

The Consumer's Guide to Effective Environmental Choices

Practical Advice from the Union of Concerned Scientists

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CHAPTER 1

How Many Simple Things Do People Need to Do to Save the Planet?

Amy Dacyczyn didn't start reusing vacuum cleaner bags, composting drier lint, and turning tuna fish cans into cookie cutters in order to preserve the environment, but some environmental activists have called her a hero. Instead, back in 1981, she and her husband, Jim, had decided that they needed to economize so they could achieve their dream of buying a house in the country. By shopping at thrift stores, making their own Christmas presents, and finding new uses for plastic milk jugs, egg cartons, and juice can lids, Dacyczyn was able to sock away enough of Jim's \$30,000 salary so that after seven years they had \$49,000 to use to purchase a Maine farmhouse. She clothed her family for \$250 per year and fed them for just \$42 each week.¹

By spending less, Dacyczyn not only was able to move to Maine, but she found her day-to-day life more satisfying than when she was spending money on movies and restaurants. She realized that she didn't want a lifestyle like that of Americans who are always "running out of the house, running to the day care center, running on the job, so they can afford candy bars, and Nintendo games, meals at McDonald's and designer sneakers."² Although her motives were financial and personal, her story--told through her newsletter, the *Tightwad Gazette*--has seemed to have an environmental message. Living without garbage Disposalls, VCRs, and store-bought toys, Dacyczyn has put into practice the quintessential environmentalist motto: "Reduce, reuse, recycle."

Some observers have argued that the Dacyczyns and other practitioners of simple living are blazing the path down which all the rest of us will need to travel. They argue that, in order to solve the serious environmental problems facing the world, average middle-class Americans will need to accept and even embrace a sharp across-the-board reduction in the amount of goods and materials we buy, own, use, and throw away.

But is this across-the-board approach the only way to reduce the environmental impacts of Americans' consumption? We believe a different, more targeted strategy can also be effective and will more likely appeal to a wider segment of the population. By focusing on a relatively few especially damaging aspects of their consumption, Americans can reduce overall environmental damage dramatically.

Americans as Champion Consumers

It is not difficult to show that Americans use a disproportionate share of the earth's resources. From the perspective of people living in the poorer countries of Africa, Asia, and Latin America, most Americans consume enormous quantities of all sorts of things: energy, metals, minerals, forest products, fish, grains, meat, and even fresh water. Compared with the average citizen of Bangladesh, for example, Americans on average consume 106 times as much commercial energy.³

When we look at the world as a whole, we can see that our country is responsible for a lopsided share of the total consumption of key products and materials. We use one-third of the world's paper, despite representing just 5 percent of the world's population. Similarly, we use 25 percent of the oil, 23 percent of the coal, 27 percent of the aluminum, and 19 percent of the copper.⁴

Even when we compare ourselves with other wealthy, industrial countries, we generally emerge as the champion consumers. An average American uses twice as much fossil fuel (coal, oil, and natural gas) as the average resident of Great Britain and 2.5 times as much as the average Japanese. We consume over 3.25 pounds of boneless meat (mostly beef and chicken) each week, 1.5 times as much as the average Briton or Italian and more than 2.5 times as much as the average Japanese.⁵

The sheer production of waste in our society is astounding. The typical American discards nearly a ton of trash per person per year, two to three times as much as the typical western European throws away. Amy Dacyczyn and others who have embraced voluntary simplicity are noteworthy precisely because they have departed so strikingly from the usual high-consumption, high-waste American lifestyle.

But does this mean that other Americans are unaware or unconcerned about the environmental impacts of the things they buy, use, and throw away? The answer is clearly no. Our willingness to devote time, thought, and kitchen space to recycling is strong evidence that we realize that the things we consume cause environmental damage.

Admittedly, Americans have embraced recycling with varying degrees of enthusiasm. Some people get intense satisfaction from participating in a ritual that shows they are doing their part to help preserve the environment for future generations. Such individuals often take pride in the orderly systems they have established for neatly sorting and stacking their piles of paper, plastics, and glass. They vigilantly monitor their trash to make sure not one unnecessary item ends up in a landfill.

At the other extreme are a minority of Americans who consider recycling a foolish burden imposed upon them by their overzealous children, prying neighbors, or a too-powerful government. But even if the only reason they cart their recycling containers to the curb for collection or to the dump for disposal is to avoid the reproach of those around them, they probably accept the fact that American society as a whole has come to believe that it is desirable to recycle.

In fact, the popular consensus on the relationship between environmental problems and the American lifestyle transcends an acceptance of the desirability of recycling. Even if Americans are unsure about what else needs to be done, most of them realize that recycling alone cannot adequately protect the environment. They make general connections between consumption patterns and environmental problems. In a 1995 national telephone survey conducted by the Merck Family Fund, 88 percent of Americans agreed that "protecting the environment will require most of us to make major changes in the way we live" and 67 percent acknowledged that "Americans cause many of the world's environmental problems because we consume more resources and produce more waste than anyone else in the world."⁶ Nevertheless, most people interviewed had not thought deeply about the specific ecological implications of their lifestyles and did not know precisely what they needed to change.

Environmental Advice: Too Much of a Good Thing

Unfortunately, books on the environment have not always helped Americans to develop a useful understanding of the relationship between their lifestyle and environmental problems. Environmental advice manuals have often left readers feeling that environmental damage is primarily caused by myriad small actions on the part of individual consumers and that the answer is for individuals to voluntarily change their behavior in dozens and dozens of ways.

The best-selling book *50 Simple Things You Can Do to Save the Earth* told readers that "if every American family planted just one tree, over a billion pounds of 'greenhouse gases' would be removed from the atmosphere every year." They were also asked to snip six-pack rings, use fewer plastic bags, drive less, take the flea collars off their dogs, avoid releasing helium balloons, recycle aluminum cans, and take forty-two other actions, some of which had multiple components. Suggestion number 17, for example, to "find the hidden toxics" in the American home, directly targeted shampoos, oven cleaners, air fresheners, mothballs, pens, and permanent-press clothes, but it also suggested that readers purchase a book listing hundreds of items to eliminate from the home.⁷

Responding to consumers' interest in changing their behavior, other publishers rushed out comparable compendiums of commandments with 10, 50, 100, or even as many as 1001 actions readers could take to clean up the environment.⁸ To be sure, many of the ideas made sound environmental sense, but the detailed lists overwhelmed some people while producing guilt pangs in others unable to keep track of all the injunctions. Confusion mounted when it turned out that there wasn't agreement among scientists about whether some of the commands, such as to use only cloth diapers, would be of any benefit to the environment. While the books asked people to plant trees, readers were left feeling that neither they nor the authors could see the forest for the trees. None of the popular guides gave a clear answer to the obvious questions: Which of all the many suggested actions would make the most difference? And should individual action be the main focus of attention?

The Overuse of Overconsumption

Established environmental organizations and environmental policymakers have tended to gravitate to the opposite extreme from the guidebook writers when discussing Americans' consumption. They have generally discussed consumption in an abstract, vague way that is disconnected from people's actual lives and unhelpful as a guide to individual action.

Environmental thinkers and leaders, both in the United States and abroad, have charged that the major sin against the environment that the rich industrial countries commit has been the practice of "overconsumption." This contention was given considerable publicity and credibility because of the highly visible 1992 Earth Summit in Rio de Janeiro. At its core, "overconsumption" remains an ill-defined political slogan that doesn't help the overconsumers know how they should change either their individual behavior or their institutions.

In the months leading up to the Earth Summit—officially titled the United Nations Conference on Environment and Development—many of the delegates from the wealthier industrial countries in the northern hemisphere were on the defensive. Environmentalists from these countries had been pushing for strong international commitments to slow rainforest destruction and reduce greenhouse gas emissions. In their concern for the gloomy future of the global environment, they did not show a similar concern for the development needs of poorer countries.

Unsurprisingly, some representatives from developing countries detested and rejected calls that their countries give priority to addressing problems that threatened the world's wealthy rather than to advancing the economic improvement of the world's poor. They felt that the industrial countries had become rich through methods of economic development that the poorer countries were now being asked to renounce. Environmentalists from Europe and the United States appeared arrogant and hypocritical when they asked developing countries to forgo the use of coal, oil, and land-clearing practices that had fueled northern industrialization.

Some northern environmentalists further infuriated those from developing countries by suggesting that rapid population growth among the world's poor was the primary driving force behind rainforest destruction, degradation of agricultural lands, and other threats to the future health of the global environment. Vocal advocates for developing countries resented being portrayed as environmental villains. Anil Agarwal and Sunita Narain of the Centre for Science and the Environment in New Delhi, India, observed, "It is ironic that those who have exploited global resources the most are now preaching to those who have been largely frugal and sparing."⁹ The editors of *Third World Resurgence* added, "The poor are victims and not culprits in environmental degradation. Much of the depletion and contamination of resources have been done to meet the consumption demands of the affluent. Changing consumption habits of the affluent is thus the priority in curbing the rate of depletion or pollution of resources."¹⁰ After all, even though the population was growing rapidly in countries like Bangladesh, each additional American consumed many times more than each additional Bangladeshi.

These criticisms certainly rang true to the now-chastened northern environmentalists and policymakers who, in their zeal to address global environmental threats, had not meant to place all the burden or blame on the developing world. When it came to reducing emissions contributing to climate change, most of them accepted that the industrial countries, which were the largest polluters, should take the first and largest steps. Conversely, most Earth Summit delegates from poorer countries acknowledged that rapid population growth was undesirable, even if it was not the sole or primary cause of the world's environmental crisis, and that developing countries should move towards more environmentally sound models of economic development.

To forge and then express an acceptable international consensus on environment and development, negotiators and policymakers became increasingly mindful to apportion blame and avoid singling out one region of the world. All the regions of the world, they pointed out, bore some responsibility for environmental problems, and all needed to contribute to the solution. To emphasize this sense of shared responsibility, they used a carefully phrased articulation: In the South the main problem was overpopulation; in the North it was overconsumption. Both of these problems needed to be addressed.

In the years since the Earth Summit, the term *overconsumption* continues to be bandied about while only rarely being examined or analyzed. Sometimes consciously and sometimes unconsciously, those who use the term have implied that Americans need to reduce their consumption of goods and services across the board; they need to quell their materialistic lifestyle. Without further explanation or analysis, this very general decree asks Americans to accept a diminished standard of living without guaranteeing that their sacrifice will actually solve pressing environmental problems.

Bad, Not-So-Bad, and Even Good Consumption

To get beyond both the vague charge of overconsumption and the mind-boggling lists of undifferentiated action suggestions, we need to start thinking about our consumption of goods and services in more complex ways. When we do, we find, unsurprisingly, that not all consumption has an equal impact on the environment. For that reason, a 10 percent across-the-board reduction in Americans' consumption would not be the most effective way to reduce environmental damage. In looking at Americans' consumption patterns, we should start by acknowledging that some consumption of food, water, and materials for clothing and shelter is necessary for survival. Although we can examine whether we are consuming more of these necessities than is desirable and whether they can be produced in less environmentally damaging ways, we cannot and should not eliminate all consumption of them.

Even if we concentrate on those items that could theoretically be eliminated, we will still see great differences in the consequences of eliminating them. The use of certain materials such as gasoline, whose burning emits air pollutants and the greenhouse gas carbon dioxide, necessarily harms the environment. If we decide we are going to consume such materials, no conceivable technology can completely avoid environmental damage, even though we take steps to minimize it. On the other hand, some things can be consumed in ways that have few consequences for the general environment. The production, use, and disposal of bubble gum, for example, can be quite benign. Given these examples, environmentally aware parents would be wiser—even if not necessarily more popular—to deny their teenage children the keys to the family car than to forbid them to chew gum.

Even if a product is environmentally damaging, it may be used in such small quantities that we shouldn't focus on trying to reduce its consumption. The popular children's toy Lego blocks are made out of acrylonitrile butadiene styrene plastic, an oil-based product. The electricity used in the manufacturing process contributes to such problems as air pollution and global warming. There is also a risk that the blocks will end up unrecycled in landfills. However, when parents consider how little material goes into the average set and the likelihood that it will be passed on to another younger child, they need not worry that they have destroyed the environment with a twenty-dollar purchase of Legos.

On the other hand, some products are so dangerous to the environment that we should eliminate them completely. The world community realized this when deciding to phase out all uses of chlorofluorocarbons (CFCs), a group of chemicals that had been used in automobile air conditioners, spray cans, and industrial applications. When these chemicals are released into the atmosphere, they drift up to the stratosphere, where they destroy ozone molecules that protect humans and other life-forms from harmful ultraviolet radiation. Because of this well-documented destruction of the ozone layer, scientists, governments, and ultimately even the corporations that produced CFCs realized that a 10, 20, or even 50 percent reduction in consumption would not be sufficient. The only scientifically sane course would require putting a complete end to the consumption of an otherwise useful product.

At the other extreme are items Americans should actually consume in greater quantities if they want to reduce environmental damage. For example, the owner of an old house may need to buy new water pipes to reduce the health risks from lead poisoning. We would not want to discourage that family from taking such a necessary step just because it technically involves increasing their consumption of materials.

Sometimes greater consumption of one product can allow us to reduce the consumption of another item that is far worse for the environment. The purchase of a microwave oven allows a family to cut its consumption of electricity since a microwave uses one-third or less of the energy of an electric oven. If that electricity is generated from coal or oil, the microwave will have reduced air pollution and the threat of climate change. Similarly, in many parts of the country, it is not only environmentally desirable but cost-effective to add non-polluting solar hot water heaters to homes in order to reduce the use of conventional hot water systems that run on polluting fuels. Consumers may need to spend more in the short run, but the environmental payoff will be worth it.

The Limits of Consumer Choice

Although it is essential to distinguish between the environmental impacts of different consumer products, that information alone does not provide a guide for individual action, since consumers do not have complete control over what they consume and how much damage it causes. Until the

recent advent of electric utility deregulation in a few states, people who wanted to curtail the air pollution associated with electricity generation couldn't tell their electric company to stop sending them power from an especially dirty coal-fired power plant in their area. Most consumers still have limited control over where their electricity comes from, at least for the next few years. Similarly, those people thirty years ago who were concerned about the health hazards from lead in gasoline had to wait for oil companies to start producing unleaded gas.

Even when individual consumers theoretically have a better choice, they may not view it as a practical alternative. An individual who drives twenty miles to work is unlikely to switch to mass transit if the only available bus takes twice as long, comes only once an hour, and has worn, ripped, graffiti-covered seats. Homeowners are unlikely to purchase benign nonchemical forms of lawn pest control if none of the stores in their town display such products and the sales clerks do not even know how they can be ordered.

In many cases, therefore, what needs to change is the choices available to consumers. The key decisions then need to take place at the corporate, institutional, or government level rather than among individuals. Americans seeking to reduce the environmental impact of products would often be best served by pressuring their local, state, or national government to adopt policies that make it easy, or even required, for manufacturers and users of products to choose the environmentally sound option. For example, the government decision to require appliance manufacturers to list the energy costs of their products not only provided consumers with useful information but gave manufacturers a reason to improve the energy efficiency of their products. Cities that set up curbside recycling programs increase citizen participation in recycling. In the case of leaded gasoline, it was obviously much more effective for the government to ban this dangerous product altogether than to wait for every manufacturer and every consumer in the country to voluntarily switch to the unleaded alternative.

We also have to remember that, paradoxically, consumers are not the only ones who consume things, even though discussions of consumption-environment connections have most often focused on "consumer goods" and what individuals consume. Businesses, organizations, and governments also consume things as part of their activities, and sometimes they are more responsible for pollution than are individuals. We therefore should not assume that the decisions of individual consumers cause most environmental damage. Instead we should focus some of our attention on changing organizations rather than individuals.⁴¹

Nevertheless, the role of individual Americans and their personal consumption choices remains large. Just as we vote with our ballots on election day, we vote with our dollars when we choose to buy or not to buy particular products. Not only do we send important messages to manufacturers when we buy their products, but we let our family, friends, and neighbors know something about our values. Recycling, for example, would not have become widespread if individuals had not embraced it and begun to practice it in their homes, schools, and offices well before any governments mandated it or even made it convenient. In retrospect, the triumph of recycling is especially impressive because so much of the change in attitudes and individual behavior was instigated by seemingly powerless children and teenagers who prodded their families, schools, and colleges into action.

The Forgotten Impact of Individual Consumers

The far-reaching impact of individual consumers acting to preserve the environment can be easily overlooked or forgotten. If we turn again to the story of the chlorofluorocarbons that destroy the ozone layer, the main actors may initially seem to be scientists, governments, and chemical companies. Back in 1985, after scientists concluded that human-produced chemicals would

destroy ozone but still did not have definitive proof that the ozone layer was actually thinning, representatives of forty-three countries met in Vienna. The resulting document--the Vienna Convention for the Protection of the Ozone Layer--did not commit the signatory nations to phasing out use of the chemicals suspected of destroying ozone, but it was nevertheless a significant achievement. As chief U.S. negotiator Richard Benedick observed, it was "the first effort of the international community to deal with an environmental danger before it erupted."¹²

Over the next few years, as evidence mounted that ozone was actually being lost in the atmosphere, the international community took concrete steps to phase out ozone-depleting substances. In 1987, with the Montreal Protocol on Substances That Deplete the Ozone Layer, thirty-seven signatory nations agreed to limit their release of CFCs and Halons, and for industrial countries to halve CFC emissions by the year 2000. The protocol was revised and strengthened in 1990 and then again in 1992. Chemical companies responded by substituting other chemicals in refrigerators, automobile air conditioners, and other products that formerly required CFCs. Because individual consumers no longer have the choice of selecting products that damage the ozone layer, the ozone layer should heal itself over time. Governments rather than individual consumers bear responsibility for overcoming the remaining obstacles blocking this hopeful scenario--continued CFC production in countries that cannot afford to switch and smuggling of illegal CFCs by unscrupulous businesses.

So where do individual consumers fit into this story? Well before governments acted, consumers had taken the matter into their own hands. Back in the mid-1970s, in response to scientists' first published articles about threats to the ozone layer, millions of Americans stopped using aerosol spray cans of deodorant and hair spray. Since about half of all fluorocarbons produced at the time went into these cosmetic products, this was not an insignificant step. A 1976 public opinion survey, just two years after publication of the first scientific reports of the CFC threat, showed that more than one-fifth of Americans had shifted from spray cans because of concern for the environment.¹³ By demonizing the spray can, environmentally concerned consumers made it financially appealing for cosmetic manufacturers to switch their products to other containers and easier for the federal government, in 1978, to ban ozone-depleting chemicals from spray cans. The actions of individual consumers were central to solving what, at the time, was half of the problem.

Then, in the 1980s, individuals, especially young people, focused their attention on another humble but destructive product--the polystyrene (styrofoam) cup. Environmental activists and environmentally aware high school students heaped scorn on colleagues, family members, and friends caught drinking from polystyrene. Reeling under bad publicity for its heavy use of foam containers and fearing loss of business, the McDonald's fast-food chain appeased an important segment of its target audience by abandoning foam made with CFCs. Other companies followed suit, again showing the impact of individual consumer action.

Unfortunately, the CFC story also reveals the difficulty of trying to solve environmental problems solely through voluntary consumer action. After the demise of the CFC-filled spray can and the polystyrene cup, still other consumer uses of CFCs remained, but most people were reluctant to do anything about them. About 140 million cars and trucks on the road in the early 1990s had CFC-carrying air conditioners that were prone to leaks. As much as half of the CFCs could escape before the car owner would notice a loss of performance. On top of that, car repair shops servicing the systems generally did not worry if the rest of the CFCs escaped into the atmosphere. Although some consumers tried to find service shops that recycled the CFCs, few considered giving up their car air conditioners.

We can see that individual consumer action works best when it does not require significant consumer sacrifice. As Lydia Dotto and Harold Schiff's book on the ozone controversy observes, "Giving up spray cans was a change in life-style that was not particularly hard to live with; it had

the perhaps unique advantage of being a virtually painless exercise in environmental responsibility."¹⁴ Unfortunately, there are few such painless exercises.

Moreover, it can be hard to educate millions of consumers about the specific impacts of their consumption choices, and it is easy for them to be confused. Most often Americans do not fully understand the dangers associated with particular products, but sometimes they also remain unaware of developments enhancing product safety. Seventeen years after CFCs were eliminated from spray deodorants and hairsprays, many people still think those products destroy the ozone layer. Similarly, a significant share of the environmentally concerned public is unaware that foam cups are no longer responsible for ozone destruction.

Much of the confusion stems from the difficulty in getting accurate information about problems with consumer goods out to people who are being bombarded by a much larger number of messages encouraging them to buy and cherish particular products. The average American is exposed to about three thousand advertising messages a day, and globally corporations spend over \$620 billion each year to make their products seem desirable and to get us to buy them.¹⁵ No wonder it can be hard for people to focus their attention on the environmental dangers of gas-guzzling cars or lawn pesticides.

Although this book alone cannot counterbalance the efforts of the entire advertising industry, it can provide clear information about which of American consumption patterns cause the most damage to the environment and what should be done about them. By focusing on the biggest problems and pursuing the solution strategies most likely to work, Americans can make sure that they provide a safe, healthy environment for themselves and future generations.

Notes

¹Leslie Rubinkowski, "Want a Better Life? Ways to Achieve It Is Simplicity Itself," *Pittsburgh Post-Gazette*, December 24, 1995, G10; Jura Koncius, "The Frugal Road to Family Values," *Washington Post*, September 24, 1992, T14.

²Koncius, "The Frugal Road," T14.

³World Resources Institute et al., *World Resources: A Guide to the Global Environment, 1996-97* (New York: Oxford University Press, 1996), 287.

⁴British Petroleum, *Statistical Review of World Energy '97* (London: British Petroleum Company, 1997), 42; World Resources Institute, *World Resources*, 290.

⁵U.S. Energy Information Administration at www.eia.doe.gov; Alan B. Durning and Holly B. Brough, "Taking Stock: Animal Farming and the Environment," *Worldwatch Paper 103*, July 1991, 10.

⁶Harwood Group, *Yearning for Balance: Views of Americans on Consumption, Materialism, and the Environment* (Takoma Park, MD: Merck Family Fund, 1995).

⁷EarthWorks Group, *50 Simple Things You Can Do to Save the Earth* (Berkeley, CA: Earthworks Press, 1989).

⁸See, for example, Michael Viner, *365 Ways for You and Your Children to Save the Earth One Day at a Time* (New York: Warner Books, 1991); Diane MacEachern, *Save Our Planet: 750 Ways You Can Help Clean Up the Earth* (New York: Dell, 1990); Bernadette Valley, *1,001 Ways to*

Save the Planet (New York: Ballantine Books, 1990); Jeremy Rifkin, ed., *The Green Lifestyle Handbook: 1001 Ways You Can Heal the Earth* (New York: Henry Holt & Co., 1990).

⁹Anil Agarwal and Sunita Narain, "View from the South: We Can No Longer Subsidize the North," *Development Forum* (May/June 1992), 15.

¹⁰"Sustainable Development: Ten Points to Clarify the Concept," *Third World Resurgence* (August/September 1992), 33.

¹¹Social scientist Paul Stern has often made this point. See, for example, "Toward a Working Definition of Consumption," in Paul C. Stern et al., *Environmentally Significant Consumption: Research Directions* (Washington, D.C.: National Academy Press, 1997), 18.

¹²Richard Elliot Benedick, *Ozone Diplomacy: New Directions in Safeguarding the Planet* (Cambridge, MA: Harvard University Press, 1991), 45.

¹³Lydia Dotto and Harold Schiff, *The Ozone War* (Garden City, NY: Doubleday & Co., 1978), 174.

¹⁴Dotto and Schiff, *Ozone War*, 169.

¹⁵Alan Durning, *How Much Is Enough? The Consumer Society and the Future of the Earth* (New York: Norton, 1992), 118; Richard J. Barnet and John Cavanagh, *Global Dreams: Imperial Corporations and the New World Order* (New York: Simon & Schuster, 1994), 171.

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