

A Strategic Direction for 21<sup>st</sup> Century Environmentalists:

Free Market Environmentalism

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To help build a sustainable economy, the environmental movement must shift its traditional anti-industrial focus and become pro-investment.... Progressive activists at every level—grassroots, national, and international—are embracing strategies to help design, develop, and finance a more benign industrial ecology.<sup>1</sup>

Allen Hershkowitz, a senior scientist at the  
Natural Resource Defense Council

During the late 1960s and early 1970s, in response to global environmental problems, a number of Europeans, North Americans, and Australians began formulating versions of what has come to be known as radical environmentalism. These people sought to develop alternative strategies to those employed by "reformist" environmentalism, which was perceived as being so complicit with the industrial-consumerist paradigm that it could not even recommend—much less carry out—the systemic changes needed to save the planet from ecological destruction.<sup>2</sup> Radical environmentalism prominently includes, but is not limited to, deep ecology, ecofeminism, and social ecology, which seek to provide the theoretical justification and strategies needed to bring about eco-friendly alternatives to modern industrial economies, capitalist and socialist alike. Another version of radical environmentalism is represented by socialist ecologists, according to whom the "globalization" spread by post-Cold War capitalism is exhausting raw materials, destroying habitat, polluting air and water, and undermining indigenous cultures at a rapid clip. There are also a number of direct-action ranches of radical environmentalism, including Sea Shepherds, Greenpeace, and Earth First!. Their "monkey-wrenching" strategy aims to bring the

system to a halt, or at least slow it down sufficiently so that right-minded people will have time to develop the social, economic, and personal changes consistent with the long-term good of Earth's ecosystems.

Although I have some experience as an eco-activist, my primary environment-friendly practices involve teaching environmental philosophy courses and writing essays that explore theories (sometimes radical) and envision strategies (sometimes radical) that may enable people to treat the natural world in a less destructive manner. Compared with the risky ventures of Greenpeace activists, my armchair eco-theorizing is a relatively safe practice. Still, there are some risks involved, as I found out after publishing essays and a book urging certain radical environmentalists to become aware that their total condemnations of modernity and their yearnings for a "return" to nature have in the past led toward "ecofascism".<sup>3</sup> In Contesting Earth's Future (CEF), I explored the extent to which deep ecology could be made consistent with a "progressive" reading of human history, according to which people are evolving beyond dualistic (human vs. nature) thinking toward a more inclusive way of relating to each other and to the natural world. Realizing that a number of readers would regard such an approach as too teleological, and foundationalist—in short, too metaphysical—I included a final chapter which explored some alternative future scenarios and strategies, which did not involve this evolutionary-progressive reading.

One of these strategies involved Gus diZerega's critique of neoclassical liberalism and his attempt to present the evolutionary liberalism of F. A. Hayek, Michael Polanyi, and Peter Berger as consistent in important ways with the aims of deep ecology.<sup>4</sup> Apparently because I explored this strategy sympathetically, a leading ecofeminist—Val Plumwood—included the following statement in her review of my book: "Contesting Earth's Future provides the strongest right-wing bid so far for the intellectual foundations of environmentalism, through the political realignment of deep ecology."<sup>5</sup> This was the first instance in which either me or my writings had ever been described as "right wing." Trying to recover from a mild case of shock, I reminded myself that

throughout the 1970s, I was a neo-Marxist with Heideggerian leanings, although it became increasingly difficult to reconcile these two viewpoints. One of my first publications in environmental philosophy concerned how one of Heidegger's best-known students, Herbert Marcuse, had criticized the technological domination of nature.<sup>6</sup> In another essay from that era, I explored differences between Marx and Heidegger's views about the technological exploitation of nature.<sup>7</sup> In addition to theoretical and political reasons for being attracted to the left, there were cultural and personal ones as well. For instance, I regarded leftists as far hipper than their right-wing antipodes, whom I envisioned primarily as up-tight, greedy white men wearing ill-fitting suits, clinging to exclusionary cultural values, and promoting exploitative politico-economic agendas. Even years later, upon first being called right-wing, I asked myself: Could I possibly be like those people?

Coming to my senses, I concluded that it was time to jettison my stereotyped visions of right-wingers and left-wingers alike. Instead of instinctively pulling back from being labeled a "right-wing" environmentalist, I decided to explore it. A better question then arose: Does "free market" environmentalism, which uses the principles of neo-classical economic theory, have something important to offer the environmental movement? In what follows, I answer this question with a qualified "yes." My aim here is, in part, to encourage serious consideration of this approach on the part of theorists who might otherwise discount it. A little knowledge of economics is dangerous, so I am taking the risk of overlooking drawbacks to free market environmentalism, as well as understating its potential benefits.<sup>8</sup> Limitations of space alone preclude more than a rough sketch of a topic that has generated a vast literature during the past few decades.

Free market environmentalism (FME) cannot do everything, but it can do many important things, as many long-time activists are beginning to recognize. Consider the quotation that opens this essay. An important shift has occurred when a senior scientist at the National Resource Defense Council says that "progressive activists at every level ... must become pro-

investment." Hershkovitz has the audacity to link "progressive" with "investment," a linkage that constitutes an oxymoron for left-wing progressives who blame the market for many social ills. Some radical environmentalists regard as equally problematic Hershkovitz's attempt to link environmentalism with the ideal of progress, which gave rise to the industrialism that such radicals hold responsible for global ecological devastation.<sup>9</sup>

The progressive ideal is central to modernity. For many Enlightenment lumières, progress meant the ongoing historical effort to improve the human condition in at least four ways: ending material scarcity; freeing thought from the constraints of political interference and religious dogma; emancipating people from authoritarian social structures; and using scientific knowledge to pacify human relations and to gain mastery over nature. Anyone who calls him/herself "progressive" should be able to embrace these goals (the list is not meant to be exhaustive), though environmental progressives obviously have serious reservations about the goal of "mastering" nature. In many developing countries in particular, environmental conditions can be improved by gaining appropriate control over certain natural processes, as well as by realizing the goals of ending poverty, overthrowing authoritarian regimes, making sound scientific knowledge widely available, and overcoming internal social strife.

Typically, when academics hear the term "progressive," they think of left-wing politics, but in fact left and right are both progressive when compared with pre-modern social ideologies and practices. Right-wing progressives maintain that free markets are not only the best way of overcoming scarcity, but are also crucial for maintaining political freedom. Left progressives, in contrast, insist that class structure and income disparities distort the production process in a way that maintains scarcity, and also undermine democratic processes. When Hershkovitz says that progressive environmentalists should become involved in investment, he assumes two things: a) that market practices can contribute to progressive ends; b) that in the post-Cold War era, one of the most effective ways for environmentalists to make a real difference is to use market mechanisms. For some environmentalists, especially those who believe that any involvement

with the market would only contribute to its growing power, this pill is too bitter to swallow. Moreover, a number of ecofeminists, especially Vandana Shiva from India, are particularly concerned that corporate control of biotechnology may (perhaps unintentionally) threaten global food supplies, distort local and national food production, and cause serious ecological problems (as when pollen from Monsanto's genetically engineered corn proved fatal to Monarch butterflies tested in a Cornell laboratory).<sup>10</sup> Adequately to address these important concerns, without demonizing corporate agriculture, would require a separate essay.

As mentioned earlier, another difficult point for environmentalists is modernity's idea of "mastering" nature. Indeed, many environmentalists are suspicious of "progress" and "progressives" (left- or right-wing) because these are linked to modernity's anthropocentric project of achieving human well-being at the expense of nature. One aspect of modernity's dark side is that modern man—I use to term "man" advisedly—tends to dissociate himself from emotions, the female, matter, otherness, and nature in general. Gaining control over aspects of nature has been part of the human project from the start, but the titanic scale of many modern industrial projects—for example, throwing mile-wide concrete dams across mighty rivers and even reversing the flow of other rivers—seem to express an exuberant fantasy of total control that is, in fact, unrealizable.

Almost forty years after Rachel Carson helped to initiate the environmental movement, a great deal has been learned about the drawbacks of such projects. Moreover, although the rhetoric of "dominating" nature has not vanished, it has certainly been challenged by the widely accepted idea that humanity is dependent on the well-being of the living environment. A major task is to redefine progress in a way that retains the noble goals of modernity, but acknowledges and disavows modernity's dark side, including the idea that nature can or even ought to be "dominated" in the sense of gaining total control over it.<sup>11</sup> The conclusion drawn by increasing numbers of people from various points on the political spectrum is that the goal of improving human welfare cannot and ought not to be achieved at the expense of a healthy biosphere. To

some extent, the bone of contention has shifted to empirical questions: just what is the condition of the biosphere? To what extent have environmental conditions grown worse in the past century? Will the environmental situation improve or deteriorate in the coming century?<sup>12</sup>

Accurate answers to these questions are difficult to come by, not only because we are dealing with moving targets that are affected by actions taken to correct perceived problems, but also because answers are sometimes influenced by ideological factors. Environmental organizations and for-profit corporations alike can fund studies that come to rather different conclusions about a particular environmental problem, and also make different recommendations about addressing what problems are agreed to exist. Exposed to these competing claims, the non-expert finds himself or herself in a quandary: Whom to believe? Twenty years ago, many people would have automatically assumed that the corporate position was false or at best misleading, but more recently a number of people have concluded that they cannot trust the positions advanced by either side. Unbiased, third-party evaluation of competing claims is not readily available.<sup>13</sup>

Current skepticism about evaluations and predictions made by environmentalists can be traced only in part to corporate-sponsored efforts to make people "feel good" about current eco-conditions and corporate practices.<sup>14</sup> Skepticism also stems from the fact that environmentalists have frequently predicted impending eco-disasters that never seem to arrive, at least not in the form or at the scale predicted.<sup>15</sup> In the late 1960s, for instance, prognostications by best-selling environmentalists such as Paul Ehrlich (author of The Population Bomb) were so grim, that I—like many other people--concluded that the planet would be a blackened ruin by the end of the twentieth century. Serious problems confront us, but the situation is not what I was led to believe it would be. It may be that those grim prognostications may have helped to spur action that helped avert what was predicted. In order to foster commitment and effort on the part of concerned citizens, however, environmentalists must also devise pathways to constructive outcomes for the future, instead of painting the bleakest possible picture. Despair usually leads not to action, but rather to withdrawal.

Today, after the deserved collapse of the Soviet empire, the free market system is so influential, that even established left-wing authors find themselves exploring "market socialism."<sup>16</sup> In a remarkable turnabout, the noted leftist economists, Samuel Bowles and Herbert Gintis, contend that egalitarian goals can best be achieved not by the traditional approach of redistributing wealth, but instead by "asset-based policies of redistribution," which "seek to implement a sustainable assignment of private property rights that make economic actors both effective decision-makers and the owners of the results of their actions."<sup>17</sup> Likewise, more and more environmentalists are taking FME seriously, not as a panacea, but as a helpful remedy for dealing with a host of important and complex environmental issues. A decade ago, in Environmentalism and the Future of Progressive Politics, left-wing political scientist Robert C. Paehlke supported elements of free market ("neoconservative") approaches to environmentalism:

We [progressive environmentalists] should not be afraid to look for elements within neoconservatism that might be both compatible with environmental progress and not incompatible with distributive progress. Increased military spending and a too-cautious approach to environmental regulation should be rejected whatever the political risks. But what of a gradual return to fiscal responsibility accompanied by an enthusiasm about creative entrepreneurial initiatives? The latter applies well to recycling, renewable energy, and energy conservation.... Thus environmentalists need not automatically be hostile to such sociotechnological developments, and enthusiasm about the future is also part of the neoconservative appeal.<sup>18</sup>

Paehlke is correct that "enthusiasm about the future" is one reason that people are attracted to proponents of free market economics.<sup>19</sup> Environmentalists would be wise to embrace measured optimism, at least, even while continuing to point out potential obstacles and dangers lying ahead. A crucial ingredient in neoclassical optimism is that the demise of communism and rise of market economies will bring greater prosperity to people around the world, and that such

prosperity brings with it demand for a better environmental amenities.<sup>20</sup> Environmental conditions are generally best in the world's wealthiest regions, including western Europe, the United States, and Canada. Environmental conditions tend to decline as wealth declines, partly because poor people inevitably concern themselves more with the immediate need for making a living, rather than with the desire for clean air, water, and a healthy natural environment. Moreover, many studies have shown that as a nation's per capita income rises, population growth slows. Greater economic and educational opportunities, then, will not only create greater demand for a healthier environment, but will also slow human population growth. Hence, very effort must be made to increase prosperity by making use of free market economic practices, while simultaneously using scientific knowledge and political action to shape those practices in ways that promote the most environmentally sustainable outcomes.

Radical environmentalists who insist that eco-catastrophe can be averted only by a complete transformation of industrial civilization, or by overcoming humanity-nature dualism, or by rediscovering the feminine and/or sacred dimension of nature, or by transforming consciousness, offer a counsel of despair. Such dramatic changes—laudable though they may be, at least in some cases—cannot be achieved in half a century, although efforts to promote such changes can and should continue for the long run. For the short term, however, environmentalists who are progressive and who want to make a real difference must both criticize and utilize existing institutions and practices for the sake of achieving environmental amelioration. The situation is too serious, and the opportunities too great, to justify what Adorno called the "great refusal" to participate in capitalism. Environmentalists recognize that they must everywhere strengthen democratic institutions in order to monitor, evaluate, and regulate the activities of corporations. Simultaneously, however, environmentalists must learn to use the tools of market-based economics to produce environmentally- and socially-preferable outcomes.

Some people seem despondent about the current situation, which is apparently dominated by corporations that ignore national and local concerns, not to mention environmental interests.<sup>21</sup>



The inertial forces behind economic globalization are so great that even Fidel Castro allegedly remarked that being against it is like being against gravity. Globalization may be defined very briefly as the ever-growing inclusion of all countries and peoples within a (relatively) free market economic system that emphasizes consumption. In certain respects, globalization may be what Heidegger had in mind by his notion that technological modernity is governed by Gestell, that is, by the disclosure of everything as raw material for enhancing the quest for power, wealth, and security.<sup>22</sup> But Heidegger's relentless animosity toward modernity prevented him from appreciating its many positive achievements. Despite the tendency of so many postmodern theorists to embrace some version of Heidegger's gloomy anti-progressive, anti-humanist view, I believe that a progressive interpretation of history—along the lines sketched out in CEF—remains plausible.<sup>23</sup> "Progressive" does not mean blind optimism, but rather involves taking the stand that human beings are in fact capable of improving their situation. In view of challenges lying ahead, I would say that a progressive should be happy if fifty years from now humanity has managed to "muddle through" in such a way that the biosphere remains viable, that social democracies remain ascendant, and that material well-being has become ever more broadly available. By then, efforts to reintegrate humanity, nature, and the divine in a non-regressive way may have begun to bear fruit.

Environmentalists wary of utilizing the market juggernaut might consider the following. Martial artists are well known for defeating much larger opponents. How is this accomplished? The secret is not to resist the opponent's strength, but instead to work with it in a way that has an outcome that the opponent does not expect. When the opponent throws a punch, the martial artist moves with it, rather than resisting it. The outcome is that the opponent ends up off balance or on the floor. Ideally, although not always, the opponent ceases aggressive action at this point, having recognized that more of the same will not work. The martial artist seeks neither to kill nor harm, but instead to deflect and dissuade. Similarly, instead of resisting the market, the environmentalist must learn to utilize its enormous power in a way that generates eco-friendly

outcomes. Although environmentalists cannot deal with the entire phenomenon of "globalization," they can address specific issues and practices associated with the global market economy. Corporations, like many individuals, will do what they can get away with in the search for profit. Free market environmentalists (FMEs) utilize the energy behind this search, by offering alternative, ecologically more benign ways of making profit, or by removing incentives that have encouraged people in the past to make a profit in an ecologically-destructive manner. The point is not to destroy the enormous energy of markets, since they deliver the goods that people want and need, but rather to redirect that energy in constructive ways. In some cases, admittedly, such redirection will require the intervention of political force that resists market tendencies, rather than simply redirecting them.

Defined simply, FME asserts that the most effective way to improve environmental quality is to use market mechanism to alter how people buy and sell things. Crucial to such mechanisms is the existence and defense of clear property rights. Environmentalists cringe, however, when such rights are used by land owners to justify doing whatever they want with their land. For example, in the past decade a number of people have used the "takings" clause of the fifth amendment to the U.S. Constitution to counter federal guidelines that prohibit landowners from developing private land designated as "wetlands" or from taking action that would harm any endangered species found on private land. FMEs argue, however, that legitimate concerns of private landowners ought to be addressed, either by finding incentives that would encourage landowners to protect endangered species, or by developing some compensation mechanisms for landowners whose land is (sometimes unexpectedly) declared to be wetland and thus not developable. Landowners, environmentalists, and state and federal agents have made some progress in negotiating solutions to some of these problems.

Strict application of property rights, as recommended by many libertarians, could have a tremendous benefit for environmental problems, but this is not the direction that U.S. courts and legislatures have gone. Strict property rights require that someone who harms your property must

provide full restitution for the damage, no matter how expensive, whereas limited rights typically means that the wrong-doer's damages are limited to the market value of the property in question. The difference here can be seen in an event that occurred north of Baton Rouge in the late 1960s. Heavy rain caused a large holding-pool, filled with toxic wastes placed there by petro-chemical companies, to overflow into and permanently damage a couple of hundred acres of land known as Devil's Swamp, lying alongside the Mississippi River. One of the land's owners, Dave Ewell, refused to accept a damage payment set at land's market value, which was not very high. Instead, he demanded that the offending companies restore the land to its original state, a process that would have cost well over \$100 million by some estimates. Mr. Ewell's lengthy legal battle against the petro-chemical companies was not successful. Were strict property rights in effect, however, companies would obviously be far more careful about how they disposed of wastes!

Despite the drawbacks of limited liability, FMEs maintain that a well-functioning free market system is far preferable to centralized authority and collective ownership, which have led to environmental disaster.<sup>24</sup> The collapse of the Soviet empire revealed that environmental conditions in Russia and eastern European countries were far worse than anyone had expected. The USSR and its satellites were command economies, i.e., economic decisions were ultimately made by the ruling class whose decisions went unchallenged, not only because of the authoritarian political structure, but also because ordinary citizens lacked the information necessary to generate protests about practices ordained from above. However compromised the press may have been during the past forty years in Western countries, it was far more capable of reporting environmental abuses than was the Soviet bloc press. Moreover, however much Western democracies may have been compromised by the influence peddling practiced by powerful corporations, citizens were armed with sufficient information and had sufficient power to force passage of important environmental legislation during the 1970s.

Arguably, the worst environmental problems in the United States result not from corporations, but instead from the federal government, including the armed forces. As just one

example, consider the extraordinary amount of lethal nuclear waste located at sites in Washington, South Carolina, Tennessee, Colorado, and other states where military contractors developed and used fissionable material to produce atomic weapons. At the Hanford facility in eastern Washington, contractors working under Cold War imperatives handled nuclear waste so ineptly that to this day, no one knows how to remove it for storage elsewhere. There is grave concern that some of the liquid wastes may escape into local aquifers or even into the Columbia River. If such waste could somehow be recovered from decaying underground containers, it is supposed to be stored underground at Yucca Flats, a site that remains controversial in terms of its suitability. Furthermore, because these highly radioactive substances have a half-life of thousands of years, the designers of the Yucca Flats site have the virtually impossible task of developing a set of warning signs that will last for at least 10,000 years after the site is sealed. Analogous military nuclear waste problems, some even worse than those described above, exist in the former Soviet Union. Ultimately, there is no greater environmental threat than that posed by the tens of thousands of nuclear weapons that remain in the arsenals of the U.S. and Russia.

In the 1950s, in the face of grave public concern about atomic bombs, the US government sought to legitimate its commitment to such weapons by developing an "atoms for peace" program, which pushed for the development of electrical generating facilities powered by atomic reactors. Setting aside current debates about whether nuclear power plants are environmentally more benign than plants powered by coal, oil, or natural gas, the fact is that such plants could never have been built by privately owned utilities without the following federal subsidy: nuclear power plants are limited in terms of liability to \$675 million dollars. Had the accident at the Three Mile Island plant in Pennsylvania resulted in contamination comparable to that which resulted from the disaster at Chernobyl, the damages would have been many hundreds of billions of dollars. No insurance company could underwrite such a gigantic risk. Hence, to make it possible for corporations to build nuclear power plants, the federal government passed a bill that limits liability to a sum that corporations can afford to insure.

There are countless other examples of misguided governmental subsidies that promote undesirable environmental consequences. Pressure to establish these subsidies comes not only from private individuals and corporations, but also from governors and legislators, who want to see their states become more "developed." Consider federally subsidized flood insurance programs that encourage people to build houses on flood plains, on beaches, and in other areas that may be environmentally sensitive. Few people could afford private insurance for a vacation home on the Gulf Coast or coast of eastern Florida, Georgia, and the Carolinas, all of which are prone to hurricanes. In the western states, where the federal government owns a vast proportion of land, the Bureau of Land Management encourages over-grazing on lands that it rents at below-market prices. Similarly, the U.S. Forest Service infamously sells vast amounts of timber at below-market prices, in a gigantic instance of a misguided employment subsidy practice. As critics have pointed out on many occasions, the Forest Service subsidizes logging by paying for the roads in the areas that are leased to logging companies. Many thousands of acres of old growth forests would never have been cut without such subsidized road-building, because the logging companies could not have afforded to build roads on their own.

One of the most egregious examples of environmentally damaging federal subsidies can be found in U.S. water policy in the western states. In, Cadillac Desert: The American West and Its Disappearing Water, Marc Reisner has described the devastating cost—both ecological and economic--of the water management practices of the federal Bureau of Reclamation, which among many other things has built many huge dams that produce energy and irrigation water, but at vastly subsidized prices. Water scarcity was the major obstacle to economic development in the western states and territories. Although some federal and state subsidies might have been justified as initial steps needed to encourage private entrepreneurs to step in, the federal government intervened in a manner that can only be described as gargantuan. Because water is life, everyone who wanted to earn a living in the West needed water. But instead of imposing the discipline of the market on water use, the federal bureaucracy provided water often at a price that

covered only about 10% of the actual cost of finding and storing that water. As only one example of the consequences that have resulted from such subsidies, massive amounts of water have been squandered to fertilize crops that should not be planted in otherwise arid land. Large landholders have displaced the small ones that federal subsidies were supposed to encourage. Reisner writes that "What federal water management development amounted to, in the end, is a uniquely productive, creative vandalism."<sup>25</sup> The important productive-creative aspect involved transforming inhospitable land into sprawling cities and lush agricultural areas.

The cost of all this, however, has been a vandalization of both our natural heritage and our economic future, and the reckoning has not even begun. Thus far, nature has paid the highest price. Glen Canyon is gone. The Colorado Delta is dead. The Missouri bottomlands have disappeared. Nine out of ten acres of wetlands in California have disappeared, and with them millions of migratory birds. The great salmon runs in the Columbia, the Sacramento, the San Joaquin, and dozens of tributaries are diminished or extinct.<sup>26</sup>

Vandalizing our economic future is at least as important as the widespread destruction of scenic vistas and natural habitat. Reisner asks:

Who is going to pay to rescue the salt-poisoned [irrigated] land? To dredge trillions of tons of silt out of the expiring reservoirs? To bring more water to whole regions, whole states, dependent on aquifers that have been recklessly mined?<sup>27</sup>

Next, consider the U.S. national park system, which is woefully underfunded. There are not enough park rangers to manage the millions of visitors, nor is there sufficient funding for upkeep of much-used natural habitat and repair of facilities for tourists. In many instances, parks must be closed for part of the year and the number of visitors must be arbitrarily limited.

According to FMEs, the major problem is that there is no relation between the economic value of

the experience of touring a park, on the one hand, and the actual price charged for entering the park, on the other. Compare the fee of about eight dollars for a carload of people to visit a national park, with the fee of \$40 per person to visit Disneyworld. Arguably, many visitors would agree that their national park experience is at least as gratifying as the experience available in such an amusement park. Park entrance fees are kept artificially low, however, because the public believes that since the park "belongs" to the people, they should be able to use it at little or no cost. An effective public information campaign, however, could make clear that those who use the parks must be willing to defray the costs of maintaining them. If park managers could charge a fee that is more comparable to other experiential venues, and if they could capture the substantial portion of those fees for maintaining that park, many of the most-used national parks would benefit significantly.

FMEs have noted that artificially low entrance fees at national parks have another unfortunate outcome: low fees undermine an excellent incentive for farmers and ranchers to protect scenic and ecologically-important areas of their land. Were national and state parks to charge reasonably high admission fees, private landowners could also charge fees of their own that would provide incentive sufficient for those landowners to preserve and enhance areas preferred by hikers, hunters, and fishermen. Fees for such uses would in many cases be more economically valuable than alternative uses for such land. Hunting on private land for a fee is an excellent example of how the profit motive persuades landowners to protect and to foster habitat necessary for an abundance of game animals. Hunters and fishermen are willing to pay substantial amounts of money for the opportunity to seek abundant prey in relatively uncrowded conditions.

Terry Anderson and David Leal offer the example of Tom Bourland, who in the 1980s was wildlife biologist for 1.2 million acres of timber land owned by International Paper (IP). At the time, IP saw free wildlife and recreation programs merely as a way "to keep neighbors happy, appease environmentalists, and stem the tide of government regulations placed on private

owners."<sup>28</sup> Soon, however, Bourland concluded that if IP were to charge a reasonable fee for hunting and recreation, the paper company would earn enough money to justify protecting ecologically valuable land, a win-win solution for the company and for living nature. Although initially encountering resistance from people who did not like the idea of paying fees for hunting where they had formerly hunted free, Bourland won many adherents to his concept, because game animals thrived as significant income from hunters led IP to make special efforts to protect the habitats needed by those animals. Bourland's idea has spread to land owned by other timber companies, which have initiated many environmentally beneficent practices, such as protecting prime fishing streams on their land by ceasing to use logging practices that cause siltation.

To people repelled by the practice of hunting animals and catching fish, the fee-for-hunting approach described above may not seem appealing. For FMEs, however, there are always tradeoffs in efforts to protect something with value. Some individual animals will be killed by for-fee hunting, but entire species will thrive as a result of the incentives connected with collecting hunting fees. Aldo Leopold, one of the most influential modern American environmentalists, was an avid hunter who recognized that landowners needed incentives to maintain their property in ways that encouraged wildlife to thrive. Especially when natural predators have disappeared, moreover, human hunting is needed to contain the potentially explosive growth of species such as deer. Despite the moral controversy about the practices of hunting and fishing, some of the most important conversation work in the past hundred years has been carried out by duck hunters and trout fishermen, who have purchased, leased, and bought easements on vast tracts of land in order to preserve the habitat of these highly prized game animals.

FMEs also argue that privatization and property rights can play key roles in strategies designed to protect charismatic mammals in Africa and other continents, where growing human populations encroach upon the habitats of lions and tigers, rhinos and elephants. For some environmentalists, however, "owning" herds of elephants or prides of lions is tantamount to



domesticating these noble creatures. Ideally, great wild species should be allowed to roam freely, without being constrained by the fences of national parks or private owners. Native people living in the same vicinity as tigers and elephants, however, have a very different point of view, since those people must bear the risk of having a child attacked by a tiger or having crops destroyed by marauding elephants. According to FMEs, since local people are most affected by the presence of these charismatic mammals, local people must be given a significant say in how those mammals are treated. Incentives need to be in place to encourage the locals to tolerate and even to encourage the charismatic mammals. One incentive is for locals to be allowed to keep a significant portion of substantial fees that tourists are willing to pay for either observing and photographing, or for hunting those mammals. Another incentive is to repay people who lose livestock to protected predators. Private organizations may raise funds precisely for this purpose.

To protect elephants, rhinos, and tigers, many environmentalists have urged trade bans on ivory, horn, and bones, which fetch a hefty price in Asian markets. As Michael 'T Sas-Rolfes has noted in "Who Will Save the Wild Tiger?", however, the usefulness of such bans is inconclusive. In the case of the tiger, demand for tiger bone continues to be met, despite widespread bans on tiger hunting. Moreover, local courts are reluctant to enforce sometimes severe penalties for poaching. One way to meet demand for tiger bones is to breed tigers in captivity, which has been done with considerable success. Another way of increasing the number of wild tigers is to protect and expand their habitat, but again this requires cooperation from and incentive for local peoples. Sas-Rolfes maintains that one of the most effective measures for protecting tigers would be to strengthen and more clearly define property rights, so that "conservation groups could encourage interested parties to purchase tiger habitat or obtain conservation easements on the habitat."<sup>29</sup>

Before leaving the issue of habitat preserves and national parks, let us examine briefly the usually forgotten role played by private corporations in founding the U.S. national park system. Those who favor federal intervention as a way of dealing with environmental challenges like to point to the national park system as a success story, in which idealistic citizens and legislators

prevented areas of great scenic beauty from being gobbled up by greedy developers. As Anderson and Leal explain in Enviro-Capitalists: Doing Good While Doing Well, even a number of economists have concluded that it is difficult to reconcile protecting "environmental amenities" (such as a view of undisturbed land) and profit-seeking, because "profit seekers are too shortsighted to consider the long-term benefits of preservation or that they cannot capture the value of amenities in their bottom line. Capturing this may be especially difficult if the resource will continue to create value for future generations." <sup>30</sup> Anderson and Leal point out, however, that a major factor in passing legislation for the national park system, including the centerpiece Yellowstone National Park, was the lobbying efforts of "robber barons," in particular the railroad magnates who saw the opportunity of capturing "the value inherent in Yellowstone's natural wonders."<sup>31</sup> Indeed, "For the railroad with a virtual monopoly on transportation to the region, the best alternative was to preserve the region intact as a scenic national park."<sup>32</sup> Private commercial interests of robber barons such as Jay Cooke, owner of the Northern Pacific Railroad, lay behind the establishment of many national parks not only in the United States, but in Canada as well. More recently, in many instances real estate developers have discovered that potential customers are willing to pay a premium for houses that include views of and/or easy access to relatively undisturbed land, or even to land that the developer has paid to have restored, in anticipation that he will be able to recapture that investment in the form of higher prices for land with environmental amenities.

So far, we have focused attention on how privatization may make possible more effective management of wildlife habitat, water, and other resources. Still to be considered is the problem of "externalities." Whenever possible, individuals and corporations will attempt to gain a benefit without cost. This process is known as "externalizing" that cost. A good example is how industries use air, water, and land as "sinks" into which undesired toxic materials can be dumped without cost to the industry. With his famous example of the "tragedy of the commons," Garret Hardin illustrated the problem of cost externalization.<sup>33</sup> If a certain area of grazing land is held

"in common," i.e., owned by no one, each herder can gain the benefit of having a cow eat grass from the commons, but can externalize the cost, which will have to be borne by all the others who use the commons. Eventually, if too many herders try to extract too much benefit without internalizing the costs, the commons will be ruined for everyone.

In the 1960s, the public began to discover that human health and safety were seriously threatened by the fact that industries were treating air, water, and land as a commons, in the form of sinks for toxic wastes. In the early 1970s, the U.S. Congress enacted landmark national legislation protecting air and water. The means for such protection took the form of command-and-control agencies that dictated maximum levels of industrial pollution. Over the years, however, many companies discovered that well-intended regulations backfired, not only because more effective (often market-driven) alternatives were not allowed under federal or local environmental protection regulations, but also because the pollutants in question were never priced. As long as an industry stayed beneath the regulated threshold of toxic releases, that industry could continue to release those toxins into the air, water, and ground.

Sometimes, externalities such as toxic waste discharges are described as a market failure, but FMEs argue that such discharges result from the failure to have a market in the first place. There are countless domains, for example, the fishing industry, in which a "tragedy of the commons" has been or could be prevented by establishing a market and clear property rights where none existed before.<sup>34</sup> Political action can make a significant contribution to establishing markets and property rights where none existed before. For instance, the federal government has helped to establish such markets in which toxic emissions trading takes place. A brokerage firm specializing in emissions trading defines it as

a regulatory program that allows firms the flexibility to select cost-effective solutions to achieve established environmental goals. With emissions trading, firms can meet established emissions goals by: (a) reducing emissions from a discrete emissions unit; (b) reducing emissions from another place within the

facility; or (c) securing emission reductions from another facility. Emissions trading encourages compliance and financial managers to pursue cost-effective emission reduction strategies and incentives emitting entrepreneurs to develop the means by which emissions can inexpensively be reduced.<sup>35</sup>

The emissions trading system itself depends on creating air credits. Currently, industrial firms within a given region are permitted by federal and state regulators to release a certain amount of toxins, depending on a variety of factors. The total of such toxins is known as the "emissions budget." If by changing its practices, adding emission control devices, or ending an emission course entirely, a firm emits fewer emissions than required by regulations, that firm can turn that amount of emission into an air credit, which can then be stored (for later use by the firm) or traded immediately on the open market, for example, to a firm that is having difficulty meeting the regulated maximum of toxic air emissions. As such regulations become (ideally) more stringent, and as the price for the air credits grows, non-complying firms will have an ever-greater incentive to minimize their own pollution. In principle, private individuals or organizations can purchase these air credits, thereby preventing them from being purchased by firms that cannot meet regulatory limits. A number of states and regions have experimented with emissions trading, which has proved to be somewhat effective in limiting sulfur dioxide emissions in coal-fired electricity-generating plants.

Transnational environmental problems, such as emission of gases that contribute to global warming/climate change, may also be dealt with by creating markets for emissions trading. Attempting to build on the success of the Montreal Protocol, in which most countries agreed to limit the emission of gases that thin the Earth's ozone-layer, the Kyoto Protocol of 1997 tried to achieve analogous international agreement for reducing hydrocarbon emissions that may be causing global warming/climate change. Recently, Nobel Prize-winning economist Gary S. Becker argues that even if such change were taking place (he remains skeptical about evidence in favor of it), the Kyoto Protocol is a bad agreement, because by ignoring crucial market factors,

the agreement leads to negative economic and environmental consequences. To comply with it, he maintains, "the U.S. would have to cut emission levels by more than 25% from levels likely to be attained by the end of the century." Moreover, many countries—including China, Brazil, India, and Mexico—are exempted from any restrictions on industrial pollution. Were the U.S. and other advanced industrial societies to agree to substantial emission cuts, much industrial production would shift to countries with much weaker clean air policies and enforcement practices. Becker advocates that every country should receive an initial allowance on greenhouse-gas emissions that would total the 1990 or 2000 levels. Developing countries, given generous allowances, would be allowed to sell them "the way sulfur dioxide emission rights, issued by the Environmental Protection Agency, are sold on the Chicago Board of Trade." After pointing out the economic and environmental virtues of this arrangement, Becker makes the following important concession: "An international [presumably governmental] body would be required to take responsibility for the difficult task of monitoring compliance and penalizing violators, but enforcement of compliance is a challenge under any tax or quota system."<sup>36</sup> To create and to enforce the provisions of some environmental markets, political decisions and governmental organizations are required.

Although emissions trading has worked well in some cases in the United States, it has some potential problems. First, people in some locations in a region may end up having to put up with relatively high levels of air pollution, because the coal-fired plants in that location may simply pay more for the shares needed to pollute, rather than choosing to make their plants more efficient. To address this problem, regulators need to establish pollution ceilings, beyond which plants in a given region may not go. But this need points to a second problem: Who will regulate the regulators? As Becker notes, enforcement is always a challenge. Regulators are government agents who often lack adequate information about the issue at hand and who are subject to intense political pressure from many sources, including corporate and state figures who do claim that more stringent requirements will end up costing jobs and profits.

About a decade ago, environmentalists and community activists were given a powerful tool that could be used to pressure regulators and industrial firms alike: information. The federal government began requiring that industries provide a publicly-available annual report of the amounts and kinds of toxic emissions that they released into air and water. In Louisiana, which registers some of the heaviest amounts of toxic discharges in the nation, this new requirement coincided with a process that gradually reduced industrial toxic emissions by more than 70% in the following decade. In neoclassical economics, information is regarded not only as expensive, but also as crucial for making the most efficient cost-allocations. Environmentalists have used information about emissions discharges to shape public opinion, although public opinion sometimes resists recommendations made by environmental groups.

Consider the case of the notoriously low fuel-efficiency of most U.S. cars. U.S. automakers lobby lawmakers to discourage the EPA from requiring automakers from raising the average number of miles per gallons of gasoline for vehicles sold in the United States. Even a 20% increase in fuel efficiency would dramatically reduce emission of "greenhouse" gases that seem to be contributing to global climate change. In recent years, high demand by consumers for gas-guzzling SUVs have removed the incentive for automakers to build more fuel-efficient cars. In such a case, political will is needed to create such incentives, not only by raising the taxes on gasoline, but also by adding a hefty tax on cars that are not fuel-efficient. How is this political will to be created? Apparently, it won't be created by using environmental concerns to persuading car-buyers to switch to smaller, more fuel efficient cars, many of which have been criticized in recent years for not providing passengers with much protection in accidents. Customers are willing to pay more for bigger, more fuel inefficient vehicles. Higher gasoline taxes are unpopular, especially at the levels to which they would have to rise before people turned in their SUVs! In making economic decisions, people tend to be rather short term in outlook. Finally, the oil and automobile industries have spent a great deal of money to convince the American public that there is no clear evidence that global warming/climate change have begun.

Political will for greater fuel efficiency might develop if people began taking into account the potentially enormous costs that would be associated with global climate change. Europeans have taken the lead in this issue, which is of particular concern to banks, insurance companies, and other financial institutions with a long-term interest in the stability of factors that influence their enormous real estate investments. Hurricane Andrew caused nearly almost \$20 billion dollars damage in Florida and Louisiana in 1992. Some insurance companies now recognize that there might be some relation between bigger storms and the release of greenhouse gases. Insurance companies and banks may be the only financial entities big enough to take on the oil and automobile industry, not only by calling for design and production of ever more fuel efficient cars, but also by demanding the incentives needed to convince people to buy such cars.

Although some progress has been made in using a combination of emissions trading, international treaties, and regulatory requirements to achieve a global reduction in greenhouse gases, difficulties remain. Recently, however, in Cool Companies: How the Best Businesses Boost Profits and Productivity by Cutting Greenhouse Gas Emissions, Joseph L. Romm shows that corporations can make save money by making their processes more fuel efficient.<sup>37</sup> For years, Amory Lovins and Paul Hawken have also preached the gospel of green capitalism.<sup>38</sup> To be sure, corporations have a long way to go before being truly "green," but as more corporations discover the economic efficiencies achieved not only by greater energy efficiency, but also by "capturing" the value of all emissions (i.e., selling for productive use what used to be disposed of as "toxic waste"), industrial production will become more compatible with the goals sought by environmentalists.

Despite the positive contributions of FME, many environmentalists remain wary of it. For one thing, neoclassical economics has been used to justify international trade treaties (e.g., GATT, NAFTA, WTO) which can countermand national environmental regulations deemed "unfair" by the bureaucrats who enforce treaty provisions. For another thing, neoclassical economists view "man" in a way that many people find counter-intuitive: as hyper-rational, self-

interested, short-sighted homo economicus, whose preferences for choosing one "bundle of utilities" over another are regarded as in principle inscrutable. Emphasizing the importance of efficiency in satisfying demand, neoclassical economists maintain that most social problems could be solved by turning social transactions into economic exchanges that attain Pareto optimality, i.e., the condition in which no further exchanges are possible that would not leave someone worse off.

Despite its many virtues, particularly in regard to "delivering the goods," neoclassical economics becomes an ideology when it tends to conceal or ignore that which it cannot account for on its own terms. First of all, far from being the "value-free" science that it purports to be, neoclassical economics presupposes the validity of utilitarianism. Neoclassical economics promotes practices that provide maximal efficiency in satisfying desires or demands or preferences (synonyms). As one critic has noted, however, reflection is required to determine whether economics should be concerned about satisfying interests, rather than desires, which are virtually infinite.<sup>39</sup> Moreover, a free market presupposes certain values, including the integrity, honesty, and transparency needed to generate trust in markets and the institutions that sustain them. Another problem is the economic practice of "discounting the future," which involves subtracting from today's price for a future deliverable, the interest that could be earned during the time before the product is delivered. A car worth \$20,000 today will not fetch such a price if it is to be delivered five or ten years from now. Although discounting the future usually makes considerable sense, problems are posed for some existing people and for those born in the future who are not able to bid on an investment made today. For example, disposing of toxic wastes in a certain way may seem cost efficient today, even though doing so may harm or kill a number of people fifty or a hundred years from now., Because of the effect of the discount rate, however, the economic "value" of those future lives is virtually nil on today's market.

Additionally, neoclassical economics is unapologetically anthropocentric in asserting that the only wants to be considered are human wants, but insists that taking this position pays off best



for environmental concerns.<sup>40</sup> In a free market, so neoclassical economists argue, if a person prefers that animals or habitat be protected, he or she should pay for such protection. This approach is taken by one of the most successful American environmental groups, The Nature Conservancy, which either purchases environmentally sensitive land, or writes into purchase contracts easements that favor environmental conservation.

Environmentalists often complain about regulators, corporate executives, and individuals who use cost-benefit analyses to determine whether an appropriate return will be gained by making a certain investment in the market. Aesthetic, moral, and even nationalistic values cannot readily be captured by such analyses. If there is no market to begin with, economists use "contingent valuation surveys" to determine how much people would be willing to pay (cost) for certain environmental "amenities" (benefits)—for example, maintaining clean air in a national park or saving an endangered species—for which there is no market at present. In such polls, a substantial number of people display distrust or contempt for the effort to "price" clean air or species existence by declaring that they would pay an "infinite" amount of money. Pollsters prefer to eliminate such replies, which are viewed as irrational.

Environmentalists, among many others, are often critical of cost-benefit analysis.<sup>41</sup> The fact is, however, that many people resist the notion that everything has a "price," which is why we hear that some things are "priceless" or "not for sale," such as a person's children or her good reputation. No society tolerates a market in which everything is for sale. The human slave trade is prohibited worldwide (at least in principle), as are trade in a number of substances deemed dangerous or undesirable by various governments. Moreover, contrary to the presuppositions of neoclassical economists, many people are inclined to adopt positions for the "common good" that go against their short-term interests. For example, many people are willing to pay taxes to protect forests or mountain ranges that they themselves will never visit. Moreover, people are often willing to pay higher prices for products made in a way that takes into account the well-being of non-human life, as in the example of "dolphin safe" tuna.

In recent years, some social scientists have sought to complement the model of homo economicus with the model of people operating according to a tit-for-tat procedure, in which cooperative behavior is generated by trust based on previous acts of reciprocity, and in which people are willing to sacrifice gain in order to punish "free riders," i.e., people who take unfair advantage of cooperative arrangements.<sup>42</sup> Because many environmental problems can best be understood and resolved by the local communities in which they occur, approaching such problems with a tit-for-tat or a win-win approach is more effective than an approach which makes some groups winners and others losers. Imaginative strategies for defining incentives and eliminating barriers for reciprocity can make possible cooperation even among groups that had previously regarded each other with deep suspicion. This cooperative vision of human relations is clearly more appealing to many people, including environmentalists, than the neoclassical vision.

The shift toward a tit-for-tat conception of the origins of cooperation provides fuel for FMEs who claim that ecological science is on their side. For many years, environmentalists spoke as if natural order and harmony resulted from overarching systemic processes, compared to which individual organisms were merely temporary phenomena. During the past couple of decades, however, ecosystem ecology has been eclipsed by population-dynamics ecology, according to which large-scale ecological effects result from the "invisible hand" of decisions made by countless individual organisms seeking to survive and reproduce themselves. The "new" ecology emphasizes that stochastic processes, chaos, disorder, and destruction are crucial ingredients for overall well-being of species and habitat. Nature's astoundingly complex processes, including cooperation among individuals and between species, arise by virtue of the actions of billions of individual organisms. FMEs ask: ought not human society likewise be allowed to organize itself on the basis of actions of billions of human individuals?<sup>43</sup> What Gus DiZirega calls evolutionary or cooperative liberalism, as opposed to neoclassical or competitive

liberalism, may be partly understood in terms of these recent developments in social theory and ecology.

Mark Sagoff agrees with my contention that free market practices can alleviate many problems pointed out by environmentalists. For years, he argued that economic approaches to environmental affairs need to be balanced by cultural, social, and political approaches. Not all environmental questions, in short, are economic. In a recent article in The Atlantic Monthly, however, he took a rather different (and controversial) approach to defending this view.<sup>44</sup> He argues that economists often defeat the economic arguments used by environmentalists to defend their viewpoint. Sagoff rebuts four leading misconceptions held by many environmentalists: 1) that we are running out of raw materials; 2) that we are running out of food and timber; 3) that we are running out of energy; and 4) that the North exploits the South.<sup>45</sup> Economists have shown that these alleged problems can either be solved by new technologies, or result from market distortions that can and should be fixed.<sup>46</sup> Six months later, in the same magazine, Paul Ehrlich and four colleagues published a sharp rebuttal, to which Sagoff offered what I regard as effective replies.<sup>47</sup>

Sagoff's point is this: precisely because free market forces can do a great deal to minimize environmental problems, environmentalists should seek alternative ways to justify environmentally-friendly goals. For instance, we may wish to preserve species not because they are either economically or biologically important, but because they have cultural values, or simply for their own sake, because they have lives and worth of their own. Sagoff observes that "The question before us is not whether we are going to run out of resources. It is whether economics is the appropriate context for thinking about environmental policy."<sup>48</sup> Because environmentalists will probably not win if they go toe-to-toe with economists, environmentalists must provide a framework larger than an economic/instrumental one when attempting to preserve species, habitat, and "wild" nature. Here is where moral arguments, as well as the cultural,

ontological, and cosmological arguments advanced by some radical environmentalists, may come into play.

Many environmental philosophers remain uneasy with FME because "motives matter," but FME proposes to use selfish and often short-sighted motives to attain ecologically-preferable ends. In fact, however, many FMEs are motivated by principled motives to protect both the natural environment for its own sake, not merely because of its use-value to humans. It is also important to stress that even for anthropocentric FMEs, a principled motive is at work, namely, to enhance the long-term prospects of liberal democratic practices that arguably promote material well-being for the largest number of people, while providing the greatest opportunities for individual self-realization. For such FMEs, free markets provide the most effective way of generating economic development y that is environmentally sustainable.

In concluding, let me emphasize that I regard FME as one potentially important way, not as the way, to address the enormous environmental problems that are arising in connection with human population growth combined with widespread consumer demand. Let a hundred environmental flowers bloom! Nevertheless, a glance at the slick corporate advertisements found in any recent issue of Sierra magazine, journal of the Sierra Club, will demonstrate that many environmentalists are also high-end consumers. The challenge is how to consume in a way that is environmentally sustainable. It may happen, of course, that environmental, social, and religious critiques of excessive consumption may reach a wider audience in coming decades if the conclusion is reached that serious natural perturbations—including altered weather patterns that threaten human settlements, agriculture, and natural habitat—are caused by exorbitant use of fossil fuels. In the previous century, revulsion against slavery generated political movements that eventually forbade trade in human beings. In the coming century, moral revulsion against production, extraction, and consumption practices that unnecessarily harm people and other life forms may lead to political movements that prohibit certain types of markets. Even so, market

mechanisms will remain an effective way of dealing with many of tomorrow's environmental problems.

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<sup>1</sup> Allen Hershkowitz, in his review of Paul Hawken, Amory Lovins, and Hunter Lovins, Natural Capitalism: Creating the Next Industrial Revolution (Boston: Little, Brown and Co.) and Ray C. Anderson, Mid-Course Correction: Toward a Sustainable Enterprise (The Peregrinzilla Press), The Amicus Journal, Vol. 21, No. 3 (Fall, 1999), 40.

<sup>2</sup> For a critique of mainstream environmentalism, but not from a radical ecology perspective, see Mark Dowie, Losing Ground: American Environmentalism at the Close of the Twentieth Century (Cambridge: MIT Press, 1997).

<sup>3</sup> Michael E. Zimmerman, Contesting Earth's Future: Radical Ecology and Postmodernity (Berkeley and Los Angeles: University of California Press, 1994); "The Threat of Ecofascism," Social Theory and Practice, 21 (Summer, 1995), 207-238; reprinted as "Ecofascism: A Threat to American Environmentalism?" in The Ecological Community, ed. Roger S. Gottlieb (New York: Routledge, 1997), 229-254.

<sup>4</sup> See Gus diZerega, "Unexpected Harmonies: Self-Organization in Liberal Modernity and Ecology," The Trumpeter, 10, No. 1 (Winter, 1993), 25-32; diZerega, "Social Ecology, Deep Ecology, and Liberalism," Critical Review, special issue on Environmentalism and the Market, 6, Nos. 2-3 (Spring/Summer, 1993), 305-370.

<sup>5</sup> Val Plumwood, "Free Market Deep Ecology," The Ecologist (Vol. 26, No. 5, September/October, 1996), 234-235.

<sup>6</sup> Michael E. Zimmerman, "Heidegger and Marcuse: Technology as Ideology," Research in Philosophy and Technology, Vol. II (1977), 245-261.

<sup>7</sup> Michael E. Zimmerman, "Marx and Heidegger on the Technological Domination of Nature," Philosophy Today, XXIII (Summer, 1979), 99-112.

<sup>8</sup> "Environmental economists," who criticize the no-limits approach of neoclassical economists, would criticize the position that I am defending here. See, for example, Herman E.

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Daly and John B. Cobb, Jr. For the Common Good : Redirecting the Economy toward Community, the Environment, and a Sustainable Future (Boston: Beacon Press, 1994); Daly, Beyond Growth: The Economics of Sustainable Development (Boston: Beacon Press, 1996).

<sup>9</sup> In certain ways, Hershkowitz's call for progressive environmentalists to become involved in investment is analogous to Donna Haraway's call to feminists to become involved in information technology. See Haraway, "A Cyborg Manifesto" in Simians, Cyborgs, and Women: The Reinvention of Nature (New York: Routledge, 1991), 149-181.

<sup>10</sup> For example, see Vandana Shiva, Staying Alive: Women, Ecology, and Survival in India (New York: St. Martin's Press, 1989); Biopiracy: The Plunder of Nature and Knowledge (Boston: South End Press, 1997); Marie Mies and Vandana Shiva, Ecofeminism (Halifax, N.S.: Fernwood, 1993); Ecology and the politics of survival : conflicts over natural resources in India (Newbury Park: Sage Publications, 1991).

<sup>11</sup> See the work of Ken Wilber, especially Sex, Ecology, Spirituality (Boston: Shambhala, 1995) and A Brief History of Everything (Boston: Shambhala, 1996).

<sup>12</sup> A number of authors claim that environmental conditions are improving, not deteriorating. See Ronald Bailey, ed., The True State of the Planet (New York: The Free Press, 1995); Bailey, Ecoscram: The False Prophets of Ecological Apocalypse (New York: St. Martin's Press, 1994); Ben Bolch and Harold Lyons, Apocalypse Not: Science, Economics, and Environmentalism (Cato Institute: 1993); Julian Simon, Ultimate Resource 2 (Princeton: Princeton University Press, 1998); Martin Lewis, Green Delusions: An Environmentalist Critique of Radical Environmentalism (Durham: Duke University Press, 1992); Gregg Easterbrook, A Moment on the Earth: The Coming Age of Environmental Optimism (New York: Viking, 1995).

<sup>13</sup> But see Paul R. Ehrlich and Anne H. Ehrlich, Betrayal of Science and Reason : How Anti-Environment Rhetoric Threatens Our Future (Washington, D.C.: Island Press, 1998). A current example of the clash between competing scientific claims made about a contested

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environmentally-sensitive project is Mitsubishi's determination to build a vast salt-processing works on a Mexican bay used as a breeding ground for the gray whale. The National Resource Defense Council has mounted vigorous opposition to this project and has sharply criticized the "scientific" justification for Mitsubishi's claim that the plant will not be environmentally harmful.

<sup>14</sup> See Brian Tokar, Earth for Sale : Reclaiming Ecology in the Age of Corporate Greenwash (Boston: South End Press, 1997).

<sup>15</sup> Robert Kirkman of SUNY Stony Brook is writing a book on the topic of "skeptical environmentalism." He raises many important questions that environmentalists and environmental philosophers need to address.

<sup>16</sup> See Bertell Ollman, ed., Market Socialism: The Debate Among Socialists (New York and London: Routledge, 1998).

<sup>17</sup> Samuel Bowles and Herbert Gintis, Recasting Egalitarianism, Vol. III of The Real Utopias Project (London and New York: Verso, 1998), 363. Thanks to Bradley Macdonald for pointing out this text to me.

<sup>18</sup> Robert C. Paehlke, Environmentalism and the Future of Progressive Politics (New Haven: Yale University Press, 1989), 278.

<sup>19</sup> For a particularly upbeat assessment of the coming decades, see Gregory Stock, Metaman: The Merging of Humans and Machines into a Global Superorganism (Toronto: Doubleday Canada, 1993).

<sup>20</sup> Among the substantial literature on this topic, see Indur M. Goklany, "Richer is Cleaner: Long-Term Trends in Global Air Quality," in The True State of the Planet, ed. Ronald Bailey (New York: The Free Press, 1995), 339-337.

<sup>21</sup> See David Korten, When Corporations Rule the World (San Francisco: Berrett-Koehler Publishers, 1996), Richard J. Barnett and John Cavanagh, Global Dreams: Imperial Corporations and the New World Order (New York: Touchstone Books, 1995); Ralph Nader, ed., The Case



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Against Free Trade: GATT, NAFTA, and the Globalization of Corporate Power (Berkeley: North Atlantic Books, 1993); Dean Alger, Megamedia: How Giant Corporations Dominate Mass Media, Distort Competition, and Endanger Democracy (Lanham, Maryland: Rowman & Littlefield, 1998); Charles Derbert, Corporation Nation (New York: St. Martin's Press, 1997); and John Gray, False Dawn: The Delusions of Global Capitalism (New York: The New Press, 1999).

But other researchers contest claims of global corporate takeover. For example, see Paul N. Doremus, Simon Reich, and Louis W. Pauly, The Myth of the Corporate State (Princeton: Princeton University Press, 1998), and Linda Weiss, The Myth of the Powerless State (Ithaca: Cornell University Press, 1998).

<sup>22</sup> In Nihilism, Inc.: Environmental Destruction and the Metaphysics of Sustainability (Como, NSW, Australia: Eco-Logical Press, 1996) and in Postmodernism and the Environmental Crisis (London and New York: Routledge, 1995), Arran Gare has sometimes called on Heidegger to criticize corporate civilization. See also Zimmerman, Contesting Earth's Future, 91-149; and Zimmerman, Heidegger's Confrontation with Modernity (Bloomington: Indiana University Press, 1990).

<sup>23</sup> For a conflicting view, see John Gray, Enlightenment's Wake : Politics and Culture at the Close of the Modern Age (New York: Methuen, 1997).

<sup>24</sup> For example, see Murray Feshbach, Lester Brown, Alfred Friendly, Ecocide in the USSR: Health and Nature Under Siege (New York: Basic Books, 1993). See also "Our Real China Problem," The Atlantic Monthly (November, 1997), 97-114, in which Mark Hertsgaard argues that rapid industrialization in a largely state-controlled economy has led to ecological damage so severe that it may be canceling out China's economic gains.

<sup>25</sup> Marc Reisner, Cadillac Desert (New York: Penguin Books, 1987), 503.

<sup>26</sup> *Ibid.*, 503.

<sup>27</sup> *Ibid.*, 504.

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<sup>28</sup> Terry L. Anderson and Donald R. Leal, Enviro-Capitalists (Lanham, Maryland: Rowman & Littlefield, 1997), 4. See also Terry L. Anderson and David R. Leal, Free Market Environmentalism (San Francisco: Pacific Research Institute for Public Policy, 1991). I am greatly indebted to Anderson and Leal's pioneering efforts. The Public Policy Research Center (PERC), with which they are affiliated, has posted a number of useful essays on its website: [www.perc.org](http://www.perc.org).

<sup>29</sup> Michael T Sas-Rolfes, "Who Will Save the Wild Tiger?" PERC Policy Series, Issue Number PS-12 (February, 1998).

<sup>30</sup> Anderson and Leal, Enviro-Capitalists, 21.

<sup>31</sup> *Ibid.*, 24.

<sup>32</sup> *Ibid.*, 26.

<sup>33</sup> See Garrett Hardin, Exploring New Ethics for Survival (New York: Viking Press, 1972), and Hardin and John Baden, ed., Managing the Commons (San Francisco: W.H. Freeman, 1977).

<sup>34</sup> See Suzanne Iudicello, Michael Weber, and Robert Wieland (Center for Marine Conservation), Fish, Markets, and Fishermen: The Economics of Overfishing (Washington, D.C.: Island Press, 1999).

<sup>35</sup> From the website of Cantor Fitzgerald Brokerage, [www.cantor.com/ebs/defined.htm](http://www.cantor.com/ebs/defined.htm).

<sup>36</sup> Gary S. Becker, "What Price Pollution? Leave That To a Global Market," Business Week, October 18, 1999, 26.

<sup>37</sup> Joseph L. Romm, Cool Companies (Washington, D.C. : Island Press, 1999).

<sup>38</sup> See Pal Hawken, Amory Lovins, and L. Hunter Lovins, Natural Capitalism : Creating the Next Industrial Revolution (Boston : Little, Brown and Co., 1999); Paul Hawken, The Ecology of Commerce : A Declaration of Sustainability (New York: Harperbusiness, 1994); Brian Nattrass, Mary Altomare, and Brian Naijgrass, The Natural Step for Business : Wealth,

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Ecology and the Evolutionary Corporation (Conscientious Commerce) (New York: New Society Publishers, 1999).

<sup>39</sup> See Christine Pierce and Donald VanDeVeer, People, Penguins, and Plastic Trees: Basic Issues in Environmental Ethics (Boston: Wadsworth Publishing Company, 1995), 376. I have benefited a great deal from Pierce and VanDeVeer's presentation and critique of free market environmentalism.

<sup>40</sup> See William F. Baxter, People or Penguins: The Case for Optimal Pollution (New York: Columbia University Press, 1974), as cited in Pierce and VanDeVeer, People, Penguin, and Plastic Trees, 381-384.

<sup>41</sup> See Steven Kelman, "Cost-Benefit Analysis: An Ethical Critique," originally published in Regulation (January-February, 1981), 74-82; reprinted in People, Penguin, and Plastic Trees, 384-390.

<sup>42</sup> For a brief review of the tit-for-tat approach, see Bowles and Gintis, Recasting Egalitarianism, 366-377.

<sup>43</sup> See Anderson and Leal, Free Market Environmentalism, 4-8; Donald Worster, "The Ecology of Order and Chaos," in Susan J. Armstrong and Richard G. Botzler, Environmental Ethics (New York: McGraw Hill, 1993), 39-48; J. Baird Callicott, "Do Deconstructive Ecology and Sociobiology Undermine Leopold's Land Ethics?", Environmental Ethics, 18, No. 4 (Winter, 1996), 353-372); Michael E. Zimmerman, "The Postmodern Challenge to Environmentalism," Terra Nova, 1, No. 2 (Spring, 1996), 131-140; and Zimmerman, Contesting Earth's Future, 318-355.

<sup>44</sup> Mark Sagoff, "Do We Consume Too Much?" The Atlantic Monthly (June, 1997), 80-96. See also Matt Ridley and Bobbi S. Low, "Can Selfishness Save the Environment?" The Atlantic Monthly (September, 1993), 76-86. For examples of Sagoff's earlier view, see "At the Shrine of Our Lady of Fatima, or Why Political Questions Are Not All Economic," originally

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published in 1981, reprinted in Donald VanDeVeer and Christine Pierce, The Environmental Ethics and Policy Book (Belmont, California: Wadsworth Publishing Company, 1994), 315-324; "Some Problems with Environmental Economics," Environmental Ethics, 10, No. 1 (Spring, 1988), 55-74. In this essay, Sagoff was in part replying to Stephen Edwards' provocative and informative essay, "In Defense of Environmental Economics," 9, No. 1 (Spring, 1987), 74-85.

<sup>45</sup> In "What's Green and Makes the Environment Go Round?", in Frederic Jameson and Masao Miyoshi, eds., The Cultures of Globalization (Durham: Duke University Press, 1998), 327-355, David Harvey offers a useful left-wing survey of the social and environmental problems of globalization, including some of the claimed equity issues that Sagoff contests.

<sup>46</sup> Years ago, environmentalists were given fair notice that their economically-based arguments were in trouble, when Paul Ehrlich lost his famous bet with Julian Simon, the late apostle of the concept of "infinite resources." In 1980, Ehrlich bet Simon that in ten years, the price for five raw materials—copper, chrome, nickel, tin, and tungsten—would rise. In 1990, the price for all five had dropped, in some cases substantially. For a brief account of this bet, see the website, [www.carnell.com/population/simon\\_bet.html](http://www.carnell.com/population/simon_bet.html)

<sup>47</sup> Paul R. Ehrlich, Gretchen C. Daily, Scott C. Daily, Norman Myers, and James Salzman, "No Middle Way on the Environment," The Atlantic Monthly (December, 1997), 98-104. See Sagoff's reply, "Advice and Consent," The Atlantic Monthly (March, 1998), 8-9.

<sup>48</sup> Sagoff, "Do We Consume Too Much?", 96.