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EDITORIAL

Global Warming: Are Environmentalists Part of the Problem?

Most readers of *Environment* appreciate that global warming is an extraordinary risk. With new scientific data on environmental impacts, signs of accelerated climate change and possible tipping points, and growing greenhouse gas emissions and the international failure to restrain them, we continue to learn just how extraordinary this risk is. Therefore, it is somewhat confounding to realize that organized environmentalists, while clearly an important part of the solution, can also be part of the problem.

Here in Maine, for example, the Appalachian Mountain Conservancy and Maine Audubon oppose a major wind farm proposal, and the Atlantic Salmon Federation opposes hydroelectric dams. Local environmental leaders oppose projects that would create liquid natural gas ports and plants, site natural gas pipelines and electric power transmission lines, use construction debris in biomass energy plants, and certify biomass energy plants as carbon neutral. Some of their opposition is generic, such as opposing any hydroelectric plant that blocks upstream salmon passage, but much of it is site-specific, for example, favoring wind power but opposing the specific site being considered on ecological or aesthetic grounds. But, taken together, this opposition blocks at least 7 of the 15 wedges that might limit greenhouse gas emissions to a tolerable level.

These wedges, so named because each would take a slice of a billion tons of CO_2 out of expected emissions growth by 2050, were described to *Environment* readers a little more than two years ago[1] and are widely accepted as the list of "we know how to do it" alternatives. Of the 15 wedges, we would need to have at least 7 implemented to stabilize greenhouse gas emissions. But while the alternatives are varied and the technologies are already available, the implementation is absolutely daunting. The extent of the difficulty can be illustrated by describing 7 of the 15 wedges. In the next 10 years and in each subsequent decade (assuming equal implementation over 50 years), the world would need to do all of the following: replace every incandescent bulb with a fluorescent bulb; increase fuel economy by 5 miles per gallon on all vehicles; build 400,000 new wind turbines; build 700 coal and gas electric generating plants that capture and store CO_2; build 10 natural gas pipelines (1,000–2,000 miles long); plant 200,000 square miles of ethanol crop material and 200,000 square miles of trees; and cut the deforestation rate by 20 percent.

With the possible exception of energy conservation in homes and industry and fuel economy in vehicles, some environmentalists can be found in opposition to projects needed for each of these goals. For example, some environmentalists contest the viability of different alternatives either on grounds of inadequacy (wind power requires either fossil fuel or nuclear for base loads; and corn-based ethanol requires fossil fuel–based energy in production), uncertainty (carbon capture and storage has yet to be proved as a technologically sound and economically wise alternative), or ecological rationality (ethanol biomass plantations increase erosion and the use of pesticides and fertilizers; and biodiesel encourages deforestation and the replacement of forests with palm oil plantations). Specific projects are contested based on their proposed locations or routes because of anticipated negative environmental or social impacts.

It is surely premature to rule out any alternatives that might reduce greenhouse gas emissions.

Global warming is the greatest single threat that has faced the environmental community, and slowing or limiting climate change is a task comparable to a new industrial revolution. Environmentalists—activists, policy analysts, and scientists—recognize the extraordinary risks, and growing numbers of environmentalists understand the extraordinary task of mitigation and adaptation. Thus, it is surely premature to rule out any alternatives that might reduce greenhouse gas emissions. Against the greater threat and for the common good, environmentalists need to encourage all options—even those that conflict with their specific concerns. And if they oppose specific projects, they should offer practical equivalents in emissions reduction and power generation.

—Robert W. Kates

1. R. Socolow, R. Hotinski, J. B. Greenblatt, and S. Pacala, "Solving the Climate Problem: Technologies Available to Curb CO_2 Emissions," *Environment* 46, no. 10 (December 2004): 8–19.