

THE FREEMAN

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Private Property

It is not the right of property which is protected, but the right to property. Property, *per se*, has no rights; but the individual, the man, has three great rights, equally sacred from arbitrary interference: the right to his life, the right to his liberty, the right to his property. . . . The three rights are so bound together as to be essentially one right. To give a man his life but deny him his liberty is to take from him all that makes his life worth living. To give him liberty but to take from him the property which is the fruit and badge of his liberty, is to still leave him a slave.

—JUSTICE GEORGE SUTHERLAND

Government Against Wildlife

Perversely, the government sometimes penalizes landowners for improving habitat. Dayton Hyde, who put 25 percent of his ranch into marshes for wildlife, initiated research on the sandhill crane and built a lake with three and a half miles of shoreline for wildlife. But he paid a price: "My lands have been zoned. I am being regulated for wetlands that weren't there before I created them. Like most of my neighbors I can save myself from financial disaster only by some creative land management, but the state legislature has cut out most of my options."

As founder of Operation Stronghold, an international organization of private landowners practicing conservation on their land, Hyde is serious about wildlife conservation. But his efforts rest on the cooperation of thousands of private landowners, who could go a lot further if government would refrain from imposing costly zoning restrictions. Hyde has found that some ranchers are reluctant to join. As one landowner put it: "Look, you don't understand. We would like to do our share for wildlife but we are afraid if we create something worthwhile the public will want what we have. It's just plain easier and a lot safer to sterilize the land." Because the willingness of the private sector to improve habitat or

create recreational opportunity depends on the incentives landowners face, we cannot expect a positive response from the private sector if landowners are penalized for improving habitat.

—TERRY L. ANDERSON
and DONALD R. LEAL

Free Market Environmentalism

Spotted Owl with Tarragon Pesto?

I have one question about that April 2 environmental teach-in in Portland with President Clinton: Why are those spotted owl couples entitled to 300 acres each? Candidate Clinton pledged to help “the ones who do the work and play by the rules,” and I know a lot of humans like that and none of them has even one acre.

“The ones who do the work and play by the rules” are getting an average of \$4,500 added to each new house in higher lumber prices. The price of 2×4s is up 90 percent since November, in no small part because of the logging restrictions imposed by environmentalists.

John Hampton, president of Willamina Lumber Company, figures that the proposed millions of acres in set-asides for owl habitat will have each pair of spotted Owls sitting on \$95 million in timber.

On the top of these rising lumber prices, there’s unemployment. The people in Oregon, Washington, and California stand to lose anywhere from 10,000 to 50,000 logging jobs, plus the secondary unemployment that will ripple out.

The bottom line, as I understand it, is that someone has to move, either the loggers or the owls. Neither can live with the other; both have their family roots deeply planted in the same “old growth” forests, and someone is going to end up losing his home. Just looking at that aspect, from an economist’s focus on costs and benefits, it’s clearly the owl couples who should hit the road since their homes are next to worthless.

And in terms of the actual costs of mov-

ing, loggers must hire expensive vans and help, whereas all the owls have to do is wake up when they hear the saws and fly over to some other trees. Isn’t that why birds have wings, so they can fly? Many birds fly thousands of miles each year—some even do a roundtrip from Canada to Argentina every year without whining about it. But environmentalists whine because owls might have to move to “new growth” trees. So there they sit, even though they are costing millions of dollars in unnecessary housing costs, tens of thousands of lost jobs, and the closing of entire human towns.

It’s time to tell the spotted owls to start playing survival of the fittest and move on and take their chances adapting to a new environment, just like most of the rest of us did. The Irish survived the potato famine by moving to New York City and the Cubans survived Castro’s power grab by moving to Miami. Why should someone with wings be expected to do less?

—RALPH R. REILAND
Robert Morris College

Acid Rain

In 1980 the Environmental Protection Agency asserted that the average lake in the northeastern United States had been acidified a hundredfold in the last 40 years by acid rain. And the National Academy of Sciences claimed that acid rain would double the damage again by 1990.

But the 10-year National Acid Precipitation Assessment Program (NAPAP), conducted under the auspices of the EPA, has completely discredited these claims and shown them to be baseless. The \$500 million study found that:

- The average lake in the Adirondacks is no more acidic now than it was before the Industrial Revolution.
- There was no measurable change in the acidity of lakes over the preceding 10 years.
- Only 35,000 of the 200 million acres of U.S. lakes are too acidic to support sports fisheries—and most of this acidity is natural.

—*Executive Alert*

ENVIRONMENTALISM: THE TRIUMPH OF POLITICS

by Doug Bandow

There's no doubt that the environment makes for good politics. Eight of ten Americans call themselves environmentalists. Overwhelming majorities say that gasoline should be less polluting, cars should be more efficient, trash should be recycled, and lifestyles should be changed.

This increasing sensitivity is reflected in business' growing emphasis on environmental products. Such catalogues as *Real Goods*, *Seventh Generation*, and *Earth Care Paper* offer recycled paper, vegetable-based dishwashing liquid, battery chargers, and fluorescent light bulbs. Even many mainstream firms are labeling their products CFC-free, biodegradable, and environmentally friendly. While the environmental benefits of these activities are unclear, they apparently help sell products.

Increasing numbers of people are taking an interest in environmental issues in part in response to their own concerns and in part in response to social pressure—including from their children. The schools have launched what for a less politically correct goal would be called indoctrination programs. And the campaign seems to be working: *The New York Times* ran one story about parents who were relieved when their

children went off to camp so they could again use styrofoam cups and toss out used plastic.

The law is also playing a greater role in people's lives. An unaccountable bureaucracy in southern California, for instance, proposed banning use of lighter fluid for barbecues and prohibiting drive-in facilities. Federal agencies have essentially seized control of millions of acres of land arbitrarily designated as wetlands. And the Washington, D.C., suburb of Takoma Park employs what it euphemistically calls "recycling coordinators" to comb through people's trash and hand out tickets—with fines ranging up to \$500—for not properly sorting garbage.

In the abstract, greater attention to environmental matters would seem to be a positive trend. After all, no one wants to breath polluted air. No one wants to visit an Everglades that is dying or see Yellowstone's Old Faithful replaced by condominiums. And who could not be concerned about the possibility of a warming environment, threatening ozone holes, and the specter of acid rain?

The problem, however, is that the environment has become a hostage to politics. Many environmental activists want more than a clean environment. Their commitment to conservation and political action is religious, and their goals are often far-reaching: to transform what they consider to

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be a sick, greedy, and wasteful consumer society. As a result, many otherwise well-meaning people have proved quite willing to use state power to force potentially draconian social changes irrespective of numerous important alternative values, including freedom, health, and prosperity.

The real political divide is not between right and left, conservative and liberal, or Republican and Democrat. Rather, it is between market process and central planning, the free market and command and control by the government. Most politicians believe in government solutions. They may not be consistent in the specific ways they want the state to intervene, but they like government involvement. Although liberal enthusiasm for state action is best known, conservatives, too, often want government to rearrange environmental outcomes arbitrarily. There are no more fervent supporters of irrigation projects that deliver below-cost water to farmers, subsidies to promote logging on public lands, and cut-rate range fees on federal grazing land for ranchers than Republican legislators. Conservative western senators have fervently opposed selling federal lands.

Where Do We Stand?

Much of today's concern for new environmental restrictions comes from the perception that the sky is falling. In the view of Lester Brown of Worldwatch, for instance, we're in a "battle to save the earth's environmental support systems." He worries about global warming, growing populations, disappearing species, expanding deserts, depleting topsoil, and so on. We face "the wholesale collapse of ecosystems," he claims.

Yet somehow the world seems rather less bleak than he suggests. Between 1970 and 1986, for instance, the amount of particulates spewed into the air fell by 64 percent, carbon monoxide emissions dropped 38 percent, and releases of volatile organic compounds fell by 29 percent. Ocean dumping of industrial wastes was reduced 94 percent. There were 80 percent fewer cities without

adequate sewage treatment plants. Rivers unfit for swimming dropped 44 percent. Hazardous waste sites such as Love Canal and Times Beach now appear far less dangerous than once thought. Cars built in 1988 produced 96 percent less carbon monoxide and hydrocarbons than those made in the early 1980s. Population continues to grow sharply in some Third World states, but these increases reflect lower infant mortality rates and longer life expectancies. Total recoverable world oil reserves grew by 400 billion barrels between 1985 and 1990. Global warming trends may lengthen growing seasons. And extensive product packaging, falsely derided as wasteful, makes Americans among the most efficient eaters on earth.

The point is not that there are no environmental problems. But claims of imminent disaster are simply not supported by the facts. To the contrary, they reflect the politicization of the environment, because only claims of imminent disaster can galvanize popular support for the sort of exceedingly harsh policy changes advocated by many people for ideological—or even religious—reasons. Some environmental apocalyptics have admitted as much.

Politics has infected environmental policymaking in two different ways. The first is to create real environmental problems. The second is to generate unfounded hysteria.

Poor Environmental Stewardship

For all of the enthusiasm of environmentalists for government programs, the government has proved to be a remarkably poor resource steward. Consider Uncle Sam's 191 million acres of forestland. The Wilderness Society estimates that losses on federal timberland amounted to \$400 million annually during the 1980s, while losses on Alaska's Tsongass rain forest have hit 99 cents on the dollar. The problem is that the government both undertakes expensive investments, such as road-building in mountainous wilderness terrain, and underprices the timber that is produced. Washington's

reason for doing so is to “create” a few jobs. The cost, however, is both needless environmental destruction and the squandering of taxpayers’ money.

Federal water projects and management of rangeland have consistently led to similar results. The government has expended billions of dollars to subsidize such influential groups as farmers and ranchers, all the while leaving environmental despoliation in its wake. In fact, the greatest threat to wetlands across the country is not private development, but federal efforts like the \$1.2 billion Garrison Diversion project, which destroyed some 70,000 acres of wetlands to benefit a few thousand farmers.

Nearly 90 percent of all federal water in the west is sold at heavily subsidized prices to heavily subsidized farmers. In California’s San Joaquin Valley, for instance, irrigation projects typically cost \$300-\$500 an acre foot, yet the water is marketed to farmers for less than a tenth that much—even as Los Angeles and other parts of the state until recently were suffering from severe water shortages. Only the government would subsidize the production of a water-intensive crop like rice in a desert.

The federal government similarly mismanages its 307 million acres of rangeland. The Bureau of Land Management (BLM) has typically charged ranchers half of what it costs the government to administer its land, and one-tenth the rental price for comparable private lands. The BLM also spent millions of dollars “chaining” land—ripping out trees to create more rangeland on which it would lose more money. Not surprisingly, federal lands are generally in poor condition—and continue to generate a flood of red ink.

It is not just Uncle Sam who is to blame. Local governments have distorted the trash market, leading to pressure for a federal garbage law. Many localities have essentially socialized trash collection and disposal, barring any private competition which increases efficiency and innovation. Moreover, few cities charge citizens based upon how much garbage they generate, providing no incentive for people either to

recycle or to change their buying habits. (Localities that have implemented fees for each can or bag have made people more environmentally conscious without a trash Gestapo.) Political restrictions on the placement of new landfills and construction of incinerators, both of which are quite safe with new technologies, have exacerbated the problem.

But the U.S. government is the most culpable party. World Bank loans, underwritten by American taxpayers, have financed the destruction of Brazilian rain forests; federally subsidized flood insurance has encouraged uneconomic construction on the environmentally sensitive Barrier Islands. Years of energy price controls inflamed demand and discouraged conservation.

This sort of special-interest driven environmental abuse is not new, and the only solution is to eliminate political malfeasance. Unfortunately, as public choice economists have so effectively pointed out, the political process tends to be biased toward taxpayer exploitation and against sound policy.

Unfounded Hysteria

The second form of environmental politicization is more recent. That is the manufacture of false crises and the exaggeration of more limited problems to achieve other ideological ends, such as banning chemicals, closing incineration plants, and eliminating chlorofluorocarbons (CFCs). Unfortunately, examples of this sort of problem now abound.

For instance, in 1989 the Natural Resources Defense Council (NRDC) used a public relations agency to launch a campaign against the chemical Alar, a pesticide used on some 15 percent of apples in the United States. The charges received wide attention and demand for apples dropped dramatically—prices fell almost in half, ruining some farmers. Yet the furor was based on one 1973 study, where mice were fed very high levels of Alar. Two recent reviews, by Great Britain’s Advisory Committee on Pesticides and the California De-

partment of Food and Agriculture, concluded that the risk of ingesting Alar was minimal. As Dr. Joseph Rosen of Rutgers University explained, "There was never any legitimate scientific study to justify the Alar scare."

But skillful manipulation of the media to inflame people's fears—and the enlistment of such knowledgeable environmental experts as Hollywood's Meryl Streep—enabled one activist group to create a crisis. The NRDC's public relations agent later circulated a memo to other organizations describing his efforts.

Indeed, pesticides have long been subject to counterfactual demagogic attacks. Natural pesticides—nature's way of protecting plants—may cause cancer, and they occur in far higher quantities in at least 57 food varieties than do man-made pesticides. A National Center for Policy Analysis study estimates that the risk of getting cancer from chloroform in tap water is greater than that of getting it from pesticides in food. A person is more than three times as likely to be killed by lightning than to contract cancer from pesticides. The risk of cancer from all pesticides in the food consumed by the average person in one day is one-twentieth of the risk from the natural carcinogens in a single cup of coffee.

Another apocalyptic vision emerged from the EPA, which in 1980 claimed that acid rain, caused by sulfur dioxide emissions, had increased the average acidity of northeast lakes one hundredfold over the last 40 years and was killing fish and trees alike. A year later the National Research Council predicted that the number of acidified lakes would double by 1990. So Congress included stringent provisions to cut SO₂ emissions (already down 50 percent from the 1970s) at a cost of billions of dollars annually when it re-authorized the Clean Air Act three years ago.

Yet in 1987 EPA research raised doubts about the destructiveness of acid rain: A congressional firestorm forced the study's director to quit. Then came the most complete study of acid rain ever conducted, the half billion dollar National Acid Precipitation Assessment Project (NAPAP), which

concluded that the allegedly horrific effects of acid rain were largely a myth. Among other things, the study found that lakes were on average no more acidic than before the industrial era; just 240 of 7,000 northeast lakes, most with little recreational value, were critically acidic, or "dead"; most of the acidic water was in Florida, where the rain is only one-third as acidic; there was only very limited damage to trees, far less than that evident elsewhere in the world where SO₂ emissions are minimal; half of the Adirondack lakes were acidified due to natural organic acids; and crops remained undamaged at acidic levels ten times present levels. In the end, NAPAP's scientists figured that applying lime to the few lakes that were acidic would solve the problem at a mere fraction of the cost of the Clean Air Act's acid rain provisions.

Perhaps the most famous form of the "sky is falling" claim today is global warming—the so-called "Greenhouse Effect." The U.N.'s 1992 Rio summit focused on this issue. The fear is that pollution, particularly such "greenhouse gases" as carbon dioxide, will stay within the atmosphere, leading to a rise in the earth's temperature, which will create deserts, melt the polar icecaps, and flood coastal nations.

In fact, warnings of global warming are not new: The theory was first advanced in the 1890s and re-emerged in the 1950s. But soon thereafter a new theory gained sway—that we were entering a new Ice Age. In 1974 the U.S. National Science Board stated that "during the last 20 to 30 years, world temperature has fallen, irregularly at first but more sharply over the last decade." In the same year, *Time* magazine opined that "the atmosphere has been growing gradually cooler for the past three decades. The trend shows no indication of reversing." Similarly, observed Dr. Murray Mitchell of the National Oceanic and Atmospheric Administration in 1976, "Since about 1940 there has been a distinct drop in average global temperature. It's fallen about half a degree Fahrenheit."

Five years later Fred Hoyle's *Ice: The Ultimate Human Catastrophe* appeared,

warning that a new Ice Age was long overdue, and "when the ice comes, most of northern America, Britain, and northern Europe will disappear under the glaciers. . . . The right conditions can arise within a single decade." He advocated warming the oceans to forestall this "ultimate human catastrophe." Another two years passed and *Rolling Stone* magazine declared that: "For years now, climatologists have foreseen a trend toward colder weather—long range, to be sure, but a trend as inevitable as death. . . . According to [one] theory, all it would take is a single cold summer to plunge the earth into a sudden apocalypse of ice."

A decade later we have passed into a new crisis. Climatologists like Stephen Schneider, who two decades ago was warning of a cooling trend that looked like "one akin to the Little Ice Age," now berates the media for covering scientists who are skeptical of claims that global warming is occurring. He is, at least, refreshingly honest, admitting that "to avert the risk we need to get some broad-based support, to capture public imagination. . . . So we have to offer up some scary scenarios, make some simplified dramatic statements and little mention of any doubts one might have."

And he does this precisely because the doubts about global warming are serious, so serious that both *The Washington Post* and *Newsweek* recently ran stories debunking the apocalyptic predictions of everyone from Vice President Gore to Greenpeace. Observed *The Post*:

Scientists generally agree that it has been getting warmer over the last hundred years, but the average rate of change is no greater than in centuries past, and there is no consensus that human activity is the cause. And while there is no doubt that continued emissions of "greenhouse gases" tend to aid warming, it is not clear that cutting back on emissions could do much to stop a natural trend, if that is what is happening.

Indeed, a survey by Greenpeace, one of the most radical environmental organiza-

tions, of scientists involved in the Intergovernmental Panel on Climate Change found that only 13 percent of them believed there was probably a point-of-no-return in the future leading to a runaway greenhouse effect. Just 17 percent of climatologists in a broader Gallup poll believed that human-induced warming had occurred at all, while 53 percent did not.

The problems with the theory are many. First, there is no reason to assume that any change in temperature is undesirable. In fact, peoples living in colder climates would benefit from small increases; higher temperatures at night also would likely have a positive impact.

Second, the evidence does not support the contention that human activity is raising temperatures. We have seen slight warming over the last century, but 90 percent of it occurred before 1940, when greenhouse gas emissions started rising dramatically. The assumptions suggest that daytime temperatures should rise in the northern hemisphere, but most of the limited warming so far observed has occurred at night in the southern hemisphere. The ice caps have been growing, not shrinking. And so on. Even those predicting a much hotter future have had to lower their forecasts over the last decade. In the end, it is obvious both that mankind, which produces just a couple percent of total CO₂, has only a limited impact on the earth's climate, and that the globe has a dramatic ability to adjust. For instance, increased pollution may help shield the earth from sunlight, counteracting any temperature increase. Higher temperatures at the poles actually allow more precipitation. Since serious warming could cause serious damage, there is cause to monitor changes in climate, but not yet to implement the sort of draconian changes demanded by the greenhouse crowd.

The ozone issue has been similarly politicized. The fear is that chlorofluorocarbons are thinning atmospheric ozone, allowing in more ultraviolet (UV) rays. In January 1992 a Harvard University chemist, James Anderson, held a press conference warning of a "hole" in the ozone in the so-called

polar vortex, the upper atmosphere over New England and Canada. His claims were based on the initial findings from a scientific expedition monitoring atmospheric conditions and received wide attention. Yet four months later he was forced to admit that "the dreaded ozone hole never materialized."

A decade ago apocalyptic environmentalists were warning of a reduction of 18 percent in ozone levels. Today the predictions are down to two to four percent. Even if these forecasts are borne out, the impact may not be dramatic: It would be like moving roughly 60 miles south, from Palm Beach to Miami in Florida. And, oddly, UV radiation levels have dropped over the last decade, even as the ozone layer was supposedly thinning. Moreover, there is some question as to whether CFC's—inexpensive, safe chemicals that have no obvious replacement—are really villainous destroyers of ozone after other factors are taken into account. Such things as ocean salt spray may help counteract increasing CFC levels. Explains Dr. Melvyn Shapiro of the National Oceanic and Atmospheric Administration, in making their claims even many atmospheric chemists "have little regard for the impact of atmospheric variability on chemical processes." In fact, the higher levels of chlorine monoxide detected in January did not create an ozone hole because temperatures were higher than expected.

Population growth has been cited as an impending disaster for nearly two centuries. Recent apocalypics include Paul Ehrlich of Stanford University, who predicted mass famine and death in the 1970s, and former World Bank President Robert McNamara, who went so far as to compare the threat of population pressure to that of nuclear war.

Their argument is simple: More people mean the use of more resources and more waste. The end result is lower incomes and disaster.

This apocalyptic scenario ignores the fact that some part of the population "explosion" is short term, since infant mortality rates have fallen more swiftly than have fertility rates. Moreover, people normally produce more than they consume—other-

wise even one person would be too many. Further, fears of population growth assume a static view of the world, that economics is a zero-sum game. Yet the market naturally adjusts as the number of people and demand for goods and services increase; technological innovation and behavioral changes work together to allow better and more efficient resource use.

In practice we see no adverse relationship between population or population density and economic growth. Population density is very high in such places as Hong Kong, Singapore, and Taiwan, yet their economies have grown faster. The population of the Netherlands is 50 percent denser than India, Great Britain's is twice as dense as that of Thailand, and South Korea possesses less territory but twice the population of North Korea. In all of these cases the more populated states have achieved much higher levels of development.

The issue of population growth, then, is a red herring. The central issue is economic growth. The most important means of adaptation is the marketplace: If governments prevent people from freely producing goods and services, charging prices that reflect changing resource values, and responding to diverse human needs, then worsening poverty will result. Third World countries are impoverished not because they are populous, but because their governments have enforced anti-capitalistic economic policies.

Related to the supposed problem of too many people is that of too few resources. Such reports as the Club of Rome's 1972 *Limits to Growth* and the Carter Administration's 1980 *Global 2000* predicted that we would soon run out of key resources. Indeed, much of the Carter energy program was predicated on the assumption that we would soon run out of fossil fuels. (Since oil was first discovered in the United States 130 years ago people have been predicting that reserves would soon be depleted.)

The Club of Rome, which imagined the imminent exhaustion of such resources as gold, lead, and zinc, has already been proved wrong. Even more significant, however, is the fact that real resource prices fell

consistently throughout the 1980s. According to Stephen Moore, in a study for the Institute for Policy Innovation, "of 38 natural resources examined in this study, 34 declined in real price" between 1980 and 1990. Prices for two remained constant, while only the cost of manganese and zinc rose. Moore found that American and international prices of food, energy, timber, and minerals, for instance, all fell.

Again, the doomsayers have ignored the powerful adjustment process that occurs through the marketplace. As goods become scarcer, prices rise, encouraging entrepreneurs to locate new supplies, manufacture synthetic equivalents, find substitutes, use products more efficiently, and reduce consumption. As long as prices can rise freely, the market will ensure that shortages will not occur. The fact that real resource prices fell during the 1980s indicates that relative scarcity has not increased but decreased.

Apocalyptic predictions regarding a number of other issues, such as toxic wastes and desertification, have proved to be equally flawed. The point is not that there are no environmental problems, but rather that environmental issues tend to be quite complex and that one should not make long-run predictions based on short-term trends. Unfortunately, many activists are willing to distort the facts because they have either political or religious reasons for proclaiming that disaster is imminent.

The New Theology

The environment has become as much a spiritual as a political issue for some people. Many churches now recycle products, install solar power, and pray for endangered animal species. Moreover, religious leaders who once busily promoted social and economic "justice" are now turning to ecological concerns. Global warming "is a spiritual issue, not just a technical problem," explained Bruce McLeod, president of the Canadian Council of Churches, after his organization endorsed the U.N.'s World Climate Convention last year.

Indeed, a variety of religious environmen-

tal organizations have formed—the North American Coalition on Religion and Ecology (NACRE), Religion and Science for the Environment, and the Presbyterian Eco-Justice Task Force, for instance. The 1990 NACRE Intercontinental Conference on Caring for Creation presented a Liturgy for the Earth, in which "Mother Earth" spoke to her "children."

Much church activism is based on false scientific theories, such as global warming. More significant, however, is the theological contamination from much of the new conservation ethic. Christianity and Judaism hold man to be a steward of the earth, which King David declared to be "the Lord's, and everything in it" (Psalm 24:1). Because man thereby "subdues" or exercises dominion over the planet (Genesis 1:28), many environmentalists view these faiths as largely responsible for the plight of the earth today. Historian Lynn White, for one, has criticized Christianity for being "the most anthropocentric religion the world has ever seen." He further argued that "since the roots of our [environmental] trouble are so largely religious, the remedy must also be essentially religious." Many other environmentalists have made similar charges.

Strangely, some churchmen seem to agree. James Nash, Executive Director of the Churches' Center for Theology and Public Policy, writes that "without doubt, Christian traditions bear some responsibility for propagating" destructive environmental perspectives. Thus, "for the Christian churches," he argues, "the ecological crisis is more than a biophysical challenge. It is also a theological-ethical challenge." The obvious solution, then, is to make Christianity "green." We now have a similarly minded ecologist in the White House. "Both conservative and liberal theologians have every reason, scriptural as well as ideological, to define their spiritual mission in a way that prominently includes the defense of God's creation," argues Vice President Gore in his apocalyptic book, *Earth in the Balance*.

But some environmentalists go further, turning ecology into a separate religion by

mixing ancient and modern forms of pantheism. John Muir and a host of other early environmentalists experimented with different forms of Earth and nature worship. More recently, environmentalism has joined New Age thinking to produce a vibrant Neo-Pagan movement, including such practices as witchcraft, which has always had a heavy ecological emphasis, and goddess (Earth) worship. Moreover, explains Lesly Phillips, "the growing awareness of the urgent need to honor and heal Mother Earth has drawn many Unitarian Universalists to a contemporary pagan approach to religion."

Another religious strand is deep ecology, which treats the planet as sacred. Philosophy professors Bill Devall and George Sessions advocate "the revival of Earth-bonding rituals." Some deep ecologists even support the use of violence to protect their "god." Dave Foreman, co-founder of Earth First! and later convicted of attempting to blow up power pylons for an Arizona nuclear plant, explains that so-called eco-terrorism is "a form of worship toward the earth." He has also advocated allowing the poor in third world countries to starve, "to just let nature seek its own balance."

The new eco-spiritualism does more than threaten traditional faiths, which are being pressed to accept doctrines contrary their basic tenets. More broadly, treating the earth as sacred distorts public policy. Our objective should be to balance environmental preservation with economic growth and personal freedom, and to rely on market forces to make any environmental controls as efficient and as flexible as possible. Unfortunately, however, treating the environment as a goddess has caused environmental activists to advance the most frightening theories, irrespective of the evidence, and demand the most draconian controls possible, irrespective of the cost.

The Reds and the Greens

Many other environmentalists have radical philosophical rather than theological

agendas. Most of the activists are implicitly anti-capitalist, anti-profit, and, frankly, anti-freedom, since it is people acting freely that leads, in some conservationists' views, to consumerism, greed, pollution, and waste. In fact, it has been jokingly said that the only remaining socialists in the world are in the environmental movement, since they are promoting a centrally planned system based on government command-and-control regulation. The Reds have been replaced by the Greens.

The problem is not so much the motives of such activists, but the fact that their ideological biases lead them to ignore evidence questioning the genuineness of alleged environmental problems and to refuse to make compromises in drafting solutions to real concerns. While a doctrinal environmentalist might be happy with the policy result for religious or philosophical reasons, it is foolish for the rest of us to waste resources on non-problems and on unnecessarily inefficient clean-up strategies.

Environmental protection is important, and good people can disagree on the best policies to adopt. But today the public discussion over conservation is being distorted by politics and pagan theology, making the American public poorer and less free and the environment dirtier.

We need to look for private strategies to protect the environment. Privatizing federal timber and rangeland, for instance, would end subsidized development, since no private individual or company would willingly turn a dollar investment into a few cents in revenue. Establishing full private property rights in water would help conserve this precious resource in the western United States. We need to develop equally creative solutions for such "common pool" problems as air and water pollution. In short, we need to depoliticize the environment, making the issue one of balancing competing interests rather than imposing ideological or religious dogmas. If we succeed in doing so, we will end up with not only a cleaner society, but also a wealthier and freer one. □

LINKING LIBERTY, ECONOMY, AND ECOLOGY

by John A. Baden and Robert Ethier

Much environmental writing is marked by a profound disregard, even hostility, toward property rights and individual liberty. Self-interest is an evil to be combated. And markets, at best, provide mechanisms for people to express their self-interest in ways injurious to the earth.

To some Greens, economic progress implies planetary suicide. Instead, environmental groups offer eco-empathy, altruism, and socialism as guides for environmentally correct behavior. However, some are finding that environmental causes fostered through self-interest and property rights are more likely to succeed than appeals to environmental values and bureaucratic micro-management. Even the environmental newspaper *High Country News* finds “a growing free-market attitude toward environmental protection.” Let’s see why.

Prosperity and Ecology

For years environmentalists ignored or discounted the strong correlation between economic prosperity and environmental concern. But when prosperity is at risk,

people willingly trade environmental quality for economic gain. This occurs even in wealthy nations. In our political campaigns environmental themes are crowded out by economic issues. As Michael R. Deland, former chairman of the President’s Council on Environmental Quality, observed: “in a recession there is an increased sensitivity to the job side of the equation.”

This is because wealth fosters both environmental concern and the capacity to exercise that concern in a concrete way, e.g., with sewage treatment plants. The 1992 World Bank *World Development Report* shows that less than two percent of sewage in Latin America is treated. Worldwide more than one billion people have no safe water. In China, two-thirds of rivers near large cities are too polluted for fish. These are problems that require capital, not promises and Green pretenses.

Given that wealth *enhances* environmental quality, environmental policy can be based upon three fundamental principles: (1) private property and markets create wealth; (2) government management responds to political pressures in ways that decrease environmental quality; and (3) government’s constructive role is to provide environmental monitoring. These principles can direct the environmental debate in a positive direction, avoiding wasteful efforts

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that advance only interest groups seeking political power and wealth transfers. These principles provide the basis for both an environmental vision and a sound policy direction.

International Trade Fosters Environmental Quality

The best way to spread free markets and create wealth in less developed nations is free trade. The U.S. has urged the removal of trade barriers in the Uruguay round of the General Agreement on Tariffs and Trade (GATT) talks. This has been opposed by some environmentalists who fear that trade, and its resultant economic growth, will bring degradation. They are misinformed. Environmental quality and prosperity are complementary. Evidence shows that wealthier is usually healthier; longevity is correlated with per capita income.

Free trade would increase global income levels while speeding the dissemination of pollution-control technologies. Research by Gene Grossman and Alan Krueger of Princeton indicates that economic growth also promotes a cleaner environment. For example, above a per capita income level of \$4,000–\$5,000, air quality improves. This is because wealth and efficiency go together—the U.S. emits almost 30 percent less CO₂ per \$1,000 of GNP than the world average. Improved efficiency and pollution control technologies, coupled with increased environmental awareness, allow production to rise while emissions fall.

Poor nations typically have low environmental standards and enforcement. Some environmentalists argue that free trade encourages the migration of polluting industries to these poor countries. However, a 1987 World Resources Institute study finds that environmental factors have not played a major role in determining international capital allocations. And as increased environmental concern, regulation, and enforcement in Mexico show, the prosperity accompanying trade speeds the adoption of shared higher standards among nations.

Senior economist Peter Emerson of the

Environmental Defense Fund writes, “poverty and economic autocracy are the handmaidens of environmental degradation.” Only by attacking poverty can we effectively address environmental destruction and promote long-term stewardship abroad. We must loosen the stranglehold of the command-and-control approach to regulation, introducing markets and private management as the solution to environment problems.

Ending Command and Control at Home

As the U.S. works to promote free markets in Eastern Europe, the costs of its own environmental autocracy are ignored or heavily discounted. Many of the government’s resource agencies, such as the Forest Service, the Bureau of Land Management, and the Bureau of Reclamation, operate in a perverse world in which they have incentives both to degrade the environment and to lose money.

Bureau of Land Management lands are among the most degraded and eroded in the west. Yet the agency continues to encourage, even require, overgrazing. Ranchers, who pay far below market rates for grazing rights, have little incentive to invest in soil conservation or water storage. If they attempt to rest an area through reduced use they are threatened with revocation of permits for underuse.

Many of the National Forests lose money while hurting the environment. They build roads whose costs are not covered by the revenues from the timber sales they facilitate, while the environmental costs are unaccounted for. Far more is invested in replanting than would be in a private forest, where natural revegetation is a realistic option. Budgets are maximized while the environment and the taxpayer suffer.

It is essential that environmental groups realize the negative effects of command-and-control policies on the environment. While politics may seem to be the cheapest route to environmental control, recent conflicts over preserving old growth timber for

spotted owl habitat show that environmentalists cannot count on the political process. By replacing political-bureaucratic management with market forces, property rights, and private management, we promote conservation and economic progress.

Innovation for Biodiversity

Much of the current environmental debate centers on endangered species preservation and biodiversity. This conflict is reduced to "jobs versus the environment," an unholy trade-off. Many environmentalists feel that government must mandate species preservation. This approach has been both unsuccessful and has infringed upon private property rights.

Environmental and wildlife groups could buy conservation easements in the areas where disturbances might harm species listed as endangered. The North American Elk Foundation, Trout Unlimited, and Ducks Unlimited have each done this on private lands and waters with private funds. Such organizations could also pay "bounties" to land managers if an endangered species successfully breeds on their land. The Montana chapter of Defenders of Wildlife has recently announced such a program to facilitate wolf reintroduction.

A rancher in Dubois, Wyoming, has offered to pay the Forest Service \$300,000 not to log a pristine canyon. This move was supported by many local citizens who value it as a recreation area. Some outfitters and guest ranches also benefit from its natural state because they use it for paying customers. But the Forest Service returned the \$100,000 down payment to the rancher because it was not allowed to create "a de facto wilderness area," even though the sum was almost certainly greater than any income the Forest Service would have received from timber sales. Only in a world as perverse as that of the Forest Service bureaucracy would a decision be made to lose money while at the same time harm the environment.

Because wildlife and their habitat are "public goods," some believe there is a theoretical case for government involvement. But a system encouraging private initiative is likely to be far more efficient and effective than federal mandates for species recovery. Costs would become explicit, not unevenly imposed upon landowners by the Endangered Species Act. This also allows comparisons and trade-offs to be made among competing species and habitats in a way that is impossible under the current Act.

Preserving Property Rights

In terms of our future environment, it is important that property rights be protected. The current Endangered Species Act has resulted in an attenuation of property rights and begun to provoke a backlash fueling the "wise-use" movement. In contrast, land and ecological trusts are founded upon private property rights. They preserve species by using, not sabotaging, property rights.

With proper incentives we can expect private land owners to support the listing of new species. Under the Endangered Species Act, if a landowner improves habitat on his own property to encourage an endangered species, he could lose control of that property. For example, Dayton Hyde, a rancher in Eastern Oregon, created a lake out of wilderness and attracted a variety of species including the American bald eagle. He was then told by the Forest Service that he could no longer access his property by truck because he might disturb the eagles. This is a perversity of monumental proportions.

A sound economy fosters environmental protection. We must eschew conventional Green wisdom with its appeals to command-and-control mechanisms. Environmental quality will be enhanced via markets and secure property rights, an approach that is consistent with America's intellectual heritage. Government must be the moderator, not the manager. In this way we can have both environmental quality and prosperity. □

SCIENCE AND THE ENVIRONMENT

by Bruce N. Ames

It is popular these days to espouse an apocalyptic vision of the future of our planet. Pollution is being blamed for global warming and ozone depletion, pesticides for cancer. Yet these and many other purported environmental causes are based on weak or bad science. The reality is that the future of the planet has never been brighter. With the bankruptcy of Communism, a hopeful world is on the path to democracy, free markets, and greater prosperity. Science and technology develop in a free society, and free markets bring wealth, which is associated with both better health and lower birth rates. Scientific advances and free markets can also lead to technologies that minimize pollution for the lowest cost. A market for pollution rights is desirable—polluting shouldn't be free—and is much more effective than a bureaucratic monopoly. In my scenario for the future, I would like to see environmentalism based on scientific evidence and directed at solving real problems rather than phantoms.

An example of this problem is the public misconception that pollution is a significant contributor to cancer and that cancer rates are soaring. As life expectancy continues to increase in industrialized countries, cancer rates (unadjusted for age) also increase;

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however, the age-adjusted cancer death rate in the United States for all cancers combined (excluding lung cancer from smoking) has been steady or decreasing since 1950. Decreasing since 1950 are primarily stomach, cervical, uterine, and rectal cancers. Increasing are primarily lung cancer (which is due to smoking, as are 30 percent of all U.S. cancer deaths), melanoma (possibly due to sunburn), and non-Hodgkin's lymphoma. Cancer is fundamentally a degenerative disease of old age, although external factors can increase cancer rates (cigarette smoking in humans) or decrease them (eating more fruits and vegetables).

A second misconception is that high-dose animal cancer tests tell us the significant cancer risks for humans. Approximately half of all chemicals—whether natural or synthetic—that have been tested in standard animal cancer tests have turned out to be carcinogenic. These standard tests of chemicals are conducted chronically, at near-toxic doses—the maximum tolerated dose—and evidence is accumulating that it may be the high dose itself, rather than the chemical *per se* that is the risk factor for cancer. (This is because high doses can cause chronic wounding of tissues or other effects that lead to chronic cell division, which is a major risk factor for cancer.) At the very low levels of chemicals to which humans are exposed through water pollution or synthetic pesticide residues, such increased cell division

does not occur. Thus, they are likely to pose no or minimal cancer risks.

The third misconception is that human exposures to carcinogens and other toxins are nearly all due to synthetic chemicals. On the contrary, the amount of synthetic pesticide residues in plant foods are insignificant compared to the amount of natural pesticides produced by plants themselves. Of all dietary pesticides, 99.99 percent are natural: They are toxins produced by plants to defend themselves against fungi and animal predators. Because each plant produces a different array of toxins, we estimate that on average Americans ingest roughly 5,000 to 10,000 different natural pesticides and their breakdown products. Americans eat an estimated 1,500 milligrams of natural pesticides per person per day, which is about 10,000 times more than they consume of synthetic pesticide residues. By contrast, the FDA found the residues of 200 synthetic chemicals, including the synthetic pesticides thought to be of greatest importance, average only about 0.09 milligram per person per day.

The fourth misconception is that synthetic toxins pose greater carcinogenic hazards than natural toxins. On the contrary, the proportion of natural chemicals that is carcinogenic when tested in both rats and mice is the same as for synthetic chemicals—roughly half. All chemicals are toxic at some dose, and 99.99 percent of the chemicals we ingest are natural.

The fifth misconception is that the toxicology of man-made chemicals is different from that of natural chemicals. Humans have many general natural defenses that make us well buffered against normal exposures to toxins, both natural and synthetic. DDT is often viewed as the typically dangerous synthetic pesticide. However, it saved millions of lives in the tropics and made obsolete the pesticide lead arsenate, which is even more persistent and toxic, although all natural. While DDT was unusual with respect to bioconcentration, nat-

ural pesticides also bioconcentrate if they are fat soluble. Potatoes, for example, naturally contain fat soluble neurotoxins detectable in the bloodstream of all potato eaters. High levels of these neurotoxins have been shown to cause birth defects in rodents.

The sixth misconception is that correlation implies causation. The number of storks in Germany has been decreasing for decades. At the same time, the German birth rate also has been decreasing. Aha! Solid evidence that storks bring babies! Cancer clusters in small areas are expected to occur by chance alone, and there is no persuasive evidence from either epidemiology or toxicology that pollution is a significant cause of cancer for the general population.

There are tradeoffs involved in eliminating pesticides. Plants need chemical defenses—either natural or synthetic—in order to survive pest attack. One consequence of disproportionate concern about synthetic pesticide residues is that some plant breeders are currently developing plants to be more insect-resistant and inadvertently are selecting plants higher in natural toxins. A major grower recently introduced a new variety of highly insect-resistant celery into commerce. The pest-resistant celery contains 6,200 parts per billion (ppb) of carcinogenic (and mutagenic) psoralens instead of the 800 ppb normally present in celery. The celery is still on the market.

Synthetic pesticides have markedly lowered the cost of plant foods, thus making them more available to consumers. Eating more fruits and vegetables is thought to be the best way to lower risks from cancer and heart disease, other than giving up smoking; our vitamins, anti-oxidants, and fiber come from plants and are important anti-carcinogens. Thus, eliminating essential pesticides is likely to increase cancer rates. Huge expenditure of money and effort on tiny hypothetical risks does not improve public health. Rather, it diverts our resources from real human health hazards, and it hurts the economy. □

OVERPOPULATION: THE PERENNIAL MYTH

by David Osterfeld

“What most frequently meets our view (and occasions complaint) is our teeming population. Our numbers are burdensome to the world, which can hardly support us. . . . In very deed, pestilence, and famine, and wars, and earthquakes have to be regarded as a remedy for nations, as the means of pruning the luxuriance of the human race.”

This was not written by professional doomsayer Paul Ehrlich (*The Population Bomb*, 1968). It is not found in the catastrophist works of Donella and Dennis Meadows (*The Limits to Growth*, 1972; *Beyond the Limits*, 1992). Nor did it come from the Council on Environmental Quality and the Department of State’s pessimistic assessment of the world situation, *The Global 2000 Report to the President* (1980).

It did not even come from Thomas Malthus, whose *Essay on Population* (1798) in the late eighteenth century is the seminal work to which much of the modern concern about overpopulation can be traced. And it did not come from Botero, a sixteenth-century Italian whose work anticipated many of the arguments advanced by Malthus two centuries later.

The opening quotation was penned by Tertullian, a resident of the city of Carthage in the second century, when the population

of the world was about 190 million, or only three to four percent of what it is today. And the fear of overpopulation did not begin with Tertullian. One finds similar concerns expressed in the writings of Plato and Aristotle in the fourth century B.C., as well as in the teachings of Confucius as early as the sixth century B.C.

From the period before Christ, men have been worried about overpopulation. Those concerns have become ever more frenzied. On an almost daily basis we are fed a barrage of stories in the newspapers and on television—complete with such appropriately lurid headlines as “Earth Near the Breaking Point” and “Population Explosion Continues Unabated”—predicting the imminent starvation of millions because population is outstripping the food supply. We regularly hear that because of population growth we are rapidly depleting our resource base with catastrophic consequences looming in our immediate future. We are constantly told that we are running out of living space and that unless something is done, and done immediately, to curb population growth, the world will be covered by a mass of humanity, with people jammed elbow to elbow and condemned to fight for each inch of space.

The catastrophists have been predicting doom and gloom for centuries. Perhaps the single most amazing thing about this perennial exercise is that the catastrophists seem

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never to have stopped quite long enough to notice that their predictions have *never* materialized. This probably says more about the catastrophists themselves than anything else. Catastrophism is characterized by intellectual arrogance. It's been said of Thomas Malthus, for example, that he underestimated everyone's intelligence but his own. Whenever catastrophists confront a problem for which they cannot imagine a solution, the catastrophists conclude that no one else in the world will be able to think of one either. For example, in *Beyond the Limits* the Meadows tell us that crop yields, at least in the Western world, have reached their peak. Since the history of agriculture is largely a history of increasing yields per acre, one would be interested in knowing how they arrived at such a significant and counter-historical conclusion. Unfortunately, such information is not forthcoming.

Overpopulation

But isn't the world overpopulated? Aren't we headed toward catastrophe? Don't more people mean less food, fewer resources, a lower standard of living, and less living space for everyone? Let's look at the data.

As any population graph clearly shows, the world has and is experiencing a population explosion that began in the eighteenth century. Population rose sixfold in the next 200 years. But this explosion was accompanied, and in large part made possible, by a productivity explosion, a resource explosion, a food explosion, an information explosion, a communications explosion, a science explosion, and a medical explosion.

The result was that the sixfold increase in world population was dwarfed by the eighty-fold increase in world output. As real incomes rose, people were able to live healthier lives. Infant mortality rates plummeted and life expectancies soared. According to anthropologists, average life expectancy could never have been less than 20 years or the human race would not have survived. In 1900 the average world life expectancy was about 30 years. In 1993 it is just over 65 years. Nearly 80 percent of the increase in

world life expectancy has taken place in just the last 90 years! That is arguably one of the single most astonishing accomplishments in the history of humanity. It is also one of the least noted.

But doesn't this amazing accomplishment create precisely the overpopulation problem about which the catastrophists have been warning us? The data clearly show that this is *not* the case. "Overpopulation" cannot stand on its own. It is a relative term. Overpopulation must be overpopulation *relative* to something, usually food, resources, and living space. The data show that all three variables are, and have been, increasing more rapidly than population.

Food. Food production has outpaced population growth by, on average, one percent per year ever since global food data began being collected in the late 1940s. There is currently enough food to feed everyone in the world. And there is a consensus among experts that global food production could be increased dramatically if needed. The major problem for the developed countries of the world is food surpluses. In the United States, for example, millions of acres of good cropland lie unused each year. Many experts believe that even with no advances in science or technology we currently have the capacity to feed adequately, on a sustainable basis, 40 to 50 billion people, or about eight to ten times the current world population. And we are currently at the dawn of a new agricultural revolution, biotechnology, which has the potential to increase agricultural productivity dramatically.

Where people are hungry, it is because of war (Somalia, Ethiopia) or government policies that, in the name of modernization and industrialization, penalize farmers by taxing them at prohibitive rates (e.g., Nigeria, Ghana, Kenya), not because population is exceeding the natural limits of what the world can support.

Significantly, during the decade of the 1980s, agricultural prices in the United States, in real terms, declined by 38 percent. World prices followed similar trends and today a larger proportion of the world's

people are better fed than at any time in recorded history. In short, food is becoming more abundant.

Resources. Like food, resources have become more abundant over time. Practically all resources, including energy, are cheaper now than ever before. Relative to wages, natural resource prices in the United States in 1990 were only one-half what they were in 1950, and just one-fifth their price in 1900. Prices outside the United States show similar trends.

But how can resources be getting more abundant? Resources are not things that we find in nature. It is ideas that make things resources. If we don't know how to use something, it is not a resource. Oil is a perfect example. Prior to the 1840s oil was a liability rather than a resource. There was little use for it and it would often seep to the surface and get into the water supply. It was only with the dawn of the machine age that a use was discovered for this "slimy ooze."

Our knowledge is even more important than the physical substance itself, and this has significant ramifications: More people mean more ideas. There is no reason, therefore, that a growing population must mean declining resource availability. Historically, the opposite has been true. Rapidly growing populations have been accompanied by rapidly declining resource prices as people have discovered new ways to use existing resources as well as uses for previously unused materials.

But an important caveat must be introduced here. For the foregoing to occur, the political and economic institutions must be right. A shortage of a good or service, including a resource, will encourage a search both for additional supplies and for substitutes. But this is so only if those who are successful are able to profit from their effort. This is precisely what classical liberalism, with its emphasis on private property and the free market, accomplishes. A shortage of a particular resource will cause its price to rise, and the lure of profit will attract entrepreneurs anxious to capitalize on the shortage by finding solutions, either additional supplies of the existing material or the

development of an entirely new method of supplying the service. Communicating through the use of fiber optics rather than copper cable is a case in point.

Entrepreneurs typically have drawn scientists and others with relevant expertise into the field by paying them to work on the problem. Thus, the market automatically ensures that those most likely to find solutions to a particular problem, such as a shortage of an important resource, are drawn into positions where they can concentrate their efforts on finding solutions to the problem. To cite just a single example, a shortage of ivory for billiard balls in nineteenth-century England led to the invention of celluloid, followed by the entire panoply of plastics.

In the absence of an efficient and reliable way to match up expertise with need, our efforts are random. And in the absence of suitable rewards for satisfying the needs of society, little effort will be forthcoming. It was certainly no accident that the takeoff, both in population growth and economic growth, dates from the decline of mercantilism and extensive government economic regulations in the eighteenth century, and the emergence in the Western world of a relatively free market, characterized by private property, low taxes, and little government interference.

In every category—per capita income, life expectancy, infant mortality, cars, telephones, televisions, radios per person—the performance of the more free market countries far surpasses the more interventionist countries. The differences are far too large as well as systematic to be attributed to mere chance.

Living Space. But even if food and resources are becoming more abundant, certainly this can't be true for living space. After all, the world is a finite place and the more people in it, the less space there is for everyone. In a statistical sense this is true, of course. But it is also irrelevant. For example, if the entire population of the world were placed in the state of Alaska, every individual would receive nearly 3,500 square feet of space, or about one-half the

size of the average American *family* homestead with front and back yards. Alaska is a big state, but it is a mere one percent of the earth's land mass. Less than one-half of one percent of the world's ice-free land area is used for human settlements.

But perhaps "living space" can be measured more meaningfully by looking at such things as the number of houses, the amount of floor space, or the number of rooms per person. There are more houses, more floor space, and more rooms per person than ever before. In short, like both food and resources, living space is, by any meaningful measure, becoming more abundant.

Finally, it should be noted that the population explosion has begun to fizzle. Population growth peaked at 2.1 percent per year in the late 1960s and has declined to its present rate of 1.7 percent. There is no doubt that this trend will continue since, according to the latest information supplied by the World Health Organization, total fertility rates (the number of births per woman) have declined from 4.5 in 1970 to

just 3.3 in 1990. That is exactly fifty percent of the way toward a fertility rate of 2.1 which would eventually bring population growth to a halt.

Everything is not fine. There are many problems in the world. Children are malnourished. But the point that cannot be ignored is that all of the major economic trends are in the right direction. Things are getting better.

Contrary to the constant barrage of doomsday newspaper and television stories, the data clearly show that the prospect of the Malthusian nightmare is growing steadily more remote. The natural limits of what the earth can support are steadily receding, not advancing. Population growth is slowing while the supplies of food, resources, and even living space are increasing. Moreover, World Bank data show that real wages are increasing, which means that people are actually becoming more scarce.

In short, although there are now more people in the world than ever before, by any meaningful measure the world is actually becoming *relatively less populated*. □

THE FREEMAN
IDEAS ON LIBERTY

STEWARDSHIP VERSUS BUREAUCRACY

by Rick Perry

Ensuring a safe, plentiful water supply is an issue crucial to the well-being of every American—one that will certainly intensify as we move into the twenty-first

century. Thus, we must answer this question: How can we guarantee a sufficient supply of water to satisfy the necessary but competing demands of agriculture, industry, and a population that is expected to increase rapidly in the next 50 years?

First of all we must challenge the assump-

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tion that government ownership offers the best solution for protecting our precious natural resources. The premise that puts bureaucratic regulation above the rights of private property owners is not only false, it actually promotes problems for our environment.

Look, for example, at the Pacific Northwest, where a combination of federally operated dams and reservoirs and state policies that prevent the resale of water rights has contributed to the depletion of salmon populations.

The salmon's seasonal need for high water levels to journey to its summer spawning grounds coincides with peak consumer demand for electricity in the West. So, it would make good sense to produce and sell more hydroelectricity during these peak months and to conserve it when demand is low. Consumers would benefit and so would the salmon.

Unfortunately, a maze of bureaucratic regulations—combined with the West's "use it or lose it" rule that often prevents resale of water rights—makes such a sensible solution nearly impossible, and the salmon species has suffered, not benefited.

Our natural resources are better left in the hands of private citizens who are more likely than government agencies to care for them. It's a question of stewardship versus bureaucracy. Private ownership gives people a vested interest in their property, instills pride in what they own.

Ownership also spurs agricultural producers to manage their resources wisely—their water as well as their land. In Texas,

groundwater management has historically been based on the "right of capture," the decades-old, time-honored premise that bestows ownership of water on the owner of the land above. Under this system, farmers and ranchers have led the way in developing efficient methods of water use.

There is room for improvement, however. Though ownership of groundwater is vested in property owners in the Texas Water Code, this property right is loosely defined, which affects the incentive to conserve. A market-based system for groundwater with well defined, enforceable, and transferable property rights based on the surface ownership would more accurately reflect water's economic and ecological value to society. By strictly defining the ownership of underground water, it can be given a value—just as land has—and become subject to the efficiencies of the marketplace. Water rights would be more marketable, and owners would be able to sell water to buyers at a price reflecting market demand.

Such a market-based system would replace government control of water—and the specter of rationing, expensive financing programs, and confiscation of water rights by a centralized bureaucracy. Government involvement would remain in the hands of local water districts that would define owners' rights and devise enforcement methods appropriate to each locality.

A market-based system—achieved by placing a value on water inventories—would motivate agricultural producers to increase even further their conservation efforts and enhance supplies for future generations. □

Making Every Drop Count

Water markets offer something for nearly everyone: They can eliminate water shortages, reduce environmental degradation, and reduce government spending, too.

—DON LEAL, *The Freeman*, June 1988

IDEAS
ON
LIBERTY



THE MARKET AND NATURE

by Fred L. Smith, Jr.

Many environmentalists are dissatisfied with the environmental record of free economies. Capitalism, it is claimed, is a wasteful system, guilty of exploiting the finite resources of the Earth in a vain attempt to maintain a non-sustainable standard of living. Such charges, now raised under the banner of “sustainable development,” are not new. Since Malthus made his dire predictions about the prospects for world hunger, the West has been continually warned that it is using resources too rapidly and will soon run out of something, if not everything. Nineteenth-century experts such as W. S. Jevons believed that world coal supplies would soon be exhausted and would have been amazed that over 200 years of reserves now exist. U.S. timber “experts” were convinced that North American forests would soon be a memory. They would similarly be shocked by the reforestation of eastern North America—reforestation that has resulted from market forces and not mandated government austerity.

In recent decades, the computer-generated predictions of the Club of Rome enjoyed a brief popularity, arguing that everything would soon disappear. Fortunately, most now recognize that such computer simulations, and their static view of resource supply and demand, have no relation to reality. Nevertheless, these models are

back, most notably in the book *Beyond the Limits*, and enjoying their newly found attention. This theme of imminent resource exhaustion has become a chronic element in the annual Worldwatch publication, *State of the World*. (This book is, to my knowledge, the only gloom-and-doom book in history which advertises next year’s edition.) Today, sustainable development theorists, from the World Bank’s Herman Daly and the United Nations’ Maurice Strong to Vice President Albert Gore and Canadian David Suzuki, seem certain that, at last, Malthus will be proven right. It was this environmental view that was on display at the United Nations’ “Earth Summit” in Rio de Janeiro in 1992. This conference, vast in scope and mandate, was but the first step in the campaign to make the environment the central organizing principle of global institutions.

If such views are taken seriously, then the future will indeed be a very gloomy place, for if such disasters are in the immediate future, then drastic government action is necessary. Consider the not atypical views of David Suzuki: “[T]here has to be a radical restructuring of the priorities of society. That means we must no longer be dominated by global economics, that the notion that we must continue to grow indefinitely is simply off, that we must work towards, not zero growth, but negative growth.” For the first time in world history, the leaders of the developed nations are being asked to turn

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their backs on the future. The resulting policies could be disastrous for all mankind.

The Environmental Challenge

The world does indeed face a challenge in protecting ecological values. Despite tremendous success in many areas, many environmental concerns remain. The plight of the African elephant, the air over Los Angeles, the hillsides of Nepal, the three million infant deaths from water-borne diseases throughout the world, and the ravaging of Brazilian rain forests all dramatize areas where problems persist, and innovative solutions are necessary.

Sustainable development theorists claim these problems result from “market failure”: the inability of capitalism to address environmental concerns adequately. Free market proponents suggest that such problems are not the result of market forces, but rather of their absence. The market already plays a critical role in protecting those resources privately owned and for which political interference is minimal. In these instances there are truly sustainable practices. Therefore, those concerned with protecting the environment and ensuring human prosperity should seek to expand capitalism, through the extension of property rights, to the broadest possible range of environmental resources. Our objective should be to reduce political interference in both the human and the natural environments, not to expand it.

Private stewardship of environmental resources is a powerful means of ensuring sustainability. Only people can protect the environment. Politics *per se* does nothing. If political arrangements fail to encourage individuals to play a positive role, the arrangements can actually do more harm than good. There are tens of millions of species of plants and animals that merit survival. Can we imagine that the 150 or so governments on this planet—many of which do poorly with their human charges—will succeed in so massive a stewardship task? Yet there are in the world today over five billion people. Freed to engage in private stewardship, the

challenge before them becomes surmountable.

Sustainable Development and Its Implications

The phrase *sustainable development* suggests a system of natural resource management that is capable of providing an equivalent, or expanding, output over time. As a concept, it is extremely vague, often little more than a platitude. Who, after all, favors non-sustainable development? The basic definition promoted by Gro Harlem Brundtland, former Prime Minister of Norway and a prominent player at the Earth Summit, is fairly vague as well: “[S]ustainable development is a notion of discipline. It means humanity must ensure that meeting present needs does not compromise the ability of future generations to meet their own needs.”

In this sense, sustainability requires that as resources are consumed one of three things must occur: New resources must be discovered or developed; demands must be shifted to more plentiful resources; or, new knowledge must permit us to meet such needs from the smaller resource base. That is, as resources are depleted, they must be renewed. Many assume that the market is incapable of achieving this result. A tremendous historical record suggests exactly the opposite.

Indeed, to many environmental “experts,” today’s environmental problems reflect the failure of the market to consider ecological values. This market failure explanation is accepted by a panoply of political pundits of all ideological stripes, from Margaret Thatcher to Earth First! The case seems clear. Markets, after all, are shortsighted and concerned only with quick profits. Markets undervalue biodiversity and other ecological concerns not readily captured in the marketplace. Markets ignore effects generated outside of the market, so-called externalities, such as pollution. Since markets fail in these critical environmental areas, it is argued, political intervention is necessary. That intervention should be careful, thoughtful, even scientific, but

the logic is clear: Those areas of the economy having environmental impacts must be politically controlled. Since, however, every economic decision has some environmental effect, the result is an effort to regulate the whole of human activity.

Thus, without any conscious decision being made, the world is moving decisively toward central planning for ecological rather than economic purposes. The Montreal Protocol on chlorofluorocarbons, the international convention on climate change, the proposed convention on biodiversity, and the full range of concerns addressed at the U.N. Earth Summit—all are indicative of this rush to politicize the world's economies. That is unfortunate, for ecological central planning is unlikely to provide for a greener world.

Rethinking the Market Failure Paradigm

The primary problem with the market failure explanation is that it demands too much. In a world of pervasive externalities—that is, a world where all economic decisions have environmental effects—this analysis demands that all economic decisions be politically managed. The world is only now beginning to recognize the massive mistake entailed in economic central planning; yet, the “market failure” paradigm argues that we embark on an even more ambitious effort of ecological central planning. The disastrous road to serfdom can just as easily be paved with green bricks as with red ones.

Environmental policy today is pursued exactly as planned economies seek to produce wheat. A political agency is assigned the task. It develops detailed plans, issues directives, and the citizens comply. That process will produce *some* wheat just as environmental regulations produce some gains. However, neither system enlists the enthusiasm and the creative genius of the citizenry, and neither leads to prosperity. In fact, political management has been able to turn the cornucopia that was the Horn of Africa into a barren, war-torn desert.

That markets “fail” does not mean that

governments will “succeed.” Governments, after all, are susceptible to special interest pleadings. A complex political process often provides fertile ground for economic and ideological groups to advance their agendas at the public expense. The U.S. tolerance of high sulfur coal and the massive subsidies for heavily polluting “alternative fuels” are evidence of this problem. Moreover, governments lack any means of acquiring the detailed information dispersed throughout the economy essential to efficiency and technological change.

More significantly, if market forces were the dominant cause of environmental problems, then the highly industrialized, capitalist countries should suffer from greater environmental problems than their centrally managed counterparts. This was once the conventional wisdom. The Soviet Union, it was argued, would have no pollution because the absence of private property, the profit motive, and individual self-interest would eliminate the motives for harming the environment. The opening of the Iron Curtain exploded this myth, as the most terrifying ecological horrors ever conceived were shown to be the Communist reality. The lack of property rights and profit motivations discouraged efficiency, placing a greater stress on natural resources. The result was an environmental disaster.

Do Markets Fail—Or Do We Fail to Allow Markets?

John Kenneth Galbraith, an avowed proponent of statist economic policies, inadvertently suggested a new approach to environmental protection. In an oft-quoted speech he noted that the U.S. was a nation in which the yards and homes were beautiful and in which the streets and parks were filthy. Galbraith then went on to suggest that we effectively nationalize the yards and homes. For those of us who believe in property rights and economic liberty, the obvious lesson is quite the opposite.

Free market environmentalists seek ways of placing these properties in the care of individuals or groups concerned about their

well-being. This approach does not, of course, mean that trees must have legal standing, but rather a call for ensuring that behind every tree, stream, lake, air shed, and whale stands one or more owners who are able and willing to protect and nurture that resource.

Consider the plight of the African elephant. On most of the continent, the elephant is managed like the American buffalo once was. It remains a political resource. Elephants are widely viewed as the common heritage of all the peoples of these nations, and are thus protected politically. The "common property" management strategy being used in Kenya and elsewhere in East and Central Africa has been compared and contrasted with the experiences of those nations such as Zimbabwe which have moved decisively in recent years to transfer elephant ownership rights to regional tribal councils. The differences are dramatic. In Kenya, and indeed all of eastern Africa, elephant populations have fallen by over 50 percent in the last decade. In contrast, Zimbabwe's elephant population has been increasing rapidly. As with the beaver in Canada, a program of conservation through use that relies upon uniting the interests of man and the environment succeeds where political management has failed.

The Market and Sustainability

The prophets of sustainability have consistently predicted an end to the world's abundant resources, while the defenders of the free market point to the power of innovation—innovation which is encouraged in the marketplace. Consider the agricultural experience. Since 1950, improved plant and animal breeds, expanded availability and types of agri-chemicals, innovative agricultural techniques, expanded irrigation, and better pharmaceutical products have all combined to spur a massive expansion of world food supplies. That was not expected by those now championing "sustainable development." Lester Brown, in his 1974 Malthusian publication *By Bread Alone*, suggested that crop yield increases would

soon cease. Since that date, Asian rice yields have risen nearly 40 percent, an approximate increase of 2.4 percent per year. This rate is similar to that of wheat and other grains. In the developed world it is food surpluses, not food shortages, that present the greater problem, while political institutions continue to obstruct the distribution of food in much of the Third World.

Man's greater understanding and ability to work with nature have made it possible to achieve a vast improvement in world food supplies, to improve greatly the nutritional levels of a majority of people throughout the world, in spite of rapid population growth. Moreover, this has been achieved while reducing the stress to the environment. To feed the current world population at current nutritional levels using 1950 yields would require plowing under an additional 10 to 11 million square miles, almost tripling the world's agricultural land demands (now at 5.8 million square miles). This would surely come at the expense of land being used for wildlife habitat and other applications.

Moreover, this improvement in agriculture has been matched by improvements in food distribution and storage, again encouraged by natural market processes and the "profit incentive" that so many environmentalists deplore. Packaging has made it possible to reduce food spoilage, reduce transit damage, extend shelf life, and expand distribution regions. Plastic and other post-use wraps along with the ubiquitous Tupperware have further reduced food waste. As would be expected, the United States uses more packaging than Mexico, but the additional packaging results in tremendous reductions in waste. On average, a Mexican family discards 40 percent more waste each day. Packaging often eliminates more waste than it creates.

Despite the fact that capitalism has produced more environment-friendly innovations than any other economic system, the advocates of sustainable development insist that this process must be guided by benevolent government officials. That such efforts, such as the United States' synthetic fuels project of the late 1970s, have resulted

in miserable failures is rarely considered. It is remarkable how many of the participants at the U.N. Earth Summit seemed completely oblivious to this historical reality.

In the free market, entrepreneurs compete in developing low-cost, efficient means to solve contemporary problems. The promise of a potential profit, and the freedom to seek after it, always provides the incentive to build a better mousetrap, if you will. Under planned economies, this incentive for innovation can never be as strong, and the capacity to reallocate resources toward more efficient means of production is always constrained.

This confusion is also reflected in the latest environmental fad: waste reduction. With typical ideological fervor, a call for increased efficiency in resource use becomes a call to use less of everything, regardless of the cost. Less, we are told, is more in terms of environmental benefit. But neither recycling nor material or energy use reductions *per se* are a good thing, even when judged solely on environmental grounds. Recycling paper often results in increased water pollution, increased energy use, and in the United States, actually discourages the planting of new trees. Mandating increased fuel efficiency for automobiles reduces their size and weight, which in turn reduces their crashworthiness and increases highway fatalities. Environmental policies must be judged on their results, not just their motivations.

Overcoming Scarcity

Environmentalists tend to focus on ends rather than process. This is surprising given their adherence to ecological teaching. Their obsession with the technologies and material usage patterns of today reflects a failure in understanding how the world works. The resources that people need are not chemicals, wood fiber, copper, or the other natural resources of concern to the sustainable development school. We demand housing, transportation, and communication services. How that demand is met is a derivative result based on competitive forces—forces which respond by suggesting

new ways of meeting old needs as well as improving the ability to meet such needs in the older ways.

Consider, for example, the fears expressed in the early post-war era that copper would soon be in short supply. Copper was the lifeblood of the world's communication system, essential to link together humanity throughout the world. Extrapolations suggested problems and copper prices escalated accordingly. The result? New sources of copper in Africa, South America, and even the U.S. and Canada were found. That concern, however, also prompted others to review new technologies, an effort that produced today's rapidly expanding fiber optics links.

Such changes would be viewed as miraculous if not now commonplace in the industrialized, and predominantly capitalistic, nations of the world. Data assembled by Lynn Scarlett of the Reason Foundation noted that a system requiring, say, 1,000 tons of copper can be replaced by as little as 25 kilograms of silicon, the basic component of sand. Moreover, the fiber optics system has the ability to carry over 1,000 times the information of the older copper wire. Such rapid increases in communication technology are also providing for the displacement of oil as electronic communication reduces the need to travel and commute. The rising fad of telecommuting was not dreamed up by some utopian environmental planner, but was rather a natural outgrowth of market processes.

It is essential to understand that physical resources are, in and of themselves, largely irrelevant. It is the interaction of man and science that creates resources: Sand and knowledge become fiber optics. Humanity and its institutions determine whether we eat or die. The increase of political control of physical resources and new technologies only increases the likelihood of famine.

Intergenerational Equity

Capitalism is ultimately attacked on grounds of unsustainability for its purported failure to safeguard the needs of future generations. Without political intervention,

it is argued, capitalists would leave a barren globe for their children. Thus, it is concluded, intergenerational equity demands that politics intervene. But are these criticisms valid?

Capitalists care about the future because they care about today's bottom line. Market economies have created major institutions—bond and stock markets, for example—which respond to changes in operating policies that will affect future values. A firm that misuses its capital or lowers its quality standards, a pet store that mistreats its stock, a mine that reduces maintenance, a farmer that permits erosion—all will find the value of their capital assets falling. Highly specialized researchers expend vast efforts in ferreting out changes in management practices that might affect future values; investment houses pay future analysts very well indeed to examine such questions.

Markets, of course, are not able to foresee all eventualities, nor do they consider consequences hundreds of years into the future. Yet, consider the time horizon of politicians. In the U.S., at least, they are concerned with only one thing: getting re-elected, a process that provides them at best a two-to-six-year time horizon. Politically managed infrastructure is routinely under-maintained; funds for new roads are more attractive than the smaller sums used to repair potholes; national forests are more poorly maintained than private forests; erosion is more serious on politically controlled lands than on those maintained by private corporations. If the free market is shortsighted in its view of the future, then the political process is even more so. It is therefore the free market which best ensures that there will be enough for the future.

Warring Paradigms

The alternative perspectives on environmental policy—free markets and central planning—differ dramatically. One relies upon individual ingenuity and economic liberty to harness the progressive nature of market forces. The other rests upon political manipulation and government coercion. In

point of fact, these approaches are antithetical. There is little hope of developing a "third way." Yet, there has been little debate on which approach offers the greatest promise in enhancing and protecting environmental concerns. The political approach has been adopted on a wide scale throughout the world, with more failure than success, while efforts to utilize the free market approach have been few and far between.

Nevertheless, there are numerous cases where private property rights have been used to complement and supplement political environmental strategies. One excellent example is a case in England in the 1950s where a fishing club, the Pride of Derby, was able to sue upstream polluters for trespassing against private property. Even the pollution issuing from an upstream municipality was addressed. This ability to go against politically preferred polluters rarely exists where environmental resources are politically managed.

At the heart of the division between statist and free market environmentalists is a difference in moral vision. Free market environmentalists envision a world in which man and the environment live in harmony, each benefiting from interaction with the other. The other view, which dominates the environmental establishment, believes in a form of ecological apartheid whereby man and nature must be separated, thus protecting the environment from human influence. From this view rises the impetus to establish wilderness lands where no humans may tread and a quasi-religious zeal to end all human impact on nature.

Thus, the establishment environmentalists view pollution—human waste—as an evil that must be eliminated. That waste is an inevitable by-product of human existence is of secondary concern. To the environmentalist that endorses this ideology, nothing short of civilization's demise will suffice to protect the earth.

The view that free market environmentalists endorse is somewhat different. Not all waste is pollution, but only that waste which is transferred involuntarily. Thus it is pol-

luting to dispose of garbage on a neighbor's lawn, but not to store it on one's own property. The voluntary transfer of waste, perhaps from an industrialist to the operator of a landfill or recycling facility, is merely another market transaction.

Conclusion

The United Nations Earth Summit considered an extremely important issue: What steps should be taken to ensure that economic and ecological values are harmonized? Unfortunately, the Earth Summit failed to develop such a program, opting instead to further the flawed arguments for ecological central planning.

The world faces a fateful choice as to how to proceed: by expanding the scope of individual action via a system of expanded private property rights and the legal defenses associated with such rights or by expanding the power of the state to protect such values directly. In making that choice, we should learn from history. Much of the world is only now emerging from decades of efforts to advance economic welfare via centralized political means, to improve the welfare of mankind by restricting economic freedom, by expanding the power of the state, to test out the theory that market forces are inadequate to protect the welfare of society. That experiment has been a clear failure on economic, civil liberties, and even ecological grounds. Economic central planning was a utopian dream; it became a real world nightmare.

Today, the international environmental establishment seems eager to repeat this experiment in the ecological sphere, increasing the power of the state, restricting

individual freedom, certain that market forces cannot adequately protect the ecology. Yet, as I've quickly sketched out here, this argument is faulty. Wherever resources have been privately protected, they have done better than their politically managed counterparts—whether we are speaking of elephants in Zimbabwe, salmon streams in England, or beaver in Canada. Where such rights have been absent or suppressed, the results have been less fortunate. Extending property rights to the full array of resources now left undefended, now left as orphans in a world of protected properties, is a daunting challenge. Creative legal arrangements and new technologies will be necessary to protect the oceans and air sheds of the world, but those tasks can be resolved if we apply ourselves. The obstacles to ecological central planning are insurmountable. The need for centralized information and a comprehensive system of controls in order to coerce the population of the world to act in highly restricted ways as well as that for omniscient decision-makers to choose among technologies can never be met.

Ecological central planning cannot protect the environment, but it can destroy our civil and economic liberties. There is too much at stake to allow the world to embark upon this course. The environment can be protected, and the world's peoples can continue to reach new heights of prosperity, but it is essential to realize that political management is not the proper approach. Rather, the leaders of the world should follow the path of the emerging nations of Eastern Europe and embrace political and economic freedom. In the final analysis, the free market is the only system of truly sustainable development. □

ECO-JUSTICE

by Jane M. Orient, M.D.

In a little noticed speech last year, William Reilly, head of the Environmental Protection Agency (EPA), boasted of past success and set the agenda for the future: "George Bush said the polluters would pay if they broke the law and during the past three years the Bush Administration has collected more penalties and sent more violators to jail for longer sentences than in the rest of the EPA's 18-year history combined."

Rioters may be free in Los Angeles, but the Feds are jailing "polluters."

Three men have already served time in federal penitentiary for inadvertent "criminal" violations of wetlands regulations (Ocie Mills, Carrie Mills, and John Pozsgai). The "pollutant" involved was common dirt—the kind found on construction sites and in backyards everywhere.

The fourth person found guilty of crimes against the Earth, Bill Ellen, reported to prison earlier this year. The Department of Justice announced that Ellen's sentence "should send a clear message that environmental criminals will, in fact, go to jail. Those who commit criminal environmental insults will come to learn and appreciate the inside of a federal correctional facility."

But prison cannot serve as a deterrent unless the public learns what behavior is supposed to be deterred. Those who don't want to have to explain to their toddlers why they are going to jail (Bill Ellen has two young sons) had better pay attention to Ellen's crime.

This is what the notorious outlaw did:

1. He accepted a job as a marine and

environmental consultant to oversee the construction of a hunting and conservation preserve. He did so because of his interest in wildlife. For six years, he rehabilitated and returned to the wild nearly 2,000 ducks, geese, loons, egrets, herons, squirrels, songbirds, deer, and other creatures.

2. During the course of the construction, Ellen dared to challenge a bureaucrat's definition of "wetland." He did so because of his contractual obligations, to avoid penalties from the contractors. Ellen argued that the state's head soil scientist, an employee of the Soil Conservation Service, had classified the area in question as an "upland," not a wetland.

3. During the time that the dispute with the bureaucrat was being adjudicated, Ellen allowed his crew to dump *two truckloads of dirt* on the site before shutting down the work completely.

The Supreme Court declined to review the legal aspect of Ellen's case, and he served six months in federal penitentiary for this crime. His wife, Bonnie Ellen, had to do the best she could to shield the children and to keep some aspects of her husband's business going in his absence.

"I have no idea how I can pay all the bills," she said, when her husband was sentenced.

Although he pardoned a number of offenders on Christmas Eve, (including convicted bank robbers and drug dealers), President Bush did not pardon Bill Ellen.

The federal government itself doesn't know what a "wetland" is, and the average citizen has no hope of being able to tell because often a "wetland" looks completely dry.

The most important lesson jailing "ecocriminals" teaches is the necessity for bowing and scraping to the federal bureaucracy, and for the most extreme caution in undertaking any development, even of a wildlife refuge. One mistake, and the bureaucracy has the power to tear the most civic-minded breadwinner away from his family, leaving him to the mercy of the murderers and molesters inside the prison, while his wife and children face a lonely struggle outside. □

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PULLING THE PLUG ON THE REA

by Albert R. Bellerue

Franklin D. Roosevelt created the Rural Electrification Administration (REA) as a temporary government agency on May 11, 1935, by issuing Executive Order No. 7037. The Order was authorized by the Emergency Relief Appropriation Act, which was a general program of unemployment relief.

This relief program authorized the immediate spending of \$100 million to help correct the unemployment problems of the '30s. The Order required that 25 percent of these funds should be spent for labor and 90 percent of the labor should be taken from the relief rolls. This requirement nearly stopped the REA in its tracks, because skilled labor was needed to build electric power systems, and sufficient skilled labor could not be found on the relief rolls.

Morris L. Cooke, former director of Public Works for Philadelphia, was appointed the REA administrator May 20, 1935. As it became evident that REA would not qualify as a relief program under the Executive Order, Cooke, in true political style, launched a lobbying program maintaining that the REA would have to be a loan agency instead of a temporary emergency unemployment relief program.

On August 8, 1935, President Roosevelt issued Regulation No. 4 establishing the REA as a lending agency, which freed it from earlier regulations and gave it authority

to make its own exceptions to any other regulations that might restrict it.

Regulation No. 4 transformed a temporary emergency unemployment relief program into a not-for-profit, taxpayer-supported national lending agency—all by Presidential Executive Order.

According to REA publications, the interest rates charged the electric power cooperatives from 1936 to 1952 ranged from two percent to three percent, approximately equal to the cost of Treasury issues. From 1951 to 1971, a period of 20 years, only two percent interest was charged for these REA loans, whereas the Treasury issues rate increased annually to six percent in 1973, when the REA rate was raised to 3.7 percent. In 1981 and 1982 the REA rate averaged about 4.4 percent while the cost of money to the Treasury Department averaged 12.3 percent. From 1983 through 1991, the REA interest charge was slightly less than five percent while the Treasury rate dropped slowly from 10.8 percent to eight percent. Taxpayers have been forced to fund these subsidies for 58 years.

Following is a chart showing comparisons with the going cost of money (Treasury issues rates) and the taxpayer-supported REA loans rates. Treasury borrowing rates did not exceed REA loan rates until 1952.

That REA loan rates equaled the interest rates paid by the U.S. Treasury until 1952 does not mean that the electrification program was unsubsidized during the early

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**Interest Rate on REA Loans vs.
Cost of Money to the Government**

Fiscal Year	REA Loans Rate*	Treasury Issues Rate**
	Percent	Percent
1936	3.00	2.530
1940	2.69	2.492
1945	2.00	1.718
1950	2.00	1.958
1955	2.00	2.079
1960	2.00	3.449
1965	2.00	3.800
1970	2.00	5.986
1975	4.42	6.533
1980	4.37	9.608
1985	4.99	10.383
1990	4.97	8.843

*Weighted average for loans approved during the year.

**Source: Monthly Statement of the Public Debt of the United States, Department of the Treasury.

years. The taxpayers were forced to underwrite the additional REA costs for federal management of these loans.

Although there is no need to continue this welfare program for roughly one thousand REA cooperatives, taxpayer support continues. Today, according to the REA, 99 percent of the 2.3 million farms in the U.S.A. have electricity. Since 1949, REA has also been making loans for telephones. Today more than 96 percent have phones.

So, what's keeping Congress from getting the taxpayers out from under this unnecessary burden?

Welfare for the Wealthy

On July 5, 1992, CBS News presented its *60 Minutes* feature "Welfare for the Wealthy" wherein Steve Kroft exposed the most recent Rural Electrification Administration boondoggles, clearly not in the best interests of U.S. taxpayers.

Kroft interviewed Harold Hunter, former REA Administrator, who agreed that the REA was a "boondoggle."

Kroft pointed out that the REA made huge loans to several holding companies such as GTE, Century Telephone, ALL-TELL, and TDS. In addition, REA made

low-interest, taxpayer-subsidized loans to ski resorts in Aspen and Vail, Colorado, and to recharge golf carts in Hilton Head, South Carolina. This is nothing new. It has been going on for 30 years or more, and Congress has known all about it and done nothing to correct it. Kroft also informed his viewers that taxpayers are forced to support REA loans on the island of Saipan in Micronesia. REA, in cooperation with the Agency for International Development (A.I.D.), has organized dozens of cooperatives abroad as part of a foreign aid program.

But what can be done? Jim Miller, former Budget Director; Harold Hunter, former REA Administrator; and Roland Vautour, former Undersecretary of Agriculture, all proposed to Congress that the REA be phased out. Congress has taken no action.

Steve Kroft brought out the fact that one of the reasons no Congressman can be found to clean up this mess and save the taxpayers a billion dollars a year is that the REA co-ops have a powerful political lobby for perpetuation of their welfare program.

The lobbyist is the taxpayer-supported National Rural Electric Cooperative Alliance (NRECA), the powerful national union of REA co-ops. There is no Congressman brave enough to support the taxpayer against this union that can bring some 1,000 co-op members to Washington.

John Becker, former manager of the Wisconsin Development Authority, recalled a conversation he had in the '40s with Robert B. Craig, an REA Administrator and acknowledged father of the NRECA.

Craig told him that in the NRECA, "We will have one million members which means four million votes. Further we will have manufacturers doing millions of dollars worth of business with us, and during the campaign we can raise lots of money for our friends from these sources. . . . [W]ith four million votes and several hundred thousand in campaign funds, *we will maintain in public offices enough friends that even the devil himself can't hurt us.*"

The REA has cost the American taxpayers billions of dollars. Perhaps it's time to pull the plug. □

IN PRAISE OF BILLBOARDS

by Lawrence Person

I recently took a car trip from central Texas to northern Virginia. Though my journey was of an entirely practical nature (two straight days of driving, with no time for sightseeing), it gave me a new appreciation for something I had not really given much thought to: billboards. Despite the scathing criticism heaped upon them for aesthetic reasons, billboards are actually possessed of a number of unsung virtues.

First of all, billboards are a valuable source of information, especially when you're making a long trip through an unfamiliar area. If it's getting near lunchtime, and I see a sign that says "McArches—30 miles," then I have more information on how and when to plan my stops. Likewise, if I am starting to run low on gas, a sign for Texxon might tell me not only how far ahead the station is, but whether it has a mechanic on duty, the best way to get there, and so forth. Finally, if I'm starting to get sleepy, a billboard can tell me how far to the next motel, and what it might be charging for a room. As a consumer, every piece of information I have helps me make better choices.

Some states have a government substitute for billboards: signs with little metal plates bearing the establishment's logo, dis-

tance-to-information, and which exit to take. Like most state-owned substitutes, their usefulness falls far short of the real thing. For one thing, these little signs don't tell you the prices of a room for the night, a gallon of unleaded, or a large order of fries. For another, they don't give you all the other information a business might provide on their billboard: *Homebaked Cookies! Air Conditioning! A Toledo Mudhens Collector's Glass with Every Purchase!*

Despite these many virtues, you almost never hear a kindly word for billboards. Critics charge they're "sight pollution," as though they emit cancer-causing agents that infect the body via the optic nerve. These same critics go on to charge that billboards clutter up the natural landscape, and, above all, are inferior to trees.

The poet Ogden Nash wrote:

*I think that I shall never see
A billboard lovely as a tree.
Indeed, unless the billboards fall
I'll never see a tree at all.*

Fair enough. Such critics are, after all, entitled to their opinion. There are a lot of things I might personally label "sight pollution," including those hideous modern art sculptures that seem to spring up like giant metal weeds in front of every government building. Indeed, between the two I much prefer billboards, especially since they weren't constructed using my tax dol-

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lars. However, there is a big difference between saying something is ugly and saying that it should be regulated or outlawed.

As far as cluttering up the natural landscape goes, there are a lot of things that do that, including houses, cars, highways, and people, but you don't see special-interest groups trying to legislate *them* out of existence. (OK, a few environmentalists *are* trying to outlaw all of the above, including people. However, since people make up the vast majority of the voting population, they haven't made much progress on this front.) I must admit that I, too, think that the average tree is more attractive than the average billboard. Then again, a tree never told me that I could get three Supertacos for 99 cents either. Also, if my trip is any indication, trees are in no danger of disappearing anytime soon. On the way up they outnumbered billboards at least 10,000 to 1.

Aesthetic differences aside, it shouldn't matter whether a billboard is beautiful or ugly: Both are protected by the right of private property. The idea that someone's property rights should be taken away because a handful (or even a majority) of people deem a particular structure "ugly" is absurd.

There is a particularly insidious line of reasoning being marshaled by anti-billboard forces these days. "Because billboards are profitable only because they are placed along major public thoroughfares," goes this argument, "the right of private property does not apply, and thus it is well within a government's right to regulate them out of existence." The implications of such reasoning are truly frightening. This same logic applies to every single business that oper-

ates along any public road, and since the overwhelming majority of roads in the United States are government controlled, the scale of government intervention permissible under such a doctrine is staggering.

Indeed, as long as we're going to have the government enforce aesthetic dictates, it is only a small step from regulating the billboards along a road to regulating the cars on it. In the future, we can expect to see the Good Taste Police handing out tickets to those wretched miscreants whose cars need body work or a new paint job. The scourge of automotive sight pollution *must* be driven off our streets, which means no more purple Cadillacs, custom low-riders, jacked-up pickup trucks, or any other vehicle that fails to conform with the new Government Aesthetics Standards.

In addition to property rights, billboards are also protected by another of our basic freedoms: the right to free speech. In Austin, Texas, there used to be a mural billboard that proclaimed: FREE NELSON MANDELA! While this is an overtly political message, commercial messages on billboards are also expressions of that same right to free speech. The First Amendment makes no distinction between commercial and non-commercial speech, and the message "Two McBurgers—\$1.99" should be no less constitutionally protected than "Free Nelson Mandela."

Finally, billboards can be a source of humor. While driving in Tennessee, I saw a billboard for one particular establishment proudly proclaim: FOOD * GAS * ELVIS COLLECTIBLES. Now there's one thing *no* government sign is *ever* going to tell me! □



OIL DRILLING IN ALASKA

by Sarah Anderson

A large percentage of the two million barrels of oil produced every day in Alaska comes from an area known as the North Slope. The North Slope is on the eastern end of the north coast of Alaska and consists of mostly coastal plains. There are five oil fields currently in production on the North Slope; the biggest of these is Prudhoe Bay, which is also the largest oil field in North America. Another oil field of particular interest is Endicott, located about ten miles northeast of Prudhoe Bay. Endicott is the first continuous, offshore oil-producing field in the Arctic. The field is in fact two man-made islands that require a ten-mile access road and a five-mile causeway connecting the two islands. The other three fields are Kuparek, Lisburne, and Milne Point.

The Prudhoe Bay field encompasses 5,000 acres, and Endicott, the sixth largest oil field in North America, encompasses only 55 acres. It is possible for oil fields to be small because the oil wells themselves are only ten feet square. They are placed immediately next to one another.

The oil is not pumped from the wells but, when the reserve is tapped, the oil flows out under natural pressure. This means that the wells are not only small, but quiet. Modern technology has made it possible to build the oil fields on gravel pads that make a solid foundation for the equipment and insulate the underlying permafrost. Previously, oil

drilling pads had to be big enough to accommodate many reserve pits to hold the waste water and mud from drilling. Now, however, a new technique of pumping the wastes back into the ground eliminates the waste of space, maintains a sub-surface pressure high enough to keep oil flowing, and reduces the possibility of spills on the tundra. If oil is not found directly beneath the well location, the well can be drilled horizontally, again reducing the area of land affected by the oil development.

When the 800-mile trans-Alaskan pipeline was built, temporary access roads were required for construction and maintenance. A breakthrough in road technology has eliminated the need for these gravel roads that leave an impact on the environment. Ocean water is pumped onto the tundra where it freezes to form an ice road from which maintenance can be done during the winter. In the summer these roads melt and leave no trace. Vehicles with huge rubber tires use the roads. Ice roads are also used for oil exploration.

There has long been a controversy between environmentalists and oil companies over whether to allow oil drilling in the Arctic National Wildlife Refuge, commonly referred to as ANWR. To put the size of the ANWR in perspective, keep in mind that Alaska contains 591,000 square miles, or about 378,000,000 acres. The ANWR is five percent of Alaska or 19 million acres. Of these acres, eight percent have been proposed for development, and only one percent would be affected by oil production.

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This means that about 15,000 acres, or .004 percent of Alaska, would be affected. Actual production facilities including roads, drilling pads, living quarters, and pipelines would cover a thousand acres.

At Prudhoe Bay the vast majority of oil spills are small and never leave the gravel pads. All spills are promptly reported to government agencies and thoroughly cleaned up. There are about 250 spills each year, which sounds terrible, but a "spill" includes a single drop of oil. By this standard the average parking lot has more oil spills than that each year. Of those 250 spills, nearly half are zero-to five-gallon spills that never leave the gravel pad. The contaminated gravel is all scooped up and taken to an incinerator where the oil is burned off.

Environmentalists claim that oil drilling affects the wildlife; however, if the drill sites are any indication, most animal populations are not affected or their numbers have risen. Caribou numbers, for example, grew from 3,000 at the beginning of Prudhoe development to 5,500 at the end of development. From there the population steadily increased to its present number of 20,000 animals. A group of about 100 caribou usually winters in the Prudhoe area. The oil producing companies have taken great care to elevate the pipeline or build ramps over it for caribou migration. The only snow goose colony in the United States has also steadily increased from 50 to 180 nests.

Sometimes the oil companies are forced to use expensive means for environmental protection with questionable results. British Petroleum, the company drilling from the Endicott oil field, has been forced to install two breaches in the causeway because environmentalists felt that the Arctic cisco, a fish that spawns in nearby rivers, would not be able to reach them. It seems that many of the fish go around the causeway anyway, but British Petroleum has been very cooperative in trying to reduce the impact on the environment. Even the buildings on Endicott were assembled in Louisiana and then transported whole on a barge all the way to Alaska.

Oil drilling companies take great care to

clean up and revegetate the areas they use. Parts of gravel pads that are not needed anymore are manually shoveled or raked up to reduce damage to the underlying vegetation. Studies have been done on what types of grasses to use to revegetate an area and the oil companies take pride in bringing the tundra back to its original state.

In spite of the fact that environmental effects have been minimal and the amount of land affected is small, environmental groups such as the Audubon Society still strongly oppose drilling in the ANWR. To understand why, consider the following story. In the mid-1970s, oil companies came to the Audubon Society for permission to drill on the Society's Rainey Preserve. They got an emphatic "No!" The oil companies persisted, offering approximately \$2,000,000 a year in royalties. Unsure of the environmental consequences of the drilling, the Audubon Society demanded slant drilling with pads placed outside sensitive areas. The oil companies agreed. The Society demanded expensive, quiet mufflers. The oil companies agreed. The Society required that the oil companies move out during certain times of the year. The oil companies again agreed. As the *Audubon* magazine put it, "There was this timeclock, and when the cranes punched in, the hardhats would have to punch out."

Why the cooperation in the Rainey Preserve but not in the ANWR? Clearly the Audubon Society has a lot to gain from the drilling in the Rainey Preserve, but nothing in the ANWR. The Audubon Society can control what the oil companies do on their own preserves. On the other hand, they have no control over the oil companies when they drill on public land.

On privately owned property, both economic development and protection for the environment can be achieved through negotiation. But in property owned by the government, such negotiation is extremely difficult. Most of the land area in Alaska is locked up by government ownership. To assure that it is both developed and protected, we should consider transferring it to private owners. □

BOOKS

Earth in the Balance

by Al Gore

Boston: Houghton Mifflin, 1992 • 407 pages • \$22.95

Reviewed by Jim Russell

I confess that my mind was too closed to political rhetoric, and my wallet too thinned by involuntary taxation to fork over nearly twenty-three dollars to a then-member of the wealthiest club in America—the U.S. Senate—for a book. My daughter, however, a recently crowned lawyer, purchased Al Gore's *Earth in the Balance* with the reckless abandon of the *nouveau riche*, and gave it to me for my birthday, along with a comment that the author was a man of brilliant intellect, and a pointed remark that "Not all things are subject to economic analysis."

I rightly deduced from that remark what was in store for me, but I read the book anyway because I dearly love my daughter. (She is, regardless of weird ideas on political economy acquired at expensive schools that don't teach classical economics, the best daughter ever entrusted to the blundering care of an unworthy father.) I only read Gore's book because my darling Jenny gave it to me, but I'm glad now that I did.

If I could have but two books to read the rest of my life, one would be the Bible and the other would be Austrian economist Ludwig von Mises' *magnus opus*, *Human Action*. I'd choose the Bible to enlighten me on spiritual matters; *Human Action* on matters economic. Together, these two books can save me from brilliant intellects.

Gore professes to be a Christian. "I am a Baptist," he says. But thanks to Matthew, Mark, and Mises, I am not deceived by Al Gore. I deduce from his book and his voting record in the United States Senate that Vice President Gore is a devout practitioner of statolatry. "The state," wrote Mises, who

coined *statolatry*, "[that] new deity of the dawning age of statolatry, [that] eternal and superhuman institution beyond the reach of human frailties." Jesus said, "Be on your guard against false prophets. . . . You will know them by their deeds" (Matthew 7:15-16).

Gore's votes in the Senate, his deeds, so to speak, by which Jesus said we could know him, reveal much. This is a man who never met a government spending initiative he couldn't approve. The National Taxpayers Union has ranked Senator Gore as the Senate's leading tax-and-spender for the last two years.

Although the author laboriously denies it, *Earth in the Balance* is a cunning warrant for the establishment of the equivalent of world government through "a framework of global agreements that *obligate* all nations to act in concert." Gore proposes a "Global Marshall Plan" incorporating broad governmental powers to save the environment, forcibly taxing and regulating people's lives and restraining individual liberty in the process. A clever polemicist, Gore never refers to the unique attribute of government that imparts to it the illusion of being beyond human frailties: its monopoly on the use of force.

Mises, on the other hand, bluntly depicts the state as "the social apparatus of coercion and compulsion" whose role is "to beat people into submission" to its dictates. Jesus of Nazareth preached the futility of relying on force in the conduct of human affairs, and he taught us how to do without it.

Gore disarmingly argues that resolving the "global ecological crisis" caused by "humankind's assault on the earth" is essentially a spiritual challenge. Whether his moralizing on man's spiritual inadequacies is sincere or sanctimonious, the recommendations embodied in his Global Marshall Plan are entirely material and amenable to economic analysis.

Gore establishes the reality of a crisis primarily by the rhetorical devices of incessant incantation and vivid metaphor. He repetitiously refers to a "grave crisis," "environmental crisis," "ungodly crisis," "deep crisis," "population explosion,"

“catastrophe at hand,” “catastrophe in the making,” “crumbling ecological system,” “ravenous civilization,” “destruction of the earth’s surface,” “garbage imperialism,” “destructive cycle,” “rapidly emerging dilemma,” and “ecological holocaust.”

Gore’s *Earth in the Balance* indicts classical economics and laissez-faire capitalism for the problem of environmental degradation. Why? Because if classical economics can be discredited, environmentalists can safely ignore the economists who warn that their utopian plans won’t work.

Gore pledges to reform his insatiable spending habit. But his sincerity is suspect, for he renounces only one ecologically disastrous government program among the multitude he has long supported. “I myself,” he confesses, “have supported sugar price supports and—until now—have always voted for them without appreciating the full consequence [in damage to the environment] of my vote. . . . I have followed the general rule that I will vote for the established farm programs of others in farm states . . . in return for their votes on behalf of the ones important to my state. . . . But change is possible: I, for one, have decided as I write this book that I can no longer vote in favor of sugarcane subsidies.” Hallelujah! A vote-trading, tax-and-spend junkie is willing to skip one little agricultural fix in order to overdose on a kilo of environmentally correct spending.

Although Gore pays lip service to the contributions of economics and praises laissez-faire capitalism faintly, their demise is his ultimate objective. He endorses “modified free markets.” Of course a slave is a person whose freedom has been modified merely by the addition of shackles. As classical economist Frederic Bastiat pointed out, one cannot be both free and not free at the same time.

Throughout *Earth in the Balance*, Gore confuses economics (a science) with capitalism (a social system), statistics, and accounting. His problems with semantics are not inconsequential and should not necessarily be attributed to ignorance. Mises warned us in *Human Action* that faulty

nomenclature becomes understandable if we realize that pseudo-economists and the politicians who apply it want to prevent people from knowing what the market economy really is. They want to make people believe that all the repulsive manifestations of restrictive government policies are produced by “capitalism.” Blaming economics for environmental degradation, is akin to blaming mathematics for the size of the federal deficit.

In *Human Action* Mises identified two primary causes of environmental degradation; namely, the failure of legislators to fully implement private-property rights; and the propensity of government to limit the liability and indemnification that would otherwise be imposed by the common law on the owners of property. If there is a “global ecological crisis,” and if it is the product of “humankind’s assault on the earth,” the science of human action is the only branch of human knowledge capable of understanding the problem, which is a prerequisite to avoiding an “ecological holocaust.”

Years before Rachel Carson launched the modern environmental movement with the publication of *Silent Spring* in 1962, Ludwig von Mises had considered the problem of mankind’s abuse of his environment, identified the etiology of environmental degradation, and prescribed the only practical defense against “humankind’s assault on the earth.” If Al Gore sincerely cared about the environment he would repudiate his plan to spend vast sums of other people’s money and embrace classical economics and laissez-faire capitalism as the keys to environmental salvation.

Preservation of Earth cannot be entrusted to any government—not the U.S., not the U.N., nor to any supranational coalition. To put the matter in perspective: Would you trust the people who gave you the post office, the House Bank scandal, the savings and loan debacle, and the national debt with the survival of the human race?

If Earth is in the balance, let us not entrust it to the wisdom of governments. □

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Environmental Politics: Public Costs, Private Rewards

Edited by Michael S. Greve and Fred L. Smith, Jr.

Praeger Publishers, 1992 • 212 pages • \$19.95

Reviewed by Brian Doherty

The old rationales for central control of the economy have suffered a crippling blow at the hands of history and economic logic. Socialism has proven neither more rational, more efficient, nor more humane than the free market. But could it be more environmentally sound?

This book is edited by Michael S. Greve, the founder and executive director of the Center for Individual Rights, a public interest law firm, and Fred L. Smith, Jr., the founder and president of the Competitive Enterprise Institute (CEI), a free market think tank. It attempts to lay the groundwork for a scholarly and accessible literature that makes the case that environmental command-and-control policies, even when planned with the best of intentions, are still just a road to serfdom, only paved with green bricks, to use Smith's apposite phrase. The book's contributors include Jonathan H. Adler and Christopher L. Culp of CEI, Marc K. Landy and Mary Hague of Boston College, Daniel F. McInnis of Georgetown University, R. Shep Melnick of Brandeis University, and David Vogel of the University of California at Berkeley. The writers are not all sympathetic to a totally free market approach, but all of them are keen analysts of the problems associated with centralized environmental planning.

There are legal hurdles in the way of sane environmental policy as well as political ones, even though all of its authors don't seem to grasp the most sensible and fair solution. The chapter by political scientists Marc Landy and Mary Hague examines the workings of Superfund, a program designed to clean up abandoned waste dumps. The cost was supposed to be borne by the polluter, which seems sensible and just.

Unfortunately, the Superfund "polluter

pays" principle, in which liability is "strict, joint and several, and retroactive" has led to runaway tort problems where anyone with deep pockets who has any sort of connection, however tenuous, to a site (including "prior owners, users, bankers, insurers, waste generators, and transporters") can be held liable for the entire cleanup cost, even if the site adhered to all legal and known scientific standards at the time. So Superfund cleanup attempts are generally kept tied up in court for years as any party held liable tries to drag as many other associated parties as possible into the liability process. This leads Landy and Hague to the mistaken conclusion that "clearly, it would be fairer and more efficient to simply pay for cleanup from public funds."

But political and legal interference with free markets is not the only problem with the current state of environmental policy. When attempting to regulate "the environment," there are often no markets to corrupt. You can have a market only when there is property to be bought and sold, and air and water pollution involve invasive actions on individuals being performed through an "unowned" medium, a "public good."

The book's final chapter by Fred Smith shines an exploratory light toward an intellectual and political revolution in environmental law that would extend markets and private, voluntary arrangements to even the trickiest of pollution problems.

Smith admits the existence of problems with "tort law which . . . has been almost completely socialized," where "courts often award compensation to parties who have suffered no demonstrable damages while imposing liability on parties who have caused no harm." But the solution lies in the innovations that property rights and markets give incentive to create, not central governmental management. Smith points out that such innovations as fences, locks, fingerprinting, and burglar alarms only developed because of private property rights, and he hypothesizes the development of technologies that would make applying the property paradigm to currently "unowned" resources like endangered species, air, and

water possible. Particularly intriguing is his notion of "chemical fingerprinting, which could identify the culprits responsible for oil spills and toxic dumping."

Neither Smith nor the reader is able to imagine beforehand all the various mechanisms and benefits that would develop spontaneously if we were to try to extend property rights over the current "public" goods of the environment. But *Environmental Politics: Public Costs, Private Rewards* makes clear that ceding all attempts at ending environmental degradation and managing environmental concerns to the government leads to private gain at public expense, and, too often, at the expense of environmental quality. □

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The Heated Debate: Greenhouse Predictions vs. Climate Reality

by Robert C. Balling

Pacific Research Institute, 177 Post St., San Francisco, CA 94108 • 1992 • 250 pages • \$21.95 cloth, \$14.95 paper

Reviewed by John Semmens

Industrialization has allegedly led to increased levels of carbon dioxide (CO₂) from combustion of fossil fuels. Higher amounts of CO₂ have purportedly raised global temperatures. Warmer weather could generate significant changes in our climate. The perception that those changes would be a disaster for the planet has inspired demands for drastic remedies. An example is Vice President Albert Gore's call for a phaseout of the internal combustion engine over the next few decades. Even more desperate are demands that the Industrial Revolution be reversed and mankind returned to a pre-industrial agricultural mode of life.

The author of this book suggests that the call for drastic action is at best premature. Without challenging the premise that CO₂

will double during the next century, he attempts to investigate dispassionately the likely effects. These effects appear to be of a smaller magnitude than many headline-grabbing visions of apocalypse have implied. Further, it is not at all clear that the impacts would, on balance, be negative.

For starters, the global warming experienced since the beginnings of industrialization is less than would have been predicted by the same models that are now being used to predict future disaster. This suggests that the link between CO₂ and climate is more complex than many doomsayers acknowledge. Taking this historical record into account, the most probable increase in global temperature over the next century is less than two degrees Fahrenheit. This will not be sufficient to melt polar ice caps and inundate coastal cities as many have feared.

Most of the temperature rise will occur at night, during the winter, and at higher latitudes. In many ways, this pattern of warming would actually be beneficial. The increase in nighttime temperatures will reduce the spread between daily high and low temperatures. This decreases thermal stress on vegetation. Plants would be more likely to survive and thrive under such conditions. This would mean a longer frost-free growing season in many locations. A correspondingly larger agricultural output could be expected. This would lower the cost of food and fiber, mitigating poverty for large segments of the world's population.

It seems more likely that further economic progress would hold forth more hope for averting environmental disaster. It is progress that has improved energy efficiency. It is progress that is enabling improved communication of information.

If the economic growth that naturally flows from economic freedom can continue to fuel technology, the next couple of generations of human beings will probably have many more attractive options for dealing with the world they inherit. □

John Semmens has been a frequent contributor to The Freeman.

If there's moral validity to free-market economics, why do so many clergy fail to understand it?

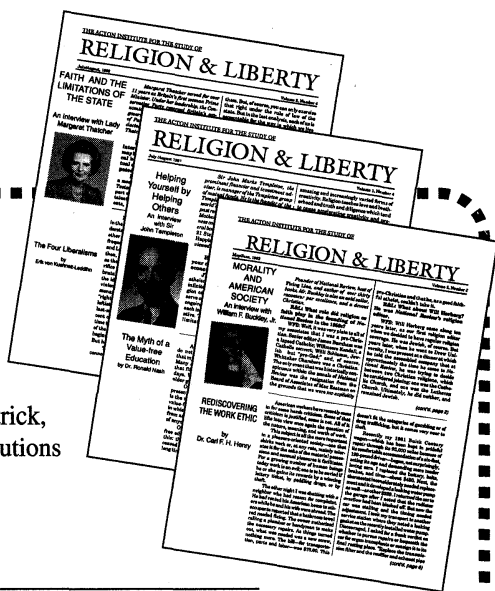


A study of theological and seminary faculty conducted by the Roper Center in 1982 revealed that 37% of the respondents felt "the United States would be better off if it moved toward socialism." Nearly half of them favored the redistribution of wealth (as opposed to its creation) as a better way to meet the needs of the poor.

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