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Our Back from the Brink campaign is helping an elusive cat and other rare species across America fend off extinction.

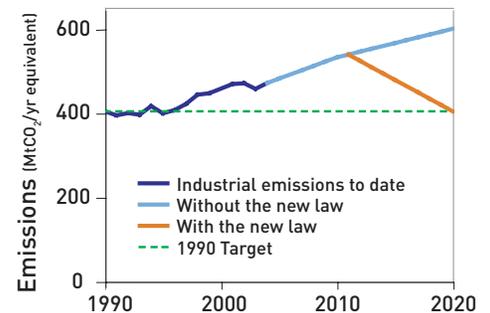
First in nation, California caps global warming pollution

ENVIRONMENTAL DEFENSE COSPONSORS LANDMARK BILL, OPENING DOOR TO A CLEAN-ENERGY ECONOMY

California has earned a reputation as an environmental pioneer. It was the first state to pass strict clean-air legislation, the first to adopt energy efficiency standards for appliances and the first to require warnings of toxic chemicals in products. Now the Golden State is tackling the most serious environmental problem of our time.

California's Global Warming Solutions Act (AB32) sets the nation's first economy-wide cap on global warming pollution, mandating a 25% cut in emissions of heat-trapping gases by 2020. "This is something we owe our children and our grandchildren," said Governor Arnold Schwarzenegger at the signing ceremony in San Francisco. New York Governor George Pataki, British Prime Minister Tony Blair and Japanese Prime Minister Junichiro Koizumi praised California for its bold step.

Faced with the growing threat of heat waves, wildfires and water shortages, the state's Republican governor and

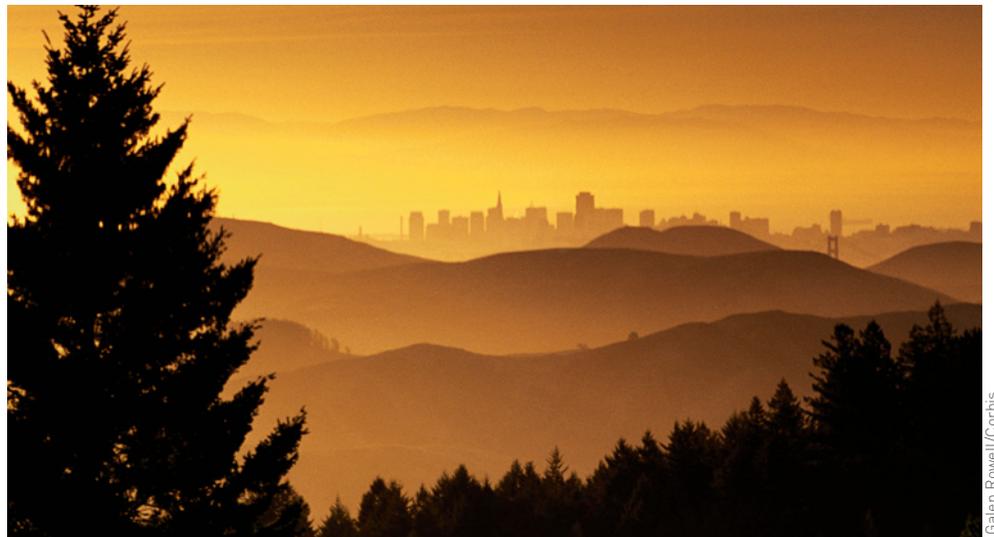


A global warming snapshot of California

Democrat-controlled legislature set partisan politics aside and took decisive action. Environmental Defense proposed the idea of sweeping legislation that would empower the state Air Resources Board to cut emissions at power plants, oil refineries and other industrial sources. We then cosponsored and helped draft the bill.

"California is filling a void created by inaction in Washington," says Jim Marston, who coordinates our state climate efforts. Environmental Defense

*Please see
Cover Story, p. 2*



The Golden State has created a model policy for the world.

California's bold move unleashes the power of innovation



When California passed its cap on global warming pollution, British prime minister Tony Blair predicted it would "echo right round the world."

Just hours later, our international counsel Annie Petsonk heard the first echoes at a climate workshop in Rome: Delegates from the developing world buzzed with excitement at the potential new market for carbon reductions.

In the weeks since, I've heard a Mexican entrepreneur describe how Europe's carbon cap makes investments in his country viable, including projects that capture methane from hog waste and generate clean

electricity. I've seen venture capitalist John Doerr double his firm's investments in a portfolio that includes solar collectors and fuel cells. For years, advocating cap-and-trade was left to Environmental Defense. Now, I just listen as investors describe their race to fund low-carbon energy.

People now understand that creating an open field for the broadest bloom

America now must act as one nation.

of innovation is a better approach than passing the kind of legislation that anoints a few fixed technologies.

We won in California because we were willing to conceive a transformative approach, craft the best bill and

refuse to let it be compromised. Although every day brings new data confirming damaging climate change, each day also brings cause for optimism. Why? Because as we create a market value for reductions in carbon emissions, we harness the energy of entrepreneurs and inspire engineers to turn dreams into working solutions.

Now, America must unleash the full power of innovation by passing a national carbon cap. No single act will do more to end our addiction to fossil fuels, promote energy security and get us back in the game of inventing technologies the world needs.

Fred Krupp



Help us sustain the momentum. Go to fightglobalwarming.com

A hard-fought win, global warming bill makes history

Continued from p. 1

teamed up with the Natural Resources Defense Council to lead an unprecedented coalition of business leaders, religious organizations and labor unions to pass the measure (see page 4). The law authorizes market-based emissions trading to achieve the maximum gains at the lowest cost.

"This is a triumph not just for California, but for the nation and the world," says Assembly speaker Fabian Núñez, a co-author of the bill. "Environ-

mental Defense played a pivotal role securing support from the environmental justice community, which was critical for this bill's passage."

With other state actions, including the cap-and-trade agreement among eight Northeastern states to limit carbon dioxide emissions from power plants, this law will lead the way to a clean-energy future and build momentum for a national policy.

Smart businesses see a potential gold-rush in climate action. "An emissions market will help California achieve the lowest cost solutions and spur innovation of new technologies," notes BP chief executive John Browne. A University of California study shows that the law may provide up to 89,000 new clean-tech jobs and generate \$74 billion annually for California's economy.

Although the Núñez bill grabbed the headlines, California also passed an important companion bill. That legislation,

inspired by our *Coal Shadow* report, requires out-of-state coal plants to meet California's strict greenhouse-gas limits. This will ensure that pollution is not merely shifted to other states.

With the world's sixth-largest economy, California is hard to ignore. Says Marston: "Ten years from now, we'll look at this moment as the tipping point when America finally decided to tackle global warming."



Solar collectors near Barstow. California sun is good for more than just tanning.

Phil Degginger/Animals Animals

e
ENVIRONMENTAL DEFENSE
finding the ways that work

Solutions

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MAILBAG

Editor:

I am constantly amazed and exalted at the phenomenal success of Environmental Defense. The creative approaches to these achievements are nothing less than pure artistry. Thanks so very much.

Ruth Stewart
San Antonio, TX

Editor:

In a recent column (*June Solutions*), Fred Krupp reported that as a result of Environmental Defense's work to develop purchasing standards with meat buyers like McDonald's, four of the nation's top ten poultry producers have virtually ended the routine use of human antibiotics in chicken feed. Which are the four companies?

Michael Korpi
Minneapolis, MN



Getty Images

Our scientist Dr. Becky Goldberg responds:

The companies that have reported reducing their antibiotic use dramatically are Tyson Foods, the nation's largest poultry producer, Perdue, Gold Kist and Foster Farms. These achievements are good news, but the federal government should require all meat producers to use medically important antibiotics only for treating sick animals. The Preservation of Antibiotics for Medical Treatment Act, which Environmental Defense helped craft, would phase out the use of these antibiotics as feed additives, unless the FDA concludes the practice is safe for humans.

WE WANT TO HEAR FROM YOU!
See addresses at left.

Washington watch



Farmers support conservation

Carrying on a family tradition of good stewardship, Angus Johnson raises grass-fed beef and dairy cattle on 200 acres of New Hampshire pastureland, selling his products directly to consumers. Like many of his fellow farmers, ranchers and forest owners (who collectively manage half the nation's land), Johnson would welcome federal conservation assistance to protect air and water quality, save wildlife habitat and discourage sprawl.

Unfortunately, three out of four farmers who offer to improve conservation on their land are denied federal help. As Congress begins work on reauthorization of federal farm legislation, it faces the usual pressures to protect the \$20 billion in subsidies that go to the biggest commodity producers. But next year's legislation could be different: Elected representatives face a growing constituency asking to shift dollars to conservation spending.

In September, Johnson and more than 60 other farmers and farm leaders joined Environmental Defense in Washington, DC, to lobby for two

newly introduced bills: the Healthy Farms, Foods and Fuels Act introduced by Rep. Ron Kind (D-WI) and the EAT Healthy Act introduced by Richard Pombo (R-CA). The bills—with bipartisan support from nearly 100 cosponsors—would double conservation assistance, restore three million acres of wetlands and protect millions of acres from sprawl. The Healthy Farms bill also would promote renewable energy development on farms.

Farmers like Johnson shared their success stories—of restoring wetlands and reducing farm chemicals—and left the Capitol hopeful. "I have been pumping on the phone talking to congressmen and staffers for the past four years," Johnson says. "To make the case in person was better. What I had to say was received very well."

Legislators, it seems, also are frustrated by current policies. "More than half of all farm spending flows to roughly five percent of America's farmers," explains our farm policy director Scott Faber. "Other legislators are eager to get their farmers a fair share."



SWA-JDC/Corbis

Field of dreams: The new law would help more farmers take care of their land.

'Getting to yes' on climate action

BEHIND THE SCENES, THE STORY OF HOW CALIFORNIA TACKLED GLOBAL WARMING

In the courtyard outside Governor Arnold Schwarzenegger's office in Sacramento, there's a three-sided, 11-by-11-foot cigar tent with green Astroturf, rattan chairs and a humididor. The governor calls it his "negotiation tent," where deals are cut over stogies.

This summer, our attorney Jim Marston was summoned to this inner sanctum during tense negotiations over the Global Warming Solutions Act (AB 32), the landmark global warming bill that Schwarzenegger signed into law in September. Marston told the governor that our coalition of health and environmental justice groups would not back down on key provisions. "Without their support, the bill never would have made it to the floor," he explains. "It was nerve-racking, but it turns out we made the right decision."

After midnight, just before the end of the session, the governor and legisla-

tive leadership reached agreement on a bill that establishes the nation's first statewide cap on global warming pollution from industrial sources. The law explicitly authorizes emissions trading—a critical demand of ours—yet also offers protections for local communities where air pollution is particularly acute.

"This was just one of several occasions when negotiations nearly collapsed," says Karen Douglas, our California climate director, who helped write the law. "Many political insiders thought that



Winds of change: Political insiders warned that passing major climate legislation in an election year is impossible.

passing major global warming legislation in an election year wouldn't be possible."

OUR VISION BECOMES LAW

The landmark law was a dream of Assemblywoman Fran Pavley, a former schoolteacher whose South Coast district overlooks the smoggy Los Angeles basin. Pavley says her interest in the issue came from seeing so many school kids suffering from asthma. She authored an earlier ground-

breaking measure four years ago limiting carbon dioxide emissions from cars and light trucks, which we also helped pass.

To broaden support for the new bill, Pavley approached Assembly speaker Fabian Núñez to be a joint author. Moved by discussions with his daughter about the impact of global warming on future generations, Núñez agreed, saying later, "This is the most important bill I've worked on in my career."

When special interests launched a multimillion-dollar campaign to defeat the bill, our California climate team kicked into high gear. "We were outspent ten to one," notes our policy analyst Virgil Welch, "so we knew we had to build from the bottom up."

Bridging a chasm

Advocates for minority communities don't always see eye to eye with environmentalists. So, it wouldn't have taken much to derail the Global Warming Solutions Act, especially during an election year.

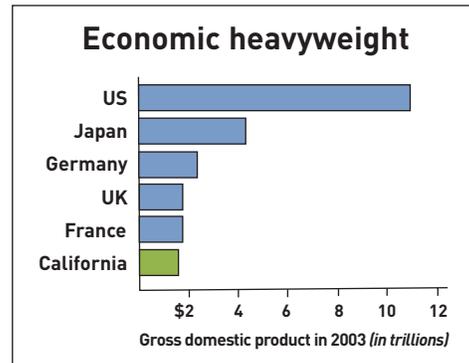
Enter our climate advocate Rafael Aguilera, a former legislative staffer. His experience working with minority groups proved invaluable in passing this law.

Where others saw a chasm, Aguilera saw common ground. "Environmental justice groups want air-quality protections for local communities," he says. "We want that, too."

Aguilera went door to door in the State Capitol stressing the link between global warming, smog and public health. He convinced a dozen swing members in the legislature to sign on as coauthors. Explains Aguilera: "This is a bill that both communities can champion around the nation."



Aguilera persuaded California's environmental justice community to come to the table.



Working closely with allies, Environmental Defense enlisted support from firefighters, teachers unions, health organizations and the Bay Area Council, which represents 275 businesses, including PG&E, the state's largest utility. Our trustee Sally Bingham mobilized more than 200 religious leaders to sign a letter advocating urgent action. We also secured the support of nearly 50 California cities and counties, which passed resolutions supporting the legislation; a dozen mayors came to



Getty Images

A time of hope.

Sacramento for a press conference.

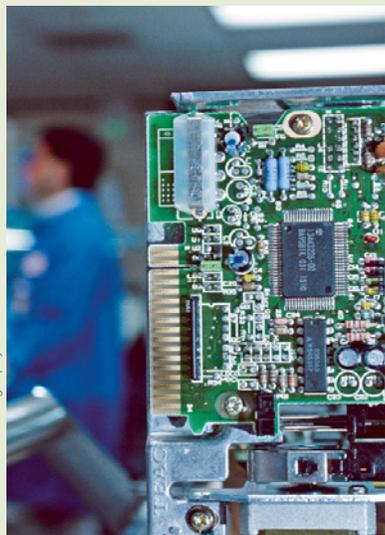
As the vote approached, our leg-

islative advocacy arm, the Environmental Defense Action Fund, unleashed a barrage of newspaper and TV advertising, donor phone calls and email action alerts. The campaign proved effective.

"This victory is a testament to grassroots activism," says Douglas. "We all knew we were working on something historic. Now comes the hard part, making sure that strong rules are developed and implemented." One thing is for certain: Environmental Defense will be there.

GUEST COLUMN: John Doerr

Why smart businesses stand behind global warming law



Gibson Stock Photography

A half century ago, Intel cofounder Robert Noyce had a vision. His invention, the silicon chip, paved the way for the modern computer and put Silicon Valley on the map.

Today, California is on the brink of a similar revolution. In passing its landmark global warming law this summer, the state has opened the door to breakthroughs in a vast array of clean-energy

opportunities abound.

From high-tech to green-tech, technologies. Simply put, the Global Warming Solutions Act is the most important legislation of the year, possibly the decade. With luck, its cooling effects will be felt for the rest of the century—and beyond.

Many of us in the business community embraced this legislation, recognizing that climate action is an opportunity, not a peril. Companies like BP, DuPont and PG&E applauded the state's initiative. Why? Because it authorizes the use of market mechanisms to cut pollution. A similar system for sulfur dioxide already has dramatically reduced acid rain.

The cap-and-trade approach works because the cap is strict—companies know the goal they must meet—but the trading system is flexible and rewards innovation. A company that exceeds its goal in cutting pollution earns credits it can sell to others. This lets the market find the best solutions.

Some opponents of the law contend that companies will exit California. But that notion is flawed, because the law

affects all suppliers that sell in California, not only California-based suppliers. The doomsayers just don't get it: We can harmonize economic growth and environmental benefits.

Clean technology could be as big tomorrow as the Internet was yesterday. Growth will come from several

Innovation, American style, can curb our oil addiction.

sources: Innovative green technologies will create high-quality jobs and new revenue streams. In addition, companies will have greater purchasing power once they decrease energy costs and reduce imports of fossil fuels.

Some of us in venture capital are already seeing "green tech" as a growth area. We're backing breakthroughs in energy generation, storage, conservation and distribution. Carbon-emission limits are generating even more demand, and entrepreneurs are rushing to meet it. Just this year my firm has received hundreds of investment proposals. The opportunities are breathtaking—and breath saving. American innovation can end our oil addiction, just as Brazilians kicked their oil habit using ethanol grown from sugarcane.

Many of the nation's most significant advances in clean air started in California. I'm confident the same thing will happen with global warming legislation. In fact, I'm betting on it. Going green may be the largest economic opportunity of the 21st century.

John Doerr, a founder of the Greentech Network, is a venture capitalist at Kleiner Perkins Caufield & Byers in Menlo Park, CA.



Lynn Goldsmith/Corbis

Doerr: Seeing green

Trash act: New York City cleans up its mess

This summer, when Mayor Michael Bloomberg announced a plan to transform the way New York City handles trash, he said, “we would not be here” without Environmental Defense and its allies. The plan, passed overwhelmingly by the City Council, will use barges and trains to move garbage by 2009, taking thousands of polluting, traffic-clogging trucks off city streets.

Our 2004 study *Trash and the City* revealed that garbage trucks travel seven million miles a year in Manhattan alone—enough to circle the globe 300 times. Manhattan’s trucks carry trash to collection stations in communities like the South Bronx, where 30% of children suffer from asthma. Our general counsel Jim Tripp visited that neighborhood with Paul Lipson, now chief of staff to U.S. Representative Jose Serrano from the Bronx.

Taking thousands of polluting trucks off city streets

The plan calls for a new generation of waterfront transfer stations throughout the city, cutting truck travel by three million miles each year. Now we are working to introduce “green” trucks and barges with 90% less pollution, and we’ll make sure the new waterfront facilities are good neighbors too. “The era of smelly sheds surrounded by idling dirty diesel trucks must end,” says our policy analyst Ramon Cruz.



Since New York City closed its Fresh Kills landfill in 2001, trash is trucked to low-income neighborhoods for transfer to 18-wheelers bound for distant landfills.

Tim Connor



David Young-Webb/PhotoEdit

Traffic at America’s largest container port is expected to double in the next 15 years.

L.A. leads the way to clean up America’s ports

Handling 40% of America’s sea cargo, the Port of Los Angeles is the city’s largest industrial source of air pollution.

When Mayor Antonio Villaraigosa was elected in 2005, he vowed to clean up the port and appointed Environmental Defense attorney Jerilyn Lopez Mendoza as harbor commissioner. Just a year later, the port has committed to cut particulates in half in five years, the most ambitious goal ever set by any port.

How did Mendoza turn the port around so quickly? By bringing everyone to the table. She helped broker a partnership with the neighboring Port of Long Beach, so that shippers couldn’t just reroute their vessels, and helped secure support from EPA and the California Air Resources Board. And to maximize community input, the ports’ plan was translated

into six languages.

Under the plan, the ports will only renew leases for container operators who meet the new clean-air standards, finance cleanup of diesel trucks, install “plug-in” systems so ships can shut off their engines in port, and enlist shippers and customers as partners.

Maersk, the world’s largest shipper, already has committed to cleaner fuels.

The new plan will cut pollution by 50%

Early adopters of cleaner technologies will enjoy reduced tariffs and fees.

Environmental Defense is now working to extend this program to New York, Houston and other ports across the nation.

Tackling ocean pollution, with Disney's help

Anyone who has been anywhere near a child and a VCR in the past two decades can almost certainly recognize the Caribbean lilt of Sebastian the Crab, conducting his deep-sea Calypso band to persuade the restless little mermaid Ariel that “we got no troubles, life is the bubbles, under the sea.”

Sebastian, alas, is naive. And though Ariel may treasure the detritus from the human world that washes into her under-sea home, in real life that debris poses great peril to her fish and bird friends. Each year, plastic bags, abandoned fishing gear and other trash injure or kill thousands of sea turtles, birds, whales and seals.

Fortunately, Sebastian and Ariel are helping us teach kids and their parents how to reduce this destructive pollution. In partnership with Disney, the Ad Council, the National Marine Sanctuary Foundation and the National Oceanic and Atmospheric Administration, we have launched a

public service campaign using *The Little Mermaid* characters, timed to the movie's DVD release this fall.

“Who better to persuade kids to protect the sea than someone who lives there?” said our Oceans program director David Festa. “Ariel captures the hearts of children, and can inspire her small fans to help take care of her world.”

Most ocean pollution originates on land. Even far from the coasts, litter and contaminated water can flow down storm drains into rivers and wind up in the sea. Every family can help by picking up litter, using safer household products and disposing of them carefully, and choosing paper bags instead of plastic.

Television ads in English and



Disney

Our campaign aims to keep oceans clean for mermaids and other creatures.

Spanish will be sent to stations nationwide. More ads will be seen on bus shelters and other prominent displays across America. The message to children: You can make a difference. More ideas can be found at the campaign web site: keepoceansclean.org.

The politics of forgetting: Louisiana still at risk



Robert F. Bukaty/AP Photo

Levees, shipping canals and oil infrastructure have weakened New Orleans' natural defenses.

More than a year after Hurricane Katrina, Louisiana remains at risk because the federal government has yet to fund adequate restoration of the state's natural hurricane buffer—its coastal wetlands. A study by Environmental Defense and other national and Louisiana environmental groups found that since Katrina,

Congress has dedicated only \$115 million for wetlands, less than a quarter of the minimum amount needed.

On Katrina's anniversary, a day after we released our report, President Bush noted that wetlands serve as a “barrier system to protect the state of Louisiana” and echoed our call to restore them with federal funding from offshore oil and gas revenue. Coastal wetlands and marsh forests reduce

storm surges and provide enormous ecological benefits, but over the last century, more than a quarter of Louisiana's 7,000 square miles of wetlands have been destroyed.

Our study, *Louisiana Still a Sitting Duck*, gives restoration efforts an overall grade of D+, with the federal government doing worse than the state. The

report explains what the federal and state governments must do for an A, including implementing a well-crafted, fiscally responsible plan to spend \$500 million to \$1 billion a year to revive the Louisiana delta.

Louisiana voters just passed a constitutional amendment requiring that the state's share of proceeds from oil and gas drilling in federal waters go to wetlands restoration and hurricane protection, but it remains to be seen how much money Congress will provide, and how fast.

“If coastal Louisiana is to survive and thrive, restoration of this world-class deltaic ecosystem must be paid for with offshore energy revenues,” says Environmental Defense general counsel Jim Tripp, a member of the Louisiana Governor's Advisory Commission on Coastal Protection. Our new policy analyst Paul Harrison is pressing Congress to do its part.

The true cost of America's love affair with the car



Tim Connor

Is this the future of the internal combustion engine?

Worried about global warming pollution? Check the driveway: The cars and trucks driven by Americans produce staggering amounts of heat-trapping gases. General Motors vehicles alone account for twice as much carbon dioxide pollution as the nation's largest electricity company, American Electric Power, with its dozens of coal-fired power plants in 11 states.

Environmental Defense recently conducted the first-ever detailed analysis of the global warming pollution from all the personal vehicles on America's roads. (Most studies consider only new vehicles.) The results of our study, *Global Warming on the Road*, made headlines from DC to China. Some eye-openers:

■ In 2002, carbon dioxide (CO₂) emis-

sions from U.S. cars and trucks totaled 314 million metric tons. That's as much CO₂ as would be released from burning all the coal in a train 50,000 miles long—enough to circle twice around the world.

■ Because there are so many of them on the road, small cars are the biggest global warming polluters—despite the fact that many get superior mileage. (Soon, the much less-efficient SUV will take over as the #1 on-the-road polluter.)

■ Americans own 30% of the world's vehicles, but emit nearly half the world's automotive CO₂ emissions. We drive more, and our cars are generally less efficient.

“Trying to solve global warming without making America's cars more efficient is like fixing a leaky roof without a hammer,” said Environmental Defense president Fred Krupp. “Leading automakers must accept responsibility for becoming part of the solution.”

The industry claims it wants to solve the problem, but it is blocking state and national measures to control heat-trapping gases and suing California over

Drive smart: Fuel savings add up

When you choose a vehicle, pick the one with the highest fuel efficiency that fits your budget and meets your needs. You can also cut fuel use and global warming pollution—and save up to \$500 a year—by following a few simple tips.

- **Drive less aggressively.** Rapid acceleration and braking can lower highway gas mileage by 33%.
- **Slow down.** Driving a mere 5 mph over the limit on the highway results in an average fuel economy loss of 6%.
- **Don't idle.** If you are stopping for more than ten seconds—except in traffic—turn off your engine.
- **Keep the engine tuned.** Regular maintenance can save up to 165 gallons of gas per year.
- **Check the tires.** Low tire pressure wastes over two million gallons of gasoline in the United States—every day.
- **Drive less.** Leaving the car parked is the best way to save gas and cut pollution.

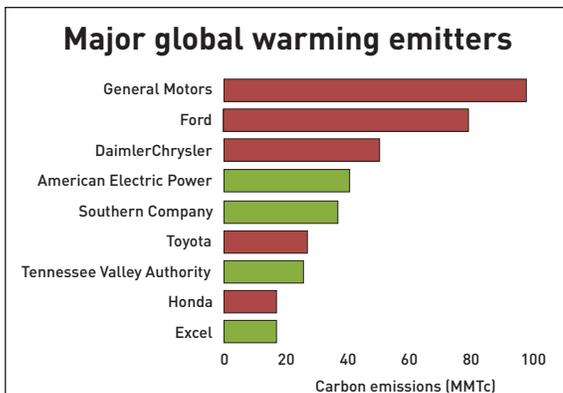
that state's pioneering global warming legislation for vehicles. We are helping defend California in court. We're also pressing Congress to pass nationwide carbon limits that include vehicles.

According to a new study by the Transportation Research Board, the number of workers with commutes lasting more than 60 minutes grew by almost 50% from 1990 to 2000. With the rising number of vehicles on the road, it's imperative to act now if we are to stem global warming and curb air pollution.

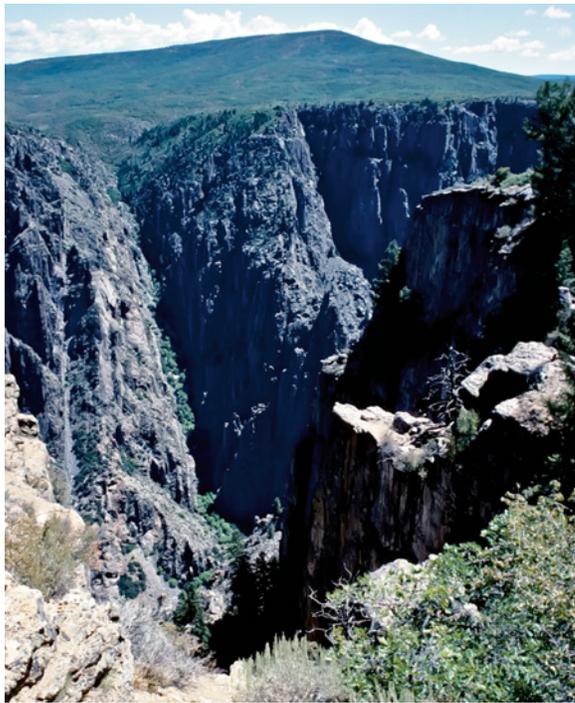


Tell automakers to stop fighting progress on global warming at environmentaldefense.org/action.

Major global warming emitters



Court victory saves Black Canyon



Gibson Stock Photography

The U.S. Park Service wanted to give away the high water flows that carved the celebrated canyon.

No other canyon in North America is as narrow and deep as the spectacular Black Canyon of the Gunnison National Park in southwest Colorado. Carved over mil-

lions of years, the sheer cliffs of pink pegmatite and black schist drop in places more than 2,000 feet, while the Gunnison River narrows to just 40 feet. The canyon's dark depths are home to bighorn sheep, peregrine falcons, bobcats and at least eight different species of bat.

Ever since Herbert Hoover declared it a national monument in 1933, the Park Service has insured flows sufficient to protect that ecology.

In 2003, however, Interior Secretary Gale Norton made a deal with state officials to yield river water to upstream uses. The new flow levels she proposed would have been far too low to protect the park's scenic values and famed trout fishery, so we joined Trout Unlimited, the Colorado-based Western Resource Advocates and others in filing suit.

This summer, our team won in federal court: The judge tossed out Norton's

deal, calling it "nonsensical, arbitrary, capricious and an abuse of discretion."

Our western rivers expert Jennifer Pitt explains that the "natural flows of the Gunnison, low in winter and raging in spring, are fundamental not only to the health of the river's species but to the park's entire ecosystem.

"Even the mountain lion needs the river: It might not establish its lair on the riverbanks but it survives on the species that do."

Congress encourages IRA gifts



Nick Clements/Getty Images

If you are age 70-1/2 or older, new legislation now allows you to make cash gifts totaling up to \$100,000 a year from your traditional or Roth IRA to qualified charities—such as Environmental Defense—without incurring income tax on the withdrawal.

This is good news for people who want to make a charitable gift during their lifetime from their retirement assets, but have been discouraged from doing so because of the income tax penalty. The provision is effective for tax years 2006 and 2007 only, so act now to take full advantage of this benefit.

Please contact Catie Gilchrist for further information at: 800-481-7233, cgilchrist@environmentaldefense.org or Environmental Defense, attn. Catie Gilchrist, 257 Park Avenue South, NY, NY 10010.

Our ad campaign reaches millions

Tick ... tick ... massive heat waves ... tick ... tick ... severe droughts ... tick ... tick ... devastating hurricanes ... tick ... tick ... tick ... our future is up to you.

Americans across the country have seen this TV ad featuring children tick-

ing off global warming's worst consequences if action is not taken soon. It's part of our campaign launched this spring with the Ad Council—which brought America Smokey Bear.

The global warming campaign is reaching millions through TV, radio and the Internet. In the early months, our TV ads aired more than 6,000 times in over 90 towns and cities, and our radio ads more than 120,000 times in over 100



Our ads ask Americans to make a choice.

locations. Online, the ads have created hundreds of millions of impressions. But we're not done yet. This fall we are launching newspaper, magazine and outdoor advertising for placement at bus stops, malls, phone kiosks, billboards and airports.



View the ads and take action at fight-globalwarming.com

Shedding some light on the subject

To learn more about compact fluorescent light bulbs and what might work best in your home or business, check out the following resources.

The best one-stop source of information about CFLs is the Environmental Defense online guide at environmentaldefense.org/go/CFLguide. While you're there, take the pledge! Our members already have pledged to replace 145,858 total bulbs and prevent 157,380,782 pounds of carbon dioxide from entering the atmosphere. How many bulbs will you replace?

Choose highly efficient CFLs from a list of over 2,000 Energy Star-related bulbs at energystar.gov/index.cfm?fuseaction=cfls.basic_cfl_search.

The American Council for an Energy Efficient Economy (ACEEE) provides an excellent overview of energy efficiency issues, including the role of CFLs. *The Consumer Guide to Home Energy Savings* is available for \$8.95 at www.aceee.org

Wikipedia's comprehensive entry on CFLs is at en.wikipedia.org/wiki/Compact_fluorescent_lamp.

To figure how much money you'll save and global warming pollution you'll prevent by switching any number of bulbs, visit environmentaldefense.org/go/bulb-calculator.



Kevin Cooley/Getty Images

How many lightbulbs does it take to change an environmentalist?

Let there be (compact fluorescent) light

"In 2006, we have DVDs, the Internet and cell phones, but when it comes to lighting, we're in the Dark Ages," says Erica Rowell, an Environmental Defense staff member. Rowell's voice is part of a growing chorus touting a new generation of compact fluorescent lamps—commonly known as CFLs. Proponents point to enormous efficiency gains and praise new CFLs for their better light, suitable for family rooms and reading nooks.

If you've tried CFLs in the past and been disappointed with their performance (harsh light, buzzing, a long time to reach full brightness, inconvenient shapes), it's time to revisit the technology. Here's why:

Energy savings. CFL bulbs use up to 75% less energy to produce the same amount of light (an 18-watt CFL

replaces a 75-watt incandescent) and the bulbs last as much as 20 times longer (10,000–25,000 hours versus 750–1,000 hours). And at current prices a typical \$3 CFL pays for itself in just a few months. The environment is the real beneficiary. According to EPA, "If every household in the U.S. replaced one light bulb with an Energy Star-qualified CFL, it would prevent enough pollution to equal removing one million cars from the road."

Convenience. Forget the past, when every hard-to-find CFL bulb was twisted into a pretzel shape and its applications were severely limited. Now CFLs are available everywhere (including Home Depot and Wal-Mart), and specially marked bulbs can be used in dimmable or three-way fixtures, or with timers, motion detectors and photocells.

Guest columnist Jim Motavalli is editor of E/The Environmental Magazine (for subscription information: 800-967-6572 or emagazine.com). Opinions are the author's and not those of Environmental Defense staff.

Some are rated for outdoor use. “A-shape” bulbs resemble standard incandescents and can be used in lamps with clip-on shades.

Safety and health. CFLs operate at less than 100° F, much cooler than incandescents. Halogen bulbs, used in popular floor lamps, can reach 1,000° F and have been implicated in many fires. CFLs also have become much healthier than they used to be. The irritating flicker in earlier fluorescents (AC power changes direction 60 times a second), has been eliminated in all Energy Star-qualified CFLs. Approximately one-third of the human population is sensitive to this flicker in older bulbs, which has been implicated in triggering migraine headaches.

Smart shopping. The biggest obstacle

to CFL adoption is the lack of accurate information. Environmental Defense helps you sort through CFL-buying confusion with an online guide. Select information about your fixtures and the type of light you’re looking for and you’ll see specially tailored suggestions for what bulbs to try. The guide also features detailed reviews from Environmental Defense members who’ve tried different bulbs. It even suggests places to buy them (brick-and-mortar stores as well as online shops). The guide offers a built-in calculator that helps you tally how much money and global warming pollution you’ll save by switching any number of bulbs. Find the online guide at environmentaldefense.org/go/CFLguide.

By Jim Motavalli

Some treasures last a lifetime



At a time when our world is losing so many irreplaceable natural treasures, it’s good to know that your commitment to protect them can last a lifetime.

Charitable remainder trusts, gift annuities and other planned giving options can sustain your environmental values while providing immediate tax benefits, lifetime income and other advantages. And they’re available to people across the economic spectrum.

To learn more, contact Anne Doyle at Environmental Defense, 257 Park Avenue South, New York, NY 10010; 877-677-7397; ospreys@environmentaldefense.org



THE TICKING CLOCK...

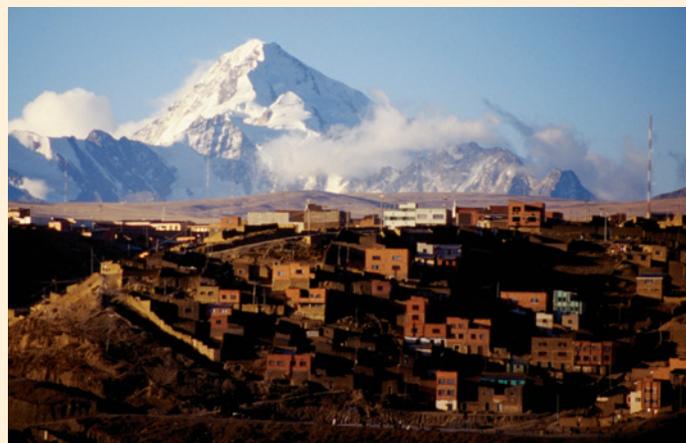
Will global warming feed on itself?

A recent study in *Nature* found that warming during a “super-greenhouse” period 55 million years ago raised Arctic temperatures about 40° F, almost twice as much as today’s models would have predicted for that period. Scientists worry that the study suggests a harmful “positive feedback” effect in which global warming releases more heat-trapping gases into the air from oceans, soils or permafrost, causing even more warming.

New observations, also published in *Nature*, show that this already may be happening in the far north, where permafrost holds about 500 billion tons of frozen organic carbon, more than the total amount of carbon humans have released to the atmosphere since 1750. In northern Siberia, methane, a potent greenhouse gas, is bubbling out of “thaw lakes” created by melting permafrost. Scientists calculate that releases of methane in the region increased 58% between 1974 and 2000.

Melting glaciers threaten water supplies in North and South America

Glaciers are shrinking in the high mountains of North and South America, from Alaska to Chile. In the western United States, scientists have documented a 50-year decline in snowpack, accompanied by earlier spring melting. This trend increases the risk of water shortages for millions of U.S. residents whose summer water comes from mountain snow and is expected to worsen as global warming progresses.



Woods Wheatcraft/Lonely Planet Images

The glaciers that residents of La Paz, Bolivia, rely on for water are disappearing at an alarming rate.

New research, published in *Science*, shows that South Americans who rely on Andean glaciers for drinking water, irrigation and hydropower are facing the same threat. The problem is particularly acute in poor countries like Peru and Bolivia, which have limited options for replacing the water and power. The study finds that, as global warming continues, the greatest warming occurs at higher altitudes, where the glaciers are found. According to the scientists, “Some glaciers have already reached the threshold at which they are destined to disappear completely; for many more, this threshold may be reached within the next 10 to 20 years.”

Vigilant efforts bring species back from the brink

This year, for the first time in decades, northern aplomado falcons took to the skies over Ted Turner's ranch near Truth or Consequences, NM. The 11 captive-bred falcons released by The Peregrine Fund mark another milestone in our "Back from the Brink" campaign to restore endangered species.

In the mid-1990s, Environmental Defense began experimenting with new ideas to enlist landowners as allies in the effort to revive rare species. Our Safe Harbor approach, adopted by the U.S. Fish and Wildlife Service, ensures that "Good Samaritan" landowners who help improve habitat for species will not face new restrictions on their land. Nearly four million acres have been enrolled in the program, benefiting a variety of species.

In 2004, we launched Back from the Brink to focus extra attention on 15 species, with the aim of demonstrably improving their well-being. The animals and plants we chose presented challenges ranging from invasive competitors to urban sprawl. The results thus far are detailed in a new report *Road to Recovery* (environmentaldefense.org/go/species).

Says our wildlife program director Michael Bean: "We have proved that with

strong incentives and a practical approach, species can be put on the road to recovery in a relatively short time." Some stories:

A conservation idea catches fire

In 1995, the red-cockaded woodpecker was the first endangered species for which Safe Harbor was used.

Since then, 60 new family groups have been established on participating properties, a substantial increase. The government's official recovery plan calls Safe Harbor "an immense success for both landowners and red-cockaded woodpeckers."

Rare ocelots found

Funded by Environmental Defense, our Mexican partner—Pronatura Noreste—in August confirmed the presence of ocelots on a ranch just south of the border. The challenge now: to expand the cat's thorn scrub habitat on both sides of the border.

Gopher tortoise: Helped by a "bank"

When development threatened to wipe out the gopher tortoises' chances of survival around Mobile AL, we designed prime tortoise habitat on property owned by the city. The habitat now serves as a "conservation bank". Developers buy credits from the bank to mitigate the impact of their projects elsewhere and the



America's rarest falcon returns to southwestern skies.

income helps support the new habitat. The result? The number of tortoises on the site has risen from 10 to 60, and we're expanding the effort to other states.

Sunflower helps restore vanishing prairie

Of the more than 700 species of plants on the Endangered Species list, only two have recovered. Thanks to landowners' help, the beautiful Schweinitz's sunflower may soon join them, along with its savannah-like ecosystem, the Piedmont prairie. In 1991, only 15 populations of the flower existed. Today, landowners are restoring a Piedmont prairie in the Uwharrie region of central North Carolina. Other rare species will benefit as well.



Alan & Sandy Carey/Corbis

Baby ocelot finds safe harbor.

What they are saying about Environmental Defense

"With its creative approach, Environmental Defense has demonstrated how a strong Endangered Species Act benefits both rare species and people."

—E.O. Wilson, Harvard University



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