



Food Waste

We are killing the environment for food that is not even being eaten.ⁱ

Key Points

- According to the FAO, a third of global food production is lost or wasted annually.ⁱⁱ This adds substantial pollution to our environment simply for food that is being thrown into landfills to pollute our environment even further.
- Food waste is a leading greenhouse gas emitter—if integrated into a country ranking it would appear third, after the USA and China.
- Food waste ends up in landfills, taking up large amounts of land and polluting soil, air and water.
- Fertilizers used to produce wasted food are released into the environment, poisoning drinking water and aquatic ecosystems and degrading land quality.
- Food policy, regulation and enforcement must be strengthened to avoid and discourage food waste. For example, national food waste reduction plans; regulation to ensure that food businesses give away/donate edible surplus foods; effective government recycling schemes and penalties for excess waste disposal; best practice promotion; education and awareness for consumers; and monitoring and evaluation at national and international levels.

Background Information

Air Pollution and Greenhouse Gases

When food waste breaks down in landfills, it emits greenhouse gases, including carbon dioxide and methane, which is 25 times more potent than carbon dioxide. It is also necessary to factor in the amount of greenhouse gases that are emitted during production of that wasted food, and transport emissions to market and landfills. As an example of the severity of the problem, the yearly pollution from food waste in Finland is the equivalent of what 100,000 cars produce in the same year.ⁱⁱⁱ

Food is the primary source of landfill gas and the largest component of materials sent to landfills. In the USA, landfill gas is responsible for 17 percent of USA methane emissions. If integrated into a country ranking of top greenhouse gas emitters, food wastage would appear third, after USA and China, according to the latest data available. Furthermore, the problem keeps growing. Over the past 50 years, greenhouse gas emissions from food waste have increased more than 300 percent, and are projected to increase another 400 percent by mid-century if current dietary and waste trends continue.^{iv}

Land Pollution

The excessive overuse of synthetic fertilizers to try to keep up with our growing (and unnecessary) demand for certain foods is beginning to take its toll on the fertile lands across the globe. Excess fertilizer pollutes soil, degrading water retention ability and fertility over time, as well as adding toxic pollutants into the ecosystem. Landfills, where our food waste ends up, are taking up large amounts of land and polluting soil or water in the area. The UK estimates that it will run out of landfill sites by 2019, and will then have to search for even more land that it will eventually destroy.^v

Intensive farming, without allowing fields to lie fallow and replenish, diminishes soil fertility. Wasting roughly one-third of the food produced globally means that soil is unnecessarily pressured. Decreased soil quality leads to further use of synthetic inputs that cause pollution and, eventually, loss of arable land.^{vi}

Water Pollution

The waste we throw in landfills and the fertilizers we use for crops are polluting underground water in these areas, as well as the water bodies that this water streams to. The common and widespread overuse of fertilizers releases excessive amounts of nitrogen and phosphorus into the environment, poisoning drinking water and aquatic ecosystems. The excessive pressure to increase crop yields is a result of our society wasting so much perfectly edible food.

Resource Burdens of Plant and Meat-based Diets

An assessment of the inputs required for both industrialized meat and plant-based diets shows that diets that are primarily meat-based require up to 25 percent more land, nearly twice as much energy, and 100 times more water than diets that are primarily plant-based.^{vii} Because of this, production of animal products that end up in landfills is a particularly egregious burden on our food production systems, ecosystems, and planet.

References

ⁱFroody. 3 Sources of Pollution from our Food Waste. June 26, 2015. <https://froody.wordpress.com/2015/06/26/3-sources-of-pollution-from-our-food-waste/>

ⁱⁱ FAO. Food Loss and Food Waste. <http://www.fao.org/food-loss-and-food-waste/en/>

ⁱⁱⁱ Froody. 3 Sources of Pollution from our Food Waste. June 26, 2015. <https://froody.wordpress.com/2015/06/26/3-sources-of-pollution-from-our-food-waste/>

^{iv} FAO. Food Waste Footprints. http://www.fao.org/fileadmin/templates/nr/sustainability_pathways/docs/Factsheet_FOOD-WASTAGE.pdf

^vFroody. 3 Sources of Pollution from our Food Waste. June 26, 2015. <https://froody.wordpress.com/2015/06/26/3-sources-of-pollution-from-our-food-waste/>

^{vi} FAO. Food Waste Footprints. http://www.fao.org/fileadmin/templates/nr/sustainability_pathways/docs/Factsheet_FOOD-WASTAGE.pdf

^{vii} Pimentel and Pimentel, Sustainability of meat-based and plant-based diets and the environment. *The American Journal of Clinical Nutrition*. 2003. <http://ajcn.nutrition.org/content/78/3/660S.full>