

31. Food Waste Issue

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Introduction. When we scrape off our dishes after a large meal, too full to finish the remaining scraps on our plate, we rarely pause and think about the significance of our action. It seems routine to us: if we have leftover food scraps that are unfit for eating, shouldn't they be thrown in the garbage? Our routine practices, unfortunately, make it difficult for us to conceptualize the magnitude of global food waste. The problem is bigger than we think.

According to a recent report by UNEP and the World Resources Institute (WRI), about one-third of all food produced worldwide, worth around US\$1 trillion, gets lost or wasted in food production and consumption systems. When this figure is converted to calories, this means that about 1 in 4 calories intended for consumption is never actually eaten. In a world full of hunger, volatile food prices, and social unrest, these statistics are more than just shocking: they are environmentally, morally and economically outrageous.

Every year, consumers in industrialized countries waste almost as much food as the entire net food production of sub-Saharan Africa (222 million vs. 230 million tons). The amount of food lost and wasted every year is equal to more than half of the world's annual cereals crops (2.3 billion tons in 2009/10). In the USA, organic waste is the second highest component of landfills, which are the largest source of methane emissions. In the USA, 30-40% of the food supply is wasted, equalling 20 pounds of food per person per month.

For the business sector, that economic impact is staggering, says Mathy Stanislaus, assistant administrator to the Environmental Protection Agency's Office of Solid Waste and Emergency Response. "The business sector throws away about \$161 billion of food". That may be in the form of blemished produce, stale packaged goods or products that aren't deemed sellable in the retail market due to expired sell-by dates. Or it may occur in the restaurant sector, where discarded food occurs every day due to overproduction, incorrect preparation, or simple decisions by consumers who order too much and chose to leave the food at the table. According to a 2005 study by University of Arizona researchers, almost 10 % of the food purchased by fast-food restaurants isn't consumed. These losses pose a huge economic burden on communities, but they also present significant social challenges.

While we often think of food loss in the context of what gets wasted in garbage dumps and sewage systems, the implications are even more pressing when we consider the latest research on climate change, which is being propelled in part by methane emissions from the earth. Roughly 18 % of the gasses generated in the U.S. come from public and private landfills. Decaying food is probably the single largest source of materials in the landfills that create methane. This triad of challenges — the social, economic and environmental impacts of food waste — has made stemming the food drain an urgent issue for global communities. Because the impacts we experience here in the U.S. are, in many cases, far worse in countries where accessing enough food and financial resources can be an almost insurmountable problem.

Conclusions. The key to stemming the world's food drain is, at least in part, education: Teaching consumers as well as businesses how to purchase food smartly, track their usage, and redirect those sources that can't be sold or put on the table for whatever reason. Indirectly, better food management not only ensures less wasted food, but also better farming practices that are tailored to sustainable needs rather than commercial, preferential demand and production.