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The Roaring Nineties

Globalization and Its Discontents

MAKING GLOBALIZATION WORK

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CHAPTER 6

Saving the Planet

The world is currently engaged in a grand experiment, studying what happens when you release carbon dioxide and certain other gases into the atmosphere in larger and larger amounts. The scientific community is fairly sure of the outcome, and it is not pretty. The gases act like a greenhouse, capturing solar energy in the atmosphere—which is why they're called greenhouse gases—and gradually the earth warms up. Glaciers and the polar ice caps melt, ocean currents change and ocean levels rise. It is not yet clear how long this will take to happen, but it appears that the northern polar ice cap will be gone within seventy years, and that America's famed Glacier National Park—a million-acre reserve in the state of Montana—will be without glaciers much sooner than that.

If we had access to a thousand planets, it might make sense to use one to conduct such an experiment, and if things turn out badly—as I believe this experiment will—move on to the next. But we don't have that choice; there isn't another planet we can move to. We're stuck here on Earth.

Unlike the other problems of globalization, global environmental problems affect developed and developing countries alike. And globalization, as it has so far been managed, has—with a few exceptions—not dealt adequately with the global environmental problem. In this

chapter, I explain both why it has proven so difficult and what can be done: how we can take the economic forces of globalization—which have so far been injurious to the environment—and make them work to preserve it.

The Underlying Problem: The Tragedy of the Commons

In chapter 4 we talked about enclosure of the commons, and what happens when something that should be owned by all in common becomes sequestered as private property. But there is another aspect to common property—what is sometimes called the "tragedy of the commons."[1] When there is a common resource that can be used freely by all, each user fails to think about how his actions might harm others; each loses sight of the common good.

The expression first arose in a description of the common land upon which peasants in England and Scotland grazed their sheep in the late Middle Ages. As each farmer put more sheep on the commons, the amount of grass available diminished. But each farmer looked only at his own benefit, not at the costs that were inflicted on others, and so the problem grew.

Today, the problem is most simply apparent in the global fishing industry. Each country has an incentive to send out a larger fishing fleet in order to catch more fish—which, after all, are free to anyone who can catch them. But as more and more fishing boats are sent out, the stock of fish gets depleted, and the costs of fishing go up for everyone. Indeed, there is now evidence that, thanks to modern industrial fishing, boats are taking fish out far faster than the fish can reproduce.

The underlying economic principles are both simple and clear. When an individual or a country does something that hurts someone else, and for which they do not pay, there is a negative externality.[2] Generally, markets produce too much of things that generate negative externalities. Markets by themselves lead to too much pollution of the atmosphere and water; without government intervention, there will always be overgrazing of sheep on the commons.

The problem of the commons is easy to understand, and so, in some sense, is the solution: in one way or another, individuals have to be restricted in their use of it. There are two approaches. The first, which

was used in Scotland in the sixteenth and seventeenth centuries, was privatizing the commons: the Scottish lords simply took the commons for themselves. As the owner, each one had an incentive to make sure that the land was not overgrazed. Of course, privatization had enormous impacts on the distribution of income. There may have been some gains in efficiency, but those farmers who were thrown off the commons were made far worse off, the Scottish lords reaping for themselves all the gains in efficiency—and more.

The privatization approach cannot, however, be realistically extended to the problems of global fisheries and global warming. It was relatively easy to enforce the privatization of grazing land through enclosures; but even if the fisheries could somehow be privatized, even if the enormous distributional issues that privatization raises could be solved, it would be close to impossible for any private owner to enforce his property rights. When enforcement problems arise, the state will inevitably become strongly involved in the management of resources; the question then is only the form of involvement. The second approach—and the only practicable one for global natural resources—involves government itself managing the common resource, restricting the amount of grazing or fishing. Throughout history, this is the way that common resources have often been managed. Communities impose social and legal controls that prevent the kinds of negative externalities represented by overfishing and overgrazing.

In principle, either approach—privatization or social control—can lead to an efficient and equitable outcome. The community could have calculated the "efficient" number of sheep that could be allowed to graze without damaging the common land just as well as a private owner could. Alternatively, the commons could have been privatized by being sold to the highest bidder with the proceeds divided equally. In practice, however, privatizations have always been marked by grave inequalities. In the enclosure movement, this was part of the rationale, as the rich and powerful saw an opportunity to redistribute wealth in their favor.

Nor has privatization always resulted in efficiency. Often private ownership itself is associated with environmental externalities, such as when the excessive use of fertilizer pollutes the watershed. When pri-

vatizations lack full political legitimacy, the owners have an extra incentive for excessive utilization, since they may not hold their property for long. As we have seen, this was the case in most of the Russian privatizations. In Brazil, forest privatizations have led to rapid deforestation, as the owners realize, perhaps rightly, that the government may recognize the importance of the forests as a national treasure and will in the future impose restrictions on cutting. With public management, on the other hand, officials may allow their relatives and friends to graze more sheep than others, while politicians may allow overgrazing in order to increase their vote, reckoning that the consequences will not become apparent for years. This is the fundamental dilemma of the management of the commons: historically, neither the private nor the public solution has consistently promoted both efficiency and equity.

Most environmental resources are not global in nature. The quality of ground water, lakes, or air usually affects only those nearby. If there is excessive air pollution in Los Angeles or Mexico City, it is local people who suffer. Sometimes, of course, effects go from one area to the next: my neighbor is hurt by the smoke when I burn leaves; Canada is hurt by the acid rain from midwestern American power plants. While there are some bilateral and regional agreements that attempt to deal with these cross-border environmental externalities (such as the 1991 U.S.-Canada Agreement on Air Quality), they cannot control the truly global environmental problems.

As imperfect as our ability to manage scarce natural resources and reduce negative externalities within a country may be, our ability to manage global natural resources and to reduce global negative externalities is even more circumscribed. The most important tools that are used domestically are not available. Within a country, if one person harms another, the injured party can sue. Forcing individuals to pay for the consequences of their actions is necessary for economic efficiency. Internationally, no such recourse is available. Even when the actions of one country damage the well-being of another, there is little that the injured party can do. China's pollution affects Japan. The Maldives and Bangladesh are almost certainly going to be seriously harmed by the rising sea level caused by global warming, to which the United States' pollution is contributing significantly. Japan can't sue China, and the Maldives and Bangladesh cannot sue the United States and the other countries whose greenhouse gas emissions are leading to rising sea levels.

Within a country, problems of the commons can sometimes be dealt with, even if imperfectly, by privatization. To remedy the problem of the global commons, however, no one is seriously proposing the privatization option. The only sensible and workable remedy is some form of global public management of global natural resources, some set of global regulations on usage and on actions giving rise to global externalities. This is, of course, the way we deal domestically with many problems of negative externalities—when the actions of one person hurt another. You can't burn leaves in U.S. suburbs, because homes downwind will suffer from the smoke. You can't put a garbage dump on your land, because the smell makes your neighbor's life miserable. There are strong regulations restricting air and water pollution and toxic waste.

Democratic political processes have recognized the need for collective action. There are losers and winners—the polluters see their profits decrease, while those who might have got cancer, for instance, as a result of the pollution are better off. In spite of the opposition from those who see their profits diminished, most democracies have succeeded in passing some kind of regulation to limit pollution, recognizing that social benefits far exceed the costs.

Those who pollute the most always tend to minimize the problem. It is not surprising that the world's worst polluter, the United States, which adds almost 6 billion tons of carbon dioxide to the atmosphere every year, pretends that it does not believe the evidence that there is a need to curtail its greenhouse gas emissions. If greenhouse gases stayed only over the United States, America could conduct its own experiment; unfortunately, however, carbon dioxide molecules do not respect borders.[3] And though U.S. emissions affect the global atmosphere, the United States (or China, or any other country) does not have to pay for the consequences outside its borders. As a result, it has insufficient incentives to reduce its emissions—to curtail, for instance, its oil usage—and not surprisingly, has not reduced them.

While the extent to which the other advanced industrial countries

have embarked on policies reducing pollution is both commendable and remarkable, it is hard to do anything really significant unless all the major countries, including the United States and China, participate. The central question, to which we turn in the next section, is: how can we marshal the cooperation of all to solve our most pressing global issue? I will show how we may be able to use the economic forces of globalization to achieve a better global environment.

GLOBAL WARMING

No issue is more global than global warming: everyone on the planet shares the same atmosphere. There are seven almost incontrovertible facts concerning global warming: (1) the world is warming—by about 1 degree Fahrenheit (0.6 degrees Celsius) in the last century; (2) even small changes in temperature can have large effects; (3) this rate of warming is unprecedented, even going back millions of years; (4) sea levels are rising—by some four to eight inches (ten to twenty centimeters) in the last century; (5) even small changes in sea level can have large effects—for example, a one-meter rise would inundate low-lying areas around the world, from Florida to Bangladesh; (6) there have been huge increases in greenhouse gases in our atmosphere, to a level that is estimated to be the highest in at least 20 million years, and which has been increasing at the most rapid rate seen for at least the past 20,000 years; and (7) it is possible that the pace of change in temperature could accelerate, with small increases in the concentration of greenhouse gases leading to even larger changes in climate than in the recent past.[4]

Virtually all scientists agree that greenhouse gases have contributed to global warming and rising sea levels, and they believe that most of this is a result of human activity (80 percent from burning fossil fuels, 20 percent from deforestation). Most agree, too, that there will be significantly more warming—between 2.5 and 10.4 degrees Fahrenheit (1.4 and 5.8 degrees Celsius) by the end of this century, and a further rise in sea level of eighty centimeters to one meter. The experts say we can expect more droughts and floods, cyclones and hurricanes, and that Europe's basic climate may change drastically, as the Gulf Stream—the current off the east coast of North America that now warms it—shifts course.

In chapter 2, I described the great successes that Bangladesh is having with some of its development programs. But much of Bangladesh is a low-lying delta, which is great for rice growing but vulnerable to even small changes in sea level, and is frequently buffeted by deadly and destructive storms. If, as a result of global warming, those storms get more intense, the death toll will soar. Rising sea levels will leave one-third of the country—and half of the rice-growing land—submerged, and the 145 million Bangladeshis will be even more crowded than they already are. Their incomes, already barely above subsistence, will fall still further.

Nor is Bangladesh the country most likely to be worst hit by global warming. The Maldives, a small nation of 1,200 islands in the Indian Ocean with a population of 330,000—a tropical paradise—will be totally submerged in as little as fifty years, according to reliable predictions. Along with many other low-lying islands in the Pacific and elsewhere, it will simply be lost—our own twenty-first-century Atlantis.

Bangladesh and the Maldives are facing a fate far worse than that caused by even the worst of wars. Forces beyond their control, set in motion by the polluting actions of others—actions not intended to be harmful, but whose effects are global and destructive—threaten them with annihilation.

While a broad scientific consensus has emerged on global warming, there is still some uncertainty. It is true that things might not be as bad as today's doomsayers claim; on the other hand, they may prove to be far worse. This is no different from most of life: one always has to make decisions based on imperfect information. If, fifty or seventy years from now, the polar ice caps melt and parts of New York and London lie under water, along with some island nations in their entirety, it will be too late to reverse course. Even if we quickly reduced our emissions, the atmospheric concentration of greenhouse gases would be reduced only very, very slowly. This is why we need to start planning and acting now: it is far better to plan for the worst-case scenario than to wait and find that we didn't do enough.

As we think about whether the world can summon the strength and

resources to tackle the threat posed by global warming, we should note that this kind of mobilization has been accomplished before. In 1946, in response to concerns that whales would become extinct, the International Convention for the Regulation of Whaling was signed. The agreement held, despite protests, and whale populations have largely recovered. Another agreement involved chlorofluorocarbon gases (CFCs), commonly used as refrigerator and air-conditioner coolants, which, it was found, were destroying the ozone layer and allowing cancer-inducing ultraviolet radiation to penetrate the atmosphere. The international community's reaction was swift. It took little more than a decade between the discovery of the problem and the signing, in 1987, of the Montreal Protocol. The convention was successful, and the phase-out of CFCs occurred faster than anticipated.

These examples show that the international community has been able, in the past, to respond to the challenge posed by a threat to the global environment. Can it respond to the enormous challenge posed by global warming?

The Rio Earth Summit

Some twenty years ago, as scientists first became aware of the changes taking place in the global climate, the world recognized that there was a potential problem and decided to study it. In 1988, the UN created the Intergovernmental Panel on Climate Change (IPCC), asking the world's leading experts to assess the scale of climate change and its likely impact.[5] The IPCC published three major studies between 1990 and 2001, concluding in each of them that there is indeed mounting evidence of the dangers of global warming. The evidence has also been reviewed in innumerable studies by the academies of science in individual countries, including one in the United States after President George W. Bush had seemingly cast doubt on the seriousness of global warming. The discussion here reflects the broad consensus on the basic findings.

As more and more scientific evidence came in, pressure mounted on politicians. In 1992, more than 100 heads of state gathered in Rio de Janeiro and resolved to do something about the problem. With the United Nations Framework Convention on Climate Change, they set

up a procedure to develop a treaty that would restrict emissions. They did not agree on a specific target but committed themselves to "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system . . . within a time-frame sufficient to allow ecosystems to adapt naturally." The United States and 152 other countries signed the agreement, which became the cornerstone of the international community's attempt to come to grips with one of the most serious threats to our planet. A series of technical meetings followed, culminating in the next major worldwide conference on global warming, held in Kyoto.

The Kyoto Protocol

In 1997, more than 1,500 delegates, lobbyists, and heads of state from over 150 countries gathered in the historic Japanese city of Kyoto for the purpose of coming up with a treaty to cut greenhouse gas emissions worldwide. Their task was to devise a way of cutting emissions that was fair and efficient, that minimized the economic costs of reducing emissions and shared the burden equitably among the countries of the world. The resulting Kyoto Protocol made no immediate demands on the developing countries but called on each of the developed countries to cut back their emissions by specified amounts from 1990 levels—Europe as a whole by 8 percent, the United States by 7 percent, Japan by 6 percent—by 2012.[6]

The countries that came together at Kyoto recognized that the agreement constituted only rough justice, but that rough justice was better than the whole world suffering from the failure to do anything at all. Although there was some sensitivity to differences of circumstances—Norway, for example, which produces most of its electricity through hydropower, has little leeway to reduce pollution and was actually allowed to increase its emissions by 1 percent—other countries that had already made efforts to move out of polluting fossil fuels by using nuclear energy, like France, were required by the protocol to reduce their emissions just the same as those countries which had made no efforts.

The developing countries, including India, China, and Brazil, took the view that the high levels of greenhouse gas accumulations in the