

# Business and the Environment: Is There More to the Story?

EVIDENCE OF GOOD ENVIRONMENTAL STEWARDSHIP IS MORE EXTENSIVE THAN MOST ECONOMISTS AND EXECUTIVES RECOGNIZE

By Jane S. Shaw



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*Actions taken to improve the environment are frequently good for profits, but many executives, including economists, are not fully aware of just how good business's environmental record is. As a result, they often have difficulty responding to critics. This article will present three major points: 1) the environment of the United States is much improved over the past several decades, and business's pursuit of profits has been an important factor; 2) the public's information about business and*

*the environment is poor; and 3) this faulty information fosters the impression that business is evading its responsibilities.*

“**I**f there were an international tribunal that prosecuted crimes against the planet, like the one in The Hague that deals with crimes against humanity, what is happening on the Cumberland Plateau in eastern Tennessee would undoubtedly be indictable. . . . About 200,000 acres on this tableland have already been clear-cut by the paper industry, and the cutting continues” (Shoumatoff, 2003, p.15).

This quote comes from an article, “The Tennessee Tree Massacre,” published by the Natural Resources Defense Council. Business economists are probably used to hearing criticism of business's environmental record, although language like this may be a bit over the top. Such magazine articles—plus movies such as *Erin Brockovich*, which blames a power company for community deaths, and newspaper articles alleging that industrial toxins are endocrine disruptors—all carry the message that business is an irresponsible steward. Most people would not dispatch executives to The Hague, but many do resent American industry for not doing more to protect the environment.

Is there truth to this charge? Certainly, there are bad actors in business, as everywhere. But, on balance, the

story is much more positive than we often see, whether in the media, in textbooks, or among environmental groups.

To business executives themselves, a record of environmental improvement should not be surprising. Actions taken to improve the environment are frequently good for profits. Duncan Meldrum, Chief Economist of Air Products and Chemicals, Inc. and President of the National Association for Business Economics (NABE) in 2003-2004, points out that even when an action to mitigate environmental damage “looks like a pretty weak investment on a direct financial return basis,” benefits can range from lower insurance rates to higher productivity and improved products.<sup>1</sup> Furthermore, Meldrum suggests, proactive environmental programs help companies find the best way to solve a problem—before regulators impose an expensive technical solution that isn’t really appropriate.

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In spite of this implicit understanding in the business community, however, it is my contention that many executives, including economists, are not fully aware of just how good business’s environmental record is. As a result, it is sometimes difficult for them to respond to hostile critics. In addressing the environmental record, I would like to present three major points. One is that the state of the U.S. environment has improved significantly, and business’s pursuit of profits has been an important factor. The second is that the quality of the public’s information about business and the environment is poor. The third is that this lack of information fosters unrealistic ideas that give the impression that business is evading its responsibilities. In conclusion, I will return to the “Tennessee Tree Massacre.”

### **Environmental Quality Improves**

Over time, environmental quality has improved dramatically in market-driven developed countries such as the United States. The environment is also better in such countries than in less-developed countries, including formerly communist countries. Although the terms “improved” and “better” are subjective, quantifiable measures support this claim. In the United States, the level of contamination in the air falls year by year (Hayward and Schwartz, 2004, citing Environmental Protection Agency data); in fact, the air

has been improving in major cities such as Pittsburgh, New York, and Chicago since before the Second World War (Goklany, 1999, p. 32). We have more trees in our forests than we had in 1920 (MacCleery, 1992, p. 1), and wildlife has rebounded to the point where bears and mountain lions have reappeared at the edges of cities (Clayton, 2004, citing Department of Agriculture data). In spite of concerns raised about urban sprawl, the total footprint of development—buildings, roads, and military bases—remains less than five percent of the nation’s territory (Hayward, 2000, p. 9).

Threats remain, of course. Perhaps the most talked-about anxiety is the fear that world temperatures may rise precipitously. Whether severe global warming will materialize is far from certain; but if the threat grows, business is likely to develop the tools to address it.

The relatively benign environment that surrounds us in the United States stands in sharp contrast to the state of the environment in developing countries. In 1990, James R. Dunn and John E. Kenney (1996) compared two lists of environmental problems, one covering the United States, one covering Africa.

The U.S. list was based on a poll of Americans sponsored by the *Wall Street Journal* and NBC. The top ten environmental concerns expressed by those surveyed included (among others) active and abandoned hazardous waste sites, industrial water pollution, occupational exposure to toxic chemicals, oil spills, destruction of the ozone layer, nuclear power plant accidents, radiation from radioactive wastes, and air pollution from factories.

The African list was put together by an Ethiopian geologist. These concerns included diseases such as sleeping sickness, malaria, cholera, typhoid fever, dysentery, and AIDS; soil erosion and nutrient loss; lack of sewage treatment; insufficient drinking water; lack of refrigeration; climatic and rainfall changes; depletion of water resources; loss of wildlife habitat (primarily because of its effect on tourism); and human-caused floods.

As Dunn and Kenney point out, “The U.S. public’s list is actually a media list in the sense that the public must be told about most problems (that is, most citizens do not really see or feel the problems on a daily basis).” In contrast, they observe, “Africa’s environmental problems are Third World megaproblems—noncontroversial, pervasive, and highly visible” (Dunn and Kenney, 1996, p. 114).

As economic growth occurs, broad measures of well-being such as longer life expectancy and access to safe drinking water improve (Goklany, 2001). In addition, more specific measures of environmental conditions show a predictable pattern of improvement after economic growth reaches a certain point. This pattern is now known as the

<sup>1</sup>E-mail correspondence with the author March 4, 2004.

environmental Kuznets curve.<sup>2</sup> Since the early 1990s, economic researchers have compared national incomes with indicators of environmental quality such as levels of sulfur dioxide or smoke in the air. They have found that the relationship forms a curve, sometimes called an inverted J-curve, sometimes an inverted U.

That is, when national incomes are low, air pollution is also low; but when incomes begin to rise, pollution increases initially and then declines. In terms of income, this turning point appears to be at around \$6,700 to \$8,450 in 2003 dollars—although it varies with different environmental indicators (Yandle, Vijayaraghavan, and Bhattarai, 2004; Grossman and Krueger, 1995).

Some people argue that the government was the chief force bringing about environmental improvement. This is the “democracy” explanation, and there is undoubtedly some truth to it. Certainly, the U. S. government responded to the active environmental movement that developed in the late 1960s and 1970s.

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## *Air pollution was declining in the United States long before the Clean Air Act was passed in 1970.*

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Yet air pollution was declining in the United States long before the Clean Air Act was passed in 1970. Paul Portney, president of Resources for the Future, wrote in 1990: “While we must be leery of trends based on such a small number of sites, these data are important because they suggest that air quality was improving as fast or faster before the Clean Air Act than it has since that time” (Portney, 1990, pp. 50-51). Robert Crandall of the Brookings Institution has said that “pollution reduction was more effective in the 1960s, before there was a serious federal policy dealing with stationary sources” (Crandall, 1983, p.19).

Local regulations undoubtedly were a factor. And so was individual initiative. In the first half of the twentieth century, urban families shifted from heating their homes with coal to using cleaner fuels such as oil and then natural gas.

But normal business incentives had a critical role, too. Smoke in the air usually means wasted fuel; and engineers have been trying to save fuel for decades, perhaps even centuries—with increasing success. New technology is critical in the process. To see this vividly, one can compare two cars that appeared after World War II in Germany: the Trabant in the East and the Volkswagen in the West.

<sup>2</sup>The curve is named after Simon Kuznets’ inverted-U-shaped curve relating economic growth and income inequality (Kuznets, 1955, pp. 23-24).

Responding to consumer demand, the Volkswagen was continually updated; and new technology made its engine burn more cleanly. But woe to anyone driving behind a Trabant! The exhaust was ugly and full of oil. Built by a state-owned company, the latest model was designed in 1964. With no improvements in design, it couldn’t go faster than 66 miles per hour, was difficult to handle, and didn’t have a gas gauge. After the Berlin Wall came down and the Trabant was brought to the United States, the Environmental Protection Agency did not allow it to be driven on public roads (Ceppos, 1990).

Profit-seeking businesses want to reduce waste for the sake of the bottom line. That is why aluminum cans get thinner—cans in 1994 used 27 per cent less aluminum than in the 1960s. According to two engineers, each one percent reduction in aluminum saves \$20 million a year (Hosford and Duncan, 1994, p. 48). Prices of metals have dropped in real terms because technology changed—fiber optics as a substitute for copper, for example. The amount of steel in skyscrapers has gone down by 35 percent over two decades (Scarlett and Shaw, 1999, p. 3). All this makes for cleaner, more efficient production with less waste.

Currently, industrial companies are exploring ways to reduce their emissions of carbon dioxide and other greenhouse gases in case global warming should become an overriding danger. Among other technologies, they are studying more efficient combustion; the use of hydrogen and other alternative fuels; and methods of carbon sequestration, which prevents carbon from mixing with the air to form carbon dioxide. Research is being conducted in-house and in cooperative programs with independent researchers. For example, four major companies are sponsoring a ten-year research project at Stanford University to explore such innovative technologies (Stanford University Global Climate and Energy Project, 2004).

### **Misinformation Distorts Impressions**

Those who acknowledge this historical success story may still feel that business is a bad environmental actor. Everyone seems to have a story about environmental harm caused by business’s irresponsibility. Not all these stories are true, however.

One of the most serious misrepresentations is the tale of Love Canal. The alarm aroused by this waste site in Niagara Falls, New York, launched a multi-billion-dollar government program to cleanup hazardous waste sites. This program, known as Superfund, has been so mired in red tape and litigation that President Bill Clinton called it a disaster.

The story of Love Canal is not, in fact, a story of corporate negligence. Love Canal was an old canal. It had never been used for transportation, but it had a clay lining that was

suites to keeping chemicals from leaking. During the 1940s, Hooker Chemical Company used it for disposal of chemicals. Once capacity was reached, the company covered the canal with a clay cap and dirt and landscaped the surface.

As the city of Niagara Falls grew, the city's school board wanted to build a school on part of the Hooker property (not directly over the waste). The school board pressured Hooker to donate the land. Although Hooker at first balked because of the potential liability associated with disruption of the waste site, in 1952 it sold the site for a dollar. Company officials took members of the board to the site, bored a hole, and showed them what was underneath.

The school was built (and some of the clay cap was used for fill dirt for other school sites). Over time, the board apparently forgot about the nature of the chemicals and sold the remaining property to a developer. The city built a sewer, and the state built a highway, damaging the clay walls and cap and creating gravel beds that would allow liquid to seep through. In 1978, chemicals began to leak into people's basements and yards.

The contamination became a major political event. People thought there were hazardous waste "ticking time bombs" all over the country, and Congress responded with Superfund. This law taxed the oil and chemical industries to create a fund for waste-site cleanup. It also allowed the Environmental Protection Agency to set extremely tough cleanup standards and led to the imposition of strict liability that resulted in industrial "brownfields" where no one wants to build.

Today, few people realize that the leakage was caused by the failure of the school board to heed Hooker's warnings. The chemical industry got a black eye, unfairly. We only know the detailed history of Love Canal because Zuesse (1981) dug into it. This account, subsequently featured on a segment of ABC's *Nightline*, has never been refuted. But the public's impression that Hooker was at fault has not been erased.

Another example of misinformation and its impact on the image of business involves acid rain. Acid rain is rain-water that has become acidic (that is, it has more-than-normal hydrogen ions) through human causes. The main sources are electric power plants and automobiles, which introduce nitrogen oxides and sulfur dioxide into the atmosphere.

In the 1970s, acid rain appeared to be causing "dead" lakes in the Adirondack mountains, and many people anticipated an epidemic of environmental deterioration around the country through acidification of lakes and destruction of forests. The number of dead lakes was commonly expected to double in the next ten years. The general public and scientists alike viewed electric power

plants as the chief culprits.

In response, Congress authorized a ten-year, \$500 million program, the National Acid Precipitation Assessment Program (NAPAP). The program involved hundreds of scientists who studied the nature, extent, and impact of acid rain.

Ten years later, NAPAP reported its findings. The study revealed that acid rain may have contributed to the acidity of some small lakes in the Adirondacks and possibly contributed to the decline of some high-altitude red spruce trees in the Northeast (although the trees were subject to other stresses as well). But there was no acid rain epidemic. NAPAP's findings were mild and balanced. It said that its studies "led to a conclusion that is somewhat different from the one originally anticipated. Instead of widespread acidity in U.S. lakes and streams, acidic surface waters are concentrated in specific regions and, in some regions, future acid inputs could place sensitive waters at greater risk" (NAPAP, 1990, p. 5).

The study revealed that Florida, not New York, has the highest percentage of acid lakes and streams, and "most are acidic because of natural processes." Even in the Adirondacks, the report stated, "natural organic acids . . . may make an important contribution to lake acidity" (NAPAP, 1990, p. 5). As for forests and crops, the report said, "controlled experiments have demonstrated that normal levels of atmospheric sulfur and nitrogen deposition cause no negative direct effects. Some areas may benefit through nutrient enrichment by nitrogen and sulfur deposition" (NAPAP, 1990, p. 7).

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This good news should have been highly touted, but most media played down the surprise. Their lack of attention was so striking that CBS's *60 Minutes* took note. The findings are "really quite different from what most people have come to believe about acid rain," said an on-air reporter. "You certainly wouldn't get that impression reading news stories about acid rain" (CBS Broadcasting Inc., 1990).

Environmentalists continued lobbying to reduce acid rain through mandatory reductions in electric power plants' sulfur dioxide emissions. Congress, largely ignoring NAPAP, required the controls in 1990 (although it introduced an



emissions trading program that reduced the cost). Popularly, acid rain is still viewed as a potential environmental scourge. A textbook published in 2001 devotes ten pages to acid rain, but only one sentence to the NAPAP findings: "Their findings showed that although it is a problem in some areas, it has not reached crisis stages—at least not yet" (Chiras, 2001, p. 482). And some of the statements in the book contradict the NAPAP findings.

The fact that some claims against industry are false doesn't, of course, mean that industry is always right. But it does show that the issues are more complicated than most people think. John D. Graham, administrator of the Office of Information and Regulatory Affairs at the federal Office of Management and Budget, recently cited examples of supposed environmental links that turned out not to be true: "electric power lines and childhood leukemia, silicone breast implants and auto-immune disorders, cell phones and brain cancer, and disruption of the body's endocrine system from multiple, low-dose exposures to industrial chemicals" (Graham, 2003). Even though these links have been discredited, a significant segment of the public still believes them to be real and blames industrial producers.

### Reality and Dreams

A third reason why business's environmental image is often distorted is that many people have unrealistic expectations about what business can do. One such individual is Allen Hershkowitz, long-time senior scientist with the Natural Resources Defense Council.

Hershkowitz has spent most of his adult life pressing government to be tougher on business. His particular focus has been recycling. Frustrated by the failure of the paper industry to increase its recycling to the extent he wanted, Hershkowitz decided to build his own recycling paper mill—a \$500 million "world class" paper mill in an old rail yard in the South Bronx of New York City to recycle wastepaper from New York City. It was going to meet the highest environmental standards—more than required by law. It would also use reclaimed sewage water and provide a community-based source of jobs for a depressed population.

Hershkowitz worked on the project for nearly eight years. He found a Swedish paper mill that would operate the plant; he obtained design concepts from Maya Lin, the designer of the Vietnam Memorial; and he arranged for a South Bronx community group to be the owner. He received praise from President Clinton, obtained government subsidies, and was profiled in the *New Yorker*. But the project failed. At the last minute, the financing didn't come through.

This failure wouldn't surprise a seasoned business executive. The project was overly ambitious, its ownership unstable, its raw material supply uncertain, and its markets

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contested. But Hershkowitz was surprised. His book about his efforts, *Bronx Ecology*, is written without understanding that business success is hard-won and that lavish and idealistic goals often must be trimmed to survive. The idea that achieving environmental perfection is easy is one reason why people charge industry with environmental crimes.

### "Tennessee Tree Massacre?"

Political economist John Baden has often pointed out that because environmental problems are "technically complex and highly emotional" they become "ingredients for error and acrimony" (Baden and Noonan, 1996). The "Tennessee Tree Massacre" story quoted at the beginning of this article illustrates the complexity and emotion that may lead to error and, certainly, to acrimony.

The article condemns clearcutting in the Tennessee's Cumberland Plateau. The paper industry, writes Alex Shoumatoff, appears "committed to destroying what remains of the extraordinarily lush forest on the Cumberland Plateau." The clearcuts are "mangled wasteland," and he describes a "particularly vast mutilated swath that some activists have dubbed the Triangle of Destruction, but it is only one of many." Where there isn't clearcutting, there is "dead gray loblolly pine," devastated by an infestation of the southern pine beetle. The beetles are "having a field day" because so much land has been converted to pine plantations, Shoumatoff says (2004, pp. 16-18).

Are things really so bad? Perhaps. But in order to see most of the clearcuts, the author has to fly over in an airplane, suggesting that the clearcuts, on private land, are not visually intruding on many people. Shoumatoff concedes that about 85 per cent of the Tennessee plateau "is still covered with the native woodland," forests that are "lush and teeming with life" (Shoumatoff, 2004, pp. 16, 20). (This is not old-growth timber. Most of that was logged 100 years ago. In other contexts, environmentalists tend to disparage such second growth.)

Shoumatoff's criticism does appear to be justified in a few instances, however. From the air, he sees mud sliding into a stream and torn-up stream banks. Driving through backroads, he sees places where "machines had just plowed right into the water, destroying the banks and streambeds"

(pp. 17, 18, 23). These impacts would seem to be genuine harms beyond the boundaries of the paper companies' property. Yet clearcutting itself does not necessarily amount to a "holocaust" (one term Shoumatoff uses to describe it). Clearcuts have been used widely in silviculture, both by private industry and the federal government. And in this case, the goal of the clearcuts is to reforest with fast-growing pines. They are unlikely to remain an eyesore for long.

Nor does Shoumatoff mention that one reason private plantations are proliferating in the South is that federal forest lands have dried up as a source of forest products. The warm, moist climate of the South is suited to rapid growth of pine trees under any conditions, but the returns on commercial plantations have risen as the federal government has reduced its production of timber. Pressured by environmentalists, the federal government has turned the majority of the nation's 192 million acres of national forests into land that is protected from commercial use. Federal forests represent 27 percent of the nation's forested area but provide only five per cent of the nation's timber (Sedjo, 2001, p. 3). And Shoumatoff does not mention that millions of acres of Forest Service timberlands, as well as the private lands of the Cumberland Plateau, have been infested with insects.

There is undoubtedly room for environmental improvement in the southern forests, perhaps especially in areas such as the Cumberland Plateau, where, as a Shoumatoff source notes, educational levels are low and concern about the environment may be low as well. A number of environmental groups, both local and national, are seeking higher silvicultural standards. But to be so extremely offended by short-term clearcuts, most of which can be seen only from the air, underscores the level of emotion that surrounds environmental issues.

## Conclusion

No article or book can definitively assess the environmental stewardship of all industries. In this article, I have attempted to put public claims and rumors into perspective, based on factual information that can be confirmed. I have pointed out that environmental quality in the United States is getting better, that misinformation about business and the environment is widespread, and that idealistic notions exacerbate the misunderstanding. "The Tennessee Tree Massacre" reveals the difficulty businesses face in telling their story. ■

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