



**ENVIRONMENTAL DEFENSE FUND**

**1998 ANNUAL REPORT**

**Environmental Defense Fund**  
**At a Glance**

**Incorporated:**

October 6, 1967

**Offices:**

New York, NY

Washington, DC

Oakland, CA

Boulder, CO

Raleigh, NC

Austin, TX

Boston, MA

Los Angeles, CA

*Addresses on inside back cover*

**Staff:**

170

**Members:**

More than 300,000

## TAKING A DIFFERENT APPROACH



Fred Krupp and John Wilson

The Environmental Defense Fund is dedicated to getting results. Whenever environmental progress has been blocked during our 31 years, we've developed new ways to move forward. We have worked with businesses, government agencies, grassroots groups, and others who share our vision of environmental solutions that are lasting, efficient, and fair.

In the following pages, we highlight a few of this year's achievements in the four areas in which we concentrate our work:

■ **Biodiversity.** We have enrolled nearly two million acres of private lands in voluntary programs for endangered species and other wildlife (*see page 4*).

■ **Climate.** We helped BP, the world's third largest oil company, develop an unprecedented plan to reduce greenhouse gas emissions (*see page 6*).

■ **Health.** We launched the Chemical Scorecard web site, a free Internet service that gives people information on local releases of toxic chemicals (*see page 8*).

■ **Oceans.** We worked with regional fishery management councils to reduce overfishing and avert the collapse of ocean fisheries (*see page 10*).

We also continued our partnership in the Alliance for Environmental Innovation, a joint project with The Pew Charitable Trusts. Among other projects, the Alliance worked with United Parcel Service to introduce environmentally improved overnight-delivery packages (*see page 12*).

This year we opened a project office in Los Angeles to design policies on transportation and other issues affecting the inner city. The project reflects our commitment to the environmental rights of the poor and people of color.

Our achievements have been made possible by a talented and dedicated staff and by more than 300,000 members and friends who supported our work this year, contributing to income that totaled \$27.8 million, our highest ever. We thank you all.

A handwritten signature in cursive script that reads "Fred Krupp".

Fred Krupp  
*Executive Director*

A handwritten signature in cursive script that reads "John H.T. Wilson".

John H.T. Wilson  
*Chairman of the Board*



**McDonald's has spent more than \$2 billion on recycled-content items ranging from paper bags to rubber playground safety surfaces. Bob Langert, McDonald's director of environmental affairs, and Environmental Defense Fund scientist Dr. Richard Denison served on our joint task force to reduce waste.**

## INNOVATIVE FROM THE START

The Environmental Defense Fund was founded in 1967 by Long Island scientists who discovered that DDT was having a devastating effect on ospreys and other local birds. Unable to persuade the Suffolk County Mosquito Control Commission to stop spraying DDT, the scientists went to court. This environmental strategy is now a familiar one, but it had never been tried before. It worked.

“Within two weeks there was an injunction forcing the mosquito commission to stop using DDT,” recalls chemist Dr. Charles Wurster, one of the founders. The group then began a campaign that resulted in a permanent, nationwide ban on DDT in 1972.

Forming a partnership of science and law was only the first innova-

tion of the Environmental Defense Fund. Soon our fledgling group was hiring economists and computer experts to help figure out how environmental gains could be economic gains as well.

In the late 1970's, for example, California electric companies were planning to build a number of coal and nuclear plants. Our novel economic analysis showed that *not* building the plants would be better for the utilities' profitability—and for the environment. The companies ultimately adopted our proposal to use energy efficiency and renewable energy to meet the need for power, and the coal and nuclear plants were never built.

In 1986 we wrote California's Proposition 65, a law that dealt in a novel way with exposure to toxic chemicals. It

required that the people being exposed to these chemicals be warned, so they could make informed choices. Rather than give warnings, many manufacturers of consumer products have responded by removing toxic ingredients, not just in California but nationwide. Examples include products as diverse as china dishes, brass faucets, canned chili sauce, and vinyl mini-blinds.

To help address the problem of acid rain, we designed a part of the 1990 Clean Air Act that will cut power-plant emissions of sulfur dioxide in half. Instead of requiring all plant owners to adopt identical solutions, as had been proposed, our plan gave each owner the freedom to decide how to make the required cuts, creating competition among pollution-reduction methods and driving down the cost. And today? Emissions are being reduced ahead of schedule at a fraction of the cost of the earlier proposal.

Our penchant for devising solutions that work—both environmentally and economically—led us to seek out industry leaders to help solve prob-

## SOME MILESTONES OVER THE YEARS

- 1967** The Environmental Defense Fund was incorporated after the first victory against DDT.
- 1970** Our work helped bring all the great whales onto the U.S. endangered species list.
- 1972** The permanent nationwide ban on DDT was achieved.
- 1974** Our health study of Mississippi River water aided passage of the Safe Drinking Water Act.
- 1978** California endorsed our electric utility plan, focusing on efficiency and renewable sources.
- 1979** Hair dryers containing asbestos were withdrawn from the market in response to our action.
- 1984** Staff research showed the first direct link between sulfur emissions and distant acid rain.
- 1985** Our efforts helped bring about a nationwide phaseout of leaded gasoline.
- 1986** We drafted California's Proposition 65, which stimulated a major shift to less-toxic products.
- 1988** Our staff helped convince U.S. leaders to ratify the treaty banning ocean dumping of plastics.
- 1990** The new Clean Air Act incorporated our innovative method to cut acid rain and air pollution.
- 1990** McDonald's dropped foam-plastic hamburger boxes as recommended by our joint task force.
- 1993** We helped bring printers and others in the Great Lakes region together on pollution prevention.
- 1995** First "Safe Harbor" plans gave private landowners new incentives to help endangered species.
- 1996** Staff helped the Panará Indians win protection for their Amazon rainforest homeland.
- 1997** Our architecture for a climate treaty became, in large part, the U.S. proposal adopted at Kyoto.
- 1998** The new Chemical Scorecard let Internet users find pollution sources in their communities.

lems. We approached McDonald's with the idea of a joint task force to reduce pollution and waste in the company's operations. Much emerged from the partnership, including McDonald's abandoning bulky foam-plastic hamburger boxes in favor of less wasteful packaging. Other companies followed suit.

We continue to break new ground today, as you will see in the stories on the following pages.

*In this space on these pages we showcase the work of photographers Susan Middleton and David Liittschwager, who have made it their mission to photograph America's endangered species in a style designed to "convey the beauty and uniqueness of each individual."*



Widespread spraying of the pesticide DDT led to reproductive failures of bald eagles and other raptors, whose eggshells were thinned by DDT and often cracked. Fewer than 500 eagle pairs were counted in the lower 48 states in 1963. Since the 1972 ban on DDT, bald eagles have recovered dramatically, numbering more than 5,000 pairs in 1996.



**An innovative land-conservation program, which we helped develop, will reduce agricultural pollution of rivers and streams. Jane Preyer, who directs the Environmental Defense Fund's North Carolina office, is working with Dewey Botts, director of the state's Division of Soil and Water Conservation, to restore degraded habitats.**

## FARM LAW IS GOOD NEWS FOR WILDLIFE

Environmental Defense Fund attorney Tim Searchinger had a great idea. If the federal government was going to pay the nation's farmers to retire one-tenth of their land, why not make it the land most needed for environmental protection along rivers and streams? Searchinger saw how to take what had been primarily a program to reduce crop surpluses and transform it to benefit water quality and wildlife as well.

Instead of planting crops right up to the water's edge, farmers would be paid to plant native trees and grasses in a buffer zone along streams. This buffer would absorb the runoff of pesticides and fertilizer from adjacent farm fields, the largest cause of water pollution. At the same time, the new grassy and forested areas would serve as habitat for hundreds

of species that depend on private lands for survival.

Searchinger built a coalition for this new approach. He persuaded legislators to support the idea. He showed Department of Agriculture officials how the enhanced program would let them protect lands important to states and local citizens. He demonstrated to state environmental agencies how they could use the federal program to augment their own conservation dollars to protect and restore rivers. And he went on the road to help develop plans for Illinois, Maryland, Minnesota, New York, North Carolina, Oregon, and other states.

"From my perspective, the Environmental Defense Fund has been terrific," says Eric Schwaab, director of the forestry and wildlife unit of the Maryland Department of Natural Re-

sources. "They created the opportunity for us, brought it to our attention, and shepherded us through the process." With Searchinger's help, Maryland put together the first federally approved Conservation Reserve Enhancement Program, which will protect 100,000 acres along streams entering the Chesapeake Bay.

In Illinois and Minnesota, we helped state officials develop the most ambitious floodplain restoration program in history. Farmers had been plowing land too close to rivers, destroying critical habitat for migrating birds and other animals and spawning and feeding grounds for fish. This land is far from ideal for farming, since it often floods, at great expense to farmers and taxpayers, when the Illinois and Minnesota Rivers spill over their levees. Now, the states have approved programs to retire a total of 400,000 acres of flood-prone farmland and to plant appropriate wetland vegetation there instead. In Oregon, we helped develop a similar program to restore 100,000 acres of riverside forests to bring back endangered salmon runs.

## MORE OF THIS YEAR'S RESULTS

- *More than one million acres of private lands have been enrolled in our Safe Harbor plans to protect endangered species in North Carolina, South Carolina, and Texas.*
- *In Colorado and North Carolina, we helped win measures against factory hog farms that pollute rivers and create intolerable conditions for neighboring communities.*
- *For the journal BioScience, our staff analyzed threats to vanishing U.S. species, finding that loss of habitat and competition with non-native species are the most serious threats.*
- *We assembled an international team to identify actions to restore severely degraded wetlands of the Colorado River delta in Mexico.*
- *A staff scientist was the only U.S. environmentalist named to the 12-member World Commission on Dams, which is evaluating the impacts of dams, alternatives to dams, and dam removal.*
- *Our research on widespread fires in the Amazon rainforest led to public outcry and helped trigger Brazilian legislation strengthening the environmental agency's enforcement authority.*
- *We helped stall environmentally and socially destructive multilateral bank projects that would have destroyed Indonesian rainforest and South American wetlands.*
- *Our coalition efforts led oil companies to reroute a huge oil pipeline away from endangered biodiversity and indigenous peoples in Central African forests.*

We also helped New York City develop a program to protect streams feeding the city's reservoirs in the Catskills. By creating forest and grass buffers to shield the streams from pollution that could otherwise contaminate water supplies, the program will help avoid the need to spend billions of dollars on a filtration plant for the city's drinking water. As Searchinger's idea continues to take root across the countryside, it will make a major difference for wildlife and the environment.



Twenty years ago, black-footed ferrets were thought to be extinct. But a tiny population was discovered and moved into a captive breeding program. These ferrets have bred so successfully that they are now being reintroduced to the wild, although they remain one of North America's rarest mammals.



**China is second only to the United States in carbon dioxide emissions. Environmental Defense Fund economist Dr. Daniel Dudek confers with researcher Song Guo Jin and Ma Zhong, director of the Beijing Environment and Development Institute, outside Benxi, where we are jointly developing demonstration projects to reduce air pollution.**

## OIL GIANT MOVES TO CUT EMISSIONS

Who would have expected that a major oil company would be the first corporation to agree to reduce its own greenhouse gas emissions? Probably no one who had followed the industry's attempts to downplay concerns about global warming. BP broke ranks with the oil industry in 1997 when CEO John Browne acknowledged that climate change is a matter for public concern and promised to help address it. Now BP has pledged to reduce its global greenhouse gas emissions by ten percent below 1990 levels, a larger reduction than industrial nations have agreed to make, and Shell has followed suit with a similar pledge.

Emissions of carbon dioxide and other greenhouse gases—from fossil fuels, deforestation, and agriculture—are changing the Earth's atmosphere. The

consequences could include record heat, drought, northward migration of insect-borne tropical diseases, more intense rainstorms and snowstorms, and rising seas. Recent months have continued to set new records for global average temperature. In the face of these concerns, more than 150 nations reached an agreement in Kyoto, Japan, in December 1997 to reduce emissions of greenhouse gases worldwide.

According to Environmental Defense Fund economist Dr. Daniel Dudek, delegates to the Kyoto summit "noted BP's intent to address global warming, and it eased some of their own anxieties about taking action to reduce greenhouse gases. When the world's third largest oil company says, 'We see a business opportunity and will go ahead and limit our emissions

whether you do anything at Kyoto or not,' that is a catalytic commitment."

Lobbyists for other fossil-fuel interests still tried, without success, to derail the agreement in Kyoto. What many observers feel rescued the Kyoto treaty were flexibility provisions, developed by Dudek and others, that will let companies and countries compete to find the least expensive ways to reduce emissions. BP will use these provisions to create competition among its own business units to ensure they cut emissions in the most efficient way.

"It's no good preaching precautionary action unless you're prepared to do something yourself," John Browne said in announcing BP's planned ten percent cut. He said his company will reduce emissions by using new technology, energy efficiency, and renewable energy, and he pledged to allow outsiders to verify the reductions.

Initially, each of ten BP business units will be assigned a ceiling for its carbon dioxide emissions. Each can either reduce its emissions to the

## MORE OF THIS YEAR'S RESULTS

- *We helped develop principles to credit companies for their early greenhouse-gas reductions, leading to a bill introduced by Senators Chafee (R-RI), Mack (R-FL), and Lieberman (D-CT).*
- *Our report in Nature showed that global warming eventually could lead to the disintegration of the West Antarctic Ice Sheet, flooding low-lying coastal areas around the world.*
- *As a result of an energy auction that we proposed, California pledged to build its first significant renewable electric generating capacity in a decade.*
- *Our report on Hot Cities projected the increase in days over 90 degrees that major U.S. cities could experience if no action is taken on global warming.*
- *Staff helped persuade Los Angeles County officials to invest \$850 million in bus system improvements that will increase air quality and low-income mobility.*
- *We helped defeat two Bay Area proposals to enact general sales taxes to fund highway construction, and we instead proposed usage-based fees to fund transit improvements.*
- *Our staff spurred negotiations toward an international agreement on environmental standards among export finance agencies, which finance more than ten percent of world trade.*
- *We helped write the first Ciudad Juarez air quality management plan, which will reduce air pollution in the border cities of El Paso, Texas, and Ciudad Juarez, Mexico.*

agreed-upon level or negotiate cuts with other units, as long as the total required reduction is achieved. Business units that reduce emissions most efficiently can profit in the negotiations.

Browne credited the Environmental Defense Fund for working with BP to develop this strategy for reducing emissions at lowest cost, thus enabling the company's bold commitment. BP's internal trading plan is a microcosm of the global emissions trading system envisioned at Kyoto. It is, says Dudek, the "petri dish" that the rest of the world can observe to learn how to reduce emissions and seize business opportunities at the same time.



Global warming over the next century is expected to lead to longer, hotter summers, coastal flooding, and more frequent droughts. That could be bad news for plants. Rare species in particular—such as this wetland-dwelling swamp pink—are put at risk by their small ranges and their limited ability to disperse as conditions change.



**Our Chemical Scorecard is helping grassroots groups monitor and improve their local environments. Environmental Defense Fund attorney Kevin Mills worked with Charles Griffith, director of the auto project for the Ecology Center of Ann Arbor, to find data on toxic emissions from this Ypsilanti, Michigan, auto plant.**

## THE SCORECARD THAT HIT A HOME RUN

The hits just keep on coming for the Environmental Defense Fund's Chemical Scorecard web site. On April 15, 1998, we unveiled the Scorecard on the Internet ([www.scorecard.org](http://www.scorecard.org)). Instantly, information about the health effects of chemical emissions from 17,000 industrial facilities became easily available to anyone with access to the World Wide Web. Previously one had to ferret out this information from dozens of government and university databases. The Scorecard web site received some 500,000 data requests on its first day of operation.

Every year billions of pounds of industrial chemicals are sold for which the public lacks basic data on health effects. The Scorecard makes it easy to find where chemicals are released into the air and water and to find out

what is known—and not known—about their effects on human health.

*Chemical Week* editor-in-chief David Hunter wrote, "The impact [the Scorecard] has had is due to the broad media coverage it has provoked and above all to the comprehensiveness of the offering...linking Toxics Release Inventory data at specific locations to health effects information, and packaging it all with interactive tools."

Peter Jennings announced the Scorecard's debut on World News Tonight. The *Pittsburgh Post-Gazette* called it "an environmentalist's dream." Many media web sites, including MSNBC and ABC News, linked to the Scorecard, which continues to receive some 200,000 data requests daily.

"For years, community groups have been approaching us for help in

understanding and combating threats from toxic chemicals," says Environmental Defense Fund toxicologist Dr. Bill Pease, "but we haven't had the manpower to help more than a few such groups each year. Now the Scorecard puts the most important information right at everyone's fingertips."

The Chemical Scorecard was designed in consultation with grassroots groups who will put the information to use. When a user types in his or her zip code, neighborhood maps appear on the screen, with schools and industrial facilities marked. Users see what chemicals are released and can find out which are the most toxic. For many facilities, users can even fax an inquiry directly to the plant manager with a click of the mouse, and thousands have done so. The Scorecard also provides an online discussion forum and links to information on pollution prevention for both expert and layperson.

Because the Scorecard puts a spotlight on toxic emissions, it encourages companies to expedite emissions reductions. In the years since the gov-

## MORE OF THIS YEAR'S RESULTS

- *Our landmark Toxic Ignorance study forced chemical makers worldwide to address data gaps on the health effects of their chemicals.*
- *The U.S. chemical industry agreed to a \$500 million toxicity-testing program developed with us and the Environmental Protection Agency.*
- *We helped defeat legislation that would have weakened significantly the Superfund program for cleaning up toxic dumpsites.*
- *We co-founded the National Pipeline Reform Coalition to promote regulatory improvements and pollution prevention in the oil and gas pipeline industry.*
- *At our urging, the government posted enforcement data on the Internet, revealing that one in four facilities in key industrial sectors are in significant non-compliance with the Clean Air Act.*
- *We developed a community health action guide working with partners in Cleveland, and helped integrate pollution prevention into government services in Hammond, Indiana.*
- *Mothers of East L.A., an advocacy group serving a predominantly Mexican-American community, incorporated our Chemical Scorecard into their own web site.*

ernment started requiring companies to disclose their releases of certain toxic chemicals, those releases have dropped by 40 percent—even though the law says nothing about *reducing* releases, just reporting them.

“The Scorecard gives people the power to achieve important reductions in pollution,” says Susan Studer, community outreach coordinator for the Ohio Environmental Council, who has used the Scorecard in the hazardous-materials training workshops she gives for residents of low-income and minority communities. “Most participants do not have computer experience,” she notes, “but once they see how easy it is to get this information, they are really excited about making positive changes in their communities.”



Far from being endangered, *Homo sapiens*—human beings—are the dominant species on Earth. Nevertheless, the casual way in which we release toxic chemicals and pollution into our air and water threatens not only the physical environment and biological communities, but also ourselves and future generations.



**Many fish populations have plunged sharply in recent years. Fisherman John Williamson and Environmental Defense Fund attorney Doug Hopkins, both of whom serve on the New England Fisheries Management Council, are developing new measures to reduce overfishing and rebuild depleted fish stocks.**

## STEMMING THE TIDE OF OVERFISHING

Environmental Defense Fund attorney Doug Hopkins's first words as a member of the New England Fisheries Management Council were, "I do." Taking the oath of office, he swore to "conserve and manage the living marine resources of the United States of America." Hopkins is the only full-time environmentalist on any of the eight regional councils that are charged with conserving the nation's marine fish in a zone ranging from three miles to 200 miles offshore.

More than 20 years ago, Congress instructed the councils to limit fish catches to sustainable levels. Thus far they have failed. Many species have been overfished or soon will be. Cod, haddock, bluefish, and red snapper populations have plummeted. What went wrong? Pressure

from commercial fishing interests for short-term profit won out over careful stewardship.

Things are changing, prodded in part by the 1996 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act, which includes strong conservation provisions developed by the Environmental Defense Fund and others. Some new appointees to the regional councils care deeply about conservation. Even the commercial fishermen who occupy many council seats are increasingly aware of the need to take fewer fish now so there will be more fish in the future.

Cape Cod fisherman Bill Amaru, who serves with Hopkins on the New England council, says that with their livelihood in danger, fishermen have no choice but to be conserva-

tionists. "We can't have an industry without fish," he says, "so the fish must come first."

One of the drastic—but necessary—steps the council is taking to protect severely overfished populations is to close large areas to fishing. Since Hopkins came aboard, the New England council has closed a large area in the Gulf of Maine in an effort to restore the decimated cod population there. Hopkins also has pushed for measures to protect important juvenile fish refuge and feeding areas by closing them as "habitat areas of particular concern."

Another serious problem faced by the regional councils is "bycatch," where in the course of fishing for particular species and sizes of fish, fishermen wastefully catch and kill huge quantities of other fish and marine life. Some councils also face growing pressure to allow development of new fish farms, or aquaculture, which can pose significant water pollution problems. Environmental Defense Fund staff advised the councils on these

## MORE OF THIS YEAR'S RESULTS

- *We helped persuade fishery management councils in New England, the South Atlantic, the Gulf of Mexico, and the Pacific to introduce stricter catch limits to help sustain fisheries.*
- *Our staff was instrumental in getting fishery management councils to start the process of establishing marine reserves to protect biodiversity.*
- *We helped write and win approval of California legislation to reform fishery management, which will benefit fish populations and biodiversity.*
- *Citing our report Murky Waters, the Environmental Protection Agency proposed to establish national standards for polluted discharges from fish farms under the Clean Water Act.*
- *We led a citizens' coalition working with Texas regulators to strengthen wastewater discharge permit requirements for shrimp farms as well as regulations to control shrimp diseases.*
- *We mobilized and coordinated efforts to address the impact of shrimp farming internationally and co-founded the Industrial Shrimp Action Network.*
- *The National Organic Standards Board responded to recommendations from our staff and others by agreeing to develop organic standards for fish farms.*

and other matters and formed regional coalitions with other groups to press the councils for strong protective measures.

Amaru, Hopkins's frequent ally on the New England council, acknowledges the value of having people outside the industry help to regulate it. Hopkins "is a conscience for the council," Amaru says, "even though his message is not always easy for fishermen to accept."



The Hawksbill sea turtle and the six other species of sea turtle are all threatened or endangered. One major hazard, entanglement in shrimp nets, diminished when shrimp boats began using devices to prevent turtles from being trapped and drowned. But these beach nesters also face the grim prospect of losing nesting habitat as oceans rise in response to global warming.



**Reusable envelopes are winning customers for UPS while reducing pollution and the use of natural resources. David Guernsey, environmental affairs manager at UPS, worked with Environmental Defense Fund policy analyst Elizabeth Sturcken on the team that revamped the company's express packaging.**

## DELIVERING ENVIRONMENTAL RESULTS

Every day, United Parcel Service comes to the door with 1.8 million express packages. Imagine what a difference it would make if every one of those packages could be used a second time.

That was the vision that motivated policy analyst Elizabeth Sturcken and her colleagues at the Alliance for Environmental Innovation, a joint project of the Environmental Defense Fund and The Pew Charitable Trusts. Sturcken approached UPS and the four other leading overnight delivery companies to study how the industry—which uses more than a billion shipping envelopes and boxes each year—might cut its waste and pollution. A simple switch to reusable packaging would have dramatic effects, Sturcken realized, not only reducing the number of packages

being thrown away but also reducing the pollution and energy use associated with manufacturing the packaging in the first place.

When first approached by Sturcken, UPS reacted cautiously. “We didn’t know the Alliance or the Environmental Defense Fund,” admits David Guernsey, UPS environmental affairs manager. “We thought *60 Minutes* was knocking on our door.” After participating in the initial study of the express shipping industry, however, UPS decided that it wanted to work with the Alliance. “We found that the method of operation of the Alliance is to work with industry leaders to catalyze changes,” says Guernsey.

Indeed, in working with companies, the Alliance aims to add the environment to the list of factors

used in making business decisions. Its projects have demonstrated that environmentally preferable practices often increase profits.

In this instance, reusable overnight envelopes would provide not only environmental benefits but also business benefits that UPS—in a hotly competitive overnight delivery market—found particularly compelling. The two-way Express Letter that UPS introduced this year appealed to many customers for reasons that had nothing to do with the environment. Lawyers and bankers, for example, appreciate the convenience that a reusable envelope provides for documents that must be signed and returned immediately.

UPS also made improvements to its Express Box and plastic Pak. The new box contains nearly twice as much post-consumer recycled fiber and the Pak uses recycled plastic for the first time. UPS also has stopped using bleached paper in its packaging, an important decision that will reduce water pollution from paper mills. In all, the changes made by UPS

## MORE OF THIS YEAR'S RESULTS

- *We developed computer software with SC Johnson to measure environmental performance of consumer products and packaging, a version of which will be available to other companies.*
- *With Starbucks Coffee Company, we introduced reusable glassware and new customer programs to reduce the number of disposable cups used for serving drinks.*
- *Working with the auto industry, federal and state agencies, and grassroots groups, we developed a model for a regulatory framework focused on pollution prevention in vehicle manufacturing.*
- *We helped International Paper and Westvaco design programs to protect and enlarge endangered red-cockaded woodpecker populations on company land in Georgia and South Carolina.*
- *With the Ad Council, we helped educate Americans on the benefits of recycling and waste prevention with more than \$50 million in donated public service advertising.*

will substantially reduce hazardous air pollution, energy use, and consumption of natural resources.

The Alliance's work with UPS is like other former and current projects where the Environmental Defense Fund has worked with industry leaders to take a fresh look at conventional practices. We aim to develop and introduce environmentally preferable alternatives that also enhance the overall business.



Red-cockaded woodpeckers depend for their survival on tall, old, longleaf pine trees in the Southeast; they nest in cavities in the soft heartwood. Efforts to preserve the forests—by encouraging more use of recycled paper and giving private landowners incentives to protect the trees—are very promising for the woodpecker.



**Attorney David Roe, toxicologist Bill Pease, and attorney Karen Florini**



**Atmospheric scientist Stuart Gaffin**



**Policy analyst Meg Krehbiel, economist Michael Cameron, and attorney Robert García**

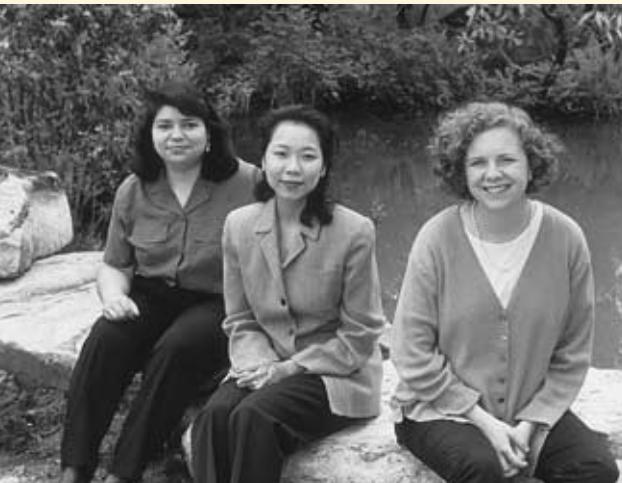
The Environmental Defense Fund's mission is carried out today by 170 dedicated staff, many of whom are profiled on these pages. Staff members work in interdisciplinary teams of scientists, economists, analysts, and attorneys. A wide-area network interconnecting our offices facilitates teamwork among staff based in different locations.

## CALIFORNIA

- Research associate **CHRISTO ARTUSIO** (B.A., Univ. of Calif., Berkeley) advocates more efficient and equitable transportation.
- Economist **MICHAEL W. CAMERON** (M.P.P., Harvard Univ.) designs transportation reforms to reduce pollution in California and nationally.
- Computer specialist **FRANCIS CHAPMAN** (B.A., Univ. of Calif., San Diego) develops software to analyze environmental impacts from manufacturing and energy production.
- Program associate **JULENE FREITAS** (A.A., Merritt College) works on marine and freshwater projects.
- Marine ecologist **RODNEY M. FUJITA** (Ph.D., Boston Univ., Marine Biological Laboratory) focuses on marine reserves, fisheries reform, and other measures to protect marine ecosystems.
- Attorney **ROBERT GARCÍA** (J.D., Stanford Univ.) directs the environmental justice project in Los Angeles, focusing on equitable access to transportation and parks and mitigating toxics.
- Attorney **THOMAS J. GRAFF** (LL.M, London Univ; LL.B., Harvard Univ.) focuses on reforming Western water and transportation systems.
- Computer specialist **DANIEL A. KIRSHNER** (B.A., Univ. of Calif., Santa Cruz) works to reduce pollution and increase efficiency in transportation and electricity generation.
- Policy analyst and outreach coordinator **MEG KREHBIEL** (B.A., Dartmouth College) advocates Bay Area transportation reform.
- Program associate **KRISTIN LAWTON** (B.A., Georgetown Univ.) promotes information technologies to reduce toxic chemical emissions.
- Engineer **KEN LEISERSON** (M.S., Univ. of Calif., Berkeley) uses information as an advocacy tool in support of projects such as the Chemical Scorecard and Member Action Network.
- Engineer **SARAH MATELES** (M.S., Univ. of Calif., Berkeley) uses information technology and right-to-know laws to reduce emissions of toxic chemicals.
- Attorney **ANGELA JOHNSON MESZAROS** (J.D., U.S.C.) addresses equitable access to transportation and parks and alleviating exposure to toxics in the urban core of Los Angeles.
- Resource specialist **DEBORAH MOORE** (M.S., Univ. of Calif., Berkeley), a member of the World Commission on Dams, works to protect rivers and water quality internationally.
- Toxicologist **BILL PEASE** (Ph.D., Univ. of Calif., Berkeley) directs the Scorecard project, distributing information about chemical emissions to local communities.
- Attorney **DAVID ROE** (J.D., Yale Univ.) develops innovative strategies for reducing human exposures to toxic chemicals.
- Senior analyst **SPRECK ROSEKRANS** (B.A., Univ. of Calif., San Diego) works to restore rivers in California and the West.
- Water resources analyst **DAVID YARDAS** (M.S., Univ. of Calif., Berkeley) works to protect and restore Western aquatic ecosystems.



**Attorney Jim Tripp**



**Engineer Deborah Falcone, research associate Linda Tsang, and marketing analyst Victoria Mills**



**Attorney Dan Whittle**

## MASSACHUSETTS

- Engineer **DEBORAH A. FALCONE** (M.S., Stanford Univ.) works with corporations to reduce environmental impacts through innovative product design.
- Marketing analyst **VICTORIA MILLS** (M.A., Johns Hopkins Univ.) advances partnerships with consumer products companies.
- Research associate **HEATHER O'BRIEN** (B.A., Smith College) works on corporate partnership projects.
- Policy analyst **ELIZABETH STURCKEN** (M.P.P., Harvard Univ.) works with major corporations to advance environmental change.
- Research associate **LINDA TSANG** (B.S., M.I.T.) advances corporate environmentalism.

## NEW YORK

- Deputy Director for Programs **MARCIA ARONOFF** (B.A., Oberlin College) leads the Environmental Defense Fund's program staff.
- Ecologist **JANINE BLOOMFIELD** (Ph.D., Yale Univ.) advances knowledge of how global warming might affect natural and human resources.
- Economist **DANIEL J. DUDEK** (Ph.D., Univ. of Calif., Davis) develops markets to empower entrepreneurial solutions for pollution problems.

- Atmospheric scientist **STUART R. GAFFIN** (Ph.D., N.Y.U.) develops greenhouse gas emissions scenarios for the UN Intergovernmental Panel on Climate Change.
- Biologist **REBECCA J. GOLDBURG** (Ph.D., Univ. of Minnesota) advocates environmentally sound practices for aquaculture and biotechnology.
- Attorney **D. DOUGLAS HOPKINS** (J.D., Univ. of Virginia) works to rebuild depleted marine fisheries through innovative management.

- Program associate **LINDA JANTZEN** (Baruch College) works on aquaculture and fisheries projects.

- Project manager **AZUR MOULAERT** (M.S., North Carolina State Univ.) coordinates the Member Action Network.

- Atmospheric physicist **MICHAEL OPPENHEIMER** (Ph.D., Univ. of Chicago), is the Environmental Defense Fund's chief scientist and leads efforts to avert global warming.

- Energy policy analyst **NATALIE PATASAW** (M.S., Pratt Institute) focuses on deregulation of electric utilities in the mid-Atlantic region.

- Attorney **WILLIAM J. ROBERTS** (J.D., Univ. of Chicago; M.A., Yale Univ.) directs strategic communications and legislative efforts.

- Economic analyst **JOHN F. RUSTON** (M.C.P., M.I.T.), works with businesses to reduce the environmental impact of products and packaging.

- General Counsel **JAMES T.B. TRIPP** (LL.B., Yale Univ.) plays a major role in transportation, ecosystem restoration, and solid waste projects.

## NORTH CAROLINA

- Marine ecologist **MICHELLE DUVAL** (Ph.D., Duke Univ.) is working on water quality, estuarine habitat protection, and marine fisheries.

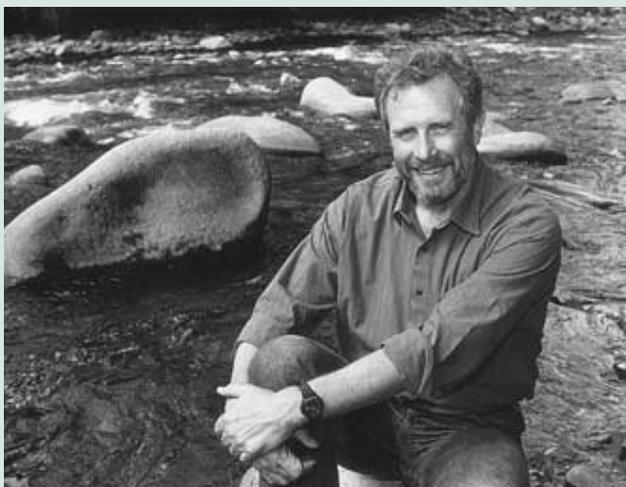
- Office director **JANE PREYER** (M.P.A., Univ. of North Carolina) works on water quality and habitat and coordinates the North Carolina office's collaborations with other organizations.

- Biologist **DOUGLAS N. RADER** (Ph.D., Univ. of North Carolina) works to protect oceans, coastal habitats, and marine life.

- Ecologist **JOSEPH RUDEK** (Ph.D., Univ. of North Carolina) works to protect the quality and biodiversity of aquatic ecosystems.

- Attorney **DAN WHITTLE** (J.D., Univ. of Colorado) works to improve North Carolina fresh and coastal water quality and restore marine fisheries.

- Program Managers



Environmental engineer Dan Luecke



Attorney Vickie Patton and scientist Ramón Alvarez



Economist Pete Emerson and attorney Jim Marston

## OREGON

■ Economist ZACH WILLEY (Ph.D., Univ. of Calif., Berkeley) develops market policies and transactions for ecological goals in the Northwest and elsewhere.

## ROCKY MOUNTAIN

■ Wise Use Project coordinator SCOTT INGOLDSTAD (B.A., Colorado College) builds coalitions with other environmental and grassroots groups.

■ Environmental engineer DANIEL F. LUECKE (Ph.D., Harvard Univ.) advances restoration of aquatic habitats in the Southwest.

■ Attorney JAMES MARTIN (J.D., Northwestern School of Law) works to protect air quality and aquatic ecosystems in the West.

■ Attorney VICKIE PATTON (J.D., N.Y.U.) works on western and U.S.-Mexico border initiatives to address air pollution problems and reduce greenhouse gases.

## TEXAS

■ Scientist RAMÓN ALVAREZ (Ph.D., Univ. of Calif., Berkeley) strives to reduce pollution on the U.S.-Mexico border and improve Texas air quality.

■ Assistant to the program manager KIM M. BROOKS (Univ. of Maryland) advances efforts to protect biological diversity.

■ Economist PETER M. EMERSON (Ph.D., Purdue Univ.) works with communities to design low-cost strategies to cut pollution.

■ Director of state energy programs MARK MACLEOD (M.A., M.S., Ohio State Univ.; M.S., Univ. of Wyoming) promotes emissions reductions and renewable energy in the electric industry.

■ Attorney JIM MARSTON (J.D., N.Y.U.) develops programs on clean energy and works to reduce pollution on the U.S.-Mexico border.

■ Scientist CARLOS A. RINCÓN (Ph.D., Instituto Tecnológico de Monterrey) works to improve air quality on the U.S.-Mexico border.

■ Attorney MELINDA E. TAYLOR (J.D., Univ. of Texas) leads our efforts to restore ecosystems and implements incentive programs for habitat protection in Texas.

## WASHINGTON, DC

■ Economic analyst CAROL ANDRESS (B.A., Duke Univ.) advances pollution prevention in urban communities.

■ Attorney MICHAEL J. BEAN (J.D., Yale Univ.) heads the Environmental Defense Fund's efforts to conserve endangered species and other wildlife.

■ Economist ROBERT BONNIE (M.E.M., M.F., Duke Univ.) designs economic incentives for wildlife conservation on private lands.

■ Engineer KEVIN T. BRYAN (B.S.C.E., Howard Univ.) works on corporate and multistakeholder partnerships.

■ Legislative director STEVE COCHRAN (B.S., Louisiana State Univ.) directs our efforts in Congress and before Administrative agencies.

■ Biochemist RICHARD A. DENISON (Ph.D., Yale Univ.) designs ways to include environmental considerations in product concept and design.

■ Engineer LOIS N. EPSTEIN (M.S., Stanford Univ.) partners with grassroots groups to increase pollution prevention in the oil, auto manufacturing, and iron and steel industries.

■ Research associate ELIZABETH FASTIGGI (B.S., Univ. of Calif., Berkeley) works with partner companies to design and implement reusable transport packaging systems.

■ Attorney KAREN L. FLORINI (J.D., Harvard Univ.) promotes availability of environmental health data and control of environmental health hazards.



**Attorney Melinda Taylor**



**Engineers Kevin Bryan and Lois Epstein and attorney Bill Davis**



**Ecologist David Wilcove and attorney Michael Bean**

■ Sociologist and agronomist **STEPHANIE FRIED** (Ph.D., Cornell Univ.) focuses on sustainable tropical resource management and international oceans protection.

■ Attorney **JOSEPH GOFFMAN** (J.D., Yale Univ.) advocates economic incentives to cut pollution from cars, power plants, and factories.

■ Economist **KORINNA HORTA** (M.A., Johns Hopkins Univ.) works to insure that international investments respect biodiversity and indigenous people's rights.

■ Program associate **MARGARET MCMILLAN** (B.A., Indiana Univ.) advances protection of endangered species.

■ Engineer **DEAN MENKE** (M.S., Purdue Univ.) identifies industry-specific pollution prevention measures for use with the Chemical Scorecard.

■ Attorney **KEVIN MILLS** (J.D., Univ. of Michigan) directs the Environmental Defense Fund's pollution prevention activities and Great Lakes grassroots network.

■ International counsel **ANNIE PETSONK** (J.D., Harvard Univ.) develops legal tools for tackling global environmental problems.

■ Civil engineer **MICHAEL REPLOGLE** (M.S.E., Univ. of Penn.) promotes transportation and land use reforms to reduce motor vehicle dependence.

■ Attorney **BRUCE RICH** (J.D., Univ. of Penn.) leads efforts to reform international financial institutions such as the World Bank.

■ Director of the Alliance for Environmental Innovation **JACKIE PRINCE ROBERTS** (M.E.S., M.P.P.M., Yale Univ.) advances our joint work with consumer products companies.

■ Anthropologist **STEPHAN SCHWARTZMAN** (Ph.D., Univ. of Chicago) works on sustainable development and protection of the Amazon.

■ Research associate **NEEL SCOTT** (B.A., Brown Univ.) works to improve the environmental condition of Great Lakes urban communities.

■ Attorney **TIMOTHY D. SEARCHINGER** (J.D., Yale Univ.) is developing innovative farm programs to restore habitat and improve water quality.

■ Toxicologist **ELLEN K. SILBERGELD** (Ph.D., Johns Hopkins Univ.), adjunct staff, promotes efforts to end human exposure to toxics and to improve testing of chemicals.

■ Outreach coordinator **BENJAMIN SMITH** (M.A., George Washington Univ.) advances our pollution prevention work in Cleveland.

■ Economic analyst **SARAH M. WADE** (M.P.P.M., M.E.S., Yale Univ.) develops emission reduction markets to solve atmospheric pollution problems.

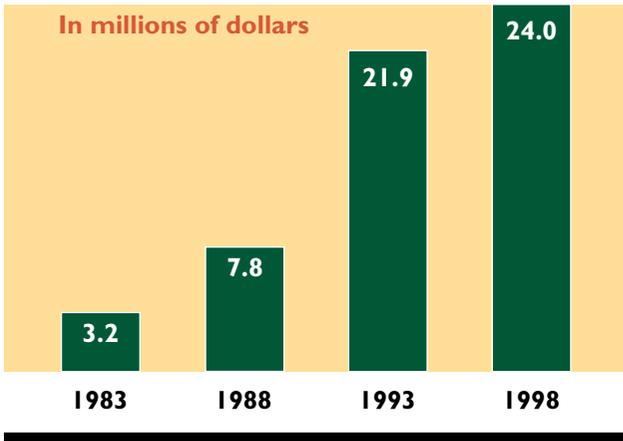
■ Ecologist **DAVID S. WILCOVE** (Ph.D., Princeton Univ.) develops science-based strategies to protect endangered species.

## WISCONSIN

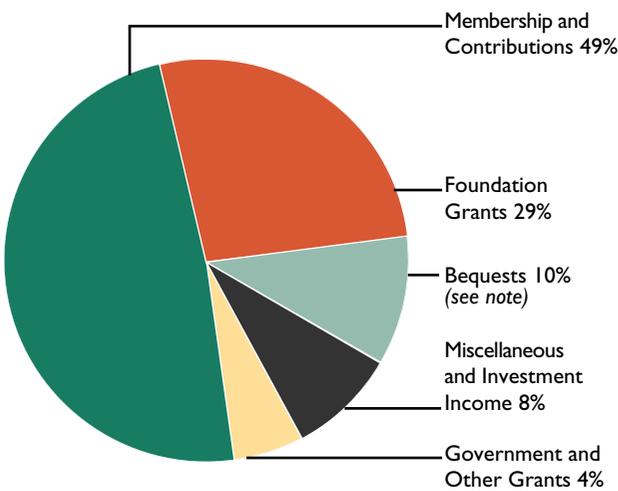
■ Attorney **BILL DAVIS** (J.D., Univ. of Wisconsin) implements pollution prevention practices in the Great Lakes region.

### ■ Program Managers

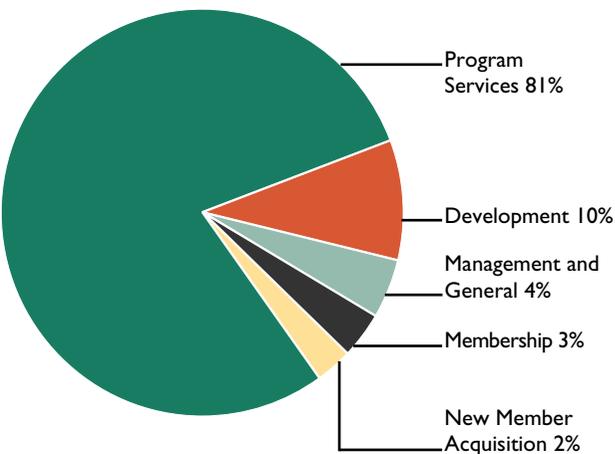
## TOTAL PROGRAM AND SUPPORTING SERVICES



## SOURCES OF OPERATING SUPPORT AND REVENUE



## EXPENSES



Thanks to the generosity of our members, benefactors, foundations, and other contributors, the Environmental Defense Fund's total operating support and revenue for fiscal year 1998 reached \$27.8 million, a new record.

Contributions from our more than 300,000 members exceeded \$13.7 million, representing 49% of total operating support and revenue. In addition, more than 125 foundations provided grants of \$8.1 million, or 29% of the total. Bequests of \$2.9 million represented 10% of the total, although only a small portion of this amount was used for operating expenses (*see note*). Miscellaneous and investment income and government grants accounted for the remaining 12%.

Expenses for total program and supporting services in fiscal 1998 were \$24 million, a nearly eight-fold increase since 1983. Program services accounted for 81% of our expenses, with a 10% increase in resources devoted to our four strategic-plan initiatives of Biodiversity, Climate, Health, and Oceans. Only 4% of the total was for management and administration, while 13% was directed toward the fundraising needed to generate current income and support for future years. Two percent was spent on the acquisition of new members.

Multi-year grants and an increase in deferred gifts—charitable gift annuities, trusts, and pooled income fund contributions—also have played a greater role in ensuring that the Environmental Defense Fund will be a lasting and effective presence in the years ahead.

In accordance with the policies of the Board of Trustees on bequests, designed to build the organization's cap-

ital reserves and financial stability, \$2.3 million was transferred to our endowment and long-term investment. Together with non-operating bequests and other income, the Environmental Defense Fund's total net assets increased by 30% to more than \$28.2 million at September 30, 1998.

Note: Under policies established by the Environmental Defense Fund's Board of Trustees, the amount of bequests reflected in operating support and revenue is determined by the average of the most recent five years, and 90% of total bequests received are to be designated for long-term investment. Accordingly, we transferred \$2,293,747 in 1998, and \$1,450,093 in 1997, from operations to long-term investment.

# STATEMENT OF ACTIVITIES

Year ended September 30

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total 1998	Total 1997
<b>Operating Support and Revenue</b>					
Support:					
Membership and contributions	\$ 11,537,503	\$ 2,186,580		\$ 13,724,083	\$ 12,002,337
Foundation grants	243,748	7,839,091		8,082,839	8,709,660
Government and other grants		950,068		950,068	1,098,234
Bequests <i>(see note)</i>	2,889,519			2,889,519	1,800,440
<b>Total support</b>	<b>14,670,770</b>	<b>10,975,739</b>	-	<b>25,646,509</b>	<b>23,610,671</b>
Revenue:					
Interest and allocated investment income	992,295	56,429		1,048,724	597,090
Awarded attorneys' fees	57,263	16,279		73,542	329,479
Fees, royalties, and other income	1,025,645			1,025,645	1,268,256
<b>Total revenue</b>	<b>2,075,203</b>	<b>72,708</b>	-	<b>2,147,911</b>	<b>2,194,825</b>
Net assets released from restrictions	9,583,406	(9,583,406)	-	-	-
<b>Total support and revenue</b>	<b>26,329,379</b>	<b>1,465,041</b>	-	<b>27,794,420</b>	<b>25,805,496</b>
<b>Expenses</b>					
Program services:					
Biodiversity	3,152,148			3,152,148	2,842,317
Climate	6,131,804			6,131,804	5,644,877
Health	3,788,156			3,788,156	3,757,904
Oceans	1,312,454			1,312,454	820,937
Education	4,265,037			4,265,037	4,607,862
Legislative action	571,370			571,370	584,739
Membership activities	346,273			346,273	436,449
<b>Total program services</b>	<b>19,567,242</b>	-	-	<b>19,567,242</b>	<b>18,695,085</b>
Supporting services:					
Management and general	882,019			882,019	890,311
New member acquisition	376,763			376,763	519,253
Fundraising:					
Membership	823,342			823,342	1,072,540
Development	2,372,389			2,372,389	2,288,208
<b>Total supporting services</b>	<b>4,454,513</b>	-	-	<b>4,454,513</b>	<b>4,770,312</b>
<b>Total operating expenses</b>	<b>24,021,755</b>	-	-	<b>24,021,755</b>	<b>23,465,397</b>
<b>Changes in Net Assets</b>					
From operations	2,307,624	1,465,041		3,772,665	2,340,099
Transfer to long-term investment	(2,293,747)			(2,293,747)	(1,450,093)
Non-operating changes:					
Transfer from operating activities	2,293,747			2,293,747	1,450,093
Bequests <i>(see note)</i>	3,068,198			3,068,198	1,703,030
Contributions and other income	261,467	30,241	365,879	657,587	596,376
Investment income, net of allocation to operations	(943,208)	(63,316)		(1,006,524)	2,183,581
Net assets released from restrictions	180,198	(180,198)		-	-
<b>Total change in net assets</b>	<b>4,874,279</b>	<b>1,251,768</b>	<b>365,879</b>	<b>6,491,926</b>	<b>6,823,086</b>
<b>Net assets, beginning of year</b>	<b>12,504,457</b>	<b>5,903,062</b>	<b>3,318,808</b>	<b>21,726,327</b>	<b>14,903,241</b>
<b>Net assets, end of year</b>	<b>\$ 17,378,736</b>	<b>\$ 7,154,830</b>	<b>\$ 3,684,687</b>	<b>\$ 28,218,253</b>	<b>\$ 21,726,327</b>

Copies of the complete, audited financial statement from which this information is reported are available upon request.

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The Environmental Defense Fund is a not-for-profit organization that relies on your support. All gifts are tax deductible. For more information contact the National Headquarters.

You can make a lasting contribution toward protecting the environment by considering a special gift to the Environmental Defense Fund of cash, securities, or real estate, or by means of a gift through your will.

When your attorney draws up your will, we suggest using the following language:

"I hereby give and bequeath \_\_\_\_\_ to the Environmental Defense Fund, a not-for-profit membership organization incorporated by the laws of the State of New York, having as its principal address 257 Park Avenue South, New York, NY 10010, for the Environmental Defense Fund's general purposes."

If you wish to discuss the language of your bequest with a member of the staff, or if you would like additional information on planned giving opportunities, including real estate gifts, please contact Anne B. Doyle at the Environmental Defense Fund headquarters in New York, telephone 212 505-2100.

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