

MUDDLING THROUGH

by Stephen Klaidman

Two weeks into the Middle East War a distraught *Atlanta Constitution* editorial writer declared on a television news broadcast that the Iraqi oil spill in the Persian Gulf had thrown her into "despair." The same day, the *New York Times* and the *Washington Post* published equivocal news stories about a U.S. Environmental Protection Agency (EPA) decision to require an Arizona utility company to spend \$2.3 billion at one power plant to try to eradicate a seasonal blue haze that sometimes obscures views of the Grand Canyon. A week earlier the *Times* and the *Post* carried lengthy reports under sharply conflicting headlines on the cancer risk posed by dioxin. "High Dioxin Levels Linked to Cancer" said the *Times*; "Extensive Study Finds Reduced Dioxin Danger" said the *Post*.

These are the actions of an environmentally conscious but confused nation. Environmentalists are responsible for most of the consciousness and much of the confusion (although there is plenty of blame to pass around). Because it takes a real cancer scare to make Americans buy less-than-perfect-looking apples, and because it will take an imminent threat of floods and parched earth to make them take the greenhouse effect seriously (not to mention the fact that taking such challenges seriously means spending a lot of money), environmentalists have always felt forced to manufacture crises and exaggerate risks to provoke political action. The news media leap on the story in its most dramatic form, rarely clarifying the issues. And so a crisis is born.

It is hardly surprising, therefore, that puzzled Americans have a hard time sorting out serious environmental threats from trivial ones. As EPA surveys regularly demonstrate, Americans misjudge these risks. "The remaining and emerging environmental risks considered most serious by the general public today," an EPA panel reported last year, "are different from those considered most serious by the technical professionals charged with reducing environmental risk." The regulators and scientists stress global warming and the depletion of the ozone layer, the public worries about hazardous waste dumps and groundwater pollution. And in general it is the public's concerns that shape policy.

There is, of course, a vague awareness among the public that environmental choices mean trade-offs: A better view of the Grand Canyon, for example, will mean bigger utility bills for citizens of Arizona. But neither public opinion nor public policy is guided by a comprehensive vision that is consistent with the broader economic and social goals of American society. In a survey conducted by the *New York Times* in 1989, an astonishing 80 percent of those polled agreed with the proposition that "Protecting the environment is so important that requirements and standards cannot be too high, and continuing environmental improvements must be made regardless of cost." *All environmental standards? Regardless of cost?* Such sentiments, in a nation that already spends \$90 billion annually on pollution control, cannot be the product of a rational approach to environmental problems.

Science cannot be relied upon to extricate us from our dilemma over what to do about environmental challenges. Advances in ecology, toxicology, and other fields have contributed to our relatively new-found solicitude toward the Earth. But despite the increasing sophistication of the environmental sciences—including the perfection of highly precise measurement technologies such as gas chromatography—there is much that we do not know. Scientists often alert us to potential risks long before they can quantify and assess them. Uncertainty plagues researchers over a whole range of phenomena: low-level radiation; oil and chemical spills; air pollution (indoor and outdoor); and water pollution (groundwater and drinking water). How does one assess the risks posed by doses of carcinogens measured in parts per billion, or of natural toxins and man-made toxins measured in parts per trillion?

Officials who favor doing nothing more than additional research usually have two imposing allies: inertia and powerful economic interest groups. Environmentalists, on the other hand, must create a sense of urgency to motivate the public and put pressure on policymakers. To do this they create crises, not out of whole cloth, but often based on evidence that is meager, at least by the standards of science. This process does not necessarily lead to bad policy. Indeed, in some cases—global warming comes to mind—it may be the only way to get action in time to make a difference. But this haphazard lurching from crisis to crisis frequently leads to costly errors, and always leaves us woefully ill-informed about the ecological and health issues that confront us. We have become environmentally

aware without developing a true environmental ethic.

Modern environmentalism was born a mere three decades ago when Rachel Carson published *Silent Spring* (1962), an eloquent warning about the destruction wrought by synthetic chemicals such as DDT, Aldrin, Chlordane, and Heptachlor. Carson took aim not only at industry, but at much of the existing conservation movement in America, founded more than a century earlier by the lawyer-legislator-diplomat George Perkins Marsh. Marsh lamented man's destruction of the environment, but he was equally clear about humanity's right to use the Earth for its own purposes. Man, he reminded his readers, is "a power of a higher order than any of the other forms of animated life, which, like him, are nourished at the table of bounteous nature."

Carson attacked this notion head on. "The 'control of nature,'" she declared, "is a phrase conceived in arrogance, born of the Neanderthal Age of biology and philosophy, when it was supposed that nature exists for the convenience of man. The concepts and practices of applied entomology for the most part date from that Stone Age of science. It is our alarming misfortune that so primitive a science has armed itself with the most modern and terrible weapons, and that in turning them against the insects it has also turned them against the earth."

Carson's outrage was deeply felt, but Marsh, too, was motivated by a concern for the environment. The question of whether humankind should assume stewardship of nature, managing it prudently for human

Stephen Klaidman, a former Wilson Center Guest Scholar, is a Fellow at the Kennedy Institute of Ethics at Georgetown University. He has worked as an editor and reporter at the New York Times and Washington Post and as chief editorial writer of the International Herald Tribune. His new book, Health in the Headlines: The Stories Behind the Stories, will be published in June by Oxford University Press.

benefit, as implied by Marsh, or accommodate itself to the Earth's natural order, as Carson believes, is not laid to rest by invective. Marsh's perspective sees humans as paramount and is strongly grounded in scientific evidence and argument. It encourages reasoned debate on the most compelling of all grounds: human self-interest. Carson's argument is nature-centered and polarizing. Even James E. Lovelock, the British scientist who speaks of nature in near-mystical terms in *Gaia: A New Look at Life on Earth* (1979), notes, "When Rachel Carson made us aware of the dangers arising from the mass application of toxic chemicals, she presented her arguments in the manner of an advocate rather than that of a scientist. In other words, she selected the evidence to prove her case."

Lovelock notes that the chemical industry responded to Carson in kind, a response, he wrote, that may have set the pattern of self-serving environmental argument. Industry generally has been refractory, for the unsurprising reason that environmental protection cuts profit margins: Despite the public's professed concern for the environment (see box, p. 80), catalytic converters don't sell cars.

Undoubtedly, good things came out of *Silent Spring*. It awakened the environmental consciousness of the nation and led to controls on DDT and other pesticides and herbicides (some of which, however, turned out to be excessive). But the echoes of Carson's clarion call over these past three decades have drowned out cool discussion and helped prevent us, ironically, from arriving at a meaningful environmental ethic and sensible environmental poli-



Earth Day 1970: Media event?

cies that reflect it. Instead, we lurch from crisis to crisis.

How this happens, and what it costs us, can be appreciated by reviewing three recent "crises": one exaggerated, one virtually an illusion, and one likely all too real.

I

In 1953, when the Hooker Chemical Company turned over its Love Canal property to the Niagara Falls, N.Y., Board of Education for \$1, the canal (by then covered over) held roughly 21,000 tons of chemical wastes, ranging from benzene to trichlorethylene.* The deep, clay-lined waste dump was considered adequate by the standards of the day, but because the board insisted upon building a school on the site, the deed specified that the board would accept all risk and liability. In 1957, despite warnings by Hooker officials, the board also traded land with developers, who built houses in the area.

Over the years, a few people near the

*Much of what follows is drawn from Martin Linsky's excellent account in *How the Press Affects Federal Policymaking* (1986), of which he was co-editor.

AN ENVIRONMENTAL PROGRESS REPORT, 1970-91

Since 1970, the United States has spent some \$700 billion on the war against pollution and billions more in related fields, such as conservation. The results so far are mixed.

AIR Since the 1970 Clean Air Act, emissions of many pollutants have dropped: lead by 96 percent, sulfur dioxide by 28 percent, particulates by 61 percent. But increasing use of automobiles (there was one car for every 2.5 Americans in 1970; one for every 1.7 in 1990) has pushed up emissions of ozone, carbon monoxide, and nitrogen oxides. Some 150 million Americans breathe air considered unhealthy by the EPA, costing an estimated \$40 billion annually in health-care outlays and lost productivity. New on the EPA's most wanted list: "greenhouse" gas carbon dioxide, emissions of which have grown by 1.4 percent annually since 1970, and airborne toxic chemicals.

WATER One of the rallying points for Earth Day 1970, then-dirty and dying Lake Erie has made a rally of its own. As a result of the 1972 Clean Water Act, 400,000 lake acres and 47,000 miles of rivers and streams are cleaner today. Some 8,400 miles of waterways have been added to the National

Wild and Scenic Rivers System's "protected" list, a twelvefold increase. "Non-point" pollution (runoff from streets and farms) and groundwater contamination are a big concern; one study found 46 pesticides in the groundwater of 38 states, tainting the drinking water of half the populace.

TOXICS Cleanup work has begun on only 261 of the approximately 31,000 hazardous waste sites discovered by the EPA as part of the \$8.5 billion Superfund program.

PESTICIDES More worrisome to the EPA than hazardous waste dumps or air pollution, pesticide residues on food have come to public attention, ironically, as a result of the false alarm over Alar. Another concern: Ninety percent of pesticides end up as runoff in waterways. Over four billion pounds of pesticides are sold worldwide each year.

SOLID WASTE Between 1970 and 1988, annual U.S. output of solid waste (i.e.

canal suffered burns, itchy skin, and blisters, and a number of trees mysteriously shrivelled up and died, but little was made of these incidents. Then, in 1976, the *Niagara Gazette* reported that the New York State Department of Environmental Conservation was investigating the canal as a source of a flame retardant called Mirex, which had been found in Lake Ontario fish. From that point, the crisis built rapidly. The *Gazette* jumped on the story (and reporter Michael Brown later helped make it national news with articles in the *Atlantic* and the *New York Times Magazine* in 1979); Representative John LaFalce, the district's congressman, also took up the cause. Both looked for links between Hooker, a suitable corporate villain, and the health complaints of the Love Canal residents. By August 1978, based on tests that revealed the presence of several chemicals in the Love Canal

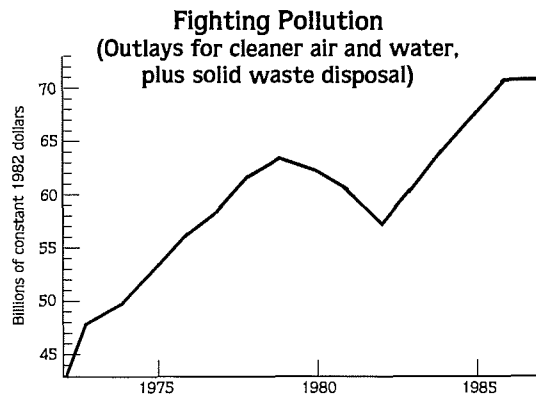
area, state Commissioner of Health Robert Whalen was announcing a "great and imminent peril" to Love Canal residents and recommending the evacuation of pregnant women and very young children from one part of the Love Canal site; President Jimmy Carter designated it an emergency area and Governor Hugh L. Carey announced that the state would buy the houses of 236 Love Canal families. There still were no studies demonstrating any threats to health.

By December 1979, the federal government had filed a \$124.5 million lawsuit against Hooker and local authorities. According to Jeffrey Miller, who headed an EPA hazardous waste task force, the agency launched the suit with two main goals in mind: to get Congress to pass hazardous waste legislation and to get the press off its back for inept handling of hazardous waste

garbage) rose by nearly 25 percent, to 160 million tons, or 1,455 pounds per person. Castoff plastics, up by 14 percent annually since 1960, now account for 20 percent of U.S. waste by volume. Nearly 75 percent of American garbage still ends up in landfills, with half the remainder incinerated and half recycled. Ten U.S. states have mandatory recycling laws; more than 1,000 communities have started curbside pickup programs.

LAND CONSERVATION Since 1970, U.S. national parks have expanded by 50 million acres (up by 167 percent), national wildlife refuges by 60 million acres (up threefold), the national wilderness preservation system by 81 million acres (up ninefold), and national forests by 4 million acres (up 2.2 percent). But most growth occurred during the 1970s and early '80s. Meanwhile, some 300-400,000 acres of wetlands, irreplaceable habitats for many fish, birds, and plants, are lost annually to development.

ENDANGERED SPECIES During the 1980s, 28 American animal species were put on the threatened list, 32 on the endangered list. The number of plant species on the lists jumped from 58 in 1980 to 205 in 1989. Six



species have become extinct in this period, among them Sampson's pearly mussel. Five species have recovered and been removed from the list since 1985, most recently the purple-spined hedgehog cactus.

OZONE DEPLETION In the 1987 Montreal Protocol, the major industrial nations agreed to a 50 percent cut in production of the chlorofluorocarbons (CFCs) that erode the Earth's protective ozone layer. In 1989, the U.S. and other countries vowed to halt all production by the year 2000. Yet CFCs already in the atmosphere will continue to do harm.

problems. The EPA still had no scientific evidence to establish Hooker's liability, so it commissioned a pilot study to look for chromosomal damage. The results seemed to show some deviations, but the study lacked a control population and was not conclusive. Nevertheless, the results wound up, through a leak, on page one of the *New York Times*.

The alarming story unleashed a media blitz—and a quite understandable panic among local residents. At one point, an angry crowd held two EPA officials hostage, demanding action from Washington. On May 21, 1980, the EPA ordered the emergency evacuation of 2,500 Love Canal residents from their homes, and the Carter administration later announced that the state and federal governments would foot the bill for the permanent relocation of more than 400 Love Canal families.

Ultimately, Love Canal cost the taxpayers some \$50 million, not to mention untold anguish. And all, apparently, for naught. Indeed, within a year the *New York Times* ruefully concluded that "it may well turn out that the public suffered less from the chemicals there than from the hysteria generated by flimsy research irresponsibly handled." Later studies by the Centers for Disease Control (1983) and in the *Journal of the American Medical Association* (1984) have shown no elevated levels of chromosomal damage among Love Canal residents compared with other people in the Niagara Falls area. Since cancer has long latency periods, these results are not conclusive either. But to date, little or no scientific evidence has been produced to justify the Love Canal panic. Indeed, several hundred people have moved back to the area, since renamed Black Creek Village.

II

Before Christmas 1983, American farmers used about 20 million pounds of a chemical known as EDB annually to fumigate grain milling machinery and citrus and other crops. There was evidence that EDB was a potent carcinogen in laboratory animals, but none that it caused cancer in humans. Moreover, it was not believed to leave significant residues in fields and orchards that might leach into groundwater. When William Ruckelshaus took over as administrator of the EPA for the second time in 1983 (he had served as its first administrator in 1970-73), however, traces of EDB had been found in groundwater in Georgia and California. This discovery was noted in the appropriate offices at EPA, but did not rise to Ruckelshaus's attention; not, that is, until he went to Florida to spend Christmas with his mother.

The discovery of EDB in Florida groundwater, which Ruckelshaus learned about from local television and newspaper coverage, gave the story a whole new twist. Doyle Conner, the state commissioner of agriculture, was being accused by the *Orlando Sentinel*, the *St. Petersburg Times*, and other Florida newspapers of permitting the pesticide to be injected into the soil in amounts greater than federal standards allowed, raising the specter of groundwater contamination. A diversionary action was needed to get the heat off. So Conner had a few popular supermarket items tested for EDB residues, and lo and behold, they were found. Overnight, EDB was national news.

Between December 21 and December 23, 1983, all three television networks carried stories about EDB in food on their nightly newscasts. On the 21st, NBC anchor Tom Brokaw posed the portentous question: "How dangerous is it?" No one knew, but all three broadcasts showed packages of well-known foods such as Duncan Hines

muffin mixes and Pillsbury cake mixes being removed from supermarket shelves. There was no mistaking the message: This stuff is really bad for you.

Ruckelshaus spent most of the winter dealing with the snowballing panic over EDB, and finally ordered a ban on its use. The ban hamstrung U.S. grain sales to the Soviet Union, which had agreed to buy 7.1 million tons of U.S. wheat and corn in fiscal year 1984; it also hurt several Caribbean nations whose sales of tropical fruits to the United States were compromised. The ban even wreaked havoc on the personal lives of a handful of EPA employees, one of whom suffered a nervous breakdown as a result of the pressure he was under during the storm over EDB. Yet the ban was unnecessary and Ruckelshaus, as he later said in an interview, knew it. There was little or no evidence that it was harmful to humans in the amounts at which they were being exposed to it. Indeed, the most likely replacement for EDB, methyl bromide, was possibly more dangerous than EDB. Why did Ruckelshaus do it? Never mind that no one had proved that trace amounts of EDB in food could cause cancer in humans; no one could prove that they didn't. News media misrepresentation of this uncertainty made enough people deeply fearful that political prudence left the EPA administrator no real choice.

III

This nation, along with the rest of the world, is deeply engaged in what could turn out to be the most important environmental debate in history. And then again, maybe it won't. The debate is over global warming and what, if anything, to do about it. It is not over the greenhouse effect, which is real: Greenhouse gases such as carbon dioxide, meth-

ane, and chlorofluorocarbons do trap heat in Earth's atmosphere and do increase the planet's air temperatures. There is also little doubt among qualified scientists that there will be some global warming eventually, probably in the next five to 10 years. But no one is sure how much temperatures will rise and what effect the increases will have. Predictions range from 1.5 to 4.5 degrees Centigrade. At the low end, effects would be minimal, but the high end leads to some frightening scenarios—flooding of coastal lands, crop-destroying droughts, and massive deforestation. With so much uncertainty about what might happen, and at least an equal amount of uncertainty about how much it will cost to contain the warming, what is a poor policymaker to do?

On June 23, 1988, a bright and socially conscious climatologist named James Hansen decided to lend a hand. Hansen, the director of the National Aeronautics and Space Administration's Goddard Institute for Space Studies, told a U.S. Senate committee chaired by Albert Gore (D-Tenn.) that the mean global temperature had risen by one degree Fahrenheit during the previous century. Moreover, Hansen said that he could say with "a high degree of confidence" that there was "a cause and effect relationship between the greenhouse effect and the observed warming." This circumspect-sounding bit of jargon meant there was now something dramatic for the media to talk about (during what happened to be a particularly tropical summer). Global warming, Hansen had announced to the world, is here, right now. It is not coming in five or 10 years. It

has arrived. Never mind that none of his colleagues agreed.

Hansen's judgment carried more weight because he was cloaked in the garb of the scientist and was speaking as an impartial government expert. According to Richard Kerr, a reporter at *Science* magazine with a Ph.D. in chemical oceanography, "had it not been for Hansen and his fame, few in public office, and certainly not the public itself, would have paid much attention to a problem that everyone . . . agrees threatens social and economic disruption around the globe." In this case a scientist with an environmentalist bent, James Hansen, was the crisis-maker. Time may prove that he was right. The public often responds radically to environmental threats that seem to pose a direct and dramatic threat to individuals—toxic waste dumps in the backyard, Alar on apples, and EDB on oranges—but it sleeps through warnings about threats that seem diffuse and indirect, even if they are ultimately much more serious. Hansen woke us up, and if the greenhouse effect assumes the dimensions many scientists believe it



Some climatologists warned during the 1970s of an impending new Ice Age, which has not helped win great public credibility for their more recent predictions of global warming.

THEORY VERSUS PRACTICE

In opinion surveys, most Americans talk a good pro-environment game. Watch what they do, not what they say, caution editor Joe Schwartz and Thomas Miller, a vice president of the Roper Organization, in American Demographics (Feb. 1991).

Saving the environment is a high priority for most American citizens. But as consumers, most of us are not willing to act on our beliefs. Over three-quarters (78 percent) of adults say that our nation must "make a major effort to improve the quality of our environment," according to a recent study commissioned by S. C. Johnson and Son and conducted by the Roper Organization. But at the same time, most say that individuals can do little, if anything, to help improve the environment.

Public concern about the environment is growing faster than concerns about any other issue monitored by Roper—at least before the Persian Gulf crisis and the softening of the economy. Businesses are tuning into this trend by producing "green" products, services, and advertising campaigns. But banking on environmental awareness can backfire, because the majority of Americans are already convinced that businesses are not environmentally responsible

Americans tend to blame businesses for the environmental problems they see at global, national, and local levels. More than eight in 10 Americans say that industrial pollution is the main reason for our environmental problems, and nearly three-quarters of the public say that the products businesses use in manufacturing also harm the environment. Six in 10 Americans blame businesses for not developing environmentally sound consumer products, and an equal share believes that some technological advancements made by businesses eventually produce unanticipated environmental problems.

Americans blame themselves, too. Seventy percent say that consumers are more interested in convenience than they are in environmentally sound products, and 53 percent admit that consumers are not willing to pay more for safer products.

In theory, almost every American is pro-environment. But the ardent environmental attitudes that come out in opinion polls cool

down significantly when you look at consumer behavior. Perhaps bad-mouthing businesses is easier than making important lifestyle changes and accepting some of the blame.

Consumer behavior usually affects the environment at two points. First, consumers can either buy or reject environmentally unsound products. After the purchase, they affect the environment by either recycling products or sending them to the dump.

At the moment, recycling appears to be the most rapidly growing pro-environmental behavior. Between March 1989 and February 1990, the share of Americans who say they regularly recycle bottles and cans rose from 41 percent to 46 percent, and the share who regularly recycle newspapers rose from 20 percent to 26 percent. Those who sort their trash on a regular basis rose from 14 percent to 24 percent of all adults.

Altruism isn't the only force behind the recycling boom. Many states and municipalities have passed "bottle bills" and other mandatory recycling laws. People may be complying with the new rules and may even be doing more than is required. But in many cases, legislation stimulated their behavioral changes.

More than half of all adults (52 percent) never recycle newspapers. Only 16 percent say they avoid products that come from environmentally irresponsible companies, and just seven percent regularly avoid restaurants that use foam containers. Only eight percent of Americans say they regularly cut down on their driving to protect the environment. More than three-quarters (76 percent) say they just motor on as usual, even though most acknowledge that emissions from private automobiles are a leading cause of air pollution.

Vast majorities of Americans are worried about our environmental future. So far, only a minority have adopted more environmentally responsible lifestyles. But attitudinal changes generally precede behavioral ones. The stage, it seems, is finally set for the "greening of America."

may, we will thank him for it. But time may also make Mr. Hansen a villain.

What makes these three cases typical is that scientists, politicians, and journalists used inconclusive scientific data to advance their own agendas. Our adversarial, interest-group-dominated politics lends itself to this kind of manipulation, as does our commercial news media, whose only consistent bias is for a dramatic, conflict-filled story. (It is this story bias, not any ideological bias, that drives the news media.)

The real failure of the environmental movement has been the extent to which it has contributed—along with industry, Congress, and the news media—to national confusion and misunderstanding about the comparative risks posed by different hazards. Environmentalists would have us believe that many deaths and much illness can be attributed to the nuclear accidents at Three Mile Island, Davis-Besse, and Brown's Ferry, to Love Canal and Times Beach, to living near high-tension power lines, to agricultural chemicals such as DDT, EDB, and Alar. But there is virtually no reliable evidence to support these charges. Environmentalists, along with journalists, portrayed the *Exxon Valdez* oil spill in Prince William Sound as a calamity on the order of a small war. Environmentalists know that there is nothing like 30 seconds of television network news footage of dying, oil-soaked sea gulls and seals to stir the nation's environmental conscience: It was just such disturbing images of an oil spill in Santa Barbara, California in 1969 that helped create the momentum behind the first Earth Day. But apart from the sad drama surrounding creatures in the area at the time, how much long-term damage to ecological systems is done by oil spills? Relatively little. In Prince William Sound, for example, spawning of some fish species

may have been disturbed, but the salmon catch this year set a record.

Environmental advocacy, which is meant to serve the public interest, has gotten out of hand. It is arguable, indeed probably correct, that 20 years ago hyperbole was the only way to make industry and government begin protecting the nation's health and environmental patrimony. In many cases, however, the science has caught up with these exaggerations, resulting in a loss of credibility for environmentalists. Moreover, public interest in the environment today is high. In the 1990s, a more straightforward approach might yield better results. Environmentalists should learn the lessons of Alar and dioxin. They should stick to the facts. They should seek to educate rather than merely alarm the public.

Uncertainty remains the most difficult obstacle to public understanding. For example, a recent study by the Congressional Office of Technology Assessment found that it is possible to reduce carbon dioxide emissions by 35 percent over the next 25 years. Would that slow the onset of global warming? Perhaps. The study also says that the economic effect of this reduction might be anything from a net annual gain of \$20 billion to a net annual expenditure of \$150 billion. How can one respond to expert disagreement of this magnitude?

But where science fails to provide answers—and it often does—a prudent, common-sense calculation of the public interest can lead to a conclusion. It would pay, for example, to reduce carbon dioxide emissions produced by the burning of fossil fuels even if the global warming payoff is minimal because there are sufficient collateral benefits—such as reducing dependence on imported oil. On the other hand, research shows that dioxin, only recently billed as one of the great killers of the 20th century, poses no significant threat at the trace levels of exposure that exist outside

the workplace.

Scientific uncertainty by itself need not paralyze policy. But we are still struggling to develop a real environmental ethic that allows us to confront those very serious problems that don't make good headlines and to confront others before they do become headlines. Certain basic questions must be faced. How much do we care about the environment? Who should pay the costs of addressing our concerns? How much? Take the blue haze over the Grand Canyon. It's not clear how much of it is caused by emissions from the Navajo Generating Station. But even if most of it is, is the removal of the haze worth the price? Should the operators of the plant bear the full \$2.3 billion cost? Should a decision of this kind be made by administrative fiat? Should the utility be allowed to pass on to its customers any or all of the cost? Should the general public share the cost?

The fact that 80 percent of those answering the *New York Times* poll of 1989 said that no price is too great to pay in the name of environmental quality shows that we have yet to confront such questions. Our approach now recalls an old slogan with many painful associations: We are saying that we are willing to pay any price and to bear any burden for the environment. That is not a serious position at a time when, for example, \$70 billion will be needed over the next 30 years simply to repair leaking underground storage tanks nationwide. Increasingly, we will need to put aside our anxieties over such high-profile but relatively trivial risks as Alar and EDB and begin to take cognizance of such submerged—not only literally but figuratively—threats as the storage tanks. This

falls under the unexciting but essential category, "rational ordering of risks."

There is good reason to doubt, however, whether we are yet capable of such changes. Consider the Navajo Generating Station again. Environmentalists hailed the EPA decision; business decried it. The news media presented the claims and counter-claims of the utility, the government, and the environmentalists, but usually without adequate background to allow intelligent public participation. Traditionally, reporters and editors have maintained that they are not qualified to resolve scientific controversies; the most they say they can do is to give a balanced presentation of what the parties are saying. What is required, however, is not resolution but enough investigation to separate facts and reasonable beliefs from half-truths and misleading constructions, and enough information for a reader or viewer to make an informed judgment.

Biology, epidemiology, ecology, climatology, and other sciences will continue to offer mostly inconclusive answers to questions about environmental risks. And despite years of experience, dozens of mistakes, and a high level of concern, the public remains woefully ignorant about the environment. For better or worse, neither can one expect much change in politics as practiced in the United States. A politics based on compromises hammered out through a televised clash of interests does not encourage environmental statesmanship. For these reasons, despite whatever good intentions we might have, America is likely for the foreseeable future to continue lurching from crisis to crisis.