Environmental Case Study
South Africa’s “National Flower”?

You’ve seen them in ditches, caught in fences, fluttering in trees on a windy day. Plastic shopping bags, an item of convenience worldover, are increasingly an eyesore and a nuisance. Some South Africans have begun referring to these ubiquitous bags as the country’s national flower because they seem to bloom everywhere. Now the government is trying to make them disappear.

South African shops hand out about 8 billion light-weight, singleuse plastic bags per year. Most may be disposed of properly (buried in landfills or burned), but many end up blowing along public streets and across the countryside. This mobile litter is not just an aesthetic nuisance: bags clog sewers and streams and threaten wildlife, as well. The principal problem is extremely fine bags, averaging 17 microns in thickness. (A micron is one-thousandth of a millimeter.) These thin bags are cheap enough to give away with groceries and other goods, but they are too fragile for reuse.

In an effort to make bags less disposable and more reusable, the South African government proposed a mandatory minimum thickness of 80 microns. Stores would be more likely to charge for these sturdier bags—and consumers would reconsider before throwing away bags they had paid for. Trade unions and plastics manufacturers insisted that existing equipment couldn’t produce these bags, and they threatened job losses and factory closures. Eventually, unions and the government reached a compromise: there is now a 30 micron minimum, thick enough for reuse, and the government promises new jobs in recycling industries.

The effort to control disposable bags is just part of a wider South African effort to reduce litter and encourage recycling. Deposits have been proposed for tires, bottles, cans, and other products. Local governments are enthusiastic about these steps because litter is a chronic problem in many cities. Central Johannesburg alone is flooded with more than 200 tons of litter per day and spends nearly 50 million rand (nearly $7 million U.S.) a year cleaning up this debris.

South Africa is not the only country worried about this problem. Taiwan initiated a rule in 2003 that restaurants and supermarkets must charge customers for plastic bags and utensils. Australia is considering a tax on disposable bags. British supermarkets pass out some 10 billion bags each year, and the government there is considering a 9-penny-per-bag tax, which should force stores to charge for bags. Reportedly, stores support such a move. Currently, they spend £1 billion per year on bags that they give away for free. Ireland imposed such a tax, to be used for environmental cleanup, in 2002. A survey in Country Durham, England, found that 70 percent of residents favored a system of paying for bags in order to encourage reuse. County Durham dumps more than 600 tons of plastic shopping bags in landfills every year, at a cost of about £20,000 ($32,000 U.S.).

By most estimates, charging customers for bags would reduce consumption by 40 to 50 percent. Germany, Norway, and others have charged shoppers for years, and as a result, reusable cloth or plastic bags are widely used.

Are disposable paper bags a better choice? They decompose or burn more readily than plastic, but they also require logging, bleaching, and waste disposal. Proponents of thicker plastic bags hope that consumers will start carrying their own shopping bags. Perhaps the best answer to the question, “paper or plastic?” is “I’ve brought my own, thanks.”

Waste management is a growing and global problem. Often, waste production depends on our individual choices, to buy highly packaged goods, to buy unnecessary items, to reuse, recycle, or dispose of goods. Our personal choices are also complicated by cultural expectations and economic policies. In
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In this chapter, we’ll review the state of waste production, including solid waste and hazardous waste, and study efforts to reduce waste production and its environmental effects.