

What Are the Costs?

Throughout North America, many people are trying to preserve the beauty of the land and the diversity of wildlife. Jane's friend David Cameron, who used to be a biology professor at Montana State University, is also a third-generation rancher. In addition to raising cattle and sheep, his family has a long tradition of protecting wildlife. Elk, deer, mountain lions, and bears thrive on his ranch.

A few years ago Dave decided to improve the wildlife in the area by bringing back the grayling, a native Montana fish that disappeared from nearby streams many years ago. Dave consulted with specialists and found a suitable place on the ranch to reintroduce the fish.

But then he learned that the U.S. Fish and Wildlife Service was considering listing the Montana grayling as an endangered species. Almost instantly, he changed his mind.

Once Dave had an endangered fish on his property, federal agents could prevent him from using his pastures for grazing. They could simply claim that his cattle would pollute the stream or otherwise harm the endangered fish. "I sadly bowed out," he says.¹

Textbooks routinely support the U.S. Endangered Species Act and blithely recommend that Canada adopt a similar policy. Because

the authors have little or no grounding in economics, they don't recognize that its severe penalties may have an effect exactly the opposite of its intention.

Without an understanding of economic principles, texts don't tell "the rest of the story." Here are a few more examples.

Ban CFCs

On January 1, 1996, production of chemicals known as CFCs became illegal in Canada. (Freon is the best-known of these chemicals.) The Montreal Protocol, an agreement by thirty-one nations to phase out the chemicals, had taken effect.

The Montreal Protocol was "one of the most significant environmental agreements ever attempted," says Ranger Rick's *Nature Scope*,² and other materials praise the agreement just as highly. But the textbooks leave out some important information. They don't tell children that:

- ◆ it now costs hundreds of dollars to have an auto air conditioner fixed so that it can use the new substitutes;
- ◆ the ban makes all kinds of cooling (not just air conditioning) more expensive, making Third World children more likely to die of infectious diseases because it will be more difficult to keep vaccines cold;³
- ◆ by raising the price of refrigeration, the ban will cause more people to get sick from food poisoning; and
- ◆ there is now a black market in illegally imported CFCs in the United States. "Law enforcement officials say the refrigerant has become the most lucrative contraband after illicit drugs," reported the *New York Times*.⁴

Recycle or Else

Recycling, too, is universally supported by environmental textbooks. But the textbooks leave out some facts.

- ◆ In Northern Ontario, a sparsely populated region, curbside recycling led to mountains of glass. No one had an economic incentive to buy the glass or even haul it away.⁵
- ◆ Recycling programs require the use of special trucks in addition to regular garbage trucks to pick up the separated materials and these extra trucks contribute to traffic congestion and air pollution.⁶
- ◆ University of Victoria chemist Martin Hocking has calculated that a ceramic mug must be used 1,000 times before it is as environmentally benign as a polystyrene cup.⁷
- ◆ Recycling paper doesn't save trees. If recycling paper increased dramatically, people who now grow trees for paper pulp would plant *fewer* trees.⁸

Don't Drive; Use Mass Transit

And then there is the automobile. Textbooks tell students that it is the bane of Americans' existence. Stop riding in a car, they say, and lobby for more mass transit. But that's not the whole story.

- ◆ People want to drive cars because they provide door-to-door convenience, especially for transporting young children.
- ◆ You can force people to pay for mass transit but you can't make them use it. Even in Vancouver, British Columbia, which has an

award-winning, tax-supported transit system, only 35.4 percent of commuters use transit to and from downtown.⁹

- ◆ The advent of the automobile in the early twentieth century brought enormous benefits. Farmland returned to forest because we didn't need so many fields for hay. City streets became cleaner without all that manure.

Yes, We Have Some Pollution

The textbooks fail to recognize that people respond to rewards and penalties. Environmental policies change the rewards and penalties, so people's behavior changes, sometimes dramatically.

The texts also fail to help children understand why we have pollution problems in the first place. Yes, some companies and individuals pollute. They do so because it's sometimes cheaper to let waste from their facilities enter the air or stream than to clean it up. But the picture is not entirely grim. Pollution is down:

- ◆ Between 1980 and 1993, airborne lead went down, on average, by 95 percent in Canada, while particulates declined by over 47 percent.¹⁰
- ◆ Since the mid-1970s, levels of pesticides, fertilizers, and chemicals in the Great Lakes have dropped dramatically.¹¹ For example, PCB levels fell 62 percent between 1980 and 1993.

Laws passed since 1970 have contributed to some of these improvements, but air pollution has been declining for years. Economist Robert Crandall points out that air pollution was declining faster in the United States in the 1960s *before* passage of the Clean Air Act, than it did after passage of the act.¹²

How could this be? Air pollution is often unburned fuel. Profit-making firms have an incentive, over time, to figure out how to use the fuel more efficiently, rather than wasting it by sending it up a smokestack.

Also, even before we had major environmental laws, courts discouraged severe pollution. A person has a right to be free from harm inflicted by others, and that includes injury by pollutants. Polluters can be sued in court by people who were harmed, and in the past they were. Industrial polluters were forced to compensate people whom they harmed with air and water pollution.

This common-law system discouraged pollution, but it was not perfect. When there were many sources of pollution (such as thousands of cars driving every day), the courts declined to blame any single individual or company, and left the correction of the problem up to local governments. In any case, today regulation has largely superseded this approach to pollution control.

“The Tragedy of the Commons”

Have you ever noticed that most homes and yards tend to be clean, while public parks and streets are often dirty? Have you ever wondered why we have no shortage of cats and dogs, while many other species are threatened with extinction?

Economics helps us understand these contrasts. When you or I own something, we have a strong interest in taking care of it. We have much less interest in taking care of things that we don't own or that “everyone” owns.

- ◆ We can keep our own yard clean and usually we can prevent other people from littering it. But, even if we clean up a public park, we can't keep others from making a mess of it as soon as we are done.

- ◆ We can take care of our pets. But no one can take care of whales in the ocean. In fact, whale hunters have an incentive to kill whales whenever they see them (rather than let them breed for the future). If they don't, other hunters may come along and kill the whale they avoided.

Many environmental problems, especially in Third World countries, stem from the "tragedy of the commons": when land is owned in common and anyone can use it, there is incentive to restrict use.¹³ In the Sahel region of Africa south of the Sahara Desert, a person who built a water well in the past could control access to it. But then colonial and national governments began to build wells in the area. Their intentions were good; they wanted the wells to be available to all.

But people were attracted to the land around the government wells and began to graze more livestock than the area could support. They believed that if they didn't take advantage of the resources immediately, they would lose them to their neighbours. So while there was enough water, there wasn't enough grass. Overgrazing destroyed the soil for future pasture.¹⁴

When private ownership is adopted, environmental problems often diminish. The World Bank found that:

- ◆ soil erosion declined when hill farmers in Kenya obtained secure ownership of their land.
- ◆ when slum-dwellers in Bandung, Indonesia, owned their own homes, their investment in sanitation tripled.
- ◆ private rights to a portion of the fishing catch reduced over-fishing in New Zealand waters.¹⁵

Such positive examples are rarely discussed in children's textbooks.

Let the Government Do It?

The message in our children's textbooks is that people should change their behaviour. Since only government has the right to force people to change, the textbooks usually recommend that the government adopt a new law or regulation.

As we have seen, governments can't always bring about the behaviour they want. But there are other reasons as well to question the recommendation "let the government do it": governments are often worse polluters than private industry and government policies actually promote many environmental problems.

- ◆ Until recently, the Canadian federal government has encouraged the conversion of wetlands and marginal areas to cropland. The Canadian Wheat Board Act allows farmers to produce more grain if they have seeded a great deal of land and then let it lie fallow. Although this was not the intent of the regulation, the farmers have an incentive to cultivate marginal lands instead of leaving them in their natural form.¹⁶
- ◆ Public sewage treatment plants are notorious for inadequate facilities. In Britain, where water and sewage have been privatized, the beaches have become cleaner.¹⁷
- ◆ Farm support prices also encourage excessive use of pesticides.¹⁸
- ◆ Many government managed fisheries in Canada are in decline, including the west coast salmon fishery¹⁹ and the east coast cod fishery, which was closed in 1992.²⁰

So, putting your trust in governmental solutions can backfire. That's the "rest of this story."

Is Economic Growth Harmful to the Environment?

Not far from Jane's home in Bozeman, Montana, outside the city limits, you can buy a homesite in a development called Eagle Rock Reserve. But you must buy twenty acres and then use only three acres for your home. The rest of your twenty acres is set aside as wildlife habitat, primarily for elk. These homesites cost a lot of money—\$150,000 per homesite—because the land is valuable and could be used to build many more homes. But some people are willing to pay the price. Why?

As people become more wealthy, they are willing to spend their money to preserve open space, wildlife, and environmental amenities. Indeed, many economists argue that one of the best ways to improve the environment is to encourage economic growth, which leads to higher incomes throughout society.

Gene Grossman and Alan Krueger, economists at Princeton University,²¹ looked at the national incomes of many countries and at the levels of pollution in those countries. They found that when the average income of a country is very low, economic growth puts stress on the environment, initially increasing pollution. But after a certain level of wealth is reached, the environment begins to improve. At that point, people have a greater interest in protection and they have the financial ability to achieve it.

In addition, economic growth leads to conservation of resources. Resources—energy, rare minerals, and other nonrenewable raw materials—turn out to be more plentifully available than ever. (We will discuss this more in Chapter 7.) For example, the profit motive spurs producers to become more efficient in their use of raw materials. In the 1960s, when most soft-drink cans were made of steel, making one thousand cans required 164 pounds (74.5 kg) of metal. By 1990, the same number of cans could be made from only thirty-five pounds (15.9 kg) of aluminum.²²

Why? Trying to reduce their costs so that they could stay competitive, producers switched from steel to aluminum, which is light-

er, and they made many slight changes that allowed them to use less aluminum. (They continue to try to reduce the use of aluminum.) No government regulation had mandated conservation. The pressures of the marketplace caused the change.

Economics teaches us about human behavior—the “rest of the story.” It sheds light on why we have pollution problems and why some proposed solutions won’t work. But good economics, like good science, is largely missing in our children’s classrooms.

Notes

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- 3 See Tim Beardsley, “Better Than a Cure,” *Scientific American*, January 1995, 88–95.
- 4 Judy Edelson Halpert, “Freon Smugglers Find Big Market,” *New York Times*, April 30, 1994, A1ff.
- 5 Guy Crittendon, “The Blue Box Conspiracy,” *The Next City*, Fall 1997, 34–40.
- 6 Laura Jones, “Trash in Schools,” *Fraser Forum*, March 1997, 23–24.
- 7 Laura Jones, “Trash in Schools.”
- 8 Jane S. Shaw, “Recycling,” *The Fortune Encyclopedia of Economics*, ed. by David R. Henderson (New York: Warner Books, 1993), 459.
- 9 “Commuters stick with cars, resist transit use.” *The Vancouver Sun*, September 8, 1997.
- 10 Boris DeWiel, Steve Hayward, Laura Jones, and M. Danielle Smith, *Environmental Indicators for Canada and the United*

- States.*” Critical Issues Bulletin (Vancouver: The Fraser Institute, March 1997), 19.
- 11 E. Calvin Beisner and Julian L. Simon, “Editors’ Appendix,” in *The State of Humanity*, ed. by Julian L. Simon (Cambridge, MA: Blackwell Publishers, 1995), 469.
 - 12 Robert W. Crandall, *Controlling Industrial Air Pollution: The Economics and Politics of Clean Air* (Washington, DC: The Brookings Institution, 1983), 19.
 - 13 This term was coined by Garrett Hardin in “The Tragedy of the Commons,” *Science*, Vol. 162 (1968), 1243–48.
 - 14 J. Dirck Stryker, “Technology, Human Pressure, and Ecology in the Arid and Semi-Arid Tropics,” in *Environment and the Poor: Development Strategies for a Common Agenda*, ed. by H. Jeffrey Leonard (New Brunswick, NJ: Transaction Books, 1989), 95.
 - 15 *World Development Report 1992*, 12.
 - 16 DeWiel, *et al.*, 40-41.
 - 17 Elizabeth Brubaker, “Bring Back Our Beaches” in *The Next City*, Summer 1997, Vol 2, Number 4, 32–46.
 - 18 Jane S. Shaw and Richard L. Stroup, 56.
 - 19 Laura Jones and Michael Walker, eds., *Fish or Cut Bait!* (Vancouver: The Fraser Institute, 1997).
 - 20 *Charting a New Course: Towards the Fishery of the Future—Report of the Task Force on Incomes and Adjustment in the Atlantic Fishery* (Ottawa: Minister of Supply and Services Canada, 1993), 21.
 - 21 Gene M. Grossman and Alan B. Krueger, *Environmental Impacts of a North American Free Trade Agreement*, Discussion Paper in Economics, Woodrow Wilson School of Public and International Affairs, Princeton University, Princeton, NJ, February 1992, 5. This paper has been published in *The U.S. Mexico Free Trade Agreement*, ed. by P. Garber (Cambridge, MA: MIT Press, 1993), 13–56.
 - 22 Lynn Scarlett, “Make Your Environment Dirtier—Recycle,” *Wall Street Journal*, January 14, 1991.