

ENERGY POLICIES ARE KILLING OUR PLANET

BY ROSS GELBSPAN

Reporter: "Given the amount of energy Americans consume per capita — how much it exceeds any other citizen in any other country in the world — does President Bush believe we need to correct our lifestyle to address the energy problem?"

Presidential Press Secretary Ari Fleischer: "That's a big NO. The President believes that it's an American way of life, and that it should be the goal of policy makers to protect the American way of life. The American way of life is a blessed one....The President also believes that the American people's use of energy is a reflection of the strength of our economy, of the way of life that the American people have come to enjoy."

California's energy nightmare and its struggle with the impacts of deregulation is one small battle in a much larger war.

Consider the planet. With our oil and coal burning, we have loosed a continuing wave of violent and chaotic weather across the globe. The human and economic costs are astounding. A recent report from Munich Reinsurance estimates that in a few decades climate change costs will total about \$300 billion a year.

Take the last two years. In 1999 we saw:

- ~record drought in the northeast and mid-Atlantic regions;
- ~a heat wave that killed 271 people in the Midwest and Northeast;
- ~Hurricane Floyd, with its \$1 billion-plus damages;
- ~a super-cyclone in eastern India that killed 10,000 people;
- ~the torrential rains and mud slides that left 15,000 dead in Venezuela.

And the year 2000 brought us:

- ~the worst flood in more than half a century, leaving hundreds of thousands homeless in southern Africa;
- ~more than 64,000 drought-driven wildfires in the western U.S. that consumed an area larger than the state of Maryland;
- ~flooding in northern India that left 4.5 million homeless;
- ~a record 84-day drought that caused \$600 million in agricultural losses in north Texas;
- ~the spread of a new desert in the fertile highlands of northern China;
- ~ the worst flooding in Britain last November in at least 273 years, since the beginning of record keeping;

~ the melting of a 9-foot deep ice pack at the North Pole into a mile-wide lake.

The weather changes are only the most visible manifestation of what our oil and coal emissions — generated about equally by the transportation, industrial use and home-heating and cooling sectors — are doing to the planet.

In 1999 two islands in the South Pacific were permanently submerged by rising sea levels. The surface waters of the eastern Pacific have heated up by 3 degrees Fahrenheit in 20 years, threatening the survival of a number of species of fish and seabirds. Warming is propelling the northward movement of fish, insects, animals and ecosystems.

The deep oceans are heating up. One result:

- ~a Connecticut-sized piece of Antarctic ice shelf broke off in spring 1998; two more of equal magnitude split off in April 2000.

Deep ocean warming is also fueling severe El Niños, the recurring pools of warm water in the western Pacific that play havoc with weather patterns all over the world. High above the oceans, most of Earth's glaciers are retreating at accelerating rates. The biggest glacier in the Peruvian Andes was retreating by 14 feet a year 20 years ago; today it is shrinking by 99 feet a year. Since 1993 the second-largest glacier on Earth, the Greenland ice sheet, has been losing two cubic miles of ice a year — enough to cover the state of Maryland with a foot of ice. The tundra, which for thousands of years absorbed methane and CO₂, is now thawing and releasing those gases back into the atmosphere.

Scientists are documenting the warming-driven north-ward migration of tropical diseases. An August 2000 report by *Scientific American* revealed that warming accelerates the maturation of the pathogens they carry. And it is propelling them to altitudes and latitudes that only a few years ago were too cold to support their survival. As a result, mosquitoes are spreading malaria, yellow fever, and dengue fever to populations that have never previously been exposed. Globally, the incidence of malaria over the last five years has quadrupled.

And it's likely to get much worse: the World Meteorological Organization projects heat-related deaths will double in the next 20 years.

The heating up of the planet has intensified so exponentially over the past decade that even scientists and experts on the cutting edge have been caught off guard. Their newest prognoses indicate a climate altered so radically that there is little time left to reverse its effects.

Many members of the Intergovernmental Panel on Climate Change (IPCC) — a UN-sponsored group of more than 2,000 scientists from 100 countries — say today that the climate is changing much more quickly than they had anticipated even a few years ago. Similarly, climate scientists at the UK's Hadley Centre for Climate Prediction & Research found in November that climate change is occurring 50% more quickly than had been projected.

Last winter, in an extraordinary joint statement, the chief meteorologist of Great Britain and the head of the U.S. National Oceanic & Atmospheric Administration declared the climate situation "critical" and urged humanity to begin now to reduce its consumption of carbon-based fuels.

For perspective, consider that the deep oceans are warming, the tundra is thawing, the glaciers are melting, infectious diseases are migrating, and the timing of the seasons has changed — all from 1 degree of warming. And the earth will warm by up to 10 degrees later in this century, according to a January report from the IPCC.

An IPCC panel on the impacts of warming declared in February that while a few areas will actually benefit from the higher temperatures, "most of Earth's people will be losers" in a succession of ecological disruptions.

While negotiators from 160 countries try to resurrect the recently failed climate talks, it is worth noting that even if approved, the Kyoto Protocol could achieve carbon reductions by industrial countries of only about 6% below 1990 levels.

The requirements of nature are far greater: restabilizing our climate requires cuts of 70%.

That implies a global transition away from coal and oil to an energy economy system based on hydrogen-powered fuel cells, solar systems, wind farms, and other non-carbon energy sources.

The rewiring of the planet with clean energy must be a worldwide effort. Even if the United States, Europe, Canada, Australia and Japan were to cut their emissions dramatically, those cuts would be overwhelmed by the coming pulse of carbon from India, China, Mexico, Brazil, and all the developing countries that are struggling to stay ahead of the undertow of poverty.

The good news is that a properly structured global energy transition could create a surge of new wealth in the global economy. It would create millions of new jobs, especially in the developing world, and turn impoverished nations into more robust trading partners.

This shift doesn't entail any long-term decline in living standards; no one is suggesting we all sit in the dark. An economy based on hydrogen, fuel cells, gas-fired cogeneration, photovoltaics, and solar and wind power can provide all the energy we require today, and then



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some. A recent Department of Energy study noted that a series of wind farms, sited in known wind corridors in South Dakota and Nebraska, could supply enough electricity to meet the United States' entire consumption demands.

The current problem with all renewables is that they are too expensive. What they need in order to become economically competitive with coal and oil is mass production and economies of scale.

If, for instance, the Kyoto Protocol were to adopt a progressively more stringent fossil fuel efficiency standard — with every country beginning at its own baseline to increase its fossil fuel efficiency by 5% a year — it would create the mass markets to bring down the price of renewable sources, making them economically viable alternatives to coal and oil.

Today's dominant emissions-control mechanism, known as emissions trading, has proved ineffectual and deeply inequitable. While industrial countries, for instance, want emissions allocations to be based on 1990 levels in order to maintain their economic clout, developing nations want them based on a more democratic per capita basis. But since a U.S. citizen generates about 25 times more emissions than a citizen of India, the per capita approach would devastate the U.S. economy.

By contrast, a progressive fossil fuel efficiency standard would be equitable to all countries. It would also be far easier to monitor than emissions trading. A nation's progress would be charted by calculating the changes in the ratio of its carbon fuel consumption to its gross domestic product. A country would be obligated to reduce emissions by 5% a year while maintaining the same level of economic output; alternatively, a country's economy could grow by 5% if it produced no additional emissions. The standard would require countries to draw increasing amounts of their energy from noncarbon, renewable technologies until they attained the 70% reduction that nature requires.

The very act of addressing the climate crisis would bring home the realization that we are living on a finite planet — and that our collective actions are altering huge natural systems. A revamping of the globe's energy systems could also generate a new, pervasive ethic of sustainability that would permeate our institutions and policies.

California's energy crisis isn't taking place in a vacuum.

Because of the unusual drought in the Pacific Northwest and the unseasonal lack of snow due to warming-altered precipitation patterns, the California power crisis will intensify this summer without the normal supply of power from hydroelectric systems, officials warn.

The next 40 years will bring either heightened environmental catastrophe or a coordinated global transition to clean energy that will leave the world more stable, prosperous, equitable and peaceful than at any time in memory. That transition must begin — and begin soon — in the California legislature, the boardrooms of Detroit, and the General Assembly of the United Nations. Ironically, while many environmentalists have already written off the Bush administration, it is likely that the interests backing Bush will be more alert than the Clinton administration was to the economy-expanding potential of an energy transition. (Despite his rhetoric, Al Gore consistently obstructed the efforts of other governments to forge a meaningful climate treaty.)

Nature doesn't much care who the President is.

Given the massive costs of inaction and the beginnings of an unprecedented succession of ecological disruptions, food shortages, disease outbreaks and economic collapses, the United States must begin responding very soon to the climate crisis.

By pure coincidence of timing, California once more finds itself on the leading edge of history.

Ross Gelbspan is the author of *The Heat Is On: The Climate Crisis, The Cover-Up, The Prescription* (Perseus Books, 1998). He maintains the website www.heatisonline.org, a project of the Green House Network.

Which side are you on in the Cola Wars?

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