

Chapter 2

Trading Away the Earth

"... the IPUAIC was a creature of the smog, born of the need to give those working to produce the smog some hope of a life that was not all smog, and yet, at the same time, to celebrate its power."

—Italo Calvino, "Smog," 1958¹

Since the beginnings of the Industrial Revolution, corporate managers have sought to obscure the social and environmental impacts of pollution. Like Calvino's bedraggled editor of a fictional trade journal improbably named *Purification*—the organ of an industry-sponsored Institute for the Purification of the Urban Atmosphere in Industrial Centers—corporate functionaries have obligingly stretched the truth to put the best possible face on their employers' destructive activities.

We have seen how extractive industries appropriated the language of conservation in the 1920s, elite think tanks took the initiative in environmental research in the 1950s, and corporations steadily increased their influence over the mainstream environmental movement during the 1980s. In the 1990s, however, these efforts have taken a bold new turn. Even as corporate lobbyists work tirelessly behind the scenes to dismantle decades' worth of environmental protections, a new generation of policy analysts and free market ideologues has successfully advanced the notion that corporations—and the capitalist market itself—are now

the key to a cleaner environment. This updated version of corporate environmentalism has had a striking impact on national legislation, regulatory policies, and not surprisingly, the U.S. environmental movement.

Can the "free market" help to promote a clean environment? Can tropical forests be protected in a manner favorable to the multinational banks? Do companies have "rights" to pollute that should be tradable as a commodity? Will corporations guide themselves toward becoming "environmentally responsible"?

A decade or two ago, few environmentalists would have taken these questions seriously. But thanks to a new wave of corporate public relations, such claims have risen to the top of the agenda of several national environmental groups. At the forefront of this initiative are think tanks such as the American Enterprise Institute and the Democratic Leadership Council's Progressive Policy Institute, along with mainstream environmental groups such as the influential Environmental Defense Fund. Corporate and government officials still frequently denounce environmentalists as enemies of economic progress, but now these same officials would have the public simultaneously believe that they are the true environmentalists. The mid-1990s have seen a redoubled effort by the champions of the "free market" to co-opt the environmental movement's often not-well-defined political direction. Many mainstream environmentalists have willingly allowed themselves to be taken along for the ride, particularly as "free market" environmentalism has become an important cornerstone of the Clinton administration's environmental policies.

Glossy catalogs of "environmental products," television commercials featuring environmental themes, and appropriation of the language of environmentalism to support corporate initiatives are merely the most visible hallmarks of the greenwashing of U.S. corporations.² Many of the same companies that support the Republican Right's wholesale assault on environmental regulation have retained high-priced public relations firms to create an environmentally friendly public image. John Stauber and Sheldon Rampton, in their probing study of the public relations industry, sarcastically titled *Toxic Sludge Is Good for You*, estimate that corporate America spends \$1 billion a year for this cynical mixture of anti-environmental lobbying and environmentally friendly imagemak-

ing. Stauber and Rampton found that one of the leading anti-environmental PR firms, Edelman Public Relations, credited with creating the virulently anti-environmental Alliance for America, has even gotten one of its executive vice-presidents, Leslie Dach, elected to the board of the National Audubon Society.³

Pollution for Sale

The new corporate environmentalism goes much farther than adopting environmental language, airing television commercials, promoting "environmental products," or infiltrating high-profile environmental groups. It represents a wholesale effort to recast environmental protection based on a model of commercial transactions within the capitalist marketplace. "A new environmentalism has emerged," wrote economist Robert Stavins, who has been associated with both the Environmental Defense Fund and the Progressive Policy Institute, "that embraces ... market-oriented environmental protection policies."⁴ Stavins directed a pioneering effort known as Project 88, which brought together environmentalists, academics, and government officials with representatives of Chevron, Monsanto, ARCO, and other major corporations. Its goal, back in 1988, was to propose new environmental initiatives to the administration of President-elect George Bush, featuring market incentives as a supplement to regulation. Project 88 was careful to distance itself from those who advocated "putting a price on our environment, assigning dollar values to environmental amenities or auctioning public lands to the highest bidder."⁵ Despite its relatively cautious tone, however, Project 88 opened the door to a much more sweeping rejection of regulation in favor of so-called market mechanisms.

George Bush staged a significant media coup when he announced a series of proposed amendments to the federal Clean Air Act during the summer of 1989. Knowing that any positive initiative for the environment was bound to win accolades from a press corps well trained to emphasize presidential rhetoric over substance, Bush's advisers cast the proposal as a striking departure from Ronald Reagan's rabid anti-environmentalism. The plan would reduce acid rain-causing sulfur emissions, put large cities on a timetable for smog reduction, encourage the

use of alternative fuels, and increase the regulation of toxic chemicals. Its most unique and far-reaching proposal would for the first time establish into U.S. law the practice of allowing companies to buy and sell the "right" to pollute.

The idea of marketable pollution rights was a cornerstone of Project 88, but it did not entirely originate with Stavins and his colleagues. The EPA had experimented with a limited program of "emissions trading" since 1974, for the benefit of corporations like Du Pont, Amoco, USX, and 3M. These were mostly individually brokered deals, in which the EPA would allow companies to offset pollution from new industrial facilities by reducing existing emissions elsewhere, or negotiating with another company to do so. This approach has been used in the Los Angeles area and other cities to broker measured reductions of particular pollutants. In a 1979 article in the *Harvard Law Review*, a Harvard law professor named Stephen Breyer, now a justice on the U.S. Supreme Court, proposed a more ambitious system of "marketable rights to pollute" as a possible alternative to both taxes and regulation (see Chapter Three).⁶

Under the Bush plan, which became law as part of the Clean Air Act reauthorization of 1990, companies that reduced emissions of sulfur dioxide or other pollutants in one location would receive credits redeemable against higher emissions elsewhere. These credits could then be sold at a profit to other companies that were not in compliance with emissions standards or wished to build new facilities. It was the first attempt to extend emissions trading to the national level, to establish allowances that could be traded freely as a commodity, and to codify such trading into law as the centerpiece of a major regulatory program. Defenders of the plan claimed that the ability to profit from pollution credits would better encourage companies to invest in new pollution control technologies than would a system of fixed standards. They predicted tremendous savings to the economy, as the most cost-effective pollution reductions would be implemented first, and more expensive ones could be postponed until new technologies became available. As pollution standards would be tightened over time, proponents argued, the credits would become more lucrative and everybody could reap higher profits while fighting pollution.

In some political circles, the idea of making pollution a tradable commodity raised considerable alarm. Would they someday be selling cancer bonds on the New York Stock Exchange, as *Village Voice* columnist James Ridgeway suggested in the aftermath of Bush's speech? Or will we follow the course envisioned by Todd Gitlin in a *New York Times* op-ed piece, where he projected that states would soon be assigned quotas for murder, rape, and armed robbery, and people would go out shopping for armed robbery credits at the end of the year so they can get their children more Christmas presents?⁷

Yet the "pollution rights" provisions now enshrined in the Clean Air Act sparked surprisingly little controversy in the mainstream environmental movement, and opponents such as the U.S. Public Interest Research Group were effectively silenced. The debate has, for the most part, been limited to technicalities, such as what kinds of pollution are sufficiently transferable from one place to another—reductions in emissions causing acid rain some distance away should be traded, some proponents argue, while local rises and falls in smog levels in different regions should not. The Environmental Defense Fund has since proposed trading programs in western water rights and offshore fishing allotments, while others are seeking to make federal mining and grazing permits tradable on the open market. The ensuing discussions have been extremely revealing of the increasing influence of pro-corporate ideology within the environmental movement.

How It Works, and Doesn't

A closer look at the scheme for nationwide emissions trading reveals a certain cleverness amid the underlying folly. For true believers in the invisible hand of the market, it may seem positively ingenious. Here is how it works: The Clean Air Act amendments were designed to halt the spread of acid rain by requiring a 50 percent reduction in the total sulfur dioxide emissions from fossil fuel-burning power plants by the year 2000. Power plants were targeted as the largest contributors to acid rain, and participation by non-utility industrial polluters remained optional. To achieve this goal, utilities were granted transferable allowances to emit sulfur dioxide in proportion to their current emissions. This would

become the "free-market" alternative to mandating emissions reductions, taxing the worst polluters, or underwriting the wider use of scrubbers and other pollution controls.

Any facility that continued to pollute more than its allocated share would then have to buy allowances from someone who pollutes less. Emissions allowances were expected to begin selling for around \$500 per ton of sulfur dioxide, with a theoretical ceiling of \$2,000 per ton, which is the legal penalty for violating the new rules. Companies that could reduce emissions for less than the cost of the credits would be able to sell them at a profit, while those that lagged behind would have to keep buying credits at a steadily rising price. Firms could choose to purchase credits on the open market rather than implement additional pollution controls. Thus, it is argued, market forces would assure that the most cost-effective means of reducing acid rain will be implemented first, saving billions of dollars in pollution control costs and stimulating the development of new technologies.

There were numerous loopholes to entice utilities to participate in the program. A portion of the total emissions allowances were set aside to actually facilitate the construction of new projects. These were auctioned off beginning in 1993, with annual auctions of new allowances to continue indefinitely. Utilities get additional allowances for implementing an approved conservation plan. There are also many pages of rules for extensions and substitutions. The plan essentially eliminated requirements for backup systems on smokestack scrubbers and then eased the rules for estimating how much pollution is emitted when monitoring systems fail. With reduced emissions now a marketable commodity, the range of possible abuses will continue to grow, as utilities have a greater incentive than ever to cheat on reporting what comes out of their stacks.⁸ "It's a bit like playing Wall Street or the Chicago Commodity Exchange," said one official of the utility industry's research arm, the Electric Power Research Institute.⁹

The comparison with more traditional forms of commodity trading came full circle in 1991, when it was announced that the entire system for trading and auctioning emissions allowances would be administered by the Chicago Board of Trade. Long famous for its ever frantic markets in everything from grain futures and pork bellies to foreign currencies, the

Board is responsible for selling and auctioning allowances, maintaining a computer bulletin board to match buyers and sellers, and even establishing a futures market, ostensibly to protect allowance holders against price fluctuations. "While a small, but significant, step toward the ultimate creation of cash and futures market trading in emission allowances, this represents a larger step toward applying free-market techniques to address societal problems," proclaimed Chicago Board of Trade Chairman William O'Connor in a January 1992 press release.¹⁰

But once the EPA actually began auctioning pollution credits in 1993, virtually nothing went according to their projections. The first pollution credits sold for between \$122 and \$310, significantly less than the agency's estimated minimum price, and by 1996 successful bids at the EPA's annual auction of sulfur dioxide allowances averaged \$68 per ton of emissions.¹¹ Many utilities preferred to go ahead with pollution control projects, such as the installation of new scrubbers, that were planned before the credits became available. Others switched to low-sulfur coal and increased their use of natural gas in order to meet their eventual targets of 50 percent reductions in sulfur emissions.

Many companies questioned the viability of financial instruments such as pollution allowances, while others, most notably the North Carolina based utility Duke Power, are aggressively buying allowances. At the 1995 EPA auction, Duke Power alone bought 35 percent of the short-term "spot" allowances and 60 percent of the long-term allowances, which are redeemable in the years 2001 and 2002. *Forbes* magazine blamed low participation on "regulatory uncertainty": utilities were concerned that state regulators would not permit them to include the cost of sulfur dioxide allowances in their rate base and raise customers' electric bills accordingly.¹²

The outcome of the EPA's experiment in emissions trading also reveals the inherent inequalities of such a system. Seven companies, including five utilities and two brokerage firms, bought 97 percent of the short-term "spot" allowances for sulfur dioxide emissions that were auctioned in 1995 and 92 percent of the longer-term allowances. The remaining few percent were purchased by a wide variety of people and organizations, including some who sincerely wished to take pollution allowances out of circulation. Students at several law schools raised hun-

dreds of dollars, and a group at the Glens Falls Middle School on Long Island raised \$3,171 to purchase twenty-one allowances, equivalent to twenty-one tons of sulfur dioxide emissions over the course of a year. Unfortunately, this represented less than a 0.1 percent of the allowances auctioned off in 1995. By the fall of 1996, nearly \$50 million in allowances had traded hands, in both public and private transactions. The Glens Falls group raised \$20,000 for their 1996 effort, and were joined by six other middle and high school groups and fourteen additional nonprofit organizations, each raising much smaller amounts. These well-meaning, but ultimately naive, attempts to fight pollution by "buying" a few tons of sulfur dioxide at a time offer a curious testament to the emerging faith in market "solutions" to political problems.¹³

Where pollution credits have been traded, their effect has often run counter to the program's stated intentions. One of the first publicized deals was a sale of credits by the Long Island Lighting Company to an unidentified midwestern company, raising concerns that regions suffering from the effects of acid rain were selling "pollution rights" to companies in regions where most of the pollution that causes acid rain originates. One of the first companies to bid for additional credits, the Illinois Power Company, canceled construction of a \$350 million scrubber system in Decatur, Illinois. "Our compliance plan is based almost totally on purchase of credits," an Illinois Power spokesperson told the *Wall Street Journal*.¹⁴

At least one company has tried to cash in on the confusion by assembling packages of "multi-year streams of pollution rights," allowing utilities to defer or supplant purchases of new pollution control technologies. "What a scrubber really is, is a decision to buy a 30-year stream of allowances," John B. Henry of Clean Air Capital Markets told the *New York Times* with impeccable capitalist logic. "If the price of allowances declines in future years," paraphrased the *Times*, "the scrubber would look like a bad buy."¹⁵ Meanwhile, supporters of tradable allowances continue to spin improbable claims. For example, Environmental Defense Fund director Fred Krupp told a business-oriented environmental magazine in 1994, "When companies receive credit for getting rid of sulfur dioxide, they are suddenly eager to search for, find and implement

... innovative and cheaper technologies."¹⁶ Next to such obfuscations, the cynical candor of a John B. Henry seems almost refreshing.

Other proponents are more realistic. "With a tradeable permit system, technological improvement will normally result in lower control costs and falling permit prices, rather than declining emissions levels," wrote Robert Stavins (formerly of EDF) and Bradley Whitehead (a Cleveland-based management consultant with ties to the Rockefeller Foundation) in a 1992 policy paper published by the Democratic Leadership Council's Progressive Policy Institute.¹⁷ In contrast to environmentalists like Fred Krupp of EDF, who have to defend their devotion to the new gospel of market environmentalism, these consultants are quite ready to concede that a tradable permit system is not likely to reduce pollution. Stavins and Whitehead further acknowledge, albeit in a footnote to an appendix, that the system can quite easily be compromised by large companies' "strategic behavior." Control of 10 percent of the market, they suggest, might be enough to allow firms to engage in "price-setting behavior." To the rest of us, it should be clear that if pollution permits are like any other commodity that can be bought, sold, and traded, then the largest "players" will have substantial control over the entire "game." Emission trading thus becomes yet another way to assure that large corporate interests will remain free to threaten public health and ecological survival, often with the willing consent of official environmentalism.

A Global Casino: Offsets vs. Pollution Taxes

The Environmental Defense Fund has distinguished itself among the mainstream groups with its aggressive support for the trading of emissions allowances and the development of a futures market for pollution. EDF senior economist Daniel Dudek described the trading of acid rain emissions as a "scale model": for EDF, the "global scope [of greenhouse gas emissions] implies a much richer set of trading opportunities."¹⁸ As a step toward what they foresee as an eventual "international system of greenhouse gas limits and trading," they have devised a plan to initiate trading of carbon dioxide emissions here in the United States. vice-president Al Gore, among others, threw his support behind this idea, endors-

ing it as a way to "rationalize investments" in alternatives to carbon dioxide-producing activities.¹⁹

The idea of offsetting new emissions in one place by reducing them elsewhere has been heavily promoted by industries seeking to clean up their environmental image. The developer of a large fossil fuel-burning power plant in Connecticut reaped considerable praise and headlines by agreeing to help fund an agroforestry project in Guatemala, and chemical companies have proposed all kinds of offset schemes to meet pollution control requirements while continuing to expand their own facilities.²⁰ Owners of a mothballed waste incinerator in Vermont tried unsuccessfully to get an exemption from state limits on dioxin emissions by offering to help other nearby industries reduce their dioxin output. Western European industries are trying to offset increased pollution at home by investing in pollution control measures in Poland and other former Eastern Bloc countries.

International emissions trading gained further support via a UN Conference on Trade and Development study issued in 1992. The report was coauthored by Kidder and Peabody executive managing director and Chicago Board of Trade director Richard Sandor, who told the *Wall Street Journal*, "Air and water are simply no longer the 'free goods' that economists once assumed. They must be redefined as property rights so that they can be efficiently allocated."²¹

Radical ecologists have long decried the inherent tendency of capitalism to turn everything into a commodity; here we have a rare instance in which the system fully reveals its intentions. There is little doubt that an international market in "pollution rights" would widen existing inequalities among nations and increase the dominance of those best able to shift their assets from country to country based on the daily fluctuations of financial markets. It is a highly speculative experiment with the potential for massively disruptive consequences. Even in the United States, a single large investor in pollution credits would be able to control the future development of many different industries. Expanded to an international scale, the potential for unaccountable manipulation of industrial policy would easily compound the disruptions already caused by often reckless international traders in stocks, bonds, and currencies.

How relevant are these various proposals and machinations at a time when our most basic environmental protections are under attack? Is it not better to be able to use the market to limit pollution than to have no recourse at all against the continued degradation of public health and natural ecosystems? Is the partial cooperation of powerful corporations not preferable to their unbridled hostility toward environmental agendas? The prevalence of such questions in today's environmental debates reflects the failure of vision in mainstream environmentalism, and has helped to fuel the anti-environmental backlash. Perpetuating this extremely limited view can only reinforce the power and prestige of the institutions that are ultimately responsible for the ecological crisis.

Consider, for example, the views of Robert Stavins, who helped draft the environmental chapter of *Mandate for Change*, the Progressive Policy Institute's 1992 policy blueprint for the incoming Clinton administration. The chapter, coauthored with Thomas Grumbly—then of Clean Sites, Inc. and now an assistant secretary at the Department of Energy responsible for nuclear waste management—places tradable permits, pollution taxes, and other "market solutions" in a wider political context.

Stavins and Grumbly's underlying assumption is that environmental pollution can no longer be treated as an anomaly or failure of the system. It is simply a conspicuous feature of modern industrial economies: a cost of doing business, no more, no less. The "old thinking" that condemns pollution as "a moral failing of corporate (and political) leaders" needs to be replaced by an acceptance of pollution as "a by-product of modern civilization that can be regulated and reduced, but not eliminated." Politically, this means an end to the "widespread antagonism toward corporations and a suspicion that anything supported by business [is] bad for the environment."²²

Instead of promoting the "inefficient," "centralized," "command-and-control" regulations of the past, they write, the government should seek to control pollution largely through the use of "market mechanisms." Their language here clearly mirrors the classic rhetoric of Cold War anti-communism and the fervor surrounding capitalism's "victory." The attack on traditional technology-based standards, which were instituted by Congress as a safeguard against the widespread abuses of the Reagan-era EPA, is no less than a political crusade for pro-corporate envi-

ronmentalists. Their overriding goal is to “permit the burden of pollution control to be shared more efficiently among firms” (to quote the earlier Stavins and Whitehead study), and ultimately, “to set and reach our environmental goals in ways that are smarter, cheaper, and better for economic growth.”²³

Interestingly, the “market solutions” most favored by Stavins and Grumbly—and by commentators as diverse as Justice Stephen Breyer and environmental business guru Paul Hawken—are direct charges levied against companies that pollute. Already in force in much of Western Europe, pollution charges or taxes are readily defensible in “free market” terms. Breyer has extolled pollution taxes as a way of adjusting prices to reflect the true cost of producing a product, while creating legitimate “incentives to direct behavior in a socially desirable direction,” incentives that do not inherently limit “individual choice.”²⁴ Robert Hahn of the American Enterprise Institute collaborated with Stavins on a 1991 paper advocating pollution charges and defending them in traditional microeconomic terms.²⁵ Paul Hawken, in his widely quoted book *The Ecology of Commerce*, takes it a step further, asserting that “Green taxes would create, perhaps for the first time since the Industrial Age began, the closest thing approximating a truly free market, with many costs now externalized fully accounted for.”²⁶

Unfortunately, the corporate world and its representatives in Congress have been far less friendly to the idea of a free-market utopia ushered in by pollution taxes. While tradable permits sailed through Congress with relatively little controversy in 1990, a similarly aligned Congress in 1993 dismissed Bill Clinton’s early proposal for a modest energy tax, even though it was justified primarily as a deficit-cutting measure. Comprehensive pollution taxes, such as have been successfully implemented in France, the Netherlands, Italy, Germany, and the Scandinavian countries, have yet to be seriously proposed in the United States. If they were, they would certainly be condemned as an excessive and outrageous government intervention in the marketplace, and a thoughtless disincentive to business development. All the microeconomic explanations in the world are insufficient to shatter the pro-business consensus over what kinds of government “interventions” are appropriate. Oil depletion allowances, savings and loan bailouts, free trade agree-

ments, and tradable pollution allowances are all easily rationalized for one simple reason: they enrich private interests, especially the largest corporations, at public expense. Energy and pollution taxes, however justifiable in market terms, are too “interventionist” precisely because they do not primarily serve this single-minded goal.

Saving Energy, Greening Production

Another area where the limits of a market-oriented approach to environmental issues are readily apparent is in the continuing debate over energy policy. Since the oil shortages of the 1970s, substantial economic savings and reductions in pollution have been realized by policies that divert utility investments from new power plants to energy-saving technologies. At least as much energy is now saved every year as a result of the conservation and efficiency improvements implemented since the early 1970s as is produced by burning oil.²⁷ In the late 1980s, with utilities again on the defensive against rising electric rates, many state utility regulators hoped to boost conservation by offering utilities additional inducements to invest in conservation. Companies were offered rate increases and other incentives for such investments, comparable to the increases that inevitably follow the construction of new power plants. Proponents of this policy, known as “demand-side management” (DSM)—most notably, the Boston-based Conservation Law Foundation—argued that as utilities profited from energy savings, customers would share in the benefits due to decreased demand, and everyone would ultimately come out ahead.

With near-term profits all but guaranteed, utilities proved quite willing to subsidize home weatherproofing, energy-saving light bulbs, and even experimental purchases of solar water heaters. Every effort was accompanied by a publicity campaign extolling the utility’s commitment to conservation. Yet much of the available funds were squandered on high-profile demonstration projects, administrative costs, and specialized programs only accessible to the most affluent home owners. Sometimes, as little as a quarter of DSM expenditures actually went toward implementing energy conservation measures.²⁸ Many programs inadvertently served to heighten the inequities in energy expenditures be-

tween wealthier home owners and low-income people, who spend a far greater portion of their total income on electricity.

By the mid-1990s, faced with low oil prices, excess supplies of electricity—due to overbuilding of coal and nuclear plants in previous decades—and increased competition in the utility sector, many companies petitioned to opt out of their energy efficiency programs. Despite considerable windfalls from these programs, utility executives could only temporarily suppress their disdain for any activity designed to reduce sales of electricity. Conservation programs advertised as cost-conscious innovations one year were denounced a year later by the same companies as unreasonable government interventions into the marketplace. Industry analysts speculate that DSM will be an early casualty of current efforts to deregulate and restructure the utility industry.

In the heyday of demand-side management, such incentive-based approaches were seen by many environmentalists as a way of developing environmentally sound technologies throughout the industrial sector. If companies are offered incentives to implement newer, more efficient production methods, market enthusiasts still argue, they will ultimately save money and increase profit margins while helping to protect the environment. While companies may resist adopting new technologies mandated by government regulators, it is assumed that they would gladly upgrade to more efficient and less polluting technologies if offered sufficient encouragement to respond to market forces.

This approach was pioneered in the late 1970s by innovative policy analysts, led by "soft energy" wizard Amory Lovins. Lovins became a household name among safe energy advocates for his bold projections of the economic benefits and the good-sense practicality of a widespread conversion to energy efficient technologies.²⁹ His proposal to create a market for "negawatts"—units of energy savings, in comparison to the megawatts of electricity produced by new power plants—played a key role in popularizing demand-side management, and his earliest projections of possible energy savings were generally exceeded. Yet Lovins' gospel of efficiency, competitiveness, and leading edge technology fell far short of the ambitious goal of replacing three-quarters of U.S. oil consumption and almost 80 percent of electricity with existing energy-saving technologies, which are already far less costly than new sources.³⁰

The main difficulty here is that the present economic system is oriented toward maximizing profits, not efficiency. While efficiency improvements lower the costs of production in the long run, corporations will generally accept the somewhat higher expense of sustaining production methods that have proven to keep profits growing. When companies can already reduce production costs by laying off workers, contracting out large portions of the production process, or moving entire factories overseas, the uncertain promise of lowering expenses by improving energy efficiency holds considerably less appeal. Lovins' focus on efficiency goes against the grain of a business world aggressively oriented toward growth, capital mobility, and the concentration of economic power. Even direct incentives to stockholders to encourage utility investments in energy conservation have proved insufficient to sustain long-term interest in these programs.³¹

Further, companies that supply oil, minerals, and other resources exercise considerable clout over financial markets and corporate boards of directors. Significant investments in efficiency, conservation, and pollution prevention thus run counter to the interests of the market's most influential players. Companies often prefer to hire lobbyists to press for weaker environmental regulations than to substantially invest in conservation or clean technology. This situation is unlikely to change without a far-reaching democratization of day-to-day economic decisions. Even publicly owned municipal utilities seeking to save energy are constrained by a market thoroughly dominated by large commercial utilities, which generally control the energy supply.

Similar difficulties have arisen with pollution prevention, another arena where free-market ideology and market environmentalism often conflict with political realities. Chemical companies such as Dow, Monsanto, and 3M have gained accolades from mainstream environmentalists for their highly publicized efforts to reduce waste and toxic emissions, even though these efforts are largely in response to regulatory and other political pressures. Free-market enthusiasts have proclaimed a new age of "industrial ecology," in which companies will voluntarily cooperate to reduce pollution, practice intensive materials recycling, and use each other's waste products as feedstocks for other phases of production. Management consultant Hardin Tibbs is one of the leading ad-

vocates of this approach and is acclaimed for his vision of a world of "green corporations" and an unabashedly profit-oriented corporate environmentalism:

Our challenge now is to engineer industrial infrastructures that are good ecological citizens, so that the scale of industrial activity can continue to increase—to meet international demand without running into environmental constraints or, put another way, without resulting in a negative impact on the quality of life.³²

Widespread changes in production methods are clearly a necessary step toward an ecologically sustainable future; however, their acceptance within a capitalist economic framework requires some scrutiny. Tibbs' most quoted example is of an industrial park in the Danish town of Kalundborg, where the power plant recycles its waste steam to heat nearby factories; an oil refinery sells excess sulfur to a chemical company and heat to a fish farm; and a leading biotechnology company, Novo Nordisk, offers high-nutrient sludge from its fermentation vats to farmers as fertilizer. Neither Tibbs nor the market-oriented environmentalists who quote him are inclined to question Novo Nordisk's production of genetically engineered enzymes for everything from detergents, cheese, and animal feeds to the "stone washing" of blue jeans.³³ Nor do they say much about the refinery's pollution and its effects on the health of nearby residents.³³ And little emphasis is placed on the Danish government's aggressive promotion of energy conservation and environmental technology, including implementation of energy efficient technologies—such as the district heating of homes linked by underground heat pipes—that are virtually unheard of in the United States.

Much of Europe has embraced increased environmental regulation, recycling requirements, and pollution taxes, and companies comply in the face of considerable public pressure to curtail the damaging effects of pollution. Ecocapitalist Paul Hawken praises the German automaker BMW for its effort to make car parts easier to disassemble and recycle, but he neglects to mention that such innovations are mandated by public policy in many parts of Europe. Norway and Sweden have national deposit-refund systems for car bodies, similar to our still hotly contested state-level "bottle bills," and companies are under considerable political

pressure to adopt new recycling technologies before they are required to by law.³⁴ Almost as an afterthought, Hawken reveals that landfill costs in both Germany and Japan are more than ten times higher than in the United States.³⁵

Industry analysts have long suggested that increased competition with European and Japanese producers will result in improved efficiency and reduced pollution. But while key environmental technologies, from photovoltaic solar cells to catalytic converters, were first developed in the United States, U.S.-based firms have been quite willing to let overseas companies improve and market their innovations.³⁶ U.S. companies may try to catch up, as in the market for smaller, more fuel-efficient automobiles. In other areas, such as industrial machine tools, many of the U.S. companies responsible for important innovations have long since disbanded, or have become absorbed by large conglomerates that have little lasting interest in production technologies. While corporate profits skyrocketed between 1990 and 1995, investments in new plants and equipment by *Fortune* magazine's 500 largest firms fell by 40 percent.³⁷

In this time of unprecedented corporate concentration, profits from speculative financial investments increasingly outweigh profits from improved production methods. Corporate public relations departments, along with legal staffs concerned about compliance with environmental regulations, are far more engaged in the promotion of environmental technologies than those primarily concerned with the bottom line. For example, while Dow Chemical sought headlines in the early 1990s for its efforts to reduce toxic emissions, company officials traced their apparent change in philosophy to "recent anti-pollution legislation and sentencing guidelines [that] could make environmental managers the subject of criminal prosecution."³⁸ Procter and Gamble "significantly broadened its market share" when it added environmental claims to its labels.³⁹ Consulting firms specializing in "Strategic Environmental Management" are helping companies play the regulations, along with public perceptions, in pursuit of competitive advantage. Genuine environmental improvements may sometimes result, but only as long as public pressure and vigilance back up the regulatory stick.

Free Market Conservationism

Emissions trading, demand-side management, industrial ecology, and other such measures are heavily promoted by free-market enthusiasts seeking to influence environmental policy. But even their optimistic claims pale beside the arguments of those who would bring the wonders of the capitalist marketplace to the management of the United States' vast public land holdings. The most aggressive and outlandish schemes for the privatization of public lands often originate with representatives of extractive industries and the highly manipulated "wise use" property rights movement. Yet as the debate over public lands management has become more polarized, self-professed conservationists have emerged with their own "market solutions," lending further credence to the most ardent privatizers.

One simple fact has driven many environmentalists to consider market-based alternatives to the present system of public lands management: much of the unsustainable resource extraction currently taking place on federally managed lands is heavily subsidized. Logging in the National Forests is supported by federally funded road construction, surveying, administration, and aid to county governments, as well as by the government's long-standing policy of offering timber contracts to private companies at well below cost. Grazing and mining on federal lands are governed by archaic laws dating back to the 19th century, laws that set fees at astoundingly low rates. Ranchers still pay \$2 a month to graze livestock on public land; mining companies can still stake their claims for a few dollars an acre and pay no royalties whatsoever into the federal coffers. Modest proposals advanced by Interior Secretary Bruce Babbitt to update these laws were scuttled early in the Clinton administration due to pressure from powerful ranching and mining interests. This was one of the first examples of Clinton's capitulation to pressure from the Right, a telling incident that failed to adequately warn environmentalists who believed Clinton was firmly on their side.

When the Republicans took control of Congress in 1995, it became clear that sensible reforms of logging, mining, and grazing policies were not on the immediate horizon. Even though such reforms would advance the oft-repeated goal of balancing the federal budget, they had lit-

tle chance of passage in a Congress so blatantly beholden to moneyed interests. So environmentalists began to look elsewhere for ways to curb the abuse of public lands, and some, perhaps inevitably, heard the siren call of market-based solutions.

An early proponent of this approach, Oregon-based economist Randal O'Toole's careful studies of the U.S. Forest Service and other agencies revealed losses in the range of \$100 million a year in the timber sector alone.⁴⁰ He proposed the implementation of fees for all forest uses, including recreation and freshwater resources along with timber and mining, a plan that gained the support of environmental organizations such as the prestigious Washington, D.C.-based WorldWatch Institute.⁴¹ Since beneficial uses of the forests are inherently more valuable than extractive ones, O'Toole argued, such a plan would ensure that the proper management of the forests would pay for itself. Proponents of user fees assume that "fair market values" for various amenities will outweigh the dubious benefits of current patterns of exploitation.

In recent years, O'Toole has become a born-again advocate of a more vehemently anti-government, pro-business approach to environmental issues, an approach that has isolated him from most—though not all—environmentalists and endeared him to supporters of the libertarian Right. "Nearly all environmental problems are rooted in society's failure to adequately define property rights for some resource," O'Toole has written, advocating "property rights for owls and salmon" to "protect them from pollution."⁴² Whenever there is a conflict between marketed and nonmarketed resources—for example, between timber sales and scenic beauty—he has argued that the solution is to assign the latter a market value to create an incentive for protection. O'Toole would divide the National Forest system into individual units, each governed by its users and operated on a for-profit basis, with a portion of user fees allocated for such needs as protection of biological diversity.

Other "free-market environmentalists" offer even more fanciful prescriptions for protecting natural areas through the beneficence of private ownership and economic exchange, and they have captured the attention of conservationists with their appropriation of the language of democracy, decentralization, and localism. One of these is Karl Hess, Jr., a widely quoted advocate of tradable grazing permits, open bidding, and

even more overt forms of privatization. Hess wants those who seek to protect the beauty and integrity of western lands to place their faith in a fiction he calls the "deep market," defined as "the social arena ... where economy and society assume a manageable scale and where the concerns of political economy meld with those of the economy of nature."⁴³ This is nothing less than an idealized image of the precapitalist marketplace, where social and commercial interactions would presumably coalesce in an atmosphere of "mutual aid and cooperation." Hess overlooks the ways in which traditional village-based societies, which have in many instances survived for millennia precisely because they do *not* function like capitalist "free markets," are being rapidly dismantled by the overwhelming pressures of today's corporate-dominated global marketplace.⁴⁴

Hess' solution to the destruction of forests is simply "opening up the sale process and letting groups who want to preserve forest integrity bid against those who want to harvest it." Ranchers, environmental groups, and civic associations can learn to be good neighbors, creating a "sea of little commons ... that would be neither public nor private, but simply self-governing land communities."⁴⁵ Of course, such imagery evaporates quickly when the eccentric, but good-hearted rancher-next-door is replaced by a giant multinational timber company like Weyerhaeuser, or a holding company specializing in corporate buyouts and liquidation of assets, such as the notorious Maxxam corporation, with its vast holdings of redwood forests in northern California. The middle school students on Long Island, with their \$20,000 in sulfur dioxide credits, might see themselves in a relatively advantageous position compared to small landowners left drowning in such a "sea" of corporate landholdings.

While the current system is clearly failing, due to the staggering influence of corporations over our existing political institutions as well as the inefficiencies of centralized management, decision-making in the public sphere at least offers the promise of accountability and the ideal of "one person, one vote." To relegate environmental policies to the private sphere is to enter a realm where every dollar has a vote, and where thoroughly unaccountable outside interests can easily overwhelm local institutions with their economic power. In the private sector, important decisions are generally made entirely in secret and solely for the short-

term benefit of those with the most economic leverage. This is rarely compatible with environmental protection, public health, or the long-term integrity of affected communities of people. Advocates of privatization thus completely surrender the possibility of an ecologically or socially responsible solution to the present crisis in public lands management.

Even the most moderate proposals to adopt economic incentives as a management tool raise serious conceptual problems. The key assumption for proponents of various incentive schemes is that markets can meaningfully assign dollar values to noneconomic goods, such as clean air, intact natural ecosystems, or an undisturbed scenic view. The question of how to adequately value economic "intangibles" has preoccupied resource economists and policy analysts for nearly two decades.

Lacking an objective basis for quantifying such noneconomic values, their efforts rely on various sociological methods, market analyses, and psychological studies. People are asked how much they would pay for a given environmental amenity, and their answers are compared with the actual prices of everything from wilderness expeditions to vacation homes. Researchers ask how much people would pay to protect a resource, and also how much money they would accept to do without it. Discount rates are calculated to correct for the effects of future decisions as compared to present-day ones. The results vary widely depending on how questions are asked, how knowledgeable respondents are, and what assumptions are made in the analysis.⁴⁶

Still, proponents of this approach continue to insist that complex, multidimensional, and highly subjective qualities can and should be reducible to a market price. The morality of such an approach is highly questionable, too, as in the case of a study commissioned by the industry-supported think tank Resources for the Future to determine an appropriate discount rate for human lives lost from exposures to toxic pollution in the future compared to the present. Based on 1,000 telephone interviews, they concluded that one life saved in the present is equivalent to six lives saved twenty-five years in the future and forty-four lives 100 years in the future.⁴⁷ A recent cost-benefit study on the consequences global climate change valued the lives of people living in northern industrial countries at a rate ten times higher than the lives of

people in China, India, and Africa.⁴⁸ The idealized market scenarios of a Karl Hess or a Randal O'Toole—with their deep markets and property rights for salmon—rapidly break down in the face of such stark and troubling realities.

The free-market approach assumes that everyone is equally capable of exercising their preferences in the marketplace, an assumption thoroughly contradicted by even a cursory look at present-day economic life. Environmentalists are not in a position to compete with multinational corporations for land rights, mining claims, or air pollution permits, if these are to be treated simply as commodities in the marketplace. The market in pollution allowances—in which a few companies are buying the vast majority of available credits and environmentalists are left with the crumbs—offers a clear indication of how this is likely to play itself out in less controlled settings.

These examples illustrate a fundamental underlying conflict and raise numerous important questions. Can the market and its institutions be made compatible with the long-range health of communities and ecosystems, or does an ecological outlook require us to envision a very different kind of economy? Can the features of the market that are least conducive to environmental protection be altered or reformed? What kind of economic system might be more compatible with long-term ecological integrity? We will return to these questions in the closing chapters of this book. First, it is necessary to take a closer look at the complex and politically contentious world of environmental regulation.