

Bad air linked to cancer-causing gene changes in fetuses

Outside air pollution can work in the womb to change the chromosomes of developing fetuses, a new study shows.

By SETH BORENSTEIN - KNIGHT RIDDER NEWSPAPERS

Wednesday, Feb. 16, in the Modesto Bee

WASHINGTON - Air pollution from traffic and power plants seems to cause genetic changes -- the kind linked to cancer -- in developing fetuses, a federally funded study released Tuesday has concluded.

A first-of-its-kind study of 60 pregnant women in poor areas of New York City used backpacks to monitor the women's exposure to airborne carcinogens and then tested their babies' umbilical-cord blood after birth. Babies whose moms were exposed to higher pollution levels had 53 percent more aberrations in their chromosomes. Other studies have shown that these types of chromosomal changes increase the risk of cancer.

"This finding shows the process can begin as early as the womb as a result of air pollution," said Frederica Perera, the director of Columbia University's Center for Children's Environmental Health. "We know that these pollutants make their way across the placenta."

Perera's study didn't determine what parts of the babies' genes changed or if they all changed in the same areas. The peer-reviewed study -- funded by the National Institute of Environmental Health Sciences and published in this month's journal *Cancer Epidemiology Biomarkers and Prevention* -- links in-the-womb chromosome damage to elevated exposure to polycyclic aromatic hydrocarbons, or PAHs.

There are more than 100 PAHs, which are the byproducts of combustion, including car and truck exhaust, power plant emissions, tobacco smoke and even the smoke from grilling meats. Fifteen of the most common PAHs are listed as carcinogens in the official government list of cancer-causing agents. Perera and Kenneth Olden, the director of the National Institute of Environmental Health Sciences, said the new study should make federal officials look toward improving prevention methods.

Kyoto Pact Takes Effect Without U.S.

By Miguel Bustillo, Times Staff Writer

Los Angeles Times, Wed., Feb. 16, 2005

The world's largest producer of greenhouse gases won't join in the treaty, which targets global warming. Europe will press Washington.

Nearly eight years after it was negotiated, the Kyoto Protocol to curtail greenhouse gases believed to cause global warming goes into effect today without the participation of the country that produces roughly a fourth of the world's heat-trapping exhaust: the United States.

A total of 140 countries have ratified the pact, the first major international effort to reduce the industrial emissions that many scientists believe are behind the increase in global temperatures during the last century.

But under the terms of the treaty, only developed nations will have to cut greenhouse gases. Thirty-five have agreed to lower them to 5% below 1990 levels by 2012.

Critics of the accord, including U.S. officials, have argued that it places the developed world at a competitive disadvantage. Emerging economic giants such as China are expanding their energy use but are not required to reduce greenhouse gas emissions.

United Nations officials and numerous heads of state praised the treaty's formal launch as a long-overdue starting point.

"We have been waiting so long for the start of the Kyoto Protocol, there is a sense this is historic," Joke Waller-Hunter, executive secretary of the U.N. Framework Convention on Climate Change, said in an interview from Kyoto, Japan, where diplomats had gathered to commemorate the treaty.

For the treaty to take effect, nations responsible for at least 55% of the world's greenhouse gas production had to ratify it. That requirement was finally met last year when Russia agreed to participate.

However, the consensus of even the strongest Kyoto supporters is that the pact alone will barely make a dent in the problem of global warming - especially without the United States. The U.S. and Australia are the only large, developed nations not taking part.

Worldwide emissions of carbon dioxide and other greenhouse gases, released mainly during the burning of fossil fuels such as coal and oil, are expected to increase even with the treaty because of the growing output of developing nations such as China and India.

In fact, it is far from certain that the 35 countries that have agreed to reduce the gases will actually do so. Japan and Canada have increased their emissions since the treaty was negotiated in Kyoto in 1997 and will have to make major reductions to comply.

Acknowledging that it would need stricter policies to abide by the treaty, Canada is considering ordering auto makers to reduce tailpipe emissions of greenhouse gases in new vehicles sold in the country. Canadian officials said they expected a major announcement today at a Kyoto celebration in Toronto but declined to say whether it would be the vehicle rule.

Meanwhile, European leaders are already pressing to move beyond Kyoto and for the U.S. to resume a role in the discussions. On Tuesday, French President Jacques Chirac called for wealthy nations to go much further than the treaty's relatively modest reductions and slash emissions to a quarter of current levels by 2050. His remarks followed a speech by British Prime Minister Tony Blair last month that also called for stronger measures.

"Our first objective this year must be to reengage the United States in the international effort to fight climate change," Chirac said during a conference at the French presidential palace, adding that he planned to raise the issue with President Bush in Belgium next week.

Global temperatures have clearly risen during the last 100 years. Last year was the fourth-hottest ever recorded, according to a recent report by NASA, and most scientists now believe that human activities are at least playing a role in the shift.

However, there is still debate over whether greenhouse gases are the primary cause, with skeptics noting that Earth began emerging from a natural cooling period dubbed the Little Ice Age about 150 years ago.

The United States signed the Kyoto treaty in 1997, and then-Vice President Al Gore was one of its chief negotiators. But the Senate refused to ratify it, arguing that it would harm the American economy.

Bush, who campaigned before his first term on the promise that he would regulate carbon dioxide emissions from power plants, changed his mind after taking office and withdrew from the Kyoto talks in 2001, advocating voluntary steps to reduce greenhouse gases.

Bush administration officials stressed that they regarded global warming as a significant concern. They argued that they simply had a different view of how to approach the problem, noting that they had committed more than \$5 billion to research and other programs.

"We are continuing to move forward in an aggressive way to address climate change," White House spokesman Scott McClellan said. "It is a serious matter."

Environmental groups, however, accuse the United States of burying its head in the sand on global warming by refusing to take part in Kyoto.

The European Union, they note, has already begun an innovative market-based program that will allow nations such as Britain to receive credit for pollution-reduction investments they make in Eastern Europe.

The Kyoto treaty will launch a similar program worldwide, allowing companies that make investments in the developing world to receive "pollution credits," which they could sell to companies in developed countries for a profit.

The groups say U.S. companies are missing the opportunity to be part of the trade in credits.

"There are projects going on in China, India, Brazil right now where companies are looking for places to make easier reductions to help them reach their targets" in countries subject to Kyoto, said Annie Petsonk, international counsel for the group Environmental Defense.

Global-warming skeptics lauded the administration for taking a stand against an international rush to judgment. They noted that Kyoto would be far more costly to the United States than to the European nations pushing for the reductions.

"It's very convenient for the U.N. leaders to have President Bush to beat up on and to claim moral superiority by calling us environmental laggards," said Myron Ebell of the Competitive Enterprise Institute.

Ebell was planning a celebration of his own tonight in Washington to mark the absence of the United States and Australia from the treaty.

Counting CO2 (Info. box)

Carbon dioxide is one of the main gases that result from the burning of oil and coal and contribute to a rise in global temperatures. Here are the 10 largest emitters of CO2 from fuel combustion in 1998, which accounted for 64% of the world total:

Kyoto Global Warming Pact Takes Effect

By JOSEPH COLEMAN, Associated Press Writer
Orange County Register, LA Daily News, Wed., Feb. 16, 2005

KYOTO, Japan (AP) -- The Kyoto global warming pact went into force Wednesday, seven years after it was negotiated, imposing limits on emissions of carbon dioxide and other gases scientists blame for increasing world temperatures, melting glaciers and rising oceans.

The landmark agreement, negotiated in Japan's ancient capital of Kyoto in 1997 and ratified by 140 nations, targets carbon dioxide and five other gases that can trap heat in the atmosphere, and are believed to be behind rising global temperatures that many scientists say are disrupting weather patterns.

The United States, the world's largest emitter of such gases, has refused to ratify the agreement, saying it would harm the economy and is flawed by the lack of restrictions on emissions by emerging economies China and India.

"We have been calling on the United States to join. But the country that is the world's biggest emitter has not joined yet, and that is regrettable," Japan's top government spokesman, Chief Cabinet Secretary Hiroyuki Hosoda, told reporters.

Environmental officials, gathered in the convention hall where the accord was adopted, hailed the protocol as a historic first step in the battle against global warming and urged the world to further strengthen safeguards against greenhouse gases.

"Today is a day of celebration and also a day to renew our resolve ... to combat global warming," said Hiroshi Ohki, former Japanese environment minister and president of the conference that negotiated the protocol.

Australia, the only other developed nation besides the United States not to join, defended that decision, with Environment Minister Ian Campbell saying the country was nonetheless on track to cut emissions by 30 percent.

"Until such time as the major polluters of the world, including the United States and China, are made part of the Kyoto regime, it is next to useless and indeed harmful for a country such as Australia to sign up," Australian Prime Minister John Howard said in Canberra.

The Kyoto agreement was delayed by the requirement that countries accounting for 55 percent of the world's emissions must ratify it. That goal was reached last year - nearly seven years after the pact was negotiated - with Russia's approval.

In Japan, a tireless supporter of the pact, the enactment was being met with a mixture of pride and worry that the world's second-largest economy is unprepared to meet its emissions reduction targets. Japan planned to celebrate the enactment Wednesday at the convention hall where the accord was negotiated in December 1997.

Joke Waller-Hunter, the Dutch chief of the treaty secretariat, said that while the Kyoto agreement already was having an impact on greenhouse gas levels, it was only a first step that must be followed up with stronger agreements once it expires in 2012.

U.N. Secretary-General Kofi Annan said climate change was one of the biggest challenges facing mankind and there was "no time to lose" in formulating strategies that would follow the term of the Kyoto pact.

"If this challenge is not addressed, sustainable development will be out of reach," he said in a video message broadcast from U.N. headquarters in New York.

In London, about 35 Greenpeace protesters armed with foghorns, attack alarms and whistles stormed the International Petroleum Exchange in a bid to paralyze oil trading.

"We believe we are stopping trading in oil on the global market," Greenpeace spokesman Ben Stewart said. "We're asking the world to take a deep breath on this and consider where our oil addiction is taking us."

The Kyoto targets vary by region: The European Union is committed to cutting emissions to 8 percent below 1990 levels by 2012; the United States agreed to a 7 percent reduction before President Bush denounced the pact in 2001.

That proposal was opposed by the U.S. Senate so adamantly that the protocol was never submitted for ratification by then-President Clinton. Bush then pulled the United States out of the pact in March 2001, less than three months after taking office, saying the Kyoto pact would have cost far too much and exacerbated an already bothersome energy problem for the world's largest consumer of energy from fossil fuels such as coal and petroleum.

European Commission President Jose Manuel Barroso urged Washington to address the issue, saying, "Science warns us that we have to continue to reduce emissions."

White House spokesman Scott McClellan said Tuesday "we are still learning" about the science of climate change. In the meantime, McClellan said, "We have made an unprecedented commitment to reduce the growth of greenhouse gas emissions in a way that continues to grow our economy."

The Bush administration's stance has since drawn fire from environmental experts, who say it is ignoring scientific consensus about global warming, and that government reports have been censoring views not in line with its politics.

Japan is struggling to find ways to meet its obligations. A report this month by the Ministry of Economy, Trade and Industry showed that 11 of 30 top Japanese industries - steel and power among them - risked failing to reach targets unless they take drastic steps.

Officials made solemn pledges Tuesday to fulfill Japan's treaty requirement to cut emissions of carbon dioxide and other gases by 6 percent below 1990 levels by 2012.

The Cabinet will draw up concrete plans by May, Environment Minister Yuriko Koike said.

Some officials are pondering a "carbon tax" to punish polluters - a move opposed by business - while others favor expansion of nuclear power and promotion of energy-saving technologies.

Japan also has been especially active in carbon trading - a system under which governments have allocated carbon dioxide quotas to industrial facilities. Those which emit less gas can sell the "credit" to other companies who emit too much.

Makoto Katagiri, whose Natsource Japan is acting as a credit broker between Japanese and foreign companies, estimated in a World Bank study that Japan bought 41 percent of the carbon credits on the international market last year.

Bush Puts Jobs Ahead of Climate Treaty

By JOHN HEILPRIN, Associated Press Writer

Wed., Feb. 16, 2005, S.F. Chronicle and Modesto Bee

WASHINGTON, (AP) -- The Bush administration contends that the long-term benefit from the Kyoto climate treaty won't be worth the immediate economic cost.

The conspicuous U.S. absence from the treaty limits its impact when it takes effect Wednesday. While the 35 participating industrial nations have committed to reducing carbon dioxide, methane, nitrous oxide and other compounds to below their levels of 1990, the United States is the single biggest source of greenhouse gases.

President Bush agreed in his 2000 campaign to regulate carbon dioxide as a pollutant but came to the view shortly afterward that its harm has yet to be scientifically established.

"We are still learning about the science of climate change," White House spokesman Scott McClellan said Tuesday. In the meantime, McClellan said, "We have made an unprecedented commitment to reduce the growth of greenhouse gas emissions in a way that continues to grow our economy."

State Department spokesman Richard Boucher said the United States is devoting nearly \$5.8 billion this year to scientific research, new technology, foreign aid and tax incentives for nonpolluting energy development.

All, Boucher said, are aimed at reducing greenhouse gases and other air pollutants while also improving energy security, reducing poverty and promoting economic growth and development.

The White House has contended that complying with the treaty's requirement could cost millions of jobs, many of them to Third World countries such as India and China, both signers of Kyoto but exempted from any limits on greenhouse gases.

Bush "strongly opposes any treaty or policy that would cause the loss of a single American job, let alone the nearly 5 million jobs Kyoto would have cost," said James Connaughton, who heads the White House Council on Environmental Quality.

Instead, the president unveiled a plan in 2002 to rely on voluntary measures by industry to slow the growth of carbon dioxide and other greenhouse gases going into the atmosphere mainly from the burning of fossil fuels. It calls for the "carbon intensity" _ the amount of greenhouse gases

released as a percentage of economic growth _ to fall 18 percent by 2012, or about 1.5 percent a year _ about the same rate of reduction already occurring.

Environmentalists complain there is no guarantee any of that will occur and that, even if it does, greenhouse gases released into the atmosphere will continue to increase.

Because of heavy reliance on coal to produce electricity and oil for transportation over the next two decades, U.S. carbon emissions are expected to increase an average of 1.5 percent a year between now and 2025 from 5.790 million tons in 2003 to 8.062 million tons in 2025, according to the Energy Department.

"Reducing greenhouse intensity does not reduce total greenhouse gas emissions, and is therefore not real climate stewardship," said Annie Petsonk, a lawyer for Environmental Defense. "Kyoto breaks the link between economic growth and greenhouse gas pollution. ... That is the market that is leaving America behind."

Former Vice President Al Gore was a main participant in putting the Kyoto accord together in 1997. Before then, however, the Senate went on record opposing some of the treaty's principles, including the idea of exempting developing nations from any of its targets.

"The evidence of this worsening crises continues to mount," Gore said Tuesday, accusing the Bush administration of showing the world "a stunning display of moral cowardice."

Officials Fight Air-Pollution Designations

By MALIA RULON, Associated Press Writer

S.F. Chronicle, Wed., Feb. 16, 2005

WASHINGTON, (AP) -- Robert Stec would like to help clean up the nation's dirty air, but at \$1 million a plant to install air-pollution control technology, it would be cheaper for him to move his furniture manufacturing business overseas.

"What good is fresh air if you have a lot of unemployed people breathing it?" asks Stec, president and CEO of Lexington Home Brands. The North Carolina furniture maker employs 1,700 workers at three plants, including one that's in a county with air pollution problems.

"Domestic manufacturing is at a cost disadvantage anyway, so when you lay on all this extra environmental stuff ... it becomes the straw that breaks the camel's back," Stec said.

Mayors and economic development officials say Stec's company is one of a growing number of businesses that are not inclined to expand or open new plants in areas cited by the federal government as having too much smog-causing ozone or microscopic soot.

They consider the costs and permits required to operate in those places _ called "non-attainment zones" because they have not achieved acceptable pollution levels _ far too burdensome.

"We're taken off of the look list," said Ted vonCannon, president of the Metropolitan Development Board in Birmingham, Ala. "Most of the time, we'll be dismissed right out of hand."

This conflict between jobs and clean air has gained attention as lawmakers consider President Bush's air-pollution plan, which has failed to pass Congress for three years. The Senate Environment and Public Works Committee was trying again this week to advance the plan, despite opposition in both parties.

In Alabama, some automotive companies _ Mercedes in Vance, Honda in Lincoln, Hyundai in Montgomery _ opted to put their plants on sites that already complied with air pollution standards.

"In our case, it was preferable for us to be in an attainment area because you didn't have the restrictions that you would have had in a non-attainment area," said Linda Sewell, a Mercedes spokeswoman who helped select the plant site in 1993.

Some 509 counties nationwide have been cited over the last year as non-attainment zones by the Environmental Protection Agency. The Clean Air Act requires states to develop a plan for

reducing emissions in those areas, a prospect that creates uncertainty for businesses because they are likely to face restrictions on production and higher costs.

Environmentalists say that's the way it should be and ask: What good are jobs when people are dying from respiratory illnesses and heart disease caused by polluted air?

"If we move to aggressively clean up the air, that's actually the best way to ensure economic growth throughout the country," said Frank O'Donnell, president of the advocacy group Clean Air Watch. "Not only can people in these communities have clean air, but businesses can locate anywhere."

Bush's plan would reduce emissions of sulfur dioxide, nitrogen oxide and mercury by 70 percent by 2018. It also would bring non-attainment regions into compliance through a trading plan in which companies with emissions under the federal limit could sell credits to companies over the limit.

Critics note, however, that actual emission levels are not lowered by the exchange.

At two recent hearings, Sen. George Voinovich, R-Ohio, cited the concerns of economic development officials as a critical reason the bill is needed.

Democrats and environmental groups argue that Congress should instead pass a stronger bill that also would regulate carbon dioxide, the chief "greenhouse" gas blamed for global warming, and require faster emission reductions.

A competing bill from Sen. James Jeffords, I-Vt., would reduce carbon dioxide emissions to 1990 levels and cut the other pollutants by 72 percent to 90 percent by 2009. A proposal from Sen. Thomas Carper, D-Del., calls for cuts in all four pollutants by a few years later.

Meanwhile, Macon, Ga., Mayor Jack Ellis says while he hopes for a federal solution, he's also working hard to reduce the amount of particulate matter floating around his city's air.

"If we don't do anything, we could very well be faced with not a lot of new industries coming in," Ellis said.

Air Pollution Designations Challenged *(sidebar to above story)*

By The Associated Press

S.F. Chronicle, Wednesday, February 16, 2005

WHEEZE: Mayors and economic development officials say a growing number of businesses are not inclined to expand or open new plants in areas cited by the Environmental Protection Agency as "non-attainment zones," with too much smog-causing ozone or microscopic soot.

TAKE A DEEP BREATH: The act requires states to develop plans for reducing emissions in those areas, a prospect that creates uncertainty for businesses because they are likely to face higher costs and restrictions on production.

CHOKES: Some 509 counties nationwide have been cited as non-attainment zones over the last year.

Mercury Risk Overstated, House Panel Says

By JOHN HEILPRIN, Associated Press Writer

S.F. Chronicle, Wednesday, February 16, 2005

WASHINGTON, (AP) -- Dangers of toxic mercury pollution in the environment have been overstated, the House Resources Committee says in a report issued in anticipation of new regulatory proposals from the Bush administration.

The report, written by aides to the committee's majority Republicans and being released Wednesday, also says no link between mercury from coal-burning power plants and levels of mercury in fish has been scientifically established.

"After an exhaustive review of all the science surrounding the mercury debate, it is clear that some special-interest groups are crying wolf," said the panel's chairman, Rep. Richard Pombo, R-Calif.

The report said mercury levels in fish have remained constant or declined slightly since the 1970s. "Scaring people away from consuming fish is creating a public health crisis in its own right," it said.

The Food and Drug Administration has warned that high levels of mercury in some fish, including albacore tuna, can pose a hazard for children and for women pregnant or nursing. The Environmental Protection Agency estimates that about 8 percent of American women of childbearing age have enough mercury in their blood to put a fetus at risk.

Under a court agreement with the Natural Resources Defense Council, EPA is expected to issue a rule by March 15 to deal with mercury coming out coal-burning power plants' smokestacks.

The Bush administration, however, disputes the Clinton administration determination that mercury should be regulated as a hazardous substance and that about 450 power plants should be forced to buy the "maximum achievable control technology" to reduce it.

Instead, EPA now favors an industry-backed alternative that would order a reduction in mercury pollution nationwide with individual plants permitted to meet their allowance by buying pollution rights from companies already in compliance.

"With a more restrictive, unnecessary regulation we could see a large portion of this country's coal supplies become useless," said Rep. Jim Gibbons, R-Nev., chairman of the resource panel's energy and resources subcommittee. "A cap-and-trade approach will reduce mercury emissions while maintaining coal as a viable source of energy."

Environmentalists said the committee's conclusions are contradicted by health advisories from FDA, EPA and state agencies across the country.

"The House report represents outrageous misinformation that reads like the utility industry's talking points," said John Walke, the NRDC's director for clean air.

The EPA said its proposal would cut mercury emissions from coal-burning power plants by 70 percent, from the current 48 tons a year to 15 tons a year, by 2018.

WWF Warns on Man-Made Arctic Toxins

By DOUG MELLGREN, Associated Press Writer

S.F. Chronicle, Wednesday, February 16, 2005

OSLO, Norway (AP) -- The Arctic may seem a remote and pristine region, but winds and tides carry man-made toxins to the region, endangering wildlife there, the World Wildlife Fund said Wednesday.

And the fragile Arctic can serve as an early warning to the rest of world, said the group, launching an international campaign to control or ban man-made chemicals.

"Like the small portion of an iceberg that can be seen from above the water, chemicals that scientists now know to be contaminating the animals of the Arctic may be a warning of a larger problem that, for now, remains hidden," the environmental group disclosed in a report released jointly in Oslo and Geneva.

The 18-page report, called "The tip of the iceberg: Chemical Contamination in the Arctic," summed up existing research and through its DetoX campaign urged action.

"The time to act and move toward safer, sustainable chemical use is now," said the report, urging adoption of such legislation as the European Union is considering: REACH, which stands for Registration, Evaluation and Authorization of Chemicals.

The harm such toxins do to wildlife has already been documented by scientists in Norway and elsewhere, and the WWF said safer replacements must be made and new laws passed to protect the fragile northern environment.

Researchers have long known that that PCBs and other manmade toxins can cause hormonal imbalances in Arctic wildlife. For example, female bears with vestigial male sexual organs were found in 1997 on Norway's Svalbard Archipelago and the surrounding Barents Sea region.

Only a tiny fraction of the estimated 30,000 to 70,000 chemicals made worldwide are banned, even though many more may be harmful, the report said. Europe is the largest producer, it said, accounting for about 35 percent.

And even those now largely banned, such as polychlorinated biphenyls, or PCBs, polychlorinated naphthalenes, or PCNs, and DDT, can continue to cause harm because they take so long to break down.

The report said the Arctic region, including the land masses of northernmost Europe and North America, have become an inadvertent dumping ground for many of the chemicals because of climate conditions.

Air with contaminants reaches the cold Arctic, condensation forms and the toxins are carried to the ground in rain or snow, where the cold slows their decomposition.

"As a result, the Arctic acts as a final "sink" where pollutants from around the world accumulate and become trapped. The wildlife of the Arctic is especially vulnerable to chemical pollution," the report said. Contaminants are also carried by ocean currents.

For example, decabromodiphenyl ethers, or deca-BDEs, are one of about 70 types of brominated flame retardants, and are commonly used in televisions, computers, stereos, and plastic toys.

They have been found in what sounds like an International Who's Who list of wildlife, including: polar bears, arctic foxes, seals and beluga whales in Norwegian and Canadian areas as well as in white-beaked dolphins, minke and sperm whales, mackerel, harbor porpoises, blue mussels, salmon, endangered Vancouver Island marmots and glaucous gulls.

Man-made toxins are also believed to cause cancers, reduce vitamin levels, and can even cause the thinning of the shells of birds' eggs, making them more vulnerable.

Kyoto treaty goes into effect

Bush kept U.S. out of international pact on global warming

Shankar Vedantam, Washington Post

S.F. Chronicle, Wednesday, February 16, 2005

Washington -- The Kyoto treaty to reduce global warming goes into effect today after seven years of wrangling, harangues and dramatic entrances and exits by Russia and the United States.

The global environmental movement calls it a historic victory, but critics in the industry and elsewhere say the bang could end in a whimper: Emissions of carbon dioxide will continue to rise, many of the cuts in greenhouse gases claimed under Kyoto probably would have happened anyway, and its future could be derailed by the stony opposition of the Bush administration.

Supporters acknowledge those realities but argue that the real impact of the treaty is not tangible.

"The greatest value is symbolic," said Eileen Claussen, president of the Pew Center on Global Climate Change, an independent research and advocacy organization that works with many large companies interested in addressing the risks of global warming.

Although the United States remains on the sidelines, the vast majority of the world's nations are participating in an accord aimed at controlling global warming linked to carbon dioxide and other greenhouse gases. If the treaty succeeds as its backers intended, it will reward pollution-cutting innovation and push countries and companies to pursue cleaner forms of growth.

The United States, during President Bill Clinton's presidency, helped shape the treaty, which was negotiated in Kyoto, Japan, in 1997 and was ratified by 141 nations. But President Bush pulled the United States out as soon as he took office.

The pact limits emissions from 35 industrialized countries. Developing countries were exempted from limits to give them a chance to catch up with the development of the industrialized world.

Australia and the United States have refused to join. Bush administration officials said the treaty would hurt the economy and be ineffective and discriminatory because large, rapidly industrializing countries such as China and India escape the limits.

Many countries, including several in the European Union, are unlikely to meet their emission control targets and will have to buy "credits" -- most likely from Russia, which will have plenty to sell because many of its industrial plants shut down during its economic meltdown in the 1990s.

"They are going to take credit for sagging economies and flat populations," said James Connaughton, chairman of the White House Council on Environmental Quality. Bush's proposals for voluntary emission controls and incentives to develop clean technologies would have as much impact on U.S. emissions as Europe would achieve under Kyoto, he said.

Mountains of paper and oceans of ink have been expended debating Kyoto, but the ultimate fate of the treaty may be determined by what happens under the polar ice caps. Global temperatures are indisputably rising -- and, while there are persistent skeptics, the majority of scientists say human activity is to blame.

Rising temperatures have already been linked to impacts on agriculture, coastal areas and public health. Melting ice caps could raise sea levels and inundate coastal areas, scientists say.

Tropical diseases such as malaria are spreading into new areas as a result of climate change in Africa, said Ken Newcombe, a senior manager at the World Bank, which has been setting up a system to help developing countries invest in clean technologies and sell credits to wealthy nations under the Kyoto accord.

Despite the official U.S. position, some states are taking matters into their own hands. California is demanding steep reductions in vehicle emissions. Several Northeastern states are banding together to limit greenhouse emissions and set up the kind of trading system that could easily blend into the Kyoto model.

Under the treaty, the European Union committed to reducing its emissions 8 percent below 1990 levels, Japan and Canada committed to a 6 percent cut, and Russia committed to limit emissions right at 1990 levels.

The United States would have had to limit emissions at 7 percent below 1990 levels, said Annie Petsonk, international counsel at Environmental Defense, an advocacy organization.

Kyoto Protocol Debuts

A commonsense look at a global problem

By Jim DiPeso

S.F. Chronicle, Wednesday, February 16, 2005

In the novel, villainous environmentalists cruise around in oh-so liberal hybrid cars, bumping off their enemies with deadly stings from ill-tempered octopuses.

In the movie, hero environmentalists demand that an obtuse, right-wing vice president (who looks awfully familiar, by the way) do something about the climate disaster that is about to freeze Manhattan and ruin everyone's weekend.

If it weren't so funny, it would be serious.

Actually, it is serious. Pop culture has captured global warming, thanks to "State of Fear," Michael Crichton's latest best-seller, and "The Day After Tomorrow," last year's cheesy Hollywood hit. In the long run, this is probably a good thing.

At first glance, however, the popularization of a complex matter doesn't bode well for elevated debate or sound policymaking. Scientists say both the book and the film took considerable liberties with climate science. In the political world, the right denounced the film and the left pilloried the book. Frowning advocates branded both as epic distortions, politically correct screeds that confuse more than they enlighten.

But maybe not. The hype shows that debate about global warming has hit the big time. The issue will never go back to the rarefied attic of academic journals and technical conferences. Global warming has entered the mass market of public discourse.

Markets in both widgets and ideas force all players to improve their wares. The rough-and-tumble of wide-open debate will, with some luck, force the pros who work on global warming to do a better job of talking and acting on an issue that will face humanity for many years.

The scientists who have arrived at a consensus that human-caused global warming is happening will have to step outside the laboratory more often to explain their findings to lay people. Average folks are depending on the experts to help them understand what's going on in the atmosphere, what sorts of risks we face, and things we don't yet know.

Environmental advocates will have to avoid exaggeration, and come up with menus of practical ideas for reducing greenhouse gas emissions in ways that are equitable and make economic sense. When there is a problem, people want to know how it can be fixed. Greens should spend more time talking hopefully about solutions that everyone can buy into.

Crichton and others in the small band of global-warming skeptics will have to learn that the courtroom of informed judgment is located in Missouri. Show us, with scientific rigor, that the many researchers who have painstakingly tracked down evidence for human-caused global warming have made a colossal blunder. Scientists sometimes err. Occasionally, contrarians are right. If so, we need to know. But the global-warming skeptics have yet to make convincing arguments with bulletproof evidence. Incendiary words about money-grubbing researchers don't help their cause.

Businesses, especially those that produce or use large amounts of fossil fuels, will have to acknowledge that climate scientists are quite possibly onto something big. More time planning for a world that runs on carbon-free energy would be in order. Business can be part of the problem or part of the solution. We'll all breathe easier if it's the latter.

Politicians will have to answer questions about global warming that they would rather avoid. The pols need to understand that science can provide neither complete information nor a quick fix that will get them through the next campaign. Elected officials are responsible for making judgments in the face of uncertainties and finding long-term solutions for a long-term problem. End the dumb partisan games and focus, ladies and gentlemen.

Ordinary citizens have to do their part. We all need to pay attention, learn how science works, dig beyond talk show sound bites, and hold our leaders accountable. Global warming is a big deal and we're all responsible. Future generations are awaiting our answer.

Jim DiPeso is policy director of Republicans for Environmental Protection

Kyoto Protocol Debuts California gives automakers a road map

By Steve Westly

S.F. Chronicle, Wednesday, February 16, 2005

As the Kyoto Protocol goes into effect today, it marks a major milestone in the world's efforts to address the serious threats of global warming. With the exception of the United States, every major industrialized country in the world will be subject to the accord.

There is no doubt that the risks from global warming are real and that the world's financial markets are changing to reflect these greater risks. The way companies respond to the new global regulatory environment will affect their long-term success.

Nowhere is this truer than in the automobile industry. The countries that have signed Kyoto bought more than 60 percent of new cars in 2002. Although the U.S. government has not signed onto the agreement, many individual states are aggressively pursuing reductions in greenhouse-gas emissions. California has taken a lead role, adopting an emission standard for vehicles that will take effect in 2009. The seven Northeastern states that already follow California's current emissions standards, including New York and Massachusetts, have indicated they intend to adopt the new rules. Together, these states represent more than 25 percent of all new car sales in the United States.

Unfortunately, automakers have resisted our new standards every step of the way. Last year, they filed suit against the state to stop us from putting them into effect.

The California Public Employees' Retirement System and the California State Teachers' Retirement System own \$1.55 billion in auto company stock. As a trustee to these funds -- the nation's first and third largest public pension systems -- I have an obligation to protect the long-term value of more than 2 million retirees' investments. And, I want to make sure that automakers don't miss a clear shift in what the market wants: cleaner cars.

When auto manufacturers decided to divert their resources to legal battles, I began a shareholder campaign to move the world's auto manufacturers to innovate rather than litigate. I wanted to challenge constructively the industry to explain its rationale for investing in legal maneuvers rather than in new technology to produce clean vehicles.

The New York Common Retirement Fund (\$123 billion in assets) quickly joined our shareholder coalition. Earlier this month, the trustees of CalSTRS also formally signed on. Now, the country's three largest public pension funds (with more than \$2 billion invested in the automakers) are focused on this issue.

Regardless of your position on global warming, there is no doubt that the Kyoto Protocol and other efforts to curb greenhouse gas emissions will affect the way companies do business around the world. The companies that invest in new technologies will be best equipped to compete in the global markets of the future.

Along with other major shareholders, I hope to encourage automakers to focus on developing vehicles that can compete in the new carbon-constrained market rather than fight the inevitable. Tomorrow's global marketplace demands forward-thinking industries, not obstructionism.

Steve Westly is controller for the state of California.

OPEN FORUM

'Fear'-mongering Crichton wrong on science

By Naomi Oreskes

S.F. Chronicle, Wednesday, February 16, 2005

Novelist Michael Crichton has been getting attention lately for his new novel, "State of Fear" -- No. 5 last week on the New York Times best-seller list -- which suggests there's no basis for concern over global climate change. In public speeches, he has compared the existing scientific consensus to the early 20th-century consensus on eugenics -- implying that because scientists were wrong then about eugenics, they must be wrong now about climate change.

Crichton has got his science, his history and his politics wrong. Climate scientists have been in agreement for some time that global climate change is real and happening now. We know that

humans have changed the chemistry of Earth's atmosphere, most measurably through the addition of carbon dioxide from the burning of fossil fuels. We also know that these changes are having a detectable effect on Earth's climate. These are not speculations, guesses or predictions, but observations over which there is no significant scientific argument.

Moreover, given that carbon dioxide is a greenhouse gas, and the theory of greenhouse gases is well established, it is nearly certain that a continued rise in carbon dioxide will lead to more changes: increased average temperatures, melting of polar ice (and a subsequent rise in sea levels), and, perhaps, an increase in floods, droughts and hurricanes. Finally, we know that the predicted changes could occur rapidly, giving both humans and nonhumans little time to adapt. Anyone who denies this has simply got the science wrong.

As a firm scientific consensus has emerged, climate-change deniers have changed their tactics. Having previously challenged the existence of a scientific consensus, they now admit that there is a consensus, but suggest that it is wrong. Crichton's claims are a good example. He argues that scientists who supported the eugenics movement in the early 20th century were politically motivated, and, because there are political issues at stake in climate change, climate science must be mistaken, too.

This argument is both illogical and historically unfounded. The eugenics movement was based on the idea of improving the human race through application of the scientific principles of genetics. In the early 20th century, the new science of genetics had demonstrated that many traits are controlled by heritable elements, which came to be known as genes. Social reformers had meanwhile noted that many social ills -- prostitution, gambling, alcoholism -- seemed to run in families. From this, they concluded that these ills were inherited and sought to do something about it.

Eugenics took many forms, from education about genetics at its most reasonable to the Nazi extermination program at its most pernicious. Eugenics was wrong -- there's no doubt about it -- but let's be clear about what the wrong was. Today, we accept that genes control many human traits -- wholly or in part -- and it is not at all ridiculous to try to gain a scientific understanding of how they do so. This is the basis of the Human Genome Project, which the vast majority of Americans of diverse political persuasions support. But knowing this does not logically compel us to isolate, sterilize or kill our fellow human beings.

The social program of eugenics is reviled in hindsight, but the science of genetics is not. Moreover, to argue that any particular consensus is mistaken simply because a previous consensus was mistaken is illogical. Scientists revise their views in light of new information: This is to their credit and all of our benefit.

But since no one can predict where new information will emerge, the only relevant question to ask is: Is there any reason to suspect that the current science is mistaken? Crichton claims there is, that the current climate science is "politicized." But here he has got the politics wrong, too. In fact, the shoe is on the other foot. It's no secret that many of those who have been active in climate-change denial have ties to the energy industry, or to politically motivated think tanks. Some live in or work for states that have large fossil-fuel industries, which have not hidden their interest in this issue.

And why should they? The fact that groups or individuals are politically motivated does not mean that they are wrong. The detailed exploration of the deep oceans and sea floor in the 1950s was motivated by the political concerns of the Cold War, particularly the desire to track and monitor prowling Soviet submarines. But the knowledge produced was still reliable, and it led to the plate tectonics revolution.

Crichton is a novelist, and he knows how to write fiction. But he should leave the scientific facts to scientists, the historical facts to historians and the politics to all of us to debate.

Naomi Oreskes is director of the science studies program and associate professor of history at UC San Diego.

Ag Expo ends on a high note

By Jeremy Rue, Enterprise Staff Writer

The Kingsburg Recorder, February 16, 2005

The 38th annual 2005 World Ag Expo proved beneficial to several local industries who worked to spotlight their newest products, and check out the competition first hand this year.

Quinn company of Selma, which has been attending the show since its inception, had a notable presence this year. The local division which serves the four counties of Fresno, Kings, Tulare and Madera, was also contracted to provide generators to give power to the International Agri-Center.

This year they consolidated displays of engines, rentals, tractors and training services into one general area, which sales representative Bruce Rhoades says helped to show people the other services Quinn provides, other than power equipment sales.

Some people don't realize that we also have rentals. We rent everything from a garden hose to fork lifts," Rhoades said.

He pointed out that Quinn also has an apprenticeship program for students, and they also provide 90 percent of oil testing for California at a state of the art testing facility located in Selma.

Showcasing the newest tractor models, a 930 Wheel Loader, and a 287b Skid Steer Loader, Rhoades explained some of the greatest improvements are to ease the operations of equipment.

"These are ideal for people who never operated one before, or want to learn quickly," he said.

Rhoades demonstrated that the skid steer could easily be driven by only one joy stick, and the seat and controls were designed with comfort in mind.

He had already sold a 305 model on-site as a "show special" during the farm show, and had received leads on other products which he will follow up on. The Ag Expo also gives Rhoades an opportunity to get an idea of what other products Quinn is competing with.

Tina Ritchie from Vineyard Equipment Sales in Kingsburg also highlighted some new products at the farm show. The Vinemaster pickup machine features the latest in mechanization of raisin farming -- a prospect Ritchie believes will help to save a raisin industry which has been hit by tough economic times.

The newest model of a Vinemaster mechanical raisin harvester includes automatic water cleaning system and a paper shredder, as well as other improvements.

Ritchie tests the machine out on her own vineyard farm the year before releasing it to the public in order to "perfect it in the field."

"We found out there were certain things we had to change (from the previous model)," Ritchie said. "Like our water system to keep it clean. We found out people forgot to turn on the water, so we came up with a way to keep it clean. So basically every five minutes, the water system turns on so they guys don't have to think about doing that."

Another addition to the Vinemaster is a paper shredder, which is a proactive way to dealing with the stringent standards of [air quality control in the Valley](#). Many raisin farmers simply burn paper after collecting the raisins, but the Vinemaster shreds the paper, which can be decomposed into the ground.

"I seriously doubt we're going to be able to burn paper (in the future)," she said.

Ritchie remains optimistic that mechanization will help to reduce cost to farmers while at the same time offering a better, more sanitary product to the consumer.

Joseph Irigoyen, of Irigoyen Farms also stopped by the show to check some of the new products.

As a vegetable farmer, he was particularly interested in packing line machinery and harvesting equipment, but didn't make any plans for a purchase right away.

"Some of the things looked like they might work," he said.

"It's so big now. We go every year just to look around and have some lunch," he said.

Free days on all transit if pollution plan OKd **Commission wants 'Spare the Air' rides for entire Bay Area**

By Michael Cabanatuan, Chronicle Staff Writer

S.F. Chronicle, Wednesday, February 16, 2005

Smoggy skies bought free BART rides for morning commuters last summer, but this year they may mean free trips on every train, bus, ferry and streetcar in the Bay Area.

A plan put together by air quality and public transit officials would expand the free-ride program regionwide on the first five weekday "Spare the Air" days -- days when the Bay Area is in danger of exceeding federal air quality standards.

The Metropolitan Transportation Commission, the region's transportation planning agency, will consider the expanded plan at its meeting next Wednesday. One of the agency's committees has already endorsed the proposal, which would cost \$4 million.

"This is a very bold program," said Teresa Lee, spokeswoman for the Bay Area Air Quality Management District. "It has the potential to have a great impact on air quality in the Bay Area."

The success of last year's free-ride program on BART, plus a summer of fairly clean skies, led to the expanded plan. BART saw an 8 percent increase in the number of morning commuters on the two weekday Spare the Air days last summer.

"It was very popular," Lee said. "People loved it."

Organizers had budgeted for as many as five free-ride days, so "there was quite a bit of money left over," Lee said. Transportation and air quality officials decided to take that money and use it to expand the program regionwide, covering about 20 transportation agencies.

"A lot of our commissioners said (last year), 'Why not do it for everyone?' " said commission spokesman Randy Rentschler. "So we decided to just do it."

While details still have to be worked out, organizers have already met with Bay Area transit agencies. The six largest -- San Francisco's Municipal Railway, BART, AC Transit, Golden Gate Transit, SamTrans and Caltrain (both managed by the same agency) and Santa Clara Valley Transportation Authority --

carry about 90 percent of the region's weekday transit riders and will definitely be courted to join the program. But all other transit agencies will also be invited to take part.

Transit systems will have to agree to promote Spare the Air days and transit ridership on board, with signs or even by wrapping transit vehicles --

as BART did with a handful of trains last summer. They'll also have to prepare a plan that shows they're ready to handle a ridership increase of as much as 10 percent.

Spare the Air days typically occur during the summer and early fall when meteorologists forecast hot weather and little wind -- the perfect recipe for cooking up polluting ozone.

"We're particularly looking at the morning commute, because it is the emissions from those cars that have time to waft over to the Livermore Valley and down to the Santa Clara Valley and, when the temperature gets up to 95 to 100 in the afternoon, become ozone," Lee said.

The free-ride program is part of an effort to avoid violating clean-air standards set by the U.S. Environmental Protection Agency -- an offense that could cost the region to lose billions in transportation funds. The local commission also has been sued by environmentalists claiming that transportation plans failed to reduce air pollution. Those suits temporarily stalled transportation funds.

Besides cutting the number of cars on the road, the Spare the Air program is designed to get people to avoid using power garden tools, barbecuing and using aerosol sprays when the region is at risk of exceeding pollution limits.

"Getting people to change their behavior every day isn't likely," Rentschler said. "But asking people to change their behavior once in a while for a specific purpose is easier to sell."

And offering a free ride doesn't hurt.

[Letter to the Fresno Bee, Wed. Feb. 16, 2005:](#)

Fresno wise to move toward alternative energy sources

With its new policy of "building green," I believe Fresno has made a small move toward helping the city that in turn will benefit its population. With the City Council's implementation of energy and water efficiency technologies, recycled building materials and other energy sources in the construction of new buildings, the city's health can improve.

There are existing alternate energy sources being used in Fresno, such as solar panels, but these alternatives are looked at negatively due to their short-term costs. In comparing the 2% increase in costs for the addition of solar panels with the 20% savings on energy costs over their lifetime, it's clear the cost is more than worth it.

Moreover, if the numerous alternatives for energy are made part of Fresno's building policies, we can become less dependent on the already shrinking amount of fossil fuels. A question that is repeatedly asked is, when will we all realize that the health of everyone and everything in Fresno is more important than money?

Tyler Muscianes

Fresno