No doubt 1997 will be remembered as the year the nations of the world began to confront the problem of global warming.

The great majority of the world’s meteorologists (weather experts) now agree that human activities are noticeably warming the entire planet. [1] As humans burn “fossil fuels” (coal, oil, and natural gas, including of course gasoline), the resultings emissions of carbon dioxide act like the glass covering a greenhouse, letting sunlight in but not letting heat escape. As a result, the planet is warming.

Despite widespread scientific agreement on the fact of global warming, there is considerable disagreement about what harm it will do. CHEMICAL & ENGINEERING NEWS, the weekly voice of the American Chemical Society, recently summarized current research, saying:[2]

** The temperature of the air at ground level has warmed slowly but steadily since 1880. The 10 warmest years on record (since record-keeping began 117 years ago) have occurred since 1980; and 1997 is likely to end up the second warmest year on record.

** When heat is trapped, 20% of it goes to warm the atmosphere while 80% of it produces increased evaporation, thus putting more water vapor into the atmosphere.

** Evidence has been reported that total worldwide precipitation has increased during the past century. In some places, total precipitation has increased 50% since 1900. In the U.S., rainfall has increased 5% to 10% since 1900.

** In many places, the increased precipitation is coming in heavy downpours rather than in gentle rainfall. In the past decade, there have been 10 times as many catastrophic floods worldwide as there had been in the previous decade, according to the federal National Oceanic and Atmospheric Administration (NOAA). Europe alone has experienced 5 catastrophic floods in the last 5 years.

** Before industrialization, the amount of carbon dioxide in the atmosphere was about 280 parts per million (ppm) by volume. Today it is about 350 ppm (a 25% increase) and rising. The Intergovernmental Panel on Climate Change (IPCC) --the international scientific group studying global warming--has predicted that when carbon dioxide reaches 550 ppm, twice as high as it was before industrialization, average warming will be somewhere between 2 and 6 degrees Fahrenheit (1 and 3.5 degrees Celsius).

According to CHEMICAL & ENGINEERING NEWS some scientists think that even an average warming of 1 degree Celsius (1.8 degrees Fahrenheit) will produce expensive, unpleasant results. For example, Alan Robock, professor of meteorology at University of Maryland is quoted saying that such a rise would probably create a rate of warming faster than any seen in the last 10,000 years. He says a 1 degree Celsius average rise would pose serious threats of crop failures in the breadbaskets of the world, of stronger, more violent storms, and of coastal flooding.

At Kyoto last week, 150 nations agreed in principle to the following plan:

** Thirty-eight industrial nations must reduce their emissions of greenhouse gases to an average of 5% below 1990 levels by 2012.[3] Although the average must be cut to only 5% below 1990 levels, for a country like the U.S. which has steadily rising emissions, the Kyoto agreement will require cuts as great as 30% to 35% below where emissions would otherwise be by the year 2012.[3,4]

** Developing countries, like China and India, are asked to set voluntary limits.

** Enforcement for the 38 countries bound by real limits will be decided upon later.

** Ratification. The Kyoto accord will become legally binding once it has been ratified by at least 55 nations representing at least 55% of the 1990 carbon dioxide emissions. (The U.S., with 4% of the world’s population, emits 20% of world total carbon dioxide.) The terms of the accord are binding on an individual country only after its own government ratifies the treaty.

** Trading pollution rights. The most controversial part of the Kyoto accord allows nations to purchase pollution rights from other nations. The details will be worked out at a meeting set for next November in Buenos Aires. In the meantime, here is how tradable pollution permits work:

Typically, tradable pollution permits are presented as the “free market” solution to environmental problems. However, economist Herman Daly has described tradable pollution permits clearly, allowing us to see that the “free market” plays only a small role in tradable permits.[5]

The first step in any tradable pollution permit plan is to create a limited number of rights to pollute. Added all together, the pollution allowed by these rights must not exceed the absorptive capacity of the ecosystem. In other words, as a first step, someone has to determine the total amount of pollution that the ecosystem can tolerate. In this instance, the total amount of greenhouse gases that will keep the planet’s temperature tolerably low. The “free market” has nothing to do with this first step. This is a matter of scientific judgment and moral judgment--how much disruption of the global ecosystem are the world’s people willing to chance?

The second step is to allocate, or distribute, these newly-created assets (these rights to pollute). They must be initially distributed to various parties (individuals, firms, or nations, for example). What is a fair distribution? Should every citizen be given some of these rights free? Should every firm be given a bundle of these rights free? Should these rights be considered public property and then be auctioned off to the highest bidder, or simply sold for a predetermined price? What seems fair and equitable will vary from country to country. When the U.S. began its tradable permit program for sulfur dioxide as part of the Clean Air Act of 1990, existing sulfur dioxide emitters were freely given the right to pollute at or near their existing levels. This may seem to reflect an odd conception of fairness since sulfur emitters are degrading a public resource (the air we all breathe). However, this way of distributing pollution rights is consistent with a society that tolerates and even encourages the purchase of political power by the highest bidders (maintaining a free market in political rights, so to speak), as the U.S. currently does.

The third step is to allow the buying and selling of pollution rights. Only in this third step does the “free market” formally come into play. The market will distribute pollution rights in a least-cost fashion, providing something close to the cheapest way to achieve the allowed levels of pollution.

Herman Daly does not say so, but tradable pollution rights have several obvious problems.

1) Often the oldest, most polluting plants would be the most expensive ones to fix up. They may also be located in poor, people-of-color communities. Rather than curbing their pollution, it may be more “efficient” (meaning profitable) to purchase pollution rights and keep on polluting. Thus tradable pollution rights may --with maximum economic efficiency--dump on the poor.

In the U.S., this has already happened. Pollution trading has been advanced by Environmental Defense Fund (EDF) and others in a way that leaves the proponents open to charges of racism or of simply not caring about the social consequences of their ideas. Under the Clean Air Act, some of the worst polluters --the ones
need to clean up the most, who also tend to be located in people-of-color communities--have been buying pollution rights to continue polluting, thereby inequitably adding to the burdens of people-of-color communities.[6] From this we learn that, even though the market may "efficiently" distribute pollution, efficiency and equity are not connected. Pollution trading can create great inequities very efficiently.

2) Tradeable pollution permits create a new "right to pollute" that never existed before such rights were created by law, or by the Kyoto agreement. These new rights are new assets that someone will own. We can look forward to the day when grass-roots activists successfully convince their community to come down hard on a polluter, only to be hauled into court and asked to pay for the lost profits suffered by the polluter who had purchased a right to pollute. As a practical matter, tradeable pollution rights will strengthen the legal position of corporate polluters and weaken the position of communities.

There are other problems with tradeable pollution rights (at least as presently implemented), which we will discuss as we get closer to the November meeting in Buenos Aires.

All together, the Kyoto agreement is a brave start. Unfortunately, even if it succeeds 100% in meeting its goals, greenhouse gases will continue to rise. In a clear statement on its front page in early November, the NEW YORK TIMES declared that "a growing number of scientists and policy makers" believe it will be impossible to avoid a doubling of atmospheric carbon dioxide. "...[M]any experts believe that it is already too late to avoid serious climatic disruption, that the task ahead is one of keeping it from becoming truly catastrophic," the TIMES said. "The reason, [these experts say, is that the world's economic and political systems cannot depart from business as usual rapidly enough."[7]

We might ask, Who EXACTLY cannot depart from "business as usual" rapidly enough to avoid "serious disruption" of the planet's atmosphere? In an editorial six months earlier the TIMES had named the parties opposing timely control of greenhouse gases: the major producers and users of fossil fuels, "the big utilities, the oil companies, and the automobile and petrochemical industries."[8]

So, according to the TIMES, our course is set. Even if the U.S. ratifies the Kyoto accord, which is highly unlikely (Newt Gingrich calls the Kyoto agreement a "surrender" by the U.S. and an "outrage"[9]), we are in for a doubling of greenhouse gases and serious disruption of the earth's climate.[3,7] Is this what the American people want? On December 11 the TIMES reported taking a poll which revealed that 65% of Americans feel the U.S. should cut its greenhouse emissions "regardless of what other countries do" and only 17% feel that cutting emissions "will cost too much money and hurt the U.S. economy."[10] Unfortunately, among those 17% we count the wealthy corporate polluters who own and operate Newt Gingrich, Trent Lott (Senate majority leader) and most of their colleagues in both legislative houses. The important lesson from Kyoto may be the extent to which our democracy has been hollowed out by big corporate money. We still hear the words, "One person, one vote" but in reality (as everyone now knows) the American way has become "One dollar, one vote."

--Peter Montague (National Writers Union, UAW Local 1981/AFL-CIO)


Descriptor terms: global warming; greenhouse effect; greenhouse gases; carbon dioxide; international agreements; flooding; precipitation; kyoto; emissions trading; emissions allowances; clean air act; electric power industry; automobile industry; petroleum industry; petrochemical industry; fossil fuels; coal; oil; natural gas; gasoline; herman daly; edf; environmental defense fund; cbe; citizens for a better environment; pollution rights;