

## **Emission controls have pluses, minuses**

### **Fuel consumption less on direct seeding; combine fires more frequent**

Scott A. Yates, staff writer

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VALLEYFORD, Wash. - It's an opportunity farmers don't get very often, and Randy Emtman made the most of it July 17 when he spoke face-to-face with the director of EPA's Region 10 Office of Air, Waste and Toxics.

A group from an alphabet soup of agencies - including the EPA, the NRCS and the WCC - met on Emtman's farm to honor him as one of 21 farmers who received a \$4-an-acre incentive to convert land to direct seeding as a means to reduce diesel emissions.

The Environmental Protection Agency funded the Diesel Emission Reduction Program as part of what's called the West Coast Collaborative, a comprehensive effort within several states to reduce sources of diesel emissions. Many of the funded projects have little to do with farming. Consider the \$200,000 grant to City College of San Francisco for working with distributors and trucking companies to promote biodiesel or the \$75,000 to install anti-idling technology on 10 switcher locomotives.

Jerry Scheele, of the Upper Columbia Resource Conservation and Development Council, said at first it wasn't clear \$4 an acre would be enough to attract farmers to make the conversion to direct seeding. But it was, and 16,000 acres made the transition at a cost of \$100,000.

"We had our doubts, but once the program started rolling, here we have most of the money contracted for," he said during a presentation at the Emtman Farm, south of Spokane.

For the record, the West Coast Collaborative estimates health benefits from diesel emission reductions reportedly outweighs costs by a 13-to-1 ratio. Which means that EPA's \$100,000 investment is actually worth \$1.3 million.

When Emtman spoke, he made sure to thank those who made the grant possible, but before that, he took the opportunity to address an issue confronting wheat farmers as a result of increasingly tighter emission controls: combine fires. Looking directly at Richard Albright, director of the EPA's air, waste and toxics office, who had flown to the event from Seattle, Emtman said the incidence of combine fires is rising.

"What is causing this now is the machines we are running are 2007 Tier 3 emission compliant, and things are running at higher temperatures in order to reburn the exhaust," he said.

As near as he can figure, engine manufacturers are bumping the exhaust valve open for a short period during the intake stroke sucking a portion of exhaust back for a second combustion. That is elevating exhaust temperatures, and a hotter exhaust in an environment with dry wheat straw is a recipe for fires.

Although Emtman expressed gratitude for the program that rewarded his family's farm and 20 others, he made it clear that agriculture and logging communities will face challenges meeting lower diesel-emission guidelines. In the context of converting to direct seed, however, total fuel usage should go down - and by extension, emissions.

Different numbers were thrown around relating to the how much fuel is saved over conventional seed bed preparation. Scheele said initial projections were high. Data now show a reduction in diesel use of 57 percent when converting from conventional tillage to direct seed. Original estimates had 5.5 gallons of diesel per acre used under conventional tillage and 3.5 gallons per acre under direct seeding.

"Data are now indicating that conventional cropping uses 1.87 gallons (per acre) and direct seeding uses 0.8 gallons. This is still a dramatic reduction," he said.

But Emtman said the savings really depends on the practice and the crop. For instance, he estimated it cost \$7 an acre to prepare a seed bed conventionally after bluegrass. For the past two springs, however, the farm has been successfully direct-seeding wheat into the bluegrass

## **House committee approves veggie-friendly farm bill**

### **Draft gives funding increases to so-called specialty crops, conservation programs**

By Douglas Fischer, Staff Writer

Tri-Valley Herald, Tuesday, July 24, 2007

Growers of fruits and vegetables — the bulk of California's \$32 billion agriculture industry — stand to get \$1.7 billion in aid from Congress over the next five years in the latest version of the farm bill, a considerable jump from past policy and a sign that California's political leaders are using their clout to bring cash back home.

Conservation programs also could see more cash in the latest version of the spending bill, approved by committee Friday: \$25.5 billion over the next five years, a 20 percent increase from the 2002 Farm Bill.

"It shows a new direction in the farm bill," said Jack King, national affairs and research manager for the California Farm Bureau Federation. "We're encouraged by that."

The farm bill is a gargantuan piece of legislation, drafted every five years or so, that sets the nation's nutrition and agricultural policies. It details how meat is produced, what kids eat in school lunches, what crops the government subsidizes and — by extension — what food sits cheap and plentiful on the nation's grocery shelves.

The bulk of the bill's spending, about \$60 billion a year, or two-thirds of the \$450 billion spent every five years — goes to the nation's food stamp and nutrition programs.

The rest, about \$33 billion a year, underwrites agricultural incentive programs, crop insurance and farm subsidies. That has traditionally gone mostly to commodity crops like rice, cotton, corn, soy and wheat.

But this year is different. Health and environmental groups have teamed with farmers to show how the nation's farm policy — where high calorie, low nutrition foods enjoy the highest subsidies — is linked to the nation's obesity epidemic.

The increase for fruits and vegetables, approved Friday by the House Agriculture Committee and representing at least \$1.1 billion more from earlier drafts, shows those efforts are making headway, observers said.

The money, King said, gives so-called specialty crop growers more money for research, trade, and air quality programs. Most important, he added, it gives growers greater access to the nation's school snack program.

The bill, added Ryan McLaughlin, a spokesman for the Specialty Crop Farm Bill Alliance, "represents the first strong investment for specialty crop producers."

The cash came from various pots dedicated to the commodity crops, King said, chiefly crop insurance and direct subsidies.

But it likely spares this year's version a major rewrite on the House floor, something Midwest farmers receiving the bulk of the subsidies were loathe to see.

And it comes, McLaughlin and others said, because key California lawmakers got involved — notably House Speaker Nancy Pelosi, D-San Francisco, and Rep. Dennis Cardoza, D-Atwater and a member of the House Agriculture Committee.

"Speaker Pelosi recognizes the importance of the specialty crop industry," McLaughlin said. "And Congressman Cardoza has been a tremendous asset. Between the two of them, they had a lot to do with it."

The bill next goes to the House for a floor vote. Similar legislation is moving through the Senate.

## **Bay Area refineries face nation's first limits on gas flare pollution**

By Mike Taugher

Contra Costa Times, Tuesday, July 24, 2007

Regional air quality regulators have approved plans to reduce flaring at all five of the Bay Area's refineries, a major step toward implementation of the first flare rule in the nation.

The plans, written by the gasoline makers, require the refineries to implement all feasible methods to reduce flaring in order to cut down on the amount of air-polluting chemicals they release.

"We've obtained commitments from each of the refineries to make capital and operational improvements to ensure that they eliminate unnecessary flaring," said Jack Broadbent, executive officer of the Bay Area Air Quality Management District. "Over time, this regulation will continue to further improve air quality in the communities nearest the refineries and throughout our region."

Flares are safety devices that are needed to prevent explosions.

But residents near Bay Area refineries complained for years that they were being used excessively because the gasoline companies were unwilling to invest in equipment that would reduce the frequency and amount of gas released through the flares.

Those concerns were borne out. As regulators began increasing scrutiny of the refineries in 2002, the companies began changing operations and investing in equipment, such as compressors, which could capture gases that would otherwise be flared.

Flaring has been reduced by more than half at Bay Area refineries.

On average, about 1 ton of volatile organic compounds and 0.65 tons of sulfur dioxide are released through flares each day at the region's refineries.

## **Jury Backs Teacher Who Says Room Made Her Ill**

By Daniel de Vise, Washington Post Staff Writer

Washington Post, July 22, 2007

A Montgomery County jury has found in favor of a teacher who said she was driven from her job by mold in a portable classroom at a Burtonsville school.

Jurors in state Circuit Court found Thursday that Shirley Washington, who taught English at Banneker Middle School, contracted an occupational disease and is entitled to worker's compensation from the state, according to her attorney, Bruce M. Bender of Rockville. Washington is one of a number of teachers and students in the county who have reported falling ill from exposure to mold and other toxins inside portable classrooms. In the largest such case, school officials replaced eight portable classrooms last year behind Bells Mill Elementary School in Potomac after 41 students and several teachers reported ailments. The entire school is scheduled for replacement by 2009, according to Principal Jerri Oglesby.

But although all the teachers who got sick at Bells Mill returned to work in clean classrooms, Washington has not taught again.

Assigned to portable classroom P-6 at Banneker in fall 2004, the 20-year veteran developed fatigue, coughing, wheezing, headaches and other problems, all of which "we believe are a result of exposure to mold," Bender said. She left the school system in January 2005 "and has not been able to work since," he said.

School officials said Washington failed to prove that mold caused her illness and stressed that the jury verdict did not specify the nature or cause of her malady.

"We will be asking the judge to set aside the verdict in this case, because there was no evidence presented during the trial that the mold had anything to do with the illnesses for which she is seeking compensation," said Brian Edwards, spokesman for the school system.

Washington went to work at Banneker in fall 2003 and was placed in P-6 the next year. She filed a series of complaints about air quality starting in mid-December, saying her symptoms had appeared when the air conditioner in the classroom was turned off in fall.

In one complaint, she wrote of "lack of air circulation; wet ceiling tiles; dusty vents" and "old stains" on the carpet, and she reported symptoms of "dry coughs, shortness of breath, running nose, running eyes." In a subsequent memo, she said she had missed two weeks of school with an upper respiratory infection, adding that "the physician believes my problem may well be related to/activated by allergies to particles inside my room."

Washington said she believes the portable classroom in which she taught has been moved and said she has seen it outside another school, Rosemary Hills Elementary in Silver Spring. School officials would not confirm or refute that claim Friday.

Portable classrooms are thought to be especially prone to problems in air quality because of poor ventilation, lower construction standards and vulnerability to the elements and to damage during relocation from school to school.

The Montgomery school system has several hundred portable classrooms and is considered a national leader in addressing air quality problems. The system employs two teams to investigate such problems; most school systems have none.

An air quality employee visited Washington's classroom and reported stained ceiling tiles and mold growth caused by poor drainage and a roof leak. He found elevated carbon dioxide readings inside the classroom. A subsequent report noted a defect in a heat pump that had prevented fresh air from being drawn into the room.

Washington said she developed so many physical and neurological problems that she was unable to return to work. She filed a claim with the Maryland Workers' Compensation Commission, which ruled last year that Washington did not have an occupational disease.

This week's jury verdict, which followed a two-day trial, reversed that ruling. Washington's case will now be remanded to the state commission, but only after the school system exhausts its appeals, Bender said. The appeals could take "a couple of years," he said.

Washington "is very pleased" with the verdict, Bender said, "but she knows she has a long road ahead."

## **China's growth as an economic superpower poses a challenge for the U.S. But its emergence as a super-polluter makes it a . . .**

### **Rising Threat**

By John Boudreau – Medianews

Tri-Valley Herald, Tuesday, July 24, 2007

BEIJING — A pale orange sun hangs low over the evening rush-hour, a brake-light procession of Mercedes, matchbox-size taxis and accordion-style buses that cuts through a canyon of skyscraper construction cranes. On this spring evening, as on most days, this city of 15 million souls is wrapped in a churning brown gauze of foul fumes and gritty dirt.

"It's a pretty strong cocktail of dust particles, industrial and automotive pollution," observed Jeremy Goldkorn, a 12-year Beijing resident and Internet entrepreneur.

"It's something a lot of expatriates, especially people from Northern California, find very difficult.

You blow your nose and what comes out is black."

For China, the 21st century holds boundless possibilities. The awakening economic giant could surpass anything that has come before it. But China is also an environmental time bomb.

Its polluted air is not only choking its citizens but also spreading 6,000 miles across the Pacific to California, giving Californians - even those with no other ties to China - a personal stake in that country's exploding environmental crisis.

Microscopic soot particles belched from coal-fired plants across the ocean are settling in Sierra Nevada snowpacks. Low levels of mercury from those plants are showing up in soil and water. And dust from expanding deserts in China and elsewhere in Asia can be found in the air high above the state.

Pollution migration is not new - Europeans, for example, get it from the United States. And the current levels of pollutants from Asia do not pose an urgent health or environmental threat. But experts worry about the potential increase of emissions from China as the world's fastest-growing economy continues to expand. At the very least, pollution from China will add to the cost and difficulty of cleaning up California's skies.

For decades, the United States has been the world's largest polluter, taken to task by other countries for its contribution to global warming. This year, however, China's annual emissions are on pace to overtake those of the United States. Worse, China's pollution is projected to be double that of all other industrialized nations combined in 25 years, according to the International Energy Agency.

"The concern about China is that it is going through such a rapid industrialization," said V. Ramanathan, a scientist at the Scripps Institution of Oceanography in San Diego. "It is setting up more coal-fired power plants. The number of cars are increasing."

## **Hooked on coal**

Twenty of the world's 30 most polluted cities are in China, and every year more than 300,000 deaths there are attributed to pollution, according to the World Bank.

Much of that pollution comes from the coal-fired plants that produce about 70 percent of China's energy needs, compared with 50 percent for the United States and 16 percent for California.

But the problem in China is not just the amount of coal burned. Many of its plants and factories have inadequate pollution-control equipment, if any, and that is unlikely to change in coming years. Rising levels of sulfur dioxide from burning coal is causing acid rain.

Foul air is just one ingredient in China's stew of environmental problems. Seventy percent of the country's lakes and rivers are so polluted they would make humans sick. Every year, some 45 billion tons of industrial waste and raw sewage are dumped in rivers and lakes.

In late 2005, a chemical plant spill contaminated the Songhua River in northern China, forcing the city of Harbin to shut down its drinking water system. Earlier this month, more than a million residents of eastern China were left without drinking water when a fast-spreading, putrid-smelling green algae covered badly polluted Lake Tai.

The northern half of China is "drying out" as water tables fall, lakes vanish and rivers disappear, observed environmental analyst Lester Brown, founder of Washington-based Earth Policy Institute. Much of the water in the southern half of China, meanwhile, is growing ever more polluted.

## **The land also suffers**

The government recently reported that 10 percent of farmland has been destroyed by pollution and that heavy metals contaminate 12 million tons of grain a year. Toxic food scares have become common in China, and increasingly are a worry in the United States as food imports from China grow.

Rampant deforestation is expanding the country's deserts and contributing to disruptive spring sandstorms so big they have shown up on NASA satellite photos as giant blobs of brown passing over Asia and California.

About 27 percent of China's land mass is now desert, or becoming desert. The Gobi Desert in northern China expanded more than 20,000 square miles, about half the size of Pennsylvania, in just six years in the 1990s, Brown noted.

China also has become the electronic-waste garbage dump for the world. A recent report by the Beijing-based Science and Technology Daily, the official newspaper of the Ministry of Science and Technology, said most of the home electronics gadgets discarded by the developed world end up in China.

"The question of the century is: Can China industrialize in a way that does not crush the planet?" said Erik Straser, general partner in MDV-Mohr Davi dow Ventures of Menlo Park and an expert in energy company investments who has consulted with Chinese officials.

China's leaders finally have begun to worry about the toll from the country's environmental problems. The State Environmental Protection Administration and the National Bureau of

Statistics estimated that environmental degradation, pollution-related health problems and lost work days in 2004 came with a \$64 billion price tag, or 3.05 percent of the country's \$2 trillion gross domestic product that year. Some experts believe the cost is much higher.

Earlier this month, with pressure building to put a green face on Beijing for the 2008 Olympics, China announced a strategy to grapple with global warming and pollution, though much of it reiterated earlier goals. The plan included tough measures to cut pollution and promote renewable energy. But the government rejected mandatory emissions caps as unfair to China and other developing countries struggling to combat poverty.

"The environment is very, very much an issue," said Lai Ming, general director of science and technology with the Ministry of Construction. "If we don't deal with it now, it will definitely hurt the economy in the future."

### **Fight against poverty**

But the challenges are daunting. The nation of 1.3 billion people, most of whom live in poverty, must continue to stoke its economic engine while working to avoid environmental disaster.

"Over the last 20 years, people just focused on GDP, GDP," said Beijing-based Timothy Hui, chief China representative of the Natural Resources Defense Council, a U.S. environmental advocacy group. "Now China is looking at its economic growth and environment. But China has no experience at achieving this balance."

Now, though, mounting evidence suggests China's pollution poses problems beyond its own borders.

"It's apparent there is a lot of pollution coming from Asia and that pollution is increasing," said Steven Cliff, an atmospheric scientist at the University of California, Davis, whose research has detected matter he believes comes from China.

"A persistent Asian plume is evident in the air over California," said Cliff, whose air-sampling equipment has been placed at Donner Summit, Lassen Peak and Mount Tamalpais. "It looks vaguely smoky. Generally, you see the type of pollution you might expect from large urban areas in Asia, that might be from a diesel engine or a coal-fired power plant for a cement factory."

Much of the year, Asian pollution — including soot, ash and dust from farms, motor vehicles, factories and coal-fired power plants — hovers high above the Golden State and is, on average, equal to a quarter of the state's legally allowed concentrations of these particles, said Richard "Tony" VanCuren, a researcher with the California Air Resources Board.

China's pollution drift is "not an immediate major concern" in terms of public health for the state's major cities, he said, because California's coastal areas are protected on most days by the so-called marine layer of air, which acts as a shield against pollution at higher altitudes. But VanCuren said the state is now closely tracking the pollution from Asia because "it will drive up the cost of air pollution control."

The snow-embedded pollution from China adds to damage already being caused by local pollution, said Ross Edwards, associate research professor at the Desert Research Institute in Reno. "It absorbs sunlight from the atmosphere and melts the snow faster," he said. "It impacts our ability to store water and contributes to global warming."

Scripps scientist Ramanathan is embarking on a one-year state-funded study of the trans-Pacific pollution over the Golden State. Using unmanned aircraft and snowpack monitoring devices, he hopes to determine how much pollution is coming from China and what it is doing to local climates.

### **'The River Runs Black'**

While China's pollution may be a growing worry for other countries, the brunt of the harm falls on the Chinese.

"One hundred ninety-million Chinese are drinking water that is making them sick," observed Elizabeth Economy, director of Asia studies at the Council on Foreign Relations and the author of "The River Runs Black: The Environmental Challenge to China's Future."

Growing health concerns from environmental calamities, such as industrial waste dumped into rivers that provide drinking water to rural communities, have triggered thousands of riots and protests across the countryside.

"It could undermine our social stability," said Ma Jun, a Beijing-based environmental crusader who heads the Institute of Public and Environmental Affairs. "The pollution is way beyond our environmental capacity, and it's increasing," he added.

Yet China's growing middle class — estimated to be about 125 million — wants the kind of lifestyle enjoyed by those in the car-loving West. That is evident on Beijing's wide streets and in auto dealerships that dot the city. China is now the world's second-largest market for automobiles, and the third-largest car producer.

Every year, about 300,000 new vehicles hit Beijing's streets, adding to the nearly 3 million already crowding the city.

"Money is no problem," said car shopper Zhang Qiang, 23, who had grown tired of his 1-year-old Buick and was ready for a new set of wheels. Chinese such as Zhang want to live like middle-class Americans, said Douglas Ogden, director of the San Francisco-based Energy Foundation's China Sustainable Energy Program. But he warned that if China reaches current American levels of consumption, it will be disastrous for the planet.

"If each Chinese were to consume the same amount of energy as the average American does, China would be adding 150 percent more carbon dioxides into the atmosphere than does the rest of the world," he said. "The clock is ticking. We are getting to five minutes before midnight."

### **Pollution now a political football in China**

By Mitchell Landsberg, Los Angeles Times  
In the Contra Costa Times, Tuesday, July 24, 2007

BEIJING -- From a public-relations standpoint, it did not look good. In the space of less than a month, China quashed two potentially embarrassing environmental reports that would have said what most people already know: This is a country facing a costly and increasingly deadly environmental crisis.

First, in early July, reports surfaced that China successfully had lobbied the World Bank to redact portions of an environmental assessment that calculated how many people were likely to die prematurely as a result of air pollution.



Then, late last week, the government announced that it was canceling plans to publish a "green GDP" report that would have calculated the cost of pollution to the country's rapidly growing economy, as measured by its gross domestic product.

The decisions, on their face, appeared to suggest reluctance at the top of China's government to acknowledge the seriousness of environmental degradation that has caused the world's worst air pollution, as well as water pollution that has left millions of people without local sources of potable drinking water.

Chinese and Western experts, however, said Monday that authorities might have acted for reasons not readily apparent to casual observers.

They said the reluctance to publicize the country's environmental woes might have had more to do with political relations between the central government and provincial leaders than with a fear of airing dirty laundry.

"As soon as you develop a system like this, then you can do a ranking of environmental performance of local governments," said Andres Liebenthal, the environmental coordinator for the World Bank office in Beijing, who worked with China's environmental protection agency on both reports.

"And so the ones that are highly ranked are fine, and the ones that are ranked low are not happy with it, so there's a pushback."

On paper, many environmentalists agree, China has some of the world's strongest pollution-control policies. Its effort to calculate the environmental toll on its GDP was bold by international standards.

Environmentalists have tried and failed to persuade many developed nations, including the United States, to undertake such an accounting.

China released a "green GDP" report for the first time in September and was preparing a second annual report when the decision was made to spike it. The report last year calculated the cost of pollution at \$67.7 billion, or just over 3 percent of China's gross domestic product.

Despite relatively strong laws, enforcement of China's environmental policies is patchy at best, largely left to provincial governments that have a stake in local economic growth, regardless of the environmental cost.

Those officials, some experts think, might have put the brakes on the recent reports.

Wang Jinnan, a senior expert at the Chinese Academy for Environmental Planning who played a lead role in the GDP report, was quoted Monday in the Beijing News as saying the effort had drawn opposition from local officials eager to maintain growth.

Christian Averous, who recently wrote a report on China's environment for the Paris-based Organization for Economic Cooperation and Development, agreed that the central government appears to have limited ability to control how environmental policies are carried out.

"There is an implementation gap concerning environmental policies in China," he said. "A number of laws and policies are not implemented, and this is partly due to territorial governments' attitudes."

Averous added that his report was written at the request of the Chinese government, and that he faced no pressure to censor or withhold it.

It included estimates from earlier reports that 600,000 people a year could die prematurely by 2020 because of urban air pollution and offered 51 specific recommendations for cleaning the nation's environment.

The Chinese government has pledged to adopt the recommendations, he said.

Liebenthal said the Chinese government objected to the inclusion of mortality figures in the recent World Bank report because they were based on new and controversial methodology.

According to an article in the Financial Times newspaper, the figures would have shown that about 750,000 people in China die prematurely each year, mainly because of urban air pollution.

[Sacramento Bee commentary, Tuesday, July 24, 2007:](#)

### **Sebastian Mallaby: A carbon policy that works**

Politicians have stopped denying climate change. Some even want to do something about it. But before reformers propose a grand plan that can't work, they should consider the story of Tecnosol, a small company in Nicaragua.

Half of Nicaragua has no access to electricity. Women and children spend hours collecting firewood; the people suffer respiratory diseases from the wood smoke; they spend what little money they can spare on kerosene.

Tecnosol replaces wood and kerosene with solar power; it is partway through an effort to install 25,000 solar units, cutting carbon dioxide emissions by 150,000 tons over the life of the equipment. But the villagers involved in Tecnosol's project are being cheated. They are not getting paid for reducing emissions, even though solar conversions are good for the climate, good for health and good for poverty reduction.

This is more than a little ironic, since the cap-and-trade system developed under the Kyoto Protocol is supposed to promote development.

The system arose out of the tension between economists' belief in the efficiency of trading -- if it costs a producer \$15 to cut carbon emissions by a ton, it makes sense for that producer to pay \$8 to another producer who can achieve the same reduction for \$5 -- and moralists' suspicion that trading lets rich polluters off the hook.

The compromise was a "Clean Development Mechanism": Trading would be allowed, but it was supposed to promote development.

The Kyoto system represents the culmination of a huge global diplomatic effort, and the United States was wrong to turn its back on it.

Nevertheless, the system has not lived up to its promise. Nearly all the trading under the Kyoto mechanism involves comparatively rich developing countries such as China and projects that generally don't benefit the poor, such as capturing greenhouse gases created as byproducts in industrial processes. Almost no money goes to the least developed countries or to poor people.

The reasons are partly understandable: It's easier to trade bulky industrial offsets than to collect small tokens of progress from dozens of remote villages. But even with that caveat, the Kyoto mechanism works badly.

The mechanism's clunky procedures are supposed to prevent fraud, but in practice they filter out village-based projects while not preventing fraud in big ones. As Stanford's Michael Wara has demonstrated in a devastating paper, the mechanism appears to encourage industrial producers to emit extra greenhouse gases so they can capture them and pocket extra subsidies. Chinese emitters make such extraordinary profits from this system that the government has imposed a 65 percent tax on the windfall. In effect, the green budgets of the rich world subsidize the Chinese government.

A voluntary market has sprung up to compensate for Kyoto's shortcomings. It brings together sellers who want to avoid red tape and purchasers who are free to do so because they come from countries, including the United States, that haven't signed up for the mandatory cap-and-trade regime. The voluntary market has become big business: Last year about \$1 billion worth of offsets was traded. So long as this parallel market thrives, someone will figure out a way of selling Nicaraguan carbon offsets to a voluntary purchaser.

There are two snags, however. Inevitably, some voluntary carbon permits have proved fraudulent. They represent carbon reductions that have not actually happened or reductions that have been marketed as offsets to multiple purchasers. As a result, the voluntary market is periodically attacked, and would-be purchasers shy away. Voluntary purchasers buy carbon offsets to be pure. Impure scams defeat their objective.

The boosters of the unofficial market are regrouping. Last month an international coalition of banks promulgated new voluntary standards that would prevent scams while avoiding the red tape of the Kyoto system. But even if the banks can restore confidence to voluntary buyers, a second worry looms. If U.S. lawmakers mandate cap-and-trade, many of today's leading voluntary buyers will be forced into the compulsory part of the carbon market. Companies such as DuPont, American Electric Power and BP have bought peace from environmental critics by offsetting their expansion plans. In the future, they may have to buy offsets that are sanctioned by the government -- which could exclude village-based projects.

Hence the warning to Congress. It would be great if carbon policy could get out of its timid rut: energy bills that raise fuel-efficiency standards, subsidize windmills and so on. It would be great if Congress could get serious about reducing emissions across the whole economy, either by taxing carbon or by capping it. But if Congress creates a mandatory cap-and-trade system that mimics Kyoto's clunkiness, it will funnel billions to Chinese industrialists, creating perverse incentives for greater emissions. And Nicaraguan villagers will be cheated.

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