

Waste disposal

[Environment](#), [Pollution](#)



Waste Disposal The massive amount of waste generated every day is a hallmark of affluent, modern society. According to the Environmental Protection Agency (EPA), municipal solid waste--a combination of household and commercial refuse--amounts to about 180 million metric tons per year in the United States. That equals almost two-thirds of a ton of garbage for each individual every year. It represents nearly twice as much waste per capita as Europe or Japan, and five to ten times as much as most developing countries. The largest single category is paper and cardboard, which make up roughly 40% of the municipal waste stream. Another major category that constitutes about one quarter of United States garbage is organic materials including food wastes, plastics, and yard and garden wastes. Metal cans and glass bottles represent about 15% of total trash, and the remainder consists of miscellaneous refuse, including building materials, clothing, furniture, electronics, and paint. Much of what's in the United States waste stream would be a valuable resource if it were not mixed with other garbage. Paper could be recycled and organic materials like food and yard waste could be composted. Plastics, glass, and metal containers could be melted and remanufactured into useful products. Building supplies and fabrics could be used over again for other purposes. One reason that other countries throw away so much less than the United States is that they can't afford to simply dump valuable commodities. They carefully sort, clean, and recycle many articles that are casually thrown away in the United States. In most parts of the United States, the vast majority of all municipal waste is buried in sanitary landfills. Although these facilities are an advance over the older, open dumps in which garbage fires smoldered incessantly and rats and other

vermin thrived, landfills can leak toxic contaminants into underlying groundwater aquifers. They also release methane, which is both explosive and a potent greenhouse gas. In newer landfills, rather than simply covering the garbage with a thin layer of soil, it is encased in impervious clay and plastic liners with drain pipes to catch any fluid effluent and vent pipes to draw off any methane or other volatile gases. Faced with growing piles of trash and finding it more and more difficult to site new landfills, many communities are turning to waste incineration. Called energy recovery or waste-to-energy facilities, these incinerators burn garbage to produce steam that can be sold for space heating or used to generate electricity. Incinerators have met with considerable public resistance, however, because they often release toxins such as dioxins and heavy metals in their gaseous effluents and they concentrate other toxins in ash that must be handled and stored as a hazardous waste. Some communities have had success with programs to encourage citizens to produce less waste or to separate and recycle specific components such as paper, glass, and metal. A combination of financial incentives and convenient alternatives can often reduce the waste stream by 50% or more. Some people who are especially conscientious get by without discarding anything at all. By avoiding excess packaging and recycling, composting, or reusing everything they buy, they produce zero garbage.