

# Global food waste and its environmental impact

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When food waste is dumped in landfill, it will produce decomposition odor, attract flies and pests, and may increase the biological oxygen demand (BOD) of leachate. The EU landfill directive and waste regulations are the same as those of other countries. The road from landfill to organic waste. Starting in 2015, organic waste from restaurants in New York City will be banned from landfilling.

In the United States, Britain and other countries, food residues account for about 19% of landfill waste. In landfills, food residues are easily biodegradable and produce methane, a powerful greenhouse gas. Methane or CH<sub>4</sub> is the second most common greenhouse gas emitted into the air and is also produced by landfills in the United States. Although the residence time of methane in the atmosphere is shorter than that of carbon dioxide, the efficiency of capturing radiation is higher. For 100 years, the impact on climate change has been 25 times that of carbon dioxide. Humans account for more than 60% of global methane emissions.

If it is used for other purposes than human beings, a large number of fish, meat, dairy products and grains will be discarded every year around the world. Feeding food residues to domestic animals such as pigs or chickens has always been the most common way to deal with household food waste. These animals convert about two-thirds of their food intake into gas or feces, while the last third is digested and reused as meat or dairy products. There are also many ways of producing agricultural products and raising livestock, ultimately reducing waste.

Bread and other cereals discarded from the human food chain can be used to feed chickens. Traditionally, chicken particles are mixed with ground by-products, known as 'catch chicken'. Similarly, chickens that deliver leftovers to backyards are an important part of the campaign's stated sustainability, although not all backyard breeders recommend it ruminants and pigs have long been fed baking waste.

Some food residues (such as meat) can also be used to raise maggots you can then feed other animals. In China, some food waste is treated by feeding cockroaches.

Food waste can be biodegraded by composting and then used for soil fertilization. Composting is an aerobic process completed by microorganisms. In this process, bacteria decompose food waste into simpler organic materials, which can then be used in the soil by redistributing nutrients and high microbial populations, composting reduces water runoff and soil erosion by increasing rainfall infiltration, which indicates a 75-95% reduction in sediment, nutrient and pesticide losses in the river.

Traditional composting uses microorganisms to decompose, which is the most effective process of composting using low temperature, medium and high temperature microorganisms (medium and medium temperature microorganisms respectively) thermophilic microorganisms need enough heat to kill pathogens. According to the U. S. Environmental Protection Agency, the use of this traditional compost product in soil standards is satisfactory. The traditional decomposition process takes a long time, and the frequent material rotation and maintenance of aerobic process need

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extra energy. High temperature microbial compost will lead to nutrient loss, compost products have heterogeneity, may produce high content of pollutants, and may cause harm in agriculture another method of earthworm composting.

Anaerobic digestion produces useful gas products and solid fiber 'compostable' materials. Anaerobic digestion plants can generate electricity by burning methane in food and other organic wastes, which is the emission of greenhouse gases, used to pay for the cost of plants and reduce the energy provided by wastes. The U. S. Environmental Protection Agency points out that the use of anaerobic compost can avoid large amounts of food waste. In addition to the emission of greenhouse gases from landfills to the environment, these greenhouse gases can also be reused through the use of these facilities.

Due to the large amount of biogas produced in the composting process, there are potential safety hazards such as explosion and poisoning. These interactions require proper maintenance and use of personal protective equipment some states in the United States, such as Oregon, have implemented licensing requirements for such facilities based on potential hazards to residents and the surrounding environment.