

SOLUTIONS

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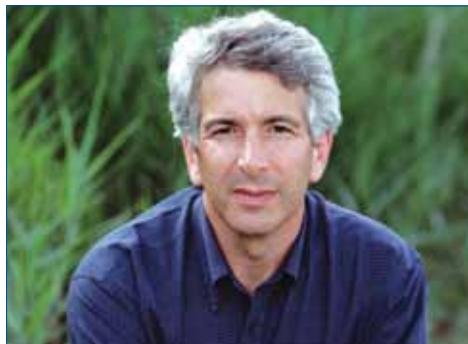
> **CONGRESS TO KIDS:
BREATHE LESS!**

Defying science and the Supreme Court, the U.S. House is waging a reckless war on America's clean air protections. [But at what cost to our children?](#)

PAGE 6

WHERE WE STAND

By EDF President Fred Krupp



T. Charles Erickson

Playing politics with the nation's health

EPA UNDER SIEGE

Last month, in Salt Lake City, UT, I spoke at the Utah Museum of Natural History about the future of energy. I also had a chance to see the museum's stunning new home, which opens this fall. It's going to be a beautiful place to learn about our natural world.

While there, I was struck by how few people understood that the House of Representatives had just voted, through a budget bill needed to keep the government running, to effectively gut EPA's ability to enforce the Clean Air Act.

It's no overstatement to say that the legislation shows utter contempt for the 40-year bipartisan effort to protect all Americans by using sound science to clean up our air and water. For example, the bill denies EPA needed funds to enforce limits on toxic mercury pollution from cement kilns. Mercury exposure causes brain damage in children.

EPA will also be forbidden to fund any activity concerning "possible climate change," such as regulating new power plant construction or even collecting basic data on sources of greenhouse gas pollution.

The Clean Air Act is one of this country's most enduringly successful and popular laws. It has provided \$30 in economic benefits—like reduced hospitalizations and increased productivity—for every \$1 invested in pollution controls. And it has helped turn the United States into the world's leading provider of environmental technologies and services, a \$300 billion industry that supports 1.6 million American jobs.

In terms of public health, the Clean Air Act is an even bigger success. In 2010 alone, it saved some 160,000 people from premature death.

In short, the Clean Air Act has saved lives, improved the environment, helped the economy grow and created jobs. Yet the House is trying to kill it, by starving the EPA for the funds and authority it needs to do its work. (See story, page 6)

The battle over these House amendments will eventually move to the Senate, where EDF and its allies, including responsible corporations and industry groups, are working to defeat this attempt to undo 40 years of environmental and public health progress.

Clean air is every American's right, and neither politicians nor the polluters who support them should be able to take it away.

Contact your Senators and urge them to say no to the reckless, destructive bill the House has sent their way.

A handwritten signature in black ink that reads "Fred Krupp". The signature is written in a cursive, flowing style.



Environmental Defense Fund's mission is to preserve the natural systems on which all life depends. Guided by science, we design and transform markets to bring lasting solutions to the most serious environmental problems.

Our work is made possible by the support of our members.



ON THE COVER:

Since the Clean Air Act was enacted, most Americans have taken clean air for granted. Now, leading

members of the House, backed by fossil fuel lobbyists, have engaged in a backdoor attempt to roll back the Act's protections. They must be stopped.

Solutions senior writer Rod Griffin took a hard look at opponents' arguments against clean air regulation and weighed them against the facts. See page 6.

Cover photo: PhotoEdit, Inc.

SOLUTIONS

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LETTERS AND COMMENTS FROM READERS

IS FRACKING SAFE? (Solutions, Winter 2011)

“We own 300 acres in the Sabine National Forest, and we are selling out before our water supply is ruined. I will continue to support EDF’s efforts, but I cannot help but be pessimistic living in Texas: landowners here do not have any rights.”

—Nancy Fox

I am writing about EDF’s apparent support for state regulation of hydraulic fracturing. EDF is looking rather pro-industry, and I hope you clarify your position. I work as a state-level regulator of the insurance industry and am acutely aware of the budget issues that state regulators face. There is no way that the states can appropriately handle an issue this sensitive to people’s health.

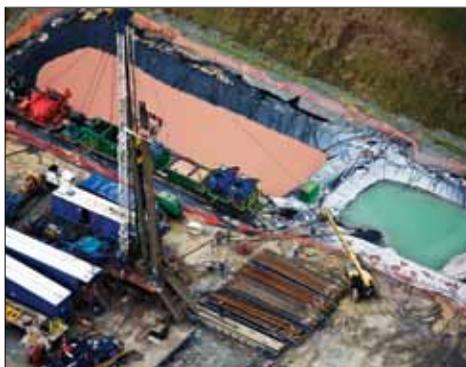
—Ben Creasy

Scott Anderson, EDF senior policy advisor for energy, responds:

It is tragic when the groundwater that landowners depend on is contaminated. There is no excuse for this.

Natural gas development is responsible for far too many threats to human health and the environment. Poor shale-gas drilling operations and waste transport can pose threats to nearby communities by contaminating water and releasing air pollutants. A recent *New York Times* article revealed EPA documents showing that wastewater from hydraulic fracturing contains radioactivity and other contaminants that treatment plants are unable to remove. To date, EPA has reached no official conclusion as to whether fracturing has caused contamination of groundwater.

People should be very concerned about the fluid chemicals used in fracturing. These chemicals—many of them toxic—have entered water supplies, but the industry has so far successfully opposed mandatory disclosure. As a result, the public doesn’t know what chemicals are



J. Henry Fair

The U.S. has more than 493,000 natural gas wells, about 90% of which use hydraulic fracturing.

being used or in what quantities. EDF supports full disclosure of all chemicals used in well drilling, and we’re working with the industry to reduce their use.

All printed letters are edited for clarity and length. Find full comments online. EDF wants to hear from you. To submit comments, email us or visit us online, at solutions.edf.org.

EDF believes that fracturing must be done safely, or not at all. But protection of human health and the environment will cost money, and neither states nor EPA have adequate enforcement budgets. So industry must be part of the solution. We’re working with state governments and drilling companies to try to develop rigorous safety practices that could become the basis of federal regulations. These companies understand the entire industry will be held accountable for accidents.

CORRECTION

The map on page 15 of *Winter Solutions* (“Signs of a Warming Planet in 2010”) incorrectly labeled the country of Israel due to an editing error. The online map is correct.

A CARTOON IN NEED OF A CAPTION

Sometimes humor helps. You, the *Solutions* reader, are invited to submit a caption for this cartoon.

EDF will publish the winning submission and use the cartoon in our campaigns. The winner will receive a signed print of the cartoon.

➤ **Submit your caption to editor@edf.org or at solutions.edf.org**



WHAT THEY’RE SAYING ABOUT EDF

“EDF’s expertise in the region proved invaluable as we put together recommendations to restore the Gulf Coast.”

—Ray Mabus, Secretary of the Navy



Doug Kaputian

CALIFORNIA DREAMING: A NEW PACT TO SAVE RAINFORESTS

What if rainforests were worth more alive than dead? That would put the brakes on rainforest destruction, which currently accounts for 15% of all greenhouse gas emissions. Working together, three governments have agreed to save forests and cut pollution.

Can California's climate law help prevent deforestation elsewhere in the world?

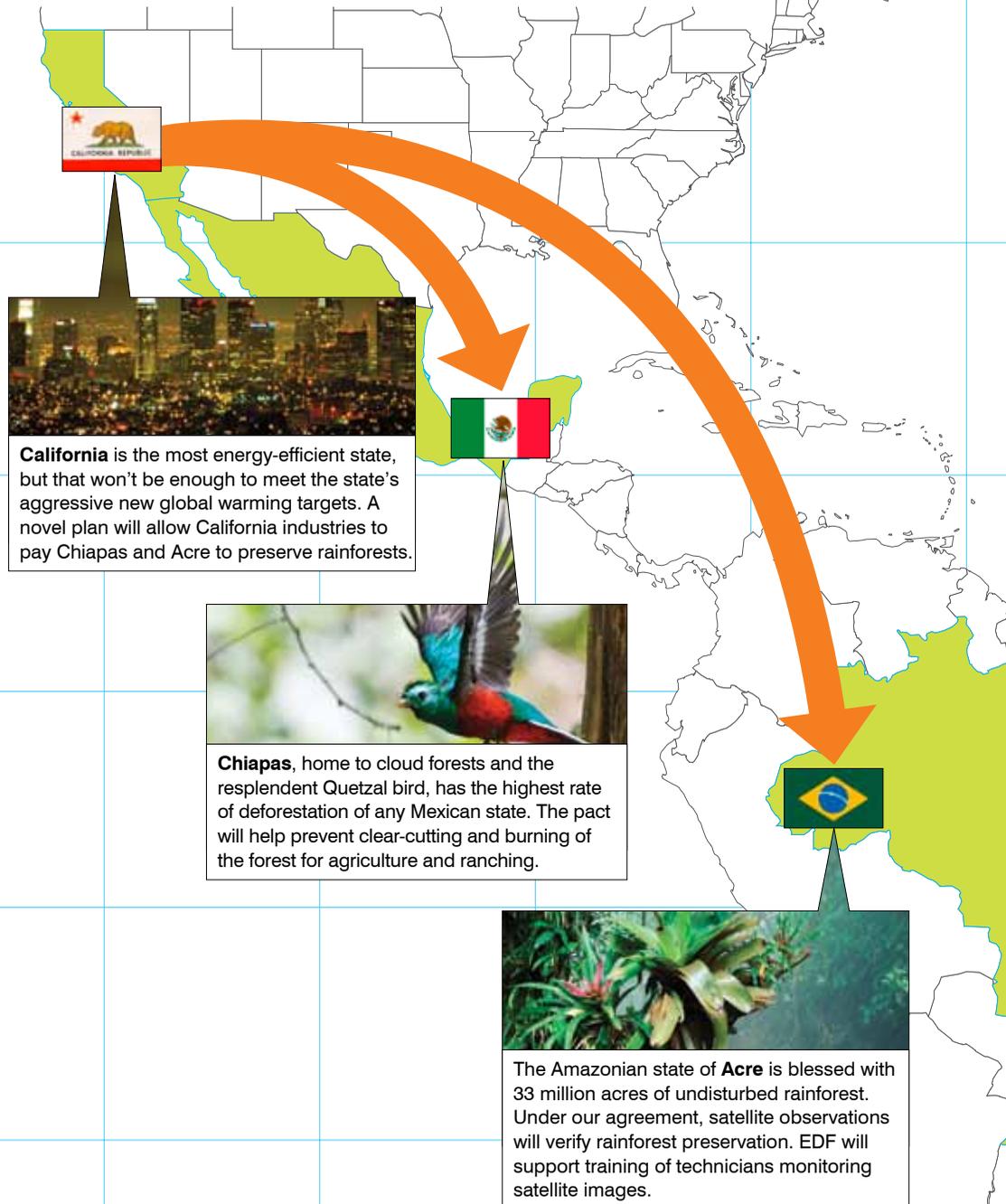
Officials in Brazil, Mexico and California think it can.

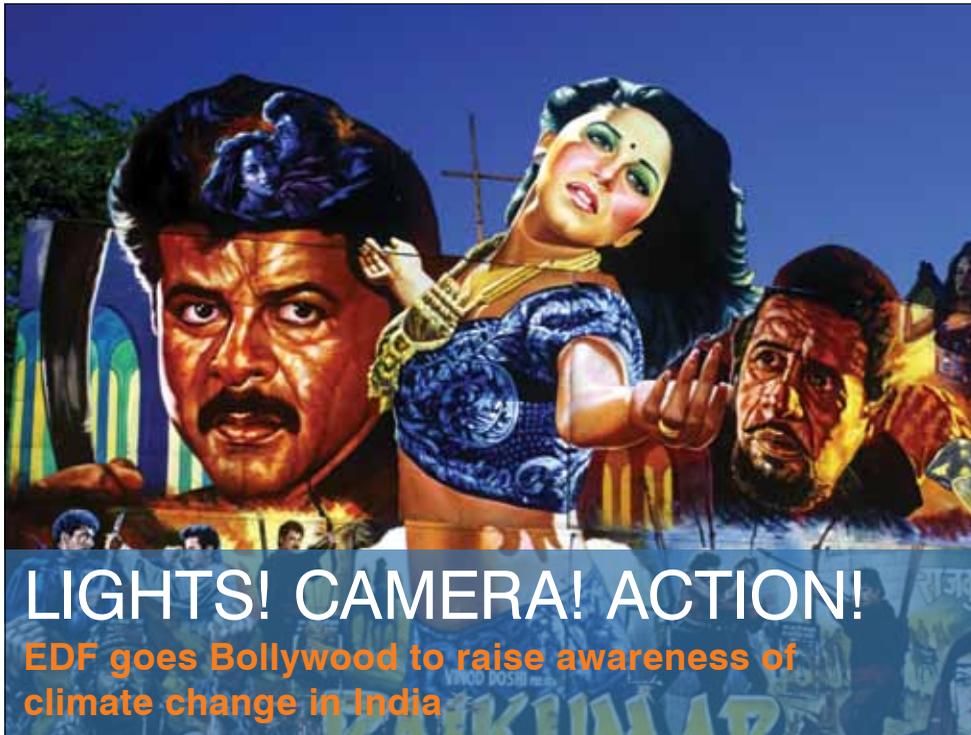
Last November, the Brazilian state of Acre and the Mexican state of Chiapas signed an agreement with California that could bring them into the Golden State's new cap-and-trade carbon market, perhaps as early as 2012.

Under the agreement, which EDF helped to arrange, California refineries, power plants and other emitters will help Chiapas and Acre preserve their rainforests, says Derek Walker, EDF's California climate initiative director. In return, they'll get carbon credits, which they can use as offsets to help them meet a portion of California's emission reduction targets.

Under the plan, deforestation reductions in Chiapas and Acre will be verified by independent auditors, and under California's climate law there will be an 8% ceiling on the amount of emissions California industries can offset. Eventually, the program could be extended to other nations with threatened forests, like Nigeria and Indonesia.

"This is a good example of EDF's strategic vision and agility," says Dr. Steve Schwartzman, our director for tropical rainforest policy. "In the aftermath of the collapse of U.S. climate legislation, we've been able to redeploy."





As in most of the developing world, global warming in India will hit the poor hardest.

in India, and *Aarohan* is tapping into this to raise awareness in India's hinterland. The film has been adapted into song and performed as street theater, and is being translated into three other languages besides Hindi.

EDF's Bollywood production has also inspired changes on the land. Indian community leaders—at least one-third of whom, by law, are women—are demanding local, low-tech solutions to climate change, such as rainwater harvesting and improved management of springs. They are also requesting information from the government on solar power and biogas.

"The perception is that you have to choose between favoring development or addressing climate change," says Ahuja. "Our argument is that you can do both."

The film project is part of EDF's broader effort—including a youth campaign that has reached 500,000 people—to spark popular demand in India for renewable energy, water and food security.

"India is going to be a central player in the fight against climate change," Ahuja says. "We're building relationships to help make EDF an honest broker for change."

India, the world's largest democracy, is facing a climate crisis. Today the country is the fifth largest global warming polluter, and thanks to its booming economy its emissions are projected to increase.

But how do you raise national awareness of this issue in a country of 1.2 billion people, one-third of whom lack access to electricity, where governing authority is dispersed among 600,000 rural villages?

The first step to lasting change is an honest conversation. EDF teamed up with The Hunger Project, a global nonprofit that empowers women in rural communities. We then produced and distributed a Bollywood-style film in Hindi called *Aarohan* ("A New Beginning") to spark a conversation on climate change.

"Two things bind this huge and diverse nation together," says Riche Ahuja, EDF's India program director. "Cricket and Bollywood."

Aarohan connects global warming and rural poverty in India through its portrayal of a drought-stricken village that restores itself to agricultural and social health, led by a handsome male agronomist (played by the Indian soap opera star Anoop Soni) and a beautiful female council member (this is Bollywood, after all).

The film has already been shown in more than 400 villages in three separate states. In January, around 100 community leaders from 30 villages traveled with their families by bus for more than three hours to attend a climate workshop in the small Himalayan town of Bhimtaal. They shared stories about the impact of climate change on their communities.

"We used to find water nearby," observed one woman from a village whose water supplies were dwindling due to a shortened monsoon season. "Now we walk for two hours to find water, and the children do this before they can go to school."

Many of the attendees said they had been inspired by EDF's film. In the Himalayas, deforestation has accelerated soil erosion, and one woman spoke of how she lay down in a road to stop illegal loggers. "You can roll over me, but you won't take trees out of here," she said.

As in most of the developing world, climate change in India will hit the poor hardest because they lack the resources to adapt.

Storytelling is a thriving communication medium



These rural leaders traveled for hours to learn how to combat climate change.

MERCURY RISING: OPEN SEASON ON CLEAN AIR



By Rod Griffin

The Clean Air Act has saved millions of lives and protected rivers, lakes and forests from untold damage. Now, this bedrock law is under assault in the courts and on Capitol Hill. EDF and its allies have mobilized to confront the polluters' lobby.

"I am not an environmental activist," says DeeDra Parrish of Fort Worth, TX, "but as the mother of a toddler with asthma, I could not in clear conscience sit quietly any longer."

Last year, Parrish's one-year-old daughter, Audrey, was hospitalized for two weeks after a severe respiratory attack.

After learning about the effects gas drilling was having on local air quality, Parrish wrote her congresswoman and sent a post to one of EDF's blogs. "Perhaps you've never had to hear the distressing sounds of a baby breathing fast and hard trying to get more oxygen into her lungs," she wrote. "I hope you never do."

While the nation as a whole has seen significant improvements in air quality

under the Clean Air Act, ozone pollution has spiked around Dallas–Fort Worth over the last decade, earning the region an "F" grade from the American Lung Association.

"Is anyone paying attention to what's happening here?" asks Parrish.

Asthma afflicts more than 17 million Americans and is the third-leading cause of hospitalizations among children under the age of 15.

A Texas showdown

It is against that backdrop that Texas spearheaded the nationwide assault on EPA's authority to regulate greenhouse gases. This opening salvo was blocked when a federal court in January denied the state's third attempt to halt critical new

Since EPA began implementing the Clean Air Act, emissions have dropped by 55%, while the economy has more than tripled.

federal greenhouse gas regulations.

The ruling clears the way for EPA to regulate new high-polluting facilities like power plants in Texas. EDF played a lead role in supporting EPA in the court cases.

The action then shifted to Congress, where an emboldened new House majority unleashed an even more damaging attack on the Clean Air Act. In a reckless, all-night session, more than 400 amendments were attached to the budget resolution to keep the government running through the year. “It was a bad night for the environment,” says EDF president Fred Krupp.

Together, the amendments would slash EPA funding by \$3 billion and effectively bar the agency from protecting public health.

Some of the more egregious examples:

- No funding for enforcement of limits on mercury and cancer-causing toxic pollution from cement plants. Exposure to mercury, a highly poisonous metal, has been proven to cause brain damage in children.
- A ban on any EPA regulation of methane, nitrous oxide or hydrofluorocarbons from stationary sources, no matter what their impact is on public health.
- A sweeping prohibition on all work by EPA to address carbon pollution, including a critical right-to-know program that gives communities the tools to identify the biggest polluters in their neighborhoods.



istockphoto.com

Asthma is already the third-leading cause of hospitalization for children.

This last measure was introduced by Rep. Mike Pompeo (R-KA), whose district is home to Koch Industries, an energy conglomerate and prime funder of the climate-denier movement. Koch was the leading contributor to the congressman's recent election campaign.

“Clean air for America's kids should >

TRUE GRIT: STANDING UP TO DELAYERS AND DENIERS

HOT AIR



“These job-killing regulations ... will usurp power from the states, violating the principles of federalism.”

—Rep. Darrell Issa (R-CA), new chairman of the House Oversight and Government Reform Committee



EPA is contributing to “an unstable regulatory environment” that would discourage companies from making long-term investment decisions.

—Sen. Jay Rockefeller (D-WV)



“This is the largest assault on democracy and freedom in this country that I've ever experienced.”

—Rep. John Shimkus (R-IL)



EPA's plan to limit greenhouse gas emissions is an unconstitutional “power grab.”

—Rep. Ed Whitfield (R-KY), chairman of the House Subcommittee on Energy Power

COOL HEADS

“Action on climate change can stimulate the economy and create millions of jobs.”

—Jim Rogers, president and CEO, Duke Energy

“We're in an industry that is completely capable of responding to [EPA's] rules. We expect that there will be reasonable flexibility in both the rules and enforcement guidelines.”

—Paul Allen, senior vice president, Constellation Energy

Polling by Opinion Research Corporation shows that 83% of all Americans think that EPA, not Congress, should be making decisions to safeguard public health.

The Supreme Court ruled in 2007 that by passing the Clean Air Act, Congress itself gave EPA explicit authority and responsibility to curb air pollutants, including carbon dioxide and other greenhouse gases.

not be sacrificed to profit big polluters like fossil fuel companies,” says Dr. Elena Craft, an EDF health scientist. Climate change is likely to dramatically increase rates of asthma, heart disease and cancer, according to research by Harvard Medical School.

The reckless mood in the House was captured by Rep. Louie Gohmert from Texas, home to four of the nation’s top ten mercury-emitting plants. “Let the EPA go the way of the dinosaurs that became fossil fuels,” he fumed.

A high-stakes battle

The assaults on the Clean Air Act are unprecedented. The good news is that the House bill still must pass the Senate.

“This is an all-hands-on-deck moment to defend clean air in America,”

says Vickie Patton, EDF’s general counsel.

Our opponents’ strategy includes votes to undo rules, spending cuts to prevent implementation of regulations, and aggressive oversight to handcuff EPA.

We’re working on several fronts: challenging opponents directly in court; taking out ads in key congressional districts to shine the spotlight on the polluters’ lobby; and enlisting corporate allies to speak out in support of the Clean Air Act.

“Contrary to claims that EPA’s agenda will have negative economic consequences, our companies’ experience complying with air quality regulations demonstrates that regulations can yield important economic benefits, including job creation,” wrote PG&E’s Peter Darbee (and seven other utility CEOs) in *The Wall Street Journal*.

Bottom line: Health

The attacks on the Clean Air Act come as 175 million Americans still live in areas that fail to meet federal health-based air standards. In addition, new research shows that pollutants are damaging in smaller concentrations. “There is serious work still to be done,” says Patton.

Power plants are a major source of the problem. They produce about two-thirds of the nation’s sulfur dioxide, over 30% of carbon dioxide and 45% of mercury. Acting under authority affirmed by the Supreme Court, EPA has proposed regulations to improve plant efficiency.

The rules, which affect only the largest polluters (not, as opponents loudly claim, mom-and-pop businesses), require that plants reduce emissions with

WHAT THE CLEAN AIR ACT HAS DONE FOR AMERICA

A RICHER, CLEANER, HEALTHIER NATION

The Clean Air Act is the best argument for sensible environmental regulation. America’s public health and its economy have thrived, and pollution has fallen, since the Act’s inception.



WHAT MIGHT HAVE BEEN America without the Act

In 1970, President Richard Nixon created the EPA and Congress passed the Clean Air Act. Imagine what the United States would be like without those landmark achievements...



LEADED GAS

Cars would still run on leaded gas, leading to dangerous lead levels in nearly nine out of ten American children.



DYING FORESTS

Vast forests would be destroyed by acid rain. Thousands of lakes that have returned to health would remain lifeless.



HAZARDOUS WASTE

We’d still have raw sewage flowing into rivers, and higher doses of airborne mercury contaminating lakes and affecting the food chain.



FILTHY AIR

Coal plants would emit 50% more pollution than they do now, and nearby office workers would still be changing their shirts at lunchtime because of soot.

CLEAN AIR CRUSADER

For some people, success is measured in dollars. For EDF attorney Pamela Campos, it's measured in tons of pollution removed from the air—and in lives saved.

By that yardstick, 2010 was a pretty good year. Working with Vickie Patton, EDF's general counsel, Campos helped advocate a new law that will result in all Denver-area power plants transitioning from coal to cleaner sources by 2018.

Growing up in Denver, Campos experienced the impacts of the city's

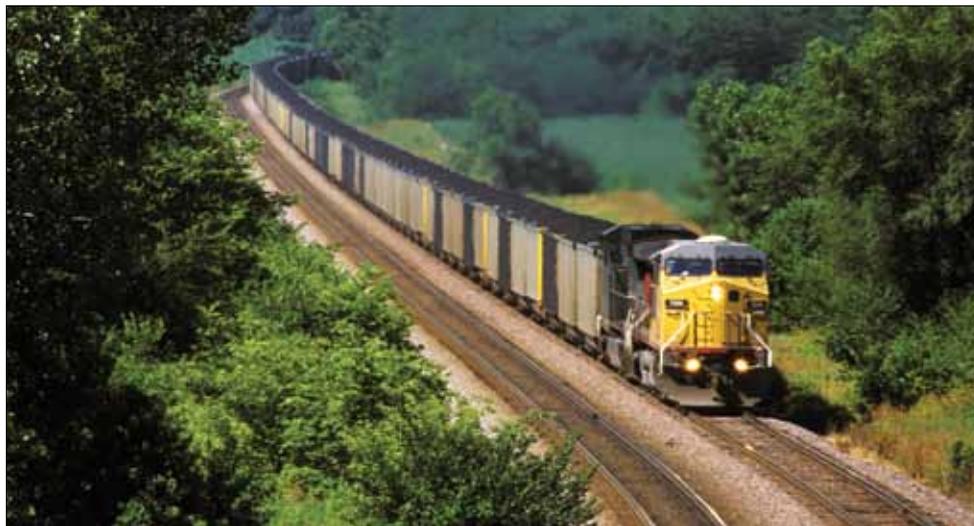


Pamela Campos, EDF lawyer, has only one client—the environment.

population boom and the “brown cloud” that accompanied it. She has been on a mission ever since.

A self-described physics geek, Campos designed thin-film solar cells and earned a master's in technology and policy at MIT before heading to Yale Law School. She joined EDF in 2009, after serving as deputy counsel to former Colorado Gov. Bill Ritter.

These days Campos is helping coordinate EDF's defense of the Clean Air Act, often reading briefs on her iPad while bouncing her 5-month-old daughter Isa on her lap. “The places we love are changing because of climate change,” she says. “We each have a duty to do something about it.”



The average coal-fired power plant burns more than 60 railroad cars of coal a day.

the best available technology.

Our opponents assert that this requirement will lead to job losses, a claim undercut by a recent study by the University of Massachusetts and CERES, a sustainable investment group. It found that EPA's new rules would create almost 1.5 million jobs over the next five years.

Many utilities welcome the certainty that would accompany the new rules. “It is critical that we know the rules of the road of climate change as soon as possible to make sure we are making the right investments,” says Jim Rogers, chief executive of Duke Energy.

EPA has also introduced first-ever standards to cut carbon emissions and improve fuel efficiency for passenger cars and heavy duty trucks. The clean car rule—the result of a landmark agreement between the Obama administration, automakers and the United Auto Workers union—will save new car owners more than \$3,000 in gas over the life of their cars.

Virtually every major Clean Air Act program since 1970 has met fierce resistance from industry and opponents

on Capitol Hill.

In the 1970s, the U.S. Chamber of Commerce predicted the law would lead to the “collapse of entire industries,” including the car business. Instead, the development of catalytic converters for new cars and trucks gave birth to a global market for converters dominated by American manufacturers.

Similarly, lobbyists in the 1990s claimed that phasing out CFCs, which were depleting the ozone layer, would kill the refrigeration business and shut down hotels and hospitals. Instead, the phase-out was completed five years faster, and at 30% lower cost, than predicted. It also spurred innovation in the American refrigeration industry, which found new markets overseas.

In fact, the commonsense application of the Clean Air Act has made it one of the most cost-effective pieces of legislation in U.S. history. The Act's next chapter promises similar success.

“Congress needs to put aside politics and act in the public interest,” says Steve Cochran, EDF's VP for Climate and Air. DeeDra Parrish heartily agrees.

“We love our lives in Forth Worth,” she says. “My desire is to allow my children to enjoy the outside air without worrying how it will affect them.”

➤ ONLINE: Help defend the Clean Air Act. Go to edf.org/stoppolluters

HEALTHY AIR AT A BARGAIN PRICE

PROGRAM	PROJECTED COST	ACTUAL COST
Acid rain	\$5.5 billion	\$1.4 billion
Asbestos	\$150 million	\$75 million
Benzene	\$350,000/plant	\$0/plant
Catalytic converters	\$860/vehicle	\$288/vehicle



ENERGY EFFICIENCY CATCHES ON IN THE HEARTLAND

Treasure hunting usually evokes images of undersea wrecks and pieces of eight, not people poking around behind a stadium scoreboard in Orlando, FL.

But that's just where Beth Trask, EDF's manager for corporate partnerships, found herself recently, inspecting the scoreboard's cooling units at the Orlando Citrus Bowl. It was all part of an energy efficiency "Treasure Hunt," sponsored by EDF and General Electric (GE), in cooperation with the City of Orlando.

Three days of sleuthing at the stadium uncovered more than \$150,000 in potential annual energy savings. One change alone—putting programmable thermostats on the air conditioners in the skyboxes, locker rooms, offices and press box—could save \$59,700 a year.

Even as Congress has failed to act on global warming, energy efficiency is catching on nationwide. In 2003 just two states had programs requiring utilities to save electricity through energy efficiency programs. Today, there are 24.

EDF is pursuing a broad strategy to encourage this trend. The partnership with GE—which involves Treasure Hunts at sites ranging from hospitals and factories to the Atlanta airport—is just one example.

Another is our highly successful Climate Corps program, in which business school students spend their summers

ferreting out energy savings at major corporations. That program has so far found \$439 million in energy savings at more than 60 companies.

Nationwide, the potential savings are enormous. A recent report by consulting firm McKinsey found that the United States could save \$680 billion if it invests in energy efficiency—13% of the nation's projected yearly energy use.

Even in the heartland, where climate skepticism is common, the drive to save energy, and money, is growing. In Salinas, KS, city managers installed energy-efficient lighting on the town's

Christmas tree. And on Halloween, local schoolchildren hunted for "vampire" electric loads, appliances that drain energy even when they're turned off.

Next door in Colorado, city managers in Aurora replaced more than 9,500 traffic light bulbs with high-efficiency LED bulbs. "We love protecting the environment," says Aurora mayor Ed Tauer, "but our primary job is being good stewards of our citizens' money."

In Kentucky, a new Biblical theme park featuring a Noah's Ark replica will use energy-efficient window glazing and geothermal heating. A company official says he doesn't believe in global warming, but energy efficiency brings "a pretty significant return on investment."

We're now expanding Climate Corps to the public sector, and the initial results are promising. In 2009, for example, our fellows found \$13 million in energy savings opportunities at historically black North Carolina Central University.

"With public universities pinching every penny, \$13 million in savings is a huge deal and can help with pressing needs," says Michael Regan, EDF climate and air policy manager.

"Many energy efficiency savings are like cash on the ground, waiting to be scooped up," adds EDF economist Dr. Gernot Wagner. "More than a half trillion dollars in energy savings by 2020 is not a small number, and this effort would dramatically slash emissions."

VOLUNTEERING FOR ENERGY PREPAREDNESS

Big companies like Verizon aren't the only ones benefitting from EDF's Climate Corps. Last year, our squad of specially trained business school students inspected public facilities in Raleigh, NC, including 27 city firehouses, and found a wealth of energy savings. Now, even firehouse vending machines have become more efficient; they shut down their cooling systems when no one's around.

Overall annual dividend for the city: \$106,000. City managers in the neighboring city of Cary are impressed. They're now getting their own Climate Corps fellows.



Fire-engine red goes green in Raleigh.

SHARING THE CATCH IN BELIZE



Ronaldo Schemidt/Getty Images

Along Belize's isolated coastline, the Mesoamerican Reef—the world's second largest—forms a glittering necklace of sandy keys and coral atolls. Fifty years ago, fishermen waded in shallow waters here to harvest spiny lobster and queen conch by the hundreds. "I used to get 200 pounds of lobster in a day's work, but now fishermen think ten pounds are good," recalls Martin Reyes, who has fished off Punta Gorda in southern Belize for 45 years.

In Reyes's lifetime, Belize's lobster catch has fallen by nearly half. But there is hope. Disturbed by the declines, fishermen are demanding change. Reyes—a member of the Garifuna community—heads the local fishing association.

EDF believes fishermen are essential to restoring fisheries and habitat. In 2009, we teamed up with the Wildlife Conservation Society (WCS) and the Toledo Institute for Development and Environment (TIDE), a Belizean

On the world's second largest reef, EDF helps safeguard biodiversity

conservation group, to enlist fishermen, policy makers and managers of marine reserves to help preserve the reef through catch shares. This innovative approach for managing fisheries is now the preferred method in the United States.

Belizean fisheries today have an

overabundance of fishermen and an undersupply of enforcement. A free-for-all is the norm as fishermen race to get the last fish. Fish populations collapse, and fishermen barely eke out a living.

Under catch shares, groups of fishermen are granted exclusive access to fish in a designated area. This secure privilege gives fishermen an incentive to become better stewards of the resource.

A new model for conservation

One promising strategy pairs catch shares with marine protected areas to be managed jointly by local communities and the government. "Without community participation, we would not be effective," says Celia Mahung, executive director of TIDE, which helps out-of-work fishermen find jobs as sport fishing guides. Mahung pioneered a program that taps fishing leaders to be stewards of marine reserves.

Martin Reyes is one of 12 custodians. When he sees a poacher, he alerts rangers by cellphone. Since the Belizean government has little money for monitoring and enforcement, "we need the stewards—they are our eyes and ears," says Mahung.

Out on the water, Reyes talks to fellow fishermen to make sure they haven't kept undersized lobsters or females about to lay eggs. "I ask if the lobster has tar on its chest," he says. "The male deposits tar on the female. Then she releases the eggs and scratches the tar to fertilize them."

Lobsters take at least two years to

mature and can lay 5,000 eggs at a time. "Most lobsters don't get to be that big now because they are caught," says Reyes.

"Protecting this amazing reef is critical to keeping U.S. fisheries healthy," points out EDF scientist Dr. Rod Fujita. "Fish larvae float through the Yucatan Channel and replenish U.S. commercial fisheries."

Thanks to our coalition's efforts, Belize's cabinet recently voted to authorize catch share programs for spiny lobster in Port Honduras and Glover's Reef reserves.

"EDF's expertise in market-based incentives helps us ensure the health of this vital ecosystem," says Janet Gibson, the WCS program director in Belize.



Bordering three countries, the Mesoamerican Reef is 600 miles long and supports more than 500 species of fish.



DILLIC/Corbis

CRITTER CARE

Keeping our pets 'naturally' healthy

By Jim Motavalli

Americans love pets (in 2009 we shared our homes with 64 million dogs and 82 million cats). In fact, we treat pets pretty much like people. So it's hardly surprising that, as the movement toward all-natural foods and products has grown among humans, it has also grown for pets. It's not unusual to find the neighborhood pet store stocking raw elk or gluten-free treats. Sales of organic and natural pet food are projected to grow from \$1.7 to \$2.8 billion by 2015, three times as fast as overall sales.

Here's a quick guide to helping your pooch or pussycat go natural. A note on the home remedies: We haven't tested them ourselves, so consult your vet.

Behind the label

As with human food, there are no regulations governing the word "natural" on pet food labels. For certainty, choose only products bearing the USDA organic seal. In general, look for foods labeled "human grade," with no byproducts. Take no "meat byproducts." Such meat-processing waste may come from so-called 4-D animals, which are dead or disabled when they

arrive at slaughterhouses, or a variety of unmentionable animal parts. Watch out, too, for labels that list cheap fillers like cornmeal and soy, as well as chemical preservatives (look for natural preservatives like vitamins and antioxidants).

Tick control

For a nonchemical tick repellent, add crushed garlic (one clove per 30 pounds

of animal weight) to your pets' food three or four times a week. Frontline, a popular commercial flea and tick repellent for dogs and cats, does not include permethrin, which is toxic to cats, says Julia Carter, a Connecticut-based veterinarian. Frontline's active ingredient is not readily absorbed into animals' bloodstreams, but it can be toxic to birds and fish.

Fleas, begone!

For dogs, boil several quartered lemons in a pint of water and let it sit overnight before decanting into a spray bottle. Spray and rinse daily. To make a dog flea collar, rub eucalyptus, tea tree or citronella essential oils into an ordinary rope collar.

For cats, skip the essential oils (cats may ingest them while grooming), but sprinkle a little brewer's yeast on their food daily to alleviate skin problems, including those caused by fleas. Flea powders containing permethrin should be avoided for cats.

More old-time remedies

To help untangle a cat's coat, rub cornstarch into it and let her lick it off. Minor dog cuts can be treated with six drops of thyme in a half gallon of water. "Skunked" dogs can be deodorized by rubbing them with—believe it or not—hay. Tomato juice also works.

GOING NATURAL

Books

- *Dr. Pitcairn's New Complete Guide to Natural Health for Dogs and Cats* by Richard H. and Susan Pitcairn, Rodale, 2005
- *The Encyclopedia of Natural Pet Care* by C.J. Puotinen, McGraw-Hill, 2000. Free download at ebook3000.com

General information

The Humane Society of the U.S.; humanesociety.org

Pet food

- For help reading food labels: fda.gov/AnimalVeterinary/ResourcesforYou
- **Dog food brands certified as organic:**
Organix: castorpolluxpet.com
Party Animal: partyanimalpetfood.com
By Nature: bynaturepetfoods.com
- **Organic cat food:**
Newman's Own (also for dogs): newmansownorganics.com/pet/home
Evanger's: evangersdogfood.com/cat

Jim Motavalli writes regularly about green products for The New York Times, National Public Radio and thedailygreen.com. Opinions are the author's and not those of Environmental Defense Fund.

HOME ON THE RANGE FOR UTAH PRAIRIE DOGS

“Brake for prairie dogs!” says a sign on the office door of Ted Toombs, an EDF ecologist in Boulder, CO.

And why not? Utah prairie dogs, the kind Toombs studies, are cute and clever, with Groucho-like dark markings above their big eyes and a habit of greeting each other with kisses. In the high sagebrush steppes of Utah, these smallest and rarest members of the prairie dog family build extensive underground “towns,” with nurseries and sleeping chambers lined with prairie grass. The towns also support rare predators like ferruginous hawks and golden eagles.

Farmers, though, don’t like Utah



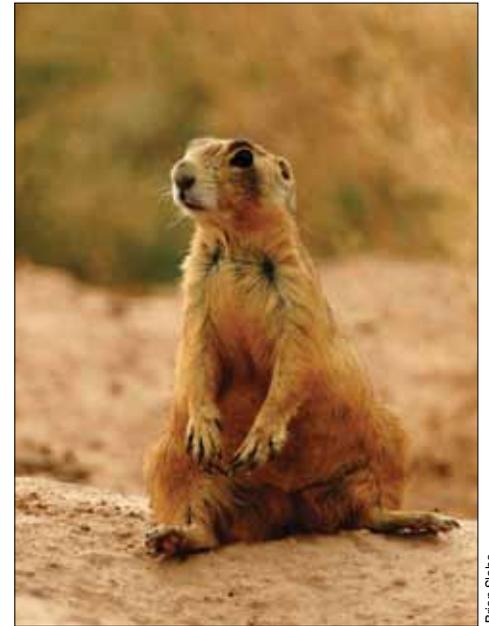
Jim Brandenburg/Minden Pictures

Tenants’ rights: Prairie dog towns shelter rare burrowing owls.

prairie dogs because, during the growing season, they eat prodigiously to fatten themselves up for long winter hibernations. This can wreak havoc on alfalfa and hay fields. Similarly, ranchers see prairie dogs as thieves of high-quality forage meant for livestock.

Since the 1920s, these conflicts have led to widespread eradication campaigns using poison and guns. Now that Utah prairie dogs are listed as threatened under the Endangered Species Act, those days are gone. But the species still faces serious threats from sylvatic plague, urban development and protracted drought.

EDF is working to preserve the Utah prairie dog, of which only an estimated 10,000 remain, three quarters of them on private land. In Iron County, UT, near the Nevada border, we are testing a new program that enables ranchers who protect prairie dog habitat to sell credits to local developers, who must offset loss of prairie dog habitat under the Endangered Species Act. The program resembles a successful plan that allowed the U.S. Army to use endangered golden-cheeked warbler habitat on its base at Ft. Hood, TX, if it set aside comparable habitat elsewhere.



Brian Slobe

Cute but endangered: Utah prairie dogs are getting a boost from EDF’s work with ranchers.

Under the Utah prairie dog arrangement, landowners become protectors of a species they once sought to destroy, while developers get expedited permission to build. For the prairie dogs, it means acquiring better habitat.

“It’s a win-win deal for humans,” says Toombs. “For Utah prairie dogs it could mean survival.”

A bequest is a powerful way to make certain your values endure

By including EDF in your will or estate plans, you leave an environmental legacy for generations to come. For sample language for your will or to take advantage of our estate planning resources, please contact:

Michael Pohlmann
Toll-free: 1-877-677-7397
Email: legacy@edf.org
Web: edf.org/legacy

For sample language for your will please go to edf.org/bequestlanguage



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One year later: Lessons learned from the BP oil disaster

On January 11, the presidential commission on the 2010 Gulf oil spill released its final report: *Deepwater: The Gulf Oil Disaster and the Future of Offshore Drilling*. It was dedicated to “the 11 men who lost their lives on the Deepwater Horizon rig” and their families. Among the commission’s findings:

The disaster could have been prevented. It was caused by a series of mistakes made by BP, Halliburton and Transocean, the companies responsible for the Macondo well drilled by the Deepwater Horizon rig.

Those mistakes “reveal such systematic failures in risk management that they place in doubt the safety culture of the entire industry.”

The federal government effectively allowed the industry to operate without oversight.

The report recommends the creation of a safety board, paid for by the industry, and an independent monitoring office at the Department of Interior. It also recommends

that 80% of fines imposed on BP and others be used to restore the Gulf Coast. EDF and seven other nonprofits urged Congress and the President to follow that recommendation.

“President Obama should work with the new Congress to secure the long-term funding to fulfill his promise to restore the Gulf Coast and make it better than it was before the Gulf oil disaster,” the groups said.



AP Photo

EDF’s goal: Those responsible for the Gulf disaster must pay for ecosystem restoration.

Phasing out dirty heating oil

In late January, the New York City Department of Environmental Protection issued a rule, for which EDF was a leading advocate, that will gradually end the use of highly polluting No. 4 and No. 6 heating oil.

Permits for No. 6, the dirtiest oil from the bottom of the barrel, will be phased out by 2015; No. 4 permits will be denied whenever a building replaces its boiler, effectively phasing out that fuel as well.

Just 1% of New York City buildings—about 10,000, including some in the city’s wealthiest neighborhoods—burn these oils. But they release more soot pollution than all cars and trucks on the city’s streets combined, says Isabelle Silverman, an EDF lawyer.

As a result, the health impact of the phaseout on illnesses from asthma to heart disease could be “second only to our achievements in reducing the city’s smoking rates,” says Thomas Farley, the city’s health commissioner.

Brushing off threats, California fast-tracks action on global warming

Global warming legislation may have stalled in Congress, but in California climate action is on the fast track. Last December, state officials approved new regulations that will create the country’s biggest carbon trading market, with the

goal of reducing greenhouse gas emissions to 1990 levels by 2020.

The ambitious target was established under AB 32, the state’s landmark global warming law, which EDF co-sponsored.

A major tool for reaching the 2020

target is a cap-and-trade program, an approach long championed by EDF. While the regulations may still be adjusted due to legal challenges, they will cover 85% of the state’s emissions by 2015, including those from electric utilities, refineries, manufacturing and transportation fuels. California is the world’s eighth largest economy, with a gross state product of \$1.7 trillion in 2009.

At first, emitters will receive free emissions allowances. Over time, however, they will have to bid for allowances at quarterly auctions. One proposal under discussion would distribute auction revenues to California’s electricity ratepayers.

The unveiling of the regulations followed a referendum in which California voters overwhelmingly upheld the state’s global warming law, by a margin of 61% to 39%. The law had been challenged by two Texas oil companies but was vigorously defended by EDF and others. The vote showed continued support for fighting climate change, even in tough economic times.

“Last November, big polluters from out-of-state tried to overturn California’s clean energy and clean air agenda,” said Derek Walker, director of EDF’s California Climate Initiative. “Voters responded with a resounding ‘no,’ and now California is moving forward.”



Matthew Grimm

Under the new climate law, carbon-storing wetlands could become a new cash crop for California’s farmers.

China's new five-year plan: Pollution becomes a priority



Tibor Bogner/Corbis

Shanghai: Growth at what price?

In China, 2011 is the Year of the Rabbit, a sign associated with tranquility and wisdom. Those qualities will be needed this year as China unveils its twelfth five-year plan, which will guide the nation's development from 2011 to 2015. Environmental protection has been a priority in these documents for at least a decade, even as pollution has risen with China's extraordinary economic growth.

The previous five-year plan focused on major air pollutants like sulfur dioxide. It removed limits on the fines that could be imposed on water polluters, required CEOs of the largest sulfur-emitting companies to sign contracts specifying when they would install pollution controls at their plants, and raised China's environmental protection authority to the ministerial level. EDF, which has worked in China since 1991, played a major role in helping it develop these policies.

At press time, guidelines for the new plan suggest that it will include increasingly stringent environmental goals—including a cap on nitrogen oxides and, likely, a carbon target aimed at reducing the carbon intensity of China's economy 40-45% from 2005 levels by 2020. If China is to meet those ambitious goals, the government may need to rely more on market incentives—and less on subsidies and command-and-control methods—to spur innovation.

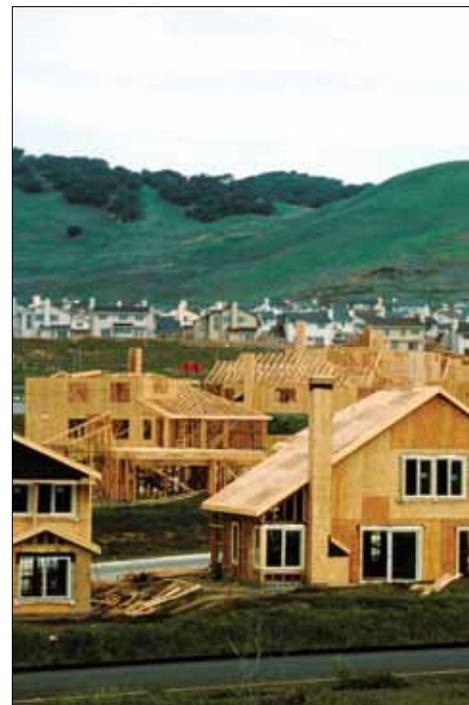
A step toward responsible growth in California

Clean air and responsible growth were clear winners in December, after a federal appeals court in California rejected a bid by developers to overturn a law designed to control air pollution from development in the San Joaquin Valley.

The law requires developers to offset the emissions created by new developments by using cleaner construction equipment, building near existing services like supermarkets, and other means. EDF helped defend the law against the National Association of Homebuilders, which brought the action.

The San Joaquin Valley, stretching 240 miles from Stockton to Bakersfield, has some of the nation's worst air, with high levels of ozone—the main cause of smog—and particulate pollution. In Fresno, CA, one in six children goes to school with an inhaler.

The court's decision has major implications for the rest of California. Air quality regulators in San Francisco, Los Angeles and the fast-growing exurbs are considering similar controls on sprawl and have been awaiting the outcome of this case.



Jeff Greenberg/PhotoEdit

Under the law, developers are required to mitigate air pollution created by their projects.

"In the past, California developers got away with practices that aggravate air pollution," said Kathryn Phillips, who heads EDF's California Transportation and Air Initiative. "Now they're accountable."

Progress on chemical testing

First, the good news: Despite the continued Congressional attacks on EPA, the agency's budget for testing toxic chemicals was not targeted. In January,



Neville Mountford-Hoare/Photolibrary

Have commonly used chemicals been tested for safety? Probably not.

EPA announced it will require safety testing of 19 chemicals, many used in everyday home products. Among them are chemicals in a common food preservative and a well-known household cleaner.

The bad news? It took EPA two and a half years to get to this stage with these 19 chemicals. In fact, of more than 80,000 chemicals in commercial use, EPA has tested only 200 for safety since 1976.

This regulatory snail's pace, says Dr. Richard Denison, a senior scientist at EDF, shows why Congress must reform the current, failed law regulating toxic chemicals.

➤ ONLINE: See the latest on our campaign at edf.org/chemicals

A STEP BACK IN TIME

Preserving Cuba's unspoiled Gardens of the Queen

National Geographic/Getty Images



More than five centuries ago, when Christopher Columbus first laid eyes on this jewel-like labyrinth of coral reefs, islets and keys, he named it the Gardens of the Queen for his patroness, Queen Isabella of Spain. Astonishingly, the area, located off the remote southeastern coast of Cuba, is still a pristine natural paradise.

Today, however, the Gardens face a series of threats, including tourism, invasive species and illegal fishing. EDF's chief oceans scientist, Dr. Douglas Rader, is working with our Cuban partners to conserve the Gardens, now a national park. Recently, Dr. Rader explored the area, diving on thousand-year-old reefs to take stock of the sea life.

Here are excerpts from Dr. Rader's dive journal.

➤ **ONLINE:** See an audio slideshow about EDF's work in Cuba at edf.org/slideshow



"Protecting the reef is a team effort, involving everyone from local fishermen to some of Cuba's top scientists." (Dr. Rader is in the top row, far left.)

"The abundance of big predators like sharks is a sure sign of an ecosystem in balance. I saw silky, Caribbean reef, blacktips, lemons and nurse sharks, plus the 'holy grail' of diving—whale sharks—the world's largest."

Noel Lopez Fernandez



Alamy Images

"I heard for years about the wonders of the Gardens of the Queen archipelago. The stunning scenery and sea life provide a window to the past."



Noel Lopez Fernandez

"Diving with free-swimming Goliath groupers—behemoths long gone from elsewhere in the Caribbean—is an experience never to be forgotten."



Stephen Frink/Getty Images

"By week's end we counted 124 species. We did no night diving so we missed a whole element of fish diversity. That's because the fish hide in daytime to avoid the enormous number of predators."