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The Green Thumb Of Capitalism

The Environmental Benefits Of Sustainable Growth

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WILLIAM K. REILLY

Murmurs of agreement rippled through the business world last year when the new chairman of Du Pont, Edgar S. Woolard, declared himself to be the company's "chief environmental officer." "Our continued existence as a leading manufacturer," he said, "requires that we excel in environmental performance."

Ed Woolard has plenty of company these days. The sight of CEOs wrapped in green, embracing concepts such as "pollution prevention" and "waste minimization," is becoming almost commonplace. Businessmen increasingly are acknowledging the value, to their profit margins and to the economy as a whole, of environmentally sound business practices—reducing emissions, preventing waste, conserving energy and resources. Government is trying to help by creating market incentives to curb pollution, by encouraging energy efficiency and waste reduction, and by developing flexible, cost-effective regulatory programs. The recognition by business leaders and government that a healthy environment and a healthy economy go together—that in fact, they reinforce each other—reflects a growing awareness throughout society of this profound reality of modern life.

Less has been said or written, however, about the other side of the coin—the environmental benefits of a prosperous, growing economy. Many environmentalists remain ambivalent—and some openly suspicious—about many forms of economic growth and development. Entire industries are viewed as unnecessary or downright illegitimate by a shifting subset of activist, although not mainstream, environmentalist opinion: offshore oil development, animal husbandry, plastics, nuclear energy, surface mining, agribusiness. These skeptics equate growth with pollution, the cavalier depletion of natural resources, the destruction of natural systems, and—more abstractly—the estrangement of humanity from its roots in nature. Studs Terkel's trenchant comment about corporate polluters—"They infect our environment and then make a good buck on the sale of disinfectants"—remains a common attitude among certain activists. At the grass-roots level, conflicts over industrial pollution, waste disposal, and new development tend to erupt with particular intensity and passion. One activist recently put it to me directly: In relation to waste incinerators, he said, "People think we're NIMBYs (Not-In-My-Backyard). But we're not. We're NOPEs (Not-On-Planet-Earth)."

The skepticism of some environmentalists toward growth is grounded in painful experience. Historically, economic expansion has led to the exploitation of natural resources with little or no concern for their renewal. At some levels of population and economic activity the damage from such practices was not readily apparent. But growing populations, demands for higher living standards, and widespread access to the necessities of modern life in economically advanced societies—and even in developing countries that provide raw materials to richer consumers—have created steadily increasing pressures on the environment. These include air and water pollution, urban congestion, the careless disposal of hazardous wastes, the destruction of wildlife, and the degradation of valuable ecosystems. Up to half of the wetlands in the lower 48 states that were here when the first European settlers arrived are gone; and the United States continues to lose 300,000 to 500,000 acres of this ecologically—and economically—productive resource to development every year. Furthermore, the byproducts of rapid industrialization have become so pervasive that they are altering the chemical composition of the planet's atmosphere, depleting stratospheric ozone and adding to atmospheric carbon dioxide.

Economic development based on unsustainable resource use cannot continue indefinitely without endangering the carrying capacity of the planet. Old growth patterns must change—and quickly—if we are to ensure the long-term integrity of the natural systems that sustain life on Earth.

Great Expectations

To achieve *sustainable* growth—growth consistent with the needs and constraints of nature—we need to secure the link between environmental and economic policies at all levels of government and in all sectors of the economy. Harmonizing economic expansion with en-

WILLIAM K. REILLY *is administrator of the U.S. Environmental Protection Agency.*

Reuters/Bettmann

Manila, Philippines. The world's worst pollution problems are in poorer rather than richer countries.

vironmental protection requires a recognition that there are environmental benefits to growth, just as there are economic benefits flowing from healthy natural systems. Most environmentalists realize this, and a growing number are working creatively toward new policies that serve the long-term interests of both the environment and the economy.

How does economic growth benefit the environment?

First, growth raises expectations and creates demands for environmental improvement. As income levels and standards of living rise and people satisfy their basic needs for food, shelter, and clothing, they can afford to pay attention to the quality of their lives and the condition of their habitat. Once the present seems relatively secure, people can focus on the future.

Within our own country, demands for better environmental protection (for example, tighter controls on land development and the creation of new parks) tend to come from property owners, often affluent ones. Homeowners want to guarantee the quality of their surroundings. On the other hand, environmental issues have never ranked high on the agenda of the economically disadvantaged. Even though the urban poor typically experience environmental degradation most directly, the debate proceeds for the most part without their active participation.

The correlation between rising income and environmental concern holds as true among nations as it does among social groups. The industrialized countries with strong economies and high average standards of living tend to spend more time and resources on environmental issues, and thus to be better off environmentally. Between 1973 and 1984, when Japan emerged as a global economic power, it also took significant steps to clean up its historic legacy of pollution; and the energy and raw materials used per unit of Japanese production decreased by an impressive 40 percent. In contrast, the developing nations, mired in poverty and struggling to stay one step ahead of mass starvation, have had little time and even less money to devote to environmental protection. Some of the world's worst and most intractable pollution problems are in the developing world and Eastern Europe.

Recent United Nations data analyzed by the World Resources Institute (WRI) show that the rivers with the highest levels of bacterial contamination, including urban sewage, are in Colombia, India, and Mexico. The WRI also reports consistently higher levels of sulfur dioxide and particulate air pollution in cities in Eastern Europe and the Third World than in most (although not all) of the cities in the developed world. And it is in Third World countries like Brazil, Indonesia, and Colombia that tropical rain forests are being lost at such alarming rates; while in Africa, India, and China, deserts are growing amid ever-worsening water shortages.

As income levels rise, people can afford to pay attention to the quality of their lives and the condition of their habitat.

Growth Lowers Birth Rates

Economic growth can mitigate these resource and environmental pressures in the developing nations in two closely related ways: by reducing poverty, and by helping to stabilize population growth. Many global environmental problems result less from the activities of those supposed villains, the profit-hungry multinational corporations, than from the incremental, cumulative destruction of nature from the actions of many individuals—often the poor trying desperately to eke out a living. These actions range from the rural poor in Latin America clearing land for title, for cattle, or for subsistence farming; to gold miners, electroplaters, and small factories releasing toxic substances into the air and water; to farmers ruining fields and groundwater with excessive applications of pesticides.

In the developing nations especially, the population explosion of the past few decades (developing countries have more than doubled in population just since 1960) has greatly intensified the accumulating pressures on the environment. Even though the *rate* of increase is starting to fall in most of the Third World, population growth in countries such as Mexico, the Philippines, Kenya, Egypt, Indonesia, and Brazil has contributed and will continue to contribute to global degradation, to loss of natural resources, to poverty, and to hunger. Continued rapid population growth will cancel out environmental gains, and offset environmental investments.

One widely acceptable strategy that can make an important contribution to lowering fertility rates is education. The World Bank has drawn attention to the close correlation between education of children—specifically, bringing basic literacy to young girls—and reduction in the birth rate. Economic growth also offers hope for some relief. As countries grow economically, their fertility rates tend to decline; in most developed nations the birthrate has dropped below replacement levels, although it is creeping back up in some countries. Stable populations coupled with economic growth mean rising per capita standards of living. Education and economic development are the surest paths to stabilizing population growth.

A Walk on the Supply Side

The benefits of economic growth just described—higher expectations for environmental quality in the industrialized countries, and reduced resource demands and environmental pressures related to poverty and swelling populations in the developing nations—show up on the demand side of the prosperity/progress equation. But economic expansion contributes on the supply side as well—by generating the financial resources that make environmental improvements possible.

In the United States, for example, economic prosperity has contributed to substantial progress in environmental quality. The gains this country has made in reducing air and water pollution since 1970 are measurable, they are significant, and they are indisputable. In most major categories of air pollution, emissions on a national basis have either leveled off or declined since 1970. And the improvements are even more impressive when compared with where we would be without the controls established in the early 1970s.

Air emissions of particulates went down by 63 percent between 1970 and 1988; the EPA estimates that without controls particulate emissions would be 70 percent higher than current levels. Sulfur dioxide emissions are down 27 percent; without controls, they would be 42 percent higher than they are now. Nitrogen oxide, which is up about 7 percent from 1970 levels, would have increased by 28 percent without controls. Volatile organic chemicals are down 26 percent; without controls, they would be 42 percent higher than today's levels. Carbon monoxide is down 40 percent; without controls, it would be 57 percent higher than current levels. And without controls on lead, particularly the phase-in of unleaded gasoline, lead emissions to the air would be fully 97 percent higher than they are today. Instead, atmospheric lead is down 96 percent from 1970 levels.

Similar, although more localized, gains can be cited with respect to water pollution. In the Great Lakes, thanks to municipal sewage treatment programs, fecal coliform is down, nutrients are down, algae are down, biological oxygen demand is down. Twenty years ago pollution in Lake Erie decimated commercial fishing; now Lake Erie is the largest commercial fishery in the Great Lakes. The Potomac River in Washington, D.C., was so polluted that people who came into contact with it were advised to get an inoculation for tetanus. Now on a warm day the Potomac belongs to the windsurfers.

It cost the American taxpayers, consumers, and businessmen a great deal of money to realize these gains. The direct cost of compliance with federal environmental regulations is now estimated at more than $90 billion a year—about 1.7 percent of gross national product (GNP), the highest level among western industrial nations for which data are available. Yet the United States achieved its remarkable environmental progress during a period when GNP increased by more than 70 percent.

We can learn two important lessons from the U.S. experience of the past two decades. First, our environmental commitments were compatible with economic advancement; the United States is now growing in a qualitatively better, healthier way because we made those commitments. And second, it was not just good luck that substantial environmental progress occurred during a period of economic prosperity. Our healthy economy paid for our environmental gains; economic expansion created the capital to finance superior environmental performance.

Eco-Catastrophe in Eastern Europe

The contrast between the U.S. experience and that of the Soviet Union and Eastern Europe over the past two decades is both stark and illuminating. While the United States prospered and made a start on cleaning up, Poland, Hungary, Romania, East Germany, Czechoslovakia, and the Soviet Union were undergoing an environmental catastrophe that will take many years and hundreds of billions of dollars to correct. In Eastern Europe, whole cities are blackened by thick dust. Chemicals make up a substantial percentage of river flows. Nearly two-thirds of the length of the Vistula, Poland's largest river, is unfit even for industrial use. The Oder

River, which forms most of Poland's border with East Germany, is useless over 80 percent of its length. Parts of Poland, East Germany, and Romania are literally uninhabitable; zones of ecological disaster cover more than a quarter of Poland's land area. Millions of Soviets live in cities with dangerously polluted air. Military gas masks were issued in 1988 to thousands of Ukrainians to protect them from toxic emissions from a meat-processing plant.

The Soviet Union and its former satellites are plagued by premature deaths, high infant mortality rates, chronic lung disorders and other disabling illnesses, and worker absenteeism. The economic drain from these environmental burdens, in terms of disability benefits, health care, and lost productivity is enormous—15 percent or more of GNP, according to one Eastern European minister with whom I spoke.

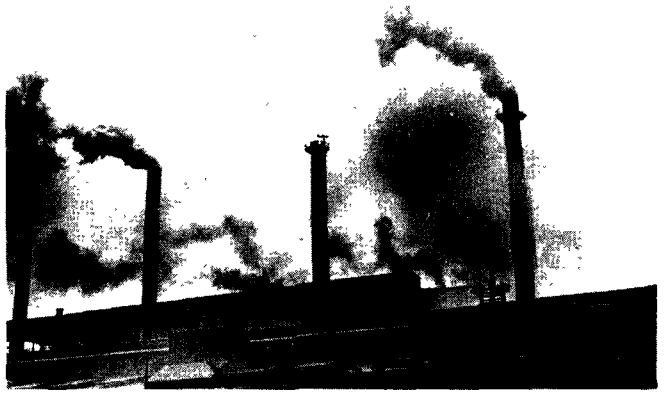
The lifting of the Iron Curtain has revealed to the world that authoritarian, centrally planned societies pose much greater threats to the environment than capitalist democracies. Many environmental principles were undefendable in the absence of private property: Both the factory and the nearby farmland contaminated by its pollution were the property of the state. And the state, without elections, was not subject to popular restraints or reform. Equally important, decisions to forgo environmental controls altogether, in order to foster all-out, no-holds-barred economic development, now can be seen to have done nothing for the economy. The same policies that ravaged the environment also wrecked the economy. There is a good reason that no economic benefits have been identified from all the pollution control costs these nations avoided: Healthy natural systems are a *sine qua non* for all human activity, including economic activity.

What has happened in the United States and Eastern Europe is convincing evidence that in the modern industrial world prosperity is essential for environmental progress. Sustainable economic growth can and must be the engine of environmental improvement; it must pay for the technologies of protection and cleanup.

Cleaner Technologies

The development of cleaner, more environmentally benign technologies clearly makes up a central element in the transition to sustainable patterns of growth. Technology, like growth, can be a mixed blessing. Technological progress has given many of the Earth's people longer, healthier lives, greater mobility, and higher living standards than most would have thought possible just a century ago. Technology has alerted us to environmental concerns such as stratospheric ozone depletion and the buildup of "greenhouse" gases in the atmosphere.

But the adverse consequences to the environment from new technology, while neither intended nor anticipated, have also been significant. Twentieth-century industrial and transportation technologies, heavily dependent on fossil fuels for their energy and on nonrenewable mineral and other resources for raw materials, have contributed substantially to today's environmental disruptions. So, too, has the widespread use of certain substances—asbestos, chlorofluorocarbons (CFCs),



UPI/Bettmann

Factories in Czechoslovakia: Centrally planned economies pose much greater threats to the environment than capitalist democracies.

PCBs, a number of synthetic organic chemicals—which have proved to be hazardous to human health or the environment, or both.

But if technological development has caused many of the environmental ills of the past and present, it also has a vital role to play in their cure. This "paradox of technology," as Massachusetts Institute of Technology President Paul Gray calls it, is increasingly accepted by environmentalists and technocrats alike. In fact, some environmentalists and legislators are more inclined to invest faith in technology even than are the captains of industry. Gus Speth, a co-founder of the Natural Resources Defense Council and now president of World Resources Institute, has called for a "new Industrial Revolution" in which "green" technologies are adopted that "facilitate economic growth while sharply reducing the pressures on the natural environment."

I share this enthusiasm for the promise of technology, especially after observing firsthand the truly encouraging results of bioremediation in cleaning up Alaska's Prince William Sound after the Exxon *Valdez* oil spill. When I first saw the full scale of that disaster, my initial thought was: Where are the exotic new technologies, the products of genetic engineering, that can help us clean this up? It was immediately clear that conventional oil spill response technology was overwhelmed.

Not long after the spill, EPA's research and development staff brought together 30 or so scientists to develop a program of bioremediation. This program does not involve any genetically engineered organisms—just applications of nutrients to feed and accelerate the creation of naturally occurring, oil-eating microbes.

Having been to Alaska several times to check on the progress of the cleanup, I've seen what bioremediation can do to minimize the effects of a massive crude oil spill—especially below the surface of the shoreline. Those areas of shoreline that were treated only by washing or scrubbing still have unacceptably high levels of subsurface oil contamination—much higher than the areas treated with nutrients. The success of bioremediation is, in fact, virtually the only good news to result from that tragic oil spill.

Biotechnology also has great potential for many other environmental applications: Last February, I urged biotechnology companies to give a high priority to locat-

Environmental Protection Agency

William K. Reilly at Alaska's Prince William Sound: "My enthusiasm for technology was confirmed by the encouraging results of bioremediation after the Exxon *Valdez* spill."

ing and developing microorganisms that can safely and inexpensively neutralize harmful chemicals at hazardous waste sites, as well as other pollutants in the air and water.

Other technologies, such as space satellites and sensors, increasingly sophisticated environmental monitoring and modeling capabilities, will give us the information base we need to respond appropriately to global atmospheric changes. The recent international agreement to phase-out ozone-depleting CFCs before the end of this century was greatly facilitated by scientific studies of the Antarctic ozone hole and the rapid development of safe substitutes for CFCs. And continued advancements in medical technology and in our understanding of the role of environmental factors in human health will continue to enhance human life expectancy and freedom from disease.

Commuting by Computer

President Bush recently called attention to the environmental and social benefits of a technological advance known as "telecommuting": working from home or a neighborhood center close to home, sending messages and papers back and forth via fax or computer. By giving Americans an attractive alternative to driving, telecommuting helps reduce harmful auto emissions, from smog precursors to carbon dioxide. It also saves energy, relieves traffic congestion, and according to some studies, can even increase productivity by 20 percent or more.

As a fan of face-to-face communication, who believes also that creativity is often stimulated by the chance encounter, I must confess to a bit of skepticism about some of the virtues attributed to telecommuting. But environmentally and economically, it has incontestable appeal. And as congestion grows in many American cities, the appeal of telecommuting will also increase. Recognizing this, the federal government and several states have tried telecommuting in pilot projects; the EPA is among the federal agencies testing the concept at selected locations.

Many other environmentally beneficial technologies are changing for the better the way humans interact with the environment. Miniaturization, fiber optics, and new materials are easing the demand for natural resources. As older plants and equipment wear out, they are replaced by more efficient, less polluting capital stock. The evolution of energy will continue with clean coal technologies and with the commercialization of economically competitive, non-polluting, renewable energy technologies such as photovoltaic solar cells. New self-enclosed industrial processes will prevent toxic substances such as lead and cadmium, which are almost impossible to dispose of safely, from entering the ambient environment. The wise manufacturer is already asking new questions about products—not just how will the product be used, but how will it be disposed, and with what effects?

A Resource Saved Is a Resource Earned

Corporations such as Dow, 3M, Monsanto, Du Pont, Hewlett-Packard, Pratt & Whitney, Union Carbide, and others have curtailed emissions and saved resources through a wide variety of successful pollution-prevention techniques. Dow's Louisiana division, for example, recently designed and installed a vent recovery system to recapture hydrocarbon vapors that were being released as liquid hydrocarbons were loaded into barges. The new system recovers 98 percent of the vaporized hydrocarbons, abating hydrocarbon emissions to the atmosphere by more than 100,000 pounds a year.

As environmentalists have been pointing out for years, a pollutant is simply a resource out of place. By taking advantage of opportunities for pollution prevention, companies not only can protect the environment, they can save resources and thus enhance productivity and U.S. competitiveness in an increasingly demanding international market.

Accordingly, the EPA has made the encouragement of pollution prevention one of its leading priorities. At the same time, the administration is pursuing an innovative regulatory approach that builds on traditional command-and-control programs with economic incentives to harness the dynamics of the marketplace on behalf of the environment. By engaging the market in environmental protection, we can send the kind of signals to the economy that will encourage cleaner industrial processes and the wise stewardship of natural resources. The Department of Energy is involved as well; DOE is placing heavy emphasis on increasing energy efficiency and the commercialization of renewable energy technologies.

These governmental efforts are badly needed because the development of environmentally and economically beneficial new technology has been slowed by the high cost of capital in the United States—a direct consequence of the immense federal budget deficit. The

deficit drives up interest rates, slows the pace of economic expansion, and discourages modernization and other environmentally friendly investments. While there are many reasons to bring the federal deficit under control, the need to free capital for environmental investments is certainly an important one.

Deficit spending is, unfortunately, not the only government policy inhibiting environmental improvement. A wide range of regulatory requirements and subsidies, in the United States and in many other countries, lead to market distortions that encourage inefficiencies while promoting the unsustainable use of timber, water, cropland, and other resources. The Foundation for Research on Economics and the Environment (FREE), a free-market think tank based in Seattle, Washington, and Bozeman, Montana, has done pioneering work in the field of "New Resource Economics"; FREE argues that hundreds of millions of dollars could be saved and much environmental damage avoided every year by discontinuing subsidized clear-cutting in national forests and by curtailing heavily subsidized water development projects. For similar reasons, the Reagan administration opposed development on coastal barrier islands, which required heavy subsidies for bridges, flood insurance, and seawalls, and also exposed taxpayers to the costs of disaster relief when the inevitable hurricanes devastated the fragile handiwork of human beings.

Accounting for Pollution

One important step toward achieving greater harmony between economic and environmental policies would be for the government to consider seriously some long-overdue changes in the way the nation's economic health and prosperity are evaluated. As environmentalists and economists at think tanks like Resources for the Future have been pointing out for years, traditional economic accounting systems such as GNP and NNP (net national product) are poor measures of overall national well-being. They ignore or undervalue many nonmarket factors that add immeasurably to our quality of life: clean air and water, unspoiled natural landscapes, wilderness, wildlife in its natural setting. President Bush's Clean Air Act proposals for curtailing sulfur dioxide emissions, which are precursors of acid rain, will significantly improve visibility in the northeastern United States. People literally will be able to see farther. But we have not yet found a way to put a price tag on a scenic vista.

At the same time, GNP and NNP fail to discount from national income accounts the environmental costs of production and disposal, or the depletion of valuable natural capital such as lost cropland and degraded wetlands. The Exxon *Valdez* oil spill, a terrible environmental disaster, shows up as a *gain* in GNP because of all the goods and services expended in the clean-up. Without a realistic measure of national welfare, it is difficult to pursue policies that promote healthy, sustainable growth—growth that draws on the interest on stocks of renewable natural capital—in place of policies that contribute to the depletion of the capital itself.

The effort to develop a more comprehensive measure of national welfare should be just one part of an overall national strategy to achieve environmentally sound, sustainable economic growth. Such a strategy should be based on two fundamental premises:

First, economic growth confers many benefits, environmental and otherwise. Growth provides jobs, economic stability, and the opportunity for environmental and social progress. Only through economic growth can the people of the world, and especially the poor and hungry, realize their legitimate aspirations for security and economic betterment. And second, not all growth is "good" growth. What the world needs is healthy, sustainable, "green" growth: growth informed by the insights of ecology and wise natural resource management, growth guided by what President Bush refers to as an ethic of "global stewardship."

At the recent White House conference on global climate change, the president said, "Strong economies allow nations to fulfill the obligations of stewardship. And environmental stewardship is crucial to sustaining strong economies....True global stewardship will be achieved...through more informed, more efficient, and cleaner growth."

A "Good Growth" Strategy

Good growth means greater emphasis on conservation, greater efficiency in resource use, and greater use of renewables and recycling. Good growth unifies environmental, social, and economic concerns, and stresses the responsibility of all individuals to sustain a healthy relationship with nature.

Good growth enhances productivity and international competitiveness and makes possible a rising standard of living for everyone, without damaging the environment. It encourages broader, more integrated, longer-term policy-making. It anticipates environmental problems rather than reacting to the crisis of the moment.

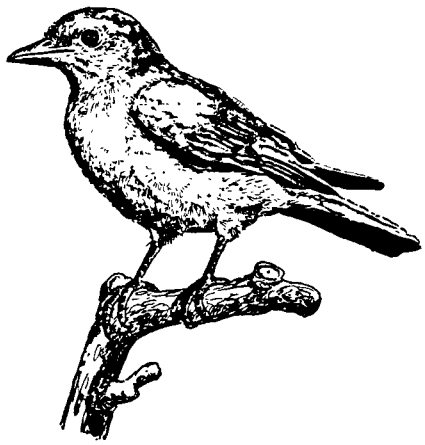
Good growth recognizes that increased production and consumption are not ends in themselves, but means to an end—the end being healthier, more secure, more humane, and more fulfilling lives for all humanity. Good growth is about more than simply refraining from inflicting harm on natural systems. It has an ethical, even spiritual dimension. Having more, using more, does not in the final scheme of things equate to being more.

Economic expansion provided the resources for America's recent environmental gains—such as the return of fish to Lake Erie.

Good growth can illuminate the path to a sustainable society—a society in which we fulfill our ethical obligations to be good stewards of the planet and responsible trustees of our legacy to future generations.

Letters from Readers and Administrator Reilly's Response

--Winter 1990



Public Choice on "Good" Growth

Dear Sir:

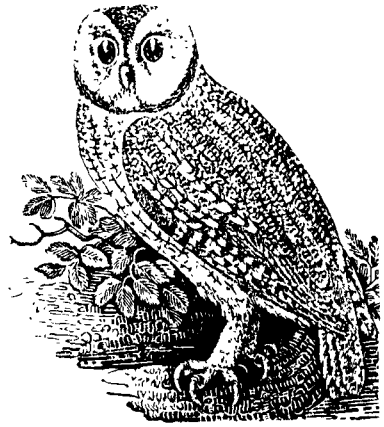
It was not long ago that virtually all environmental policy discussions were cast in terms of economic growth versus the environment. Government was viewed as the sole protector of ecology. This paradigm was shared by Republicans and Democrats alike. Even the Reagan administration, while enacting different governmental policies, was largely influenced by this view and offered no consistent, fundamentally different alternative. However, limitations of this traditional approach are increasingly obvious. It is therefore essential that we incorporate markets and property rights into environmental policy. To that extent, it was refreshing to read William K. Reilly's article "The Green Thumb of Capitalism" (Fall 1990) with its reference to markets, economic growth, and ecological harmony. As Environmental Protection Agency administrator, he is in an important position to develop and test new paradigms. However, I hope this is only the beginning and that he will push harder, refine his model, and resolve certain ambiguities and internal inconsistencies.

What Are Markets Anyway?

Mr. Reilly's article suffers from ambiguity about just what markets are and how they work. Implicit throughout the article is the assumption that properly "motivated" markets will wisely exercise sufficient knowledge to channel resources and dollars to environmentally desirable goals. This of course rests on the assumption that adequate information will be available to market motivators to enable them to make the right choices. However, information is inherently costly and diffuse, rendering it virtually impossible for these market motivators to make anything close to a consistently informed decision, even if armed with Mr. Reilly's "new realistic measure of national welfare." Markets, on the other hand, deal with information problems very directly through pricing, and reflect the countless decisions consumers and producers make throughout an interdependent economy. By their very nature, markets are not static. In their resilience lies the greatest hope for the kind of technological adaptations that Mr. Reilly applauds.

Mr. Reilly's failure to recognize the information problem is exacerbated exponentially by the failure to address the public choice problems that plague his approach. Simply put, who will decide what is "good growth" as he describes it? Who will reconcile competing environmental, social, and economic concerns while anticipating environmental problems rather than reacting to the crisis of the moment? Is it conceivable that the bureaucratic regulatory and enforcement apparatus necessary for such ecologically directed economic policy would be immune from rent-seeking, budget-maximizing, inefficiency, and coercion? If so, it would be a unique experience in all of public choice scholarship. If not, then it is incumbent upon Mr. Reilly to recognize and address issues that could profoundly affect his proposal.

Forging new environmental policy that takes advantage of what



markets and property rights have to offer is a difficult challenge. Members of the environmental and free-market communities must work through each other's legitimate concerns and recommendations. It will take a great deal more debate and discussion, which I hope Mr. Reilly's article will foster.

William H. Mellor III
President
Pacific Research Institute
San Francisco, CA

The Incredible Expanding EPA

Dear Sir:

William K. Reilly comes not to praise capitalism, but to bury it. In his recent article "The Green Thumb of Capitalism," EPA Administrator Reilly demonstrates that he is one of the smoothest political operators in the Republican Party. He can implement the most extreme forms of centralized command-and-control regulations and still coo that he believes in free markets. He can argue that he

believes in private property rights even as he works behind the scenes to weaken the Fifth Amendment's prohibition against uncompensated governmental takings of property. He can state his support for a strong economy even as he pushes for billions of dollars in unnecessary costs for industry under the new Clean Air Act amendments.

The Environmental Protection Agency that Bill Reilly heads is aggressively seeking to establish itself as coordinator of a new National Industrial Policy. Reilly's attitude is that of most "moderate" Republicans: central control of the economy is acceptable so long as I am at the center.

The 20-year recipe for the EPA is a stew of occasional successes, heavily seasoned by major failures and the excessive costs of overregulation. The trends toward environmental improvement—whether air, water, or habitat quality—have not accelerated since the EPA was created and huge sums have been wasted. Consider just a few examples. The EPA asbestos program has increased the previously tiny risk to children and teachers in school buildings with asbestos removal activities. The asbestos program developed by EPA would cost more than $150 billion to implement—about the cost of the savings and loan debacle. With such astronomical costs threatening to bankrupt most of the school systems in America, Reilly announced that the past several years of EPA asbestos-bashing were misinterpreted by an overreacting public. But despite the evidence, EPA plans to completely ban asbestos anyway.

Alar Hype

EPA's methods for testing the cancer-causing potential of trace chemicals in the environment are worse than useless. They actually panic citizens into unhealthy behavior. Consider EPA's capitulation to the absurd propaganda from radical environmentalists about a cancer risk to children from residual amounts of Alar on apples. Despite the evidence, EPA banned Alar.

EPA's "devotion" to private property rights is revealed by its efforts to redefine "wetlands" so as to place millions of acres of (dry!) farms and ranches under its bureaucratic thumb. Similarly, Reilly personally opposes passage of a bill by Senator Steve Symms of Idaho that is nothing more than a reiteration of every citizen's rights under the Fifth Amendment to the Constitution. Before he joined EPA, Reilly called the Fifth Amendment's protection of private property rights an 18th-century anachronism.

Reilly's EPA consistently downplays the sunk costs of existing equipment and demands installation of the latest technology. He would mandate specific levels of energy efficiency in every light bulb, appliance, automobile, and utility. Reilly insists that the savings are universal, yet for some reason they would not be adopted without federal coercion.

The EPA has become more effective at expanding its bureaucratic turf than at protecting either the environment or public health. Reilly misses no opportunity to enlarge the federal estate at the expense of the economy and the tax-paying consumer. In William Reilly's environmentalism the only safe jobs are those of the federal regulators. The best thing that can be said about Bill Reilly is that, like the president he so closely resembles, he will be a one-termer.

Kent Jeffreys
Director of Environmental Studies
Competitive Enterprise Institute
Washington, DC

Who will decide what is "good growth" as Reilly describes it? Who will reconcile competing environmental, social, and economic concerns while anticipating environmental problems rather than reacting to the crisis of the moment?

—William H. Mellor III

EPA-Induced Asceticism

Dear Sir:

William K. Reilly, in an attempt to assuage conservatives' concerns over his management of environmental policy, has hailed biotechnology and quoted St. Francis of Assisi to prove that he champions capitalist solutions to pollution problems and practices gentle stewardship over our earthly dominion. The Bush administration's actual handling of environmental issues, however, justifies conservatives' anxiety.

Ignoring the conclusions of the $530-million, 10-year-long National Acid Precipitation Assessment Project (NAPAP), the White House and EPA have acceded to liberal Democrats' demands that scrubbers be used on aging Midwest coal-fired power plants. This antiquated technology reduces airborne particulates, but produces tons of sludge for disposal. Had Mr. Reilly and Mr. Bush supported sensible, scientific findings on acid rain, they could have championed giving utility companies 10 additional years to comply with stricter air standards, so that aging, dirty power plants could be replaced with systems featuring modern, clean-burn technologies. By caving in to demands for earlier compliance, Mr. Reilly and Mr. Bush will cost some 15,000 workers in the Midwest their jobs and force Ohioans and others to pay substantially higher rates to heat their homes.

In recent times, Mr. Reilly's EPA has threatened my community, Colorado Springs, with heavy fines because of the quality of our Fountain Creek, a waterway whose level of pollution amounts to, in the

words of one local commentator, a teaspoon of ammonia in a bathtub full of water. The EPA also ordered officials in Pocatello, Idaho to rip up all of the city's sidewalks because the concrete emits hazardous materials—which may cause risk to an individual pedestrian if he stands in one place for 24 hours. Unsuspecting landowners in Virginia and Pennsylvania have been slapped with lawsuits by the EPA for improving their property in areas that Mr. Reilly's henchmen have declared to be wetlands, even though the regions contain no water, no reeds, no waterfowl.

The Resolution Trust Corporation, thanks to Mr. Reilly's bureaucrats, must insure that each property it tries to sell is environmentally pristine. Excessive capitalization standards and falling real estate values, it seems, are not the only obstacles to federal recovery from the savings and loan crisis. Banks and insurance companies may now be held liable by the EPA for any environmental hazards that are discovered on properties that have come into their possession only by default.

If Mr. Reilly's EPA continues its current practices, we all may soon seek comfort from St. Bernard and St. Francis to learn what happiness may be attained by living a life of poverty.

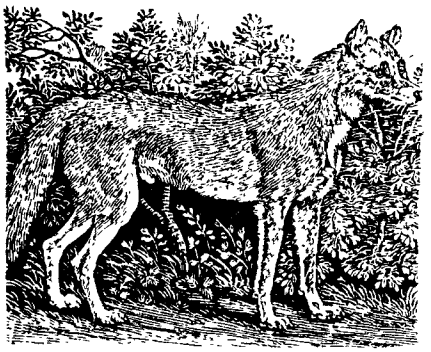
Susan K. Connelly
Colorado Springs, CO

A Wolf in Sheep's Clothing

Dear Sir:

Administrator Reilly, who in a previous incarnation attacked "mainstream attitudes about private property and freedom of action," finds no friends here in the West, notwithstanding his new-found faith in the free-market system. We who are used to dealing with predators can see, beneath the sheep's clothing he creatively labels "sustainable growth," his unchanged and wolfish lust for federal government power. For us, Mr. Reilly's actions and the actions of his agency speak louder than his words.

This is the same Mr. Reilly who within days of taking office heeded demands of national environmental groups and announced he would veto a vital water project for northern Colorado. The project to build a dam and a reservoir was a cooperative effort by 40 local governments—no federal or state money was involved—in which those governments spent $47 million studying the project. They agreed to $90 million in "mitigation" measures—including a three-fold increase in wetlands. Mr. Reilly said he would veto the project, and then set about to



find a reason. Mr. Reilly determined that northern Colorado—where average annual rainfall is less than 15 inches—does not need the water project. The EPA solution: buy water from farmers in northern Colorado, essentially dewatering the region and yielding a dramatic loss in wetlands.

Meanwhile, in the guise of protecting "wetlands," Mr. Reilly and his agency have sought to punish those who use their land. Here in Colorado, Mr. Reilly sued two elderly brothers who shored up an existing levee that for 50 years had kept the adjoining Roaring Fork River in its historic channel. The brothers' action was necessary because during spring runoff the Roaring Fork had flooded 40 acres of their ranch, washing away five feet of precious top soil over a two-acre area. Mr. Reilly's EPA is seeking $35 million in fines against the brothers for doing what the law permits them to do—protect their land.

Mr. Reilly's call for "sustainable growth" is especially frightening. Who determines what is "sustainable growth"? The agenda beneath Mr. Reilly's free-market-sounding rhetoric is for even more government control. Anyone who has run the gauntlet of the National Environment Policy Act (NEPA), Endangered Species Act, and Clear Water Act (especially §404) must be in a state of apoplexy over the prospect of proving to the EPA that the growth to result from a proposed action is "sustainable."

Mr. Reilly—who attacks constitutionally protected property rights and consistently advocates more and more government regulation—has not suddenly become an advocate of the free-enterprise system and a proponent of less government regulation. He is merely cloaking his call for ever-increasing government regulation in rhetoric with which he hopes to appeal to us conservatives.

William Perry Pendley
President and Chief Legal Officer
Mountain States Legal Foundation
Denver, CO

Sustainable Decline

Dear Sir:

Mr. Reilly shows acuity in his observation that centrally planned, Soviet-style economies are devastating to the environment, but his myopia is evident in his inability to see the same tendency to "central control" within his own Environmental Protection Agency.

Although he correctly observes the lack of environmental stewardship in controlled socialist economies, he fails to explain why. The citizenry of Eastern Europe, struggling with financial survival, is not inclined to consider environmental cleanup a priority. Industries seeking to function under stifling government control lack the profit incentive and the capital for research and development of innovative technologies that lead to greater efficiency in the use of natural resources. Expenditures for environmental improvement are found at the bottom of budget listings in governments that are functioning near the ragged edge of economic collapse.

Let this be a lesson to us, and particularly to Mr. Reilly.

Total expenditures for environmental programs and regulations at all levels of government in the United States today stand at $141.2 billion, or 2.6 percent of our annual GNP. Expenditures per American household for environmental

cleanup are now estimated to be $2,025 a year.

With recent increases that come in the face of an untouched deficit and a slowing economy, the trick becomes, how to keep the economy growing so that there will continue to be sufficient funds for environmental housekeeping.

Somehow it is hard to be convinced by Mr. Reilly's words of warning about the ill effects of central control while he heads a massive federal agency comfortable in the role of overall environmental authority.

Is this the same Mr. Reilly who supports the president's plan for government to plant a billion trees in the next 10 years while it increasingly ties the hands of the U.S. timber industry (which has more *real* interest in sound forest management than has government)? The Reilly who applauds the reallocation of $250 million for the Land and Water Conservation Fund as well as delays in issuing offshore oil drilling leases in California and Florida, even though this means a half a billion dollars' loss in federal revenues?

Need for Science, Not Politics

Is this the same Mr. Reilly who, in a speech before the American Enterprise Institute last August, admitted that much of his agency's work with asbestos was, at best, riddled with errors and had proved unnecessarily expensive in terms of lives and money? The cost of asbestos removal, estimated at $150 to $200 billion, rivals the savings and loan bailout. This, though Sir Richard Doll of Oxford University, the world's leading epidemiologist, compared the risk from asbestos in buildings to smoking one-half a cigarette in a lifetime.

Mr. Reilly frets that up to half the wetlands that existed when European settlers landed here are now gone. Obviously, many were filled to build homes and factories on solid ground while others were filled to reduce the devastation of insect-borne disease such as encephalitis and malaria. Does he propose that we revert back in time and health?

Sustainable growth has all the resounding ring of the "C" word, "control." Like sustainable agriculture, which raises the price of food and reduces the health effects of good diet, sustainable growth means no rise in the very GNP Mr. Reilly claims he needs to get the environmental job done.

Barbara Keating-Edh
President
Consumer Alert
Modesto, CA

Had Mr. Reilly and Mr. Bush supported sensible, scientific findings on acid rain, they could have given utility companies 10 additional years to comply with stricter air standards. By caving in to demands for earlier compliance, Mr. Reilly and Mr. Bush will cost some 15,000 workers in the Midwest their jobs.

—Susan K. Connelly

More Than Advocacy

Dear Sir:

I am sure your readers were impressed by the sensible views of EPA Administrator William K. Reilly in the Fall 1990 issue. Reilly persuasively argued that economic growth leads to greater protection of the environment.

Lest your readers think that the EPA is actually sympathetic to business, however, they might like to know about the talk that Reilly gave before the National Press Club at about the time your issue reached your readers. It tells a different story.

Ostensibly, the purpose of the speech was to introduce a new initiative to base environmental priorities more on science. However, throughout most of the speech, Reilly emphasized the need for more regulation, more enforcement, and more pressure on business.

For example, Reilly lauded the Clean Air Act's acid rain provisions, and even called them "cost effective." This differs from the assessment of many analysts, including Brookings economist Robert Crandall, who wrote recently in *Journal of Regulation and Social Costs* that "Congress is opting for a policy that costs hundreds of times more than a simple solution which would have a much more immediate effect on the acidity of northeastern lakes and streams." Reilly also praised the toxic-air emission initiative of the act, even though that has been roundly criticized, too. Frederick H. Rueter and Wilbur A. Steger say that even if hazardous air pollutants were totally eliminated from major industrial sources (and that is not considered possible), the annual incidence of cancer would be reduced only minimally, by between 0.035 percent and 0.055 percent.

Command and Control

Reilly cited many regulatory actions during his watch: phasing out asbestos use, reducing exposure to benzene, proposing the cancellation of most uses of the pesticide EBDC, and regulating the volatility of gasoline, among others. Whatever the merits of these activities, they are part of the "command and control" approach to environmental policy that stifles economic growth and directs entrepreneurship into frequently non-productive areas. And in case anyone thinks that regulation will diminish, he noted that he was seeking a 12 percent increase in the EPA's operating fund, and has

already added almost 2,000 staff. In fact, EPA recently received a 9 percent increase in funding.

Superfund is perhaps the EPA's most heavily criticized program, even by environmentalists. Congress has created this $10 billion fund from an industry tax, yet the EPA can't use it effectively to clean up more than a few sites. Now Reilly has announced an "enforcement first" priority that is going to use the powers of the law to force companies to take action.

Enforcement of the law is appropriate, of course, but the flaws of Superfund are egregious, and the liability aspects of the law are among its most unfair. As Reilly's chief enforcement officer, James Strock, has written in the pages of *Policy Review* (Summer 1988), any single disposer of hazardous substances may be held responsible for the cleanup of an entire site, "irrespective of fault, causal link to the environmental harm in question, or the number of additional parties who also may have contributed to the site in question, or the fact that the disposal at issue occurred prior to the passage of Superfund (perhaps even in compliance with then-existing requirements)." Is hounding business under these provisions the proper foundation of EPA policy?

Near the end of the speech, Reilly advocated recycling 25 percent of all solid waste by 1992. Completely contradicting his earlier statement that he wants "sound science" to help establish priorities, he latched on to the popular notion that waste should be recycled rather than incinerated or placed in landfills. Experts know that the "solid waste crisis" is largely a myth, and that recycling, while it has a place, is not inherently better or even always more environmentally benign than other ways of dealing with waste. And when it's the EPA administrator talking, "advocacy" means more than talk—he promised to push recycling through "proposed rules on municipal waste combustors and other initiatives," that is, more command and control.

Jane S. Shaw
Senior Associate
Political Economy Research Center
Bozeman, MT

Free Markets Know Best

Dear Sir:

William K. Reilly is quite right to point out that a healthy environment and a healthy economy go hand in hand. But he misses the mark when he premises his environmental policy on sustainable growth, that is, "growth consistent with the needs and constraints of nature." This goal entails securing "the link between environmental and economic policies at all levels of government and in all sectors of the economy." Such governmental securing, however, is likely to come at tremendous costs to the economy—costs that detract from the health of the environment.

U.S. environmental policy is already based on the command-and-control approach. We don't need more of it under the guise of sustainable growth. The government typically requires specific solutions to environmental problems, giving polluters little leeway or incentive to find more appropriate ways. The Clean Air Act, for example, requires utilities to install scrubbers on smokestacks to reduce sulfur emissions, even though scrubbers are largely ineffective. By requiring a specific "fix," the utilities had no incentive to devise more appropriate technology. In fact, they are hindered from doing so. Why invest money in developing alternatives when the law simply requires scrubbers?

Reilly puts great faith in the marvels of technology largely in response to the advances in bioremediation demonstrated in the Exxon *Valdez* cleanup. He says he has urged biotechnology companies to give a high priority to developing other environmental applications. Urging, however, will likely go unheeded as long as existing regulations stifle incentives for action. Public relations comprise the prime motivation for companies to invest in environmental technology so they can advertise themselves as "green." We need to create incentives for companies to invest in pollution mitigation technology as a routine part of doing business and eliminate incentives that hinder such investments. For example, under Superfund regulations, anyone who has ever been remotely involved with a toxic site can be required to pay the entire cleanup costs. These costs can be assessed on the company's ability to pay, rather than the volume or toxicity of their waste contribution. In contrast, if companies are required to be responsible for their actual contribution, there would be greater incentive to develop and adopt the least-polluting approach.

A Simple Fix

Reilly also relies on technological developments to provide an information base to respond appropriately to environmental problems. Such technology already exists and it is a relatively simple fix—the market. We can foster markets if we allow natural and environmental resources, such as wildlife, to be privately owned. In freely functioning markets, prices reflect changing resource scarcity. When resources become more scarce, their prices go up. Whey they become more abundant, prices go down. These changes occur gradually, giving people abundant time to respond appropriately—all without sophisticated technology. Unfortunately, technology is often used when markets could achieve better results at much less cost. For example, in water-short California, local officials are using expensive mapping technologies to pinpoint people who are using more than their share of water. Appropriate water pricing would be more efficient. If people had to pay the value of water, we'd see fewer water-loving crops, such as alfalfa, and fewer fields flooded with standing water.

Reilly has made an important

contribution in pointing out that economic growth can provide the wealth for investing in environmental protection. Instead of trying to harness and regulate that growth by pursuing the vague concept of "sustainable growth," however, he should recognize and promote the value of the free market for its ability to fuel both strong economies and healthy environmental stewardship.

Jo Kwong
Director of Public Affairs
Atlas Economic Research Foundation
Fairfax, VA

Environment for Everyone

Dear Sir:

It is disheartening to read ideological cliché rather than rationally consistent policy in a statement by the nation's chief environmental policymaker.

Interestingly, like many writers for *Policy Review*, Mr. Reilly shares with the Marxists they revile empirically aberrant economic determinism that prevents fruitful agency initiative. Their sequence of ecologic causation opposes reality. As Reilly notes in one inconsistent moment of clarity, good environmental policy enables good economic policy, not vice versa.

Reilly sees a correlation between rising income (via his brand of economic determinism) and environmental concern.

Union Support

However, the World Resource Institute points to a poll taken in developing countries demonstrating wide-spread concern about the quality of the environment. Large majorities believe that their environments became worse in the past decade and that stronger action should be taken by government. EPA's own polls show the high concerns found among American workers, especially union workers. And a study I conducted (with Ido deGroot) many years ago in Erie County, New York, found that the perception of air pollution *decreased* with rising socioeconomic status.

The largest single voice for our system of national parks was the CIO (Congress of Industrial Organizations). The first national organization to call a national meeting in defense of the air we must all breathe was the United Steelworkers of America. The countries whose governments are most militant on issues of the environment are the socialist countries of Scandinavia.

"Environment" is an issue for all the people, and the wisdom of the people is not a captive of ideology.

Sheldon W. Samuels
Industrial Union Department
AFL-CIO
Washington, DC

William K. Reilly replies:

In my September 26 speech to the National Press Club, to which two of your writers refer, I called for a "robust national dialogue" on the nation's environmental agenda. It's encouraging to see this kind of dialogue taking place in the pages of *Policy Review*.

It seems to me that most of the commentary on my article, while discussing a wide range of specific issues ranging from asbestos to Superfund to wetlands protection, suggests a need for more objective, rational standards against which the nation's pursuit of its environmental goals can be measured.

The American people, through their support of environmental legislation at all levels of government over the past 20 years, have made it clear that they expect—indeed, demand—a substantial government role in the protection of public health and safety and the restoration of environmental quality. Thus the EPA's establishment and expansion is less an exercise in bureaucratic empire-building than a reflection of the growth of those public expectations over the last two decades.

Sound Governance

Government clearly has a responsibility to carry out the public's environmental commitments—but sound governance also imposes an obligation to do so in a way that minimizes intrusions into the private sector, assures cost-effectiveness of environmental expenditures, and reduces any negative impact on the nation's economic health. As William Mellor points out, *some* trade-offs among environmental, social, and economic goals are inevitable. In making these trade-offs, government must strive to strike the right chord—protecting human health and the environment on one hand, and ensuring sound, sustainable economic growth on the other. That is the kind of balance the Bush administration insisted upon in its negotiations with Congress on the Clean Air Act, and it will continue to be the guiding principle for our environmental proposals.

The EPA fully recognizes the need to reconcile environmental protection and economic growth. Far from plotting to "control the economy" or to devise a centralized National Industrial Policy (an amusing notion...even if we wanted to, such a scheme is far beyond anything we're capable of pulling off), the agency has been devoting much of its creative energy in recent years to developing flexible, cost-effective new programs to address the increasingly complex environmental problems of the 1990s. These problems, whose sources are often smaller in scale, more widespread and diffuse than the industrial or municipal facilities targeted in the first round of environmental legislation, include acid rain, urban smog and other ambient air pollution; municipal and hazardous wastes; toxic substances in the air and water; pollution of streams, lakes, and groundwater from agricultural and urban runoff; drinking water contamination; ecological concerns such as habitat alteration and destruction, species extinction, and loss of genetic diversity; and global atmospheric disruptions: ozone depletion and climate change.

To come to grips with these vexing problems, the nation's environmental policies are evolving in three fundamental ways:

Harnessing the Market

1) From a traditional reliance on prescriptive, command-and-control regulations to a much stronger emphasis on the use of economic incentives and market forces to achieve environmental gains (the emissions-trading provision of the new Clean Air Act is an example). The command-and-control approach has accomplished a great deal in cleaning up the most obvious and dangerous sources of pollution; and regulatory controls will con-

tinue to play an important role in environmental protection, correcting for the inability of unregulated markets to account for the environmental costs of energy extraction and use and the disposal of industrial products. But we now recognize that by themselves, technology-based regulations are no longer sufficient to get the job done. They are of limited value in dealing with pollution from small, widely scattered sources. And in some cases, as Jo Kwong rightly notes, they can be counterproductive—inhibiting innovation or discouraging regulated industries from going beyond minimum legal requirements. Traditional regulation and enforcement must be supplemented with flexible programs that can harness the power of the marketplace on behalf of the environment.

Nipping Pollution in the Bud

2) From *ex post facto* efforts to control and clean up waste to a strong thrust toward preventing pollution *before* it becomes a problem. Examples include the voluntary efforts by nine major petrochemical manufacturers, undertaken last year at EPA's urging, to reduce toxic air emissions substantially through process changes and materials substitution; and a similar toxic reduction initiative now being pursued with emitters of 17 especially troublesome chemicals nationwide.

Appropriate Intervention

3) From narrowly focused, single-medium (air, water, land) pollution control toward coordinated programs that view all environmental media as a whole, seeking out the most appropriate points and methods of intervention to protect natural systems and to reduce overall exposures to toxic substances from *all* sources and routes of exposure. Two contaminants, dioxin and lead, along with serious pollution problems in the Great Lakes, are being addressed through this multi-media "cluster" approach.

The impetus for these new approaches is a firm belief that environmental policy should, with the resources available, achieve the greatest possible reductions in risk—risk both to human health and to the integrity of productive natural systems. As I said in my speech to the National Press Club in September, risk is a common metric that can help us distinguish the environmental heart attacks and broken bones from indigestion or bruises. Comparative risk assessment is one of the best indicators we have of where we should be directing our resources.

I say this knowing full well that environmental risk assessment remains an inexact science at best, one that must incorporate a great deal of uncertainty. Rarely do we have enough information, to make unequivocal, unambiguous decisions about risk. Most of our conclusions about human health risks, for example, are based on debatable assumptions and projections, which may or may not accurately predict human health effects. But while we often do not have the kind of scientific data we would like, we also do not have the luxury of waiting for this data to arrive before we take action. Based on what we *do* know, the EPA must, and will, take a cautious, protective approach until we are convinced of lesser risk as we learn more about the effects of toxic substances on human cells and ecosystems and the mechanisms by which harm is caused.

Risk Science

As scientific knowledge advances, the EPA is constantly updating its risk assessments; we are insisting that they be subjected to rigorous internal and external peer review; and we are looking for ways to achieve greater consistency in our use of risk assessments across the range of EPA decisionmaking. Furthermore, as the science of risk evolves, we also have an obligation to *share* this new information with the public. The public has the right to know which risks are regarded as serious by the government, and which are not, and why.

Greater reliance on science, then, can help the EPA, the Congress, and the public to establish priorities and allocate resources based on risk. Obviously other important factors go into setting our priorities—public values and perceptions, economic issues—but rigorous science remains our most reliable compass in a turbulent sea of environmental policy. Science can lend much-needed coherence, order, and integrity to the often costly and controversial decisions that must be made.

Economic prosperity and growth are essential to meet the political and social challenges of the 1990s; and so is continued environmental progress. As George C. Eads, chief economist for General Motors, wrote in a recent paper on sustainable development: "To be successful, (environmental) improvements must...keep pace with ...economic growth. The environmental progress of one decade or generation must provide a basis for further progress in the next." I couldn't agree more.