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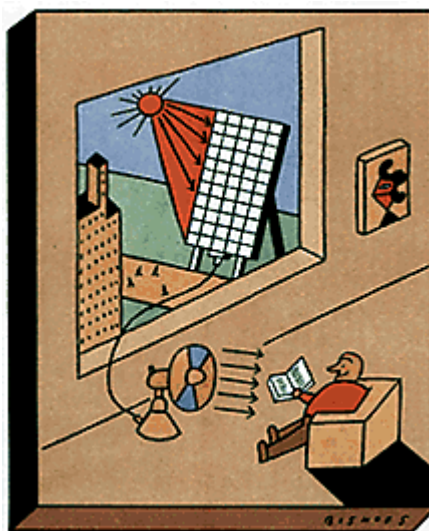
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JUNE 1998

NOTES & COMMENT

A Good Climate for Investment



Reducing reliance on carbon for energy -- to safeguard our atmosphere and our climate -- could bring about not personal deprivation but a worldwide economic boom

by [Ross Gelbspan](#)

IT is not news that climate shapes history. What is news is that the warming of our atmosphere has propelled our climate into a new state of instability. Only in the United States is anyone still seriously debating

whether the earth is undergoing a steady, and threatening, warming. An extensive public-relations campaign by fossil-fuel interests has helped the statements of a dozen or so "greenhouse skeptics" -- many of them funded by industry -- to receive as much news coverage as the findings of the United Nations' Intergovernmental Panel on Climate Change. The IPCC, which includes more than 2,500 scientists from more than a hundred countries, has issued a series of reports since 1989 about the ongoing and potentially disastrous nature of the problem. Most other countries take the scientists at their word -- as was demonstrated at last winter's international conference on global warming, in Kyoto.

Discuss this article in the Community & Society forum of Post & Riposte.

From the archives:

- **"Can Selfishness Save the Environment?",**
by Matt Ridley and Bobbi S. Low
(September, 1993)
Conventional wisdom has it that the way to

But while the climate crisis contains staggering destructive potential, it also contains an extraordinary opportunity to expand the wealth and stability of the global economy. We have the technology. We have an institutional precedent. What we need now is the will to think big and make it work.

Each year we pump at least six billion tons of heat-trapping carbon into the innermost layer of our atmosphere, whose outer extent is only about twelve miles overhead. According to an IPCC report released this year, atmospheric CO₂ will, if the buildup is left unchecked, double from its pre-industrial level within the next century. That doubling of CO₂ correlates with an increase in the global temperature of at least three to eight degrees Fahrenheit. The last ice age

avert global ecological disaster is to persuade people to change their selfish habits for the common good. A more sensible approach would be to tap a boundless and renewable resource: the human propensity for thinking mainly of short term self-interest.

- **"The Great Climate Flip-flop," by William H. Calvin (January, 1998)** "Climate change" is popularly understood to mean greenhouse warming, which it is predicted, will cause flooding, severe windstorms, and killer heat waves. But warming could lead, paradoxically, to

was just five to nine degrees colder than our current climate.

The economic consequences of the succession of extreme weather events all over the world during the past few years -- floods, droughts, severe storms, altered rainfall patterns, heat waves, cold snaps -- are visible in the rising disaster-relief costs to governments and the escalating losses of the world's property insurers. During the 1980s insurance losses due to extreme weather events averaged approximately \$2 billion a year; in the 1990s they have been averaging \$12 billion a year. The solution is as simple as it is overwhelming. The scientists of the IPCC tell us that in order to restore our atmosphere to the hospitable state we have enjoyed for the past 10,000 years, we need to cut emissions from the burning of coal and oil not by the 5.2 percent specified in the Kyoto Protocol, which was released at the end of the conference, but by 50 to 70 percent. This means eventually phasing out virtually every oil-burning furnace, gasoline-burning car, and coal-powered generating plant and turning to renewable, climate-friendly energy sources. The economic activity this would stimulate could provide significant employment for oil and coal workers, who could be retrained to manufacture, for example, windmills, solar-energy systems, and fuel cells for electricity and heat.

* * *

drastic cooling --
a catastrophe
that could
threaten the
survival of
civilization.

Against this background the substance of the Kyoto Protocol is puny. That is not to deny the political achievement at Kyoto. Some 160 nations came together to sound an alarm about our common future. To do so, they had to overcome several major divisions -- between the United States and the European Union, between the North and the South, between the environmental and business communities. It is to their great credit that they managed to overcome those divisions to the extent that they did.

But if we judge Kyoto by the real requirements of nature rather than by the obstacles of diplomacy, the protocol is a hollow shell. Its goals, as noted, are orders of magnitude below what nature requires if the global climate is to be stabilized. It is, moreover, deeply flawed by an emissions-trading mechanism that is unworkable and unenforceable and that, together with a system of "joint implementation," amounts to little more than a set of loopholes to be exploited by industrial interests.

And yet even this weak and ineffectual agreement would not today be ratified by the United States Senate. In fact it may never be ratified by the United States.

The fossil-fuel industry is one of the largest commercial enterprises in history. It supports the economies of more than a dozen nations, in the Middle East, the Americas, and Africa. The resources it can use to fight its demise or transformation are

virtually without limit. And it has already begun to use them.

Related links:

• **"Lobbying for Lethargy - the Fossil Fuel Lobby and Climate Change Negotiations"**

An article, posted by "Friends of the Earth," about the Fossil Fuel lobby's efforts to challenge the science of climate change.

• **"Global Warming: The Origin and Nature of the Alleged Scientific Consensus"**

An article published by the CATO Institute - a libertarian organization -- calling into question the validity of the Global Warming theory.

From the archives:

Since 1991 the fossil-fuel lobby has mounted an extremely effective campaign to persuade the public and policymakers that the issue of atmospheric warming is still unresolved scientifically. To take one example, in 1991 several coal and utility companies launched a program to set up interviews with journalists for three dissenting scientists. The campaign, according to strategy documents that were later exposed in the press, was designed to "reposition global warming as theory rather than fact" and was aimed specifically at "older, less educated men" and "young lower-income women." The geographic targets of the campaign included areas where electricity came from coal and districts whose congressmen served on the House Energy Committee.

The effectiveness of the campaign can be seen in the results of two *Newsweek* polls, conducted in 1991 and 1996. In 1991, 35 percent of the people polled said they believed that global warming was a serious problem. By 1996 the number had dropped to 22 percent.

In Washington, testimony by skeptics, including those funded by industry, led in 1996 to dramatic cuts in the funding that Congress allocated to research on global climate change. And last summer it led as well to a 95-0 vote in the Senate on a resolution, sponsored by Senators Robert

• **"Our Real China Problem,"** by **Mark Hertsgaard** (November, 1997)

The price of China's surging economy is a vast degradation of the environment, with planetary implications. Although the Chinese government knows the environment needs protection, writes the author, who spent six weeks inside China investigating the growing environmental crisis, it fears that doing the right thing could be political suicide.

Byrd, of West Virginia, and Chuck Hagel, of Nebraska, against ratification of the Kyoto Protocol -- on the grounds that the treaty would exempt large developing nations, such as India, China, and Mexico, from the first round of emissions reductions.

Between now and the next round of Kyoto negotiations, in November, the Clinton Administration will continue to try to mobilize public support for the protocol. It will put a small amount of money into establishing renewable-energy programs in developing countries. It will seek support from the natural-gas and renewables industries -- and also from the U.S. insurance industry, which has been very defensive economically and almost invisible politically, in contrast to the European insurance community.

The treaty's opponents, both Republicans and Democrats, will attack it from several angles. They will continue to insist that the science is far too uncertain to justify mandatory reductions of carbon emissions. They will continue to exploit the dominant anti-tax and anti-government sentiment in the United States by telling the public that taxes penalizing carbon release represent a plot to restore big government and make everyone ride bicycles and sit in the dark.

They will continue to misrepresent the economics. Before Kyoto, the Global Climate Coalition, a lobbying arm of the

energy and automotive industries, said that its economic model indicated that a 10 percent reduction in 1990 emissions levels would cost the United States three percent of its gross domestic product. And many Americans believed it. The public believed it in spite of a statement by 2,500 economists, including six Nobel laureates, that we could cut emissions through conservation and energy-efficiency measures and at the same time increase productivity and economic wealth. The statement endorsed the findings of a number of economists, including an economics panel of the IPCC, that we could cut emissions by up to 30 percent with no negative economic impacts.

The treaty's opponents will continue to tell the American people that it is unfair for the United States to accept cuts that do not fall equally on the large developing countries. In advance of Kyoto the fossil-fuel lobby mounted a \$13 million advertising campaign to reinforce the Senate's opposition to the treaty. What the lobby, and many senators, must stop denying is that most developing nations are too heavily burdened by debt, poverty, and social instability to absorb energy restrictions. Most can barely feed and educate their poverty-stressed populations. They are in no position to finance energy transitions.

* * *

The challenge of altering our global energy

diet breaks down into two separate, if related, tasks. The first is to make the transition -- in a relatively short time -- away from oil and coal (and, eventually, natural gas) to renewable, climate-friendly energy sources. The second is to transfer the new technologies to the developing world.

From the archives:

- **"Reinventing the Wheels," by Amory B. Lovins and L. Hunter Lovins (January, 1995)**

New ways to design, manufacture, and sell cars can make them ten times more fuel-efficient, and at the same time safer, sportier, more beautiful and comfortable, far more durable, and probably cheaper. Here comes the biggest change in industrial structure since the microchip.

- **"Mideast Oil Forever?", by Joseph J. Romm and**

Conceptually, at least, we have made some progress. Recently the Ford Motor Company joined Daimler-Benz AG and Ballard Power Systems in a \$715 million venture to produce fuel-cell-powered autos. Fuel-cell engines use chemical reactions to produce electricity, instead of burning fuel, as internal-combustion engines do. In Japan, Toyota recently began selling a hybrid gasoline-and-electricity-powered car that gets sixty-six miles to the gallon, and General Motors recently announced its intention to market a similar car within three years. In May of last year the group chief executive of British Petroleum acknowledged the destructive potential of climate change, and this past December so did the president of Sunoco. BP has announced that it expects revenues from its solar investments to reach \$1 billion in ten years, and Shell has said that it will invest \$500 million in renewables technologies.

But without strong mandatory regulation by the world's governments, such initiatives will probably fail. More than one industry executive has said as much off the record. Without a binding, consensual regulatory structure, competing energy companies are bound to undercut the initiatives by selling

Charles B. Curtis (April, 1996)

Congressional budget-cutters threaten to end America's leadership in new energy technologies that could generate hundreds of thousands of high-wage jobs, reduce damage to the environment, and limit our costly, dangerous dependency on oil from the unstable Persian Gulf region.

cheaper oil and coal products. The recent investments in solar, wind, and hydrogen power by BP, Shell, and others will be written off as losses. And the continuing succession of floods, droughts, severe storms, and insurance losses will tear holes in our global economic fabric.

It is unfashionable in today's privatized world to look to government for solutions. But here the short-term demands of shareholders and directors ignore the fundamental fact that the global environment circumscribes the global economy. We cannot negotiate emissions levels and rates of economic growth with the biosphere.

We can, as mentioned, cut emissions by 30 percent simply by implementing a series of conservation and efficiency measures, with a net gain in jobs. To attain the next 20 to 40 percent, however, will require a radical departure from the way we have been doing business. An unregulated market approach is far too gradual and uneven to meet the challenge. And the conventional political process, with its negotiated compromises, is likely to result in little more than perpetual economic warfare in which industries and nations strive to escape economic pain by passing it on to their neighbors and competitors. A more productive step might involve a sort of international governance like that established by the Montreal Protocol, a public-private partnership forged in 1987 to reduce the production of ozone-

destroying chlorofluorocarbons. The primary reason that this protocol has been successful so far is simple: as the economist David L. Levy has pointed out, the companies that made the destructive chemicals were able to produce substitutes for them -- with no loss of competitive standing within the industry.

The job of the energy industry now is to reinvent itself in a similar way. It will be difficult. In producing CFC substitutes, the chemical companies did not have to develop new processes and technologies. But energy is another story. With the exception of natural gas, renewable energy sources do not involve the extractive technologies required by fossil fuels. Photovoltaics are based on semiconductor technology; wind power draws on turbines and electronics.

Fortunately, the renewables industry today is young and fragmented. Given the emerging nature of the industry, the energy giants have a moment of opportunity and an abundance of expertise to decarbonize their sources. The next phase of the Kyoto negotiations should establish an international agency to determine -- in concert with the world's major oil and coal companies -- an enforceable timetable of ten to fifteen years for the transition.

An economy based on hydrogen, fuel cells, photovoltaics, solar power, and wind could provide as much energy as we use today and more, with no resulting decline in our

living standards. All that renewable energy sources need in order to become economically competitive with fossil fuels is mass markets and mass production.

There must be incentives and penalties. The United States should promote the transition by beginning to redirect the \$21 billion the government spends each year to subsidize fossil fuels. Those subsidies include, among other things, federal funding for oil and coal research and development, tax credits for enhanced oil recovery, tax deductions for oil and coal exploration, oil and coal depletion allowances, and a tax loophole that exempts sport-utility vehicles from a "gas guzzler" tax. Diverting those tax credits, subsidies, and incentives to the renewables industry would bring that industry into the big leagues of global commerce.

* * *

Were we to finance the transfer of renewables technologies to the poor world, it could create a huge surge of economic growth. A global public-works program to retrofit the planet could create millions of jobs all over the world. Building wind-turbine plants in India, fuel-cell factories in Russia, solar-panel assemblies in El Salvador, and gas-fired cogeneration plants in South Africa would provide new energy resources to develop all the world's economies. It would help to shrink the gap between the North and the South. In a very

few years the renewables industry could eclipse high technology as potentially the most powerful engine of growth in the global economy.

One possibility for financing the technology transfer might involve an expanded version of the Tobin tax, which is currently under discussion. The tax, on international currency transactions, was originally conceived as a way to lessen the abrupt swings of capital that undermine the stability of world financial markets. An assessment of 0.25 percent on the \$1.3 trillion daily commerce in foreign exchange would, according to some calculations, generate about \$150 billion a year -- more than enough to finance the transfer.

It is clear that many of the world's great corporations are outgrowing the world's governments. But the captains of the giant multinational energy companies have yet to realize the new responsibilities that come with their newfound power. They are no longer simply directors or CEOs of their own companies but also stewards of the larger economy. In the short term a transition to renewables might reduce their companies' profit margins. In the long term that transition would greatly increase both the stability and the prosperity of the global economy.

Ross Gelbspan is a former journalist for *The Philadelphia Bulletin*, *The Washington*

Post, and *The Boston Globe*. His latest book is *The Heat Is On: The High-Stakes Battle Over Earth's Threatened Climate* (1997).

Illustration by Maris Bishofs

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The Atlantic Monthly; June 1998; A Good Climate for Investment; Volume 281, No. 6; pages 22 - 27.

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