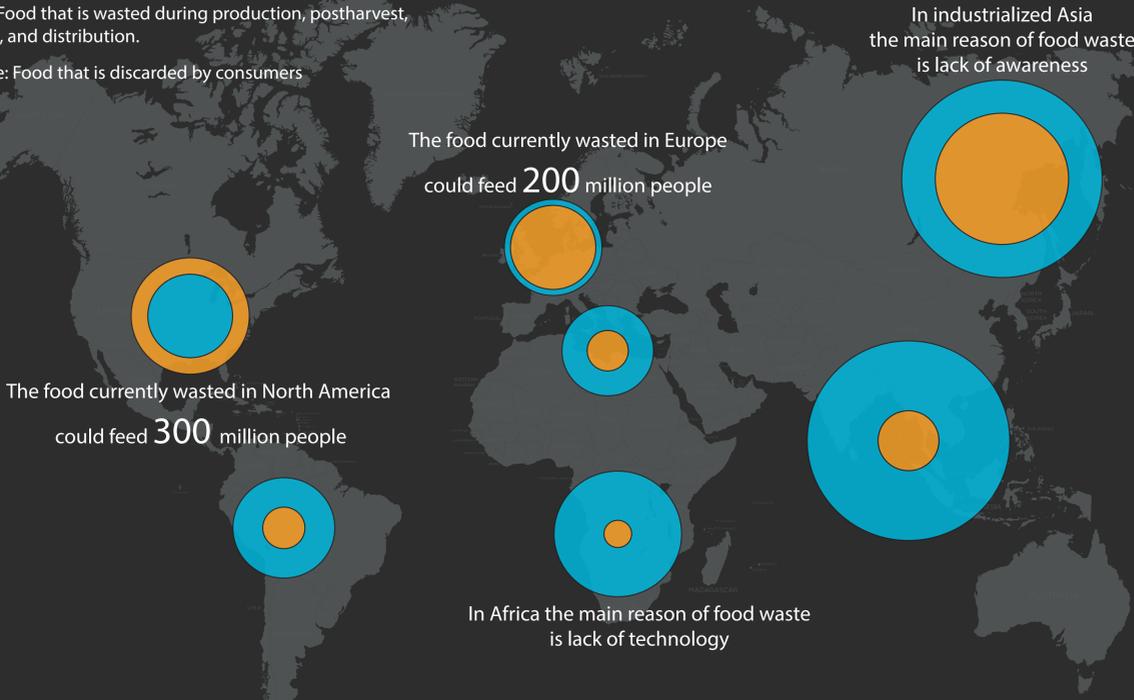


# Global Food Challenge

- Food loss: Food that is wasted during production, postharvest, processing, and distribution.
- Food waste: Food that is discarded by consumers

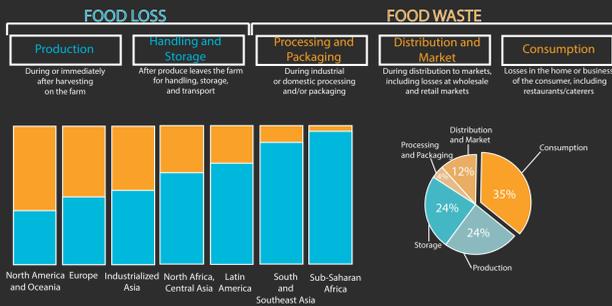


- One third of the food produced in the world for human consumption every year approximately 1.3 billion tonnes, gets lost or wasted.
- Per capita waste by consumers is between 95-115 kg a year in Europe and North America, while consumers in sub-Saharan Africa, south and south-eastern Asia, each throw away only 6-11 kg a year.
- Fruits and vegetables, plus roots and tubers have the highest wastage rates of any food.
- Food loss and waste also amount to a major squandering of resources, including water, land, energy, labour and capital and needlessly produce greenhouse gas emissions, contributing to global warming and climate change.
- In developing countries 40% of losses occur at post-harvest and processing levels while in industrialized countries more than 40% of losses happen at retail and consumer levels.
- In developing countries food waste and losses occur mainly at early stages of the food value chain and can be traced back to financial, managerial and technical constraints in harvesting techniques as well as storage and cooling facilities.
- In medium- and high-income countries food is wasted and lost mainly at later stages in the supply chain. Differing from the situation in developing countries, the behaviour of consumers plays a huge part in industrialized countries.



Our world is getting larger and hungrier  
By 2050, the world need about 60% more calories per year in order to feed a projected 9 billion people.

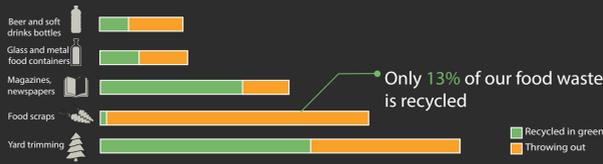
## The phases of the food chain



\*Food loss and waste occurs more 'NEAR THE FORK' in developed regions and more 'NEAR THE FARM' in developing regions

\*The main reason of food waste in developed countries is at consumption stage, involves food waste generated in the home by consumers in household units.

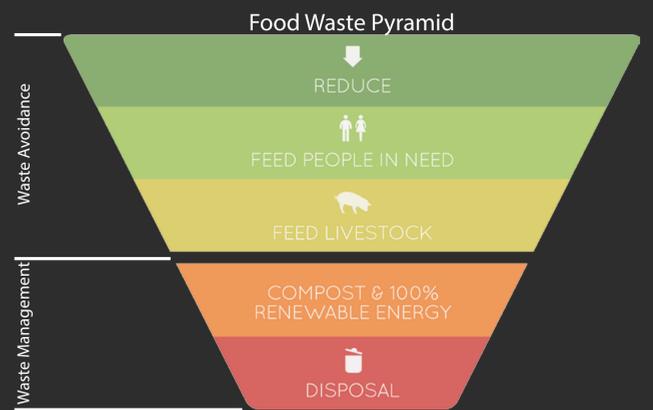
## What Are We Trowing Out?



## Where Does Our Trash Go?

- 1 Recycling**  
Any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes, expect use as fuel.
- 2 Composting**  
The biological treatment (anaerobic or aerobic) of biodegradable matter resulting in a recoverable product.
- 3 Landfills**  
The depositing of waste into or onto land, including specially engineered landfill and temporary storage of over one year.
- 4 Incinerating**  
Thermal treatment of waste that involves the combustion of organic substances contained in waste materials.

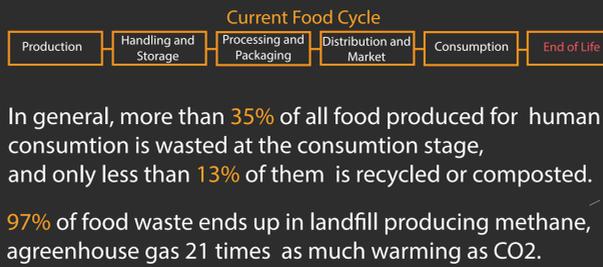
## How To Manage Our Food Waste?



## Impacts of Food loss and food waste

- Waste of water resources
  - Greenhouse gas emission
  - Cost/Value of the food
  - Energy consumption
  - Soil degradation
- Europe, North America, Oceania and industrial Asia have the highest carbon footprint of food wastage at the consumption stage.
- Food waste at consumption stage has more negative effects on environment and economy.
- \*Throwing away food is a huge waste of the energy, water and packaging used in its production, transportation and storage.

## Where Does Our Food Waste Go?



The Food Waste Pyramid which has been designed for the proper disposal of food waste and this is how it should be. One of the best solutions to manage our food waste is composting.

The organic portion of our garbage is part of our food ecosystem production, and should be returned to the soil as compost to supply nutrients and organic matter. Maintaining and increasing soil organic matter content is integral to sustainable food cycle.

## Sustainable Food Cycle

A food system's sustainability is influenced by natural and human factors. These factors interact with each other within a food system. For example, the availability of water and land for food production is influenced by human actions, while human choices are influenced by environmental conditions.

Society is losing its connection with the soil and with the farming community as our food producers. We no longer recognise that everything we eat has to be grown and, at the same time, almost everything we eat produces organic waste.

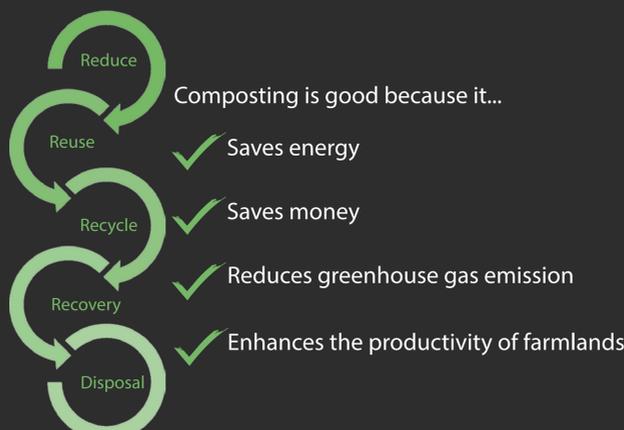


## Compost Food Waste

Composting food wastes creates a product that can be used to help improve soils, grow the next generation of crops, and improve water quality.

Instead of throwing food scraps straight into the kitchen bin, we can help the environment by using a food waste collection service or composting much of it at the site.

Families can reduce their garbage collection bills and municipalities save money on transporting and disposing of waste when organic materials are eliminated from the collection system.



## Focus Group

In developed and high-income countries food is wasted and lost mainly at later stages in the supply chain. Differing from the situation in developing countries, the behaviour of consumers plays a huge part in industrialized countries. There is a lack of coordination between actors in the supply chain as a contributing factor.

Approximately 50% of the waste stream in developed countries is organic waste, most of which is food waste.

In Europe, 1 person throw away 105 kg food every year  
In Denmark 180 kg

## Key Causes of Food Waste at Household Sector

