



Breakthroughs

ANNUAL REPORT 2015

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

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Finding the ways that work

Breakthroughs may seem sudden, but they're usually a long time coming—and they never happen by chance. They come from strategy and perseverance.

Take China's historic announcement last fall that the country will launch a national cap-and-trade program by 2017 to cut carbon pollution. It felt like a sudden breath of fresh air and—together with the U.S. Clean Power Plan and commitments made by many other countries—inspired a new era of climate ambition in Paris.

But the story began 25 years ago, when EDF economist Dr. Daniel Dudek, who had already helped design the U.S. cap-and-trade program for acid rain, was invited to China to advise officials on creating market-based environmental protection. Dudek, now our VP for Asia, ended up making more than 150 trips to China and offering key technical assistance on the seven carbon-trading pilot programs that gave the Chinese the confidence they needed to take the idea nationwide. Patient work led to a dramatic breakthrough.

Another big breakthrough happened on December 17, when the U.S. Senate passed a bipartisan bill to ensure the safety of chemicals in consumer products—the first such reform in 40 years. Once reconciled with the House version and signed by the president, this will mark the culmination of two decades of work by EDF scientist Dr. Richard Denison, a leading expert on chemical safety.

Breakthroughs need a strong foundation. For ecosystems, we listened to concerns of private landowners and launched EDF habitat exchanges, which protect wildlife through cooperation rather than conflict with landowners. This year, exchanges became the centerpiece of an effort to protect the greater sage grouse.

And for oceans, our strategy to restore fisheries by giving fishermen a greater stake in ocean recovery—which helped triple red snapper in the Gulf of Mexico—is now established on the U.S. West Coast and starting to take hold in Mexico and Belize. New research by EDF and our allies

shows how, by giving fishermen secure fishing rights, we can have more fish in the sea *and* more seafood on the plate.

The tenacity needed to achieve such breakthroughs would never be possible without EDF's dedicated staff and the generous donors who have backed our work for nearly 50 years. Thank you.




Carl Ferenbach
Chairman


Fred Krupp
President


Diane Regas
Executive Director



The bald eagle and other magnificent birds of prey have made dramatic recoveries since the U.S. ban on DDT. Founding trustee Dr. Charles Wurster recounts the struggle in *DDT Wars: Rescuing Our National Bird, Preventing Cancer, and Creating the Environmental Defense Fund* (Oxford University Press, 2015).



A different kind of environmental organization

In 1966, a small group of scientists on Long Island began fighting to save the bald eagle and other wildlife from being wiped out by DDT. They teamed up with a lawyer, went to court, and eventually won a U.S. ban on the pesticide. It was the first great victory for the modern American environmental movement—and the birth of Environmental Defense Fund. Almost 50 years later, EDF remains committed to science-based solutions. >

In time, we became the first environmental group to hire economists to work alongside our scientists, lawyers and policy experts. We found that if you make environmental protection pay, people will invent all kinds of ways to make it happen.

Because market forces can either hurt or help the natural world, we work to get the incentives right, harnessing the power of markets to reward conservation and deliver the most benefit and protection per dollar. To succeed in the long run, environmental solutions must be economically sustainable.

A growing team in China: EDF VP for Asia Dr. Daniel Dudek (*center*) with EDF Beijing staff, including managing director Dr. Zhang Jianyu, at Dan's right.



In a polarized world, EDF remains resolutely nonpartisan, working at the center with an ambitious, pragmatic approach. This gives us—and our more than one million members—a seat at the table when the big issues are being decided.

All in all, our unique approach makes EDF a different kind of environmental group. One of our fisherman partners, Rich Young, the former harbormaster of Crescent City, CA, summed it up this way: “Environmental Defense Fund is the first group to recognize the human dimension to the crisis.”

Everyone wants to live in a world where the air and water are clean, the people healthy, and the fish and wildlife plentiful. To make that world a reality, EDF works alongside a broad range of allies, including farmers, ranchers, fishermen, corporations, government officials and other nonprofit groups, to build lasting solutions. We know how to litigate and play tough defense—it’s our middle name, after all—but we also know how to use these partnerships to drive lasting progress.

That's why we created habitat exchanges, a sort of Airbnb for wildlife that lets landowners get paid for providing appropriate living space for animals. It's why we help farmers boost food production while using less fertilizer, saving money and cutting pollution at the same time.

And it's why we've worked with oil and gas companies to reduce leaks and venting of natural gas—which cuts waste as well as emissions of methane, a potent climate pollutant. Our work with big companies helps drive change through entire business sectors, but we accept no funding from our corporate partners, because our voice must be strong and independent.

As we approach our 50th anniversary, EDF is just getting started—because there's so much to be done. In this annual report, you'll find many examples of the fresh thinking that makes EDF a different kind of environmental group. None of it could happen without your support.



“From millennials to communities of color to people from all across the political spectrum, the strength of our advocacy will be in its diversity.”

Emily Reyna
Director of Diversity

Guided by science and economics

“More than ever, strong
science must underlie
the case for action.”

Dr. Steven Hamburg
Chief Scientist

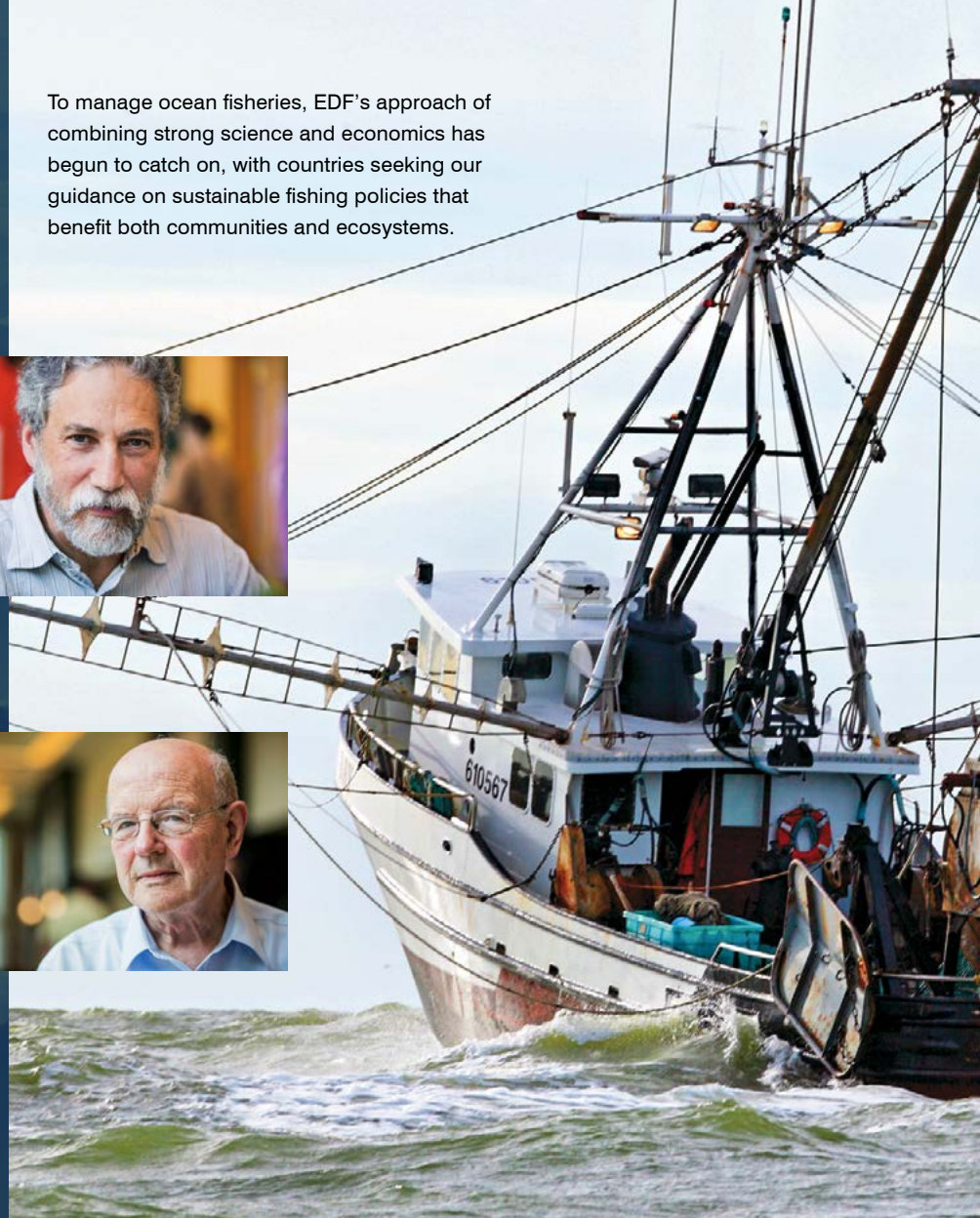


“With the right price
signals, we can protect
the environment in ways
that are efficient and fair.”

Dr. Frank Convery
Chief Economist



To manage ocean fisheries, EDF's approach of combining strong science and economics has begun to catch on, with countries seeking our guidance on sustainable fishing policies that benefit both communities and ecosystems.

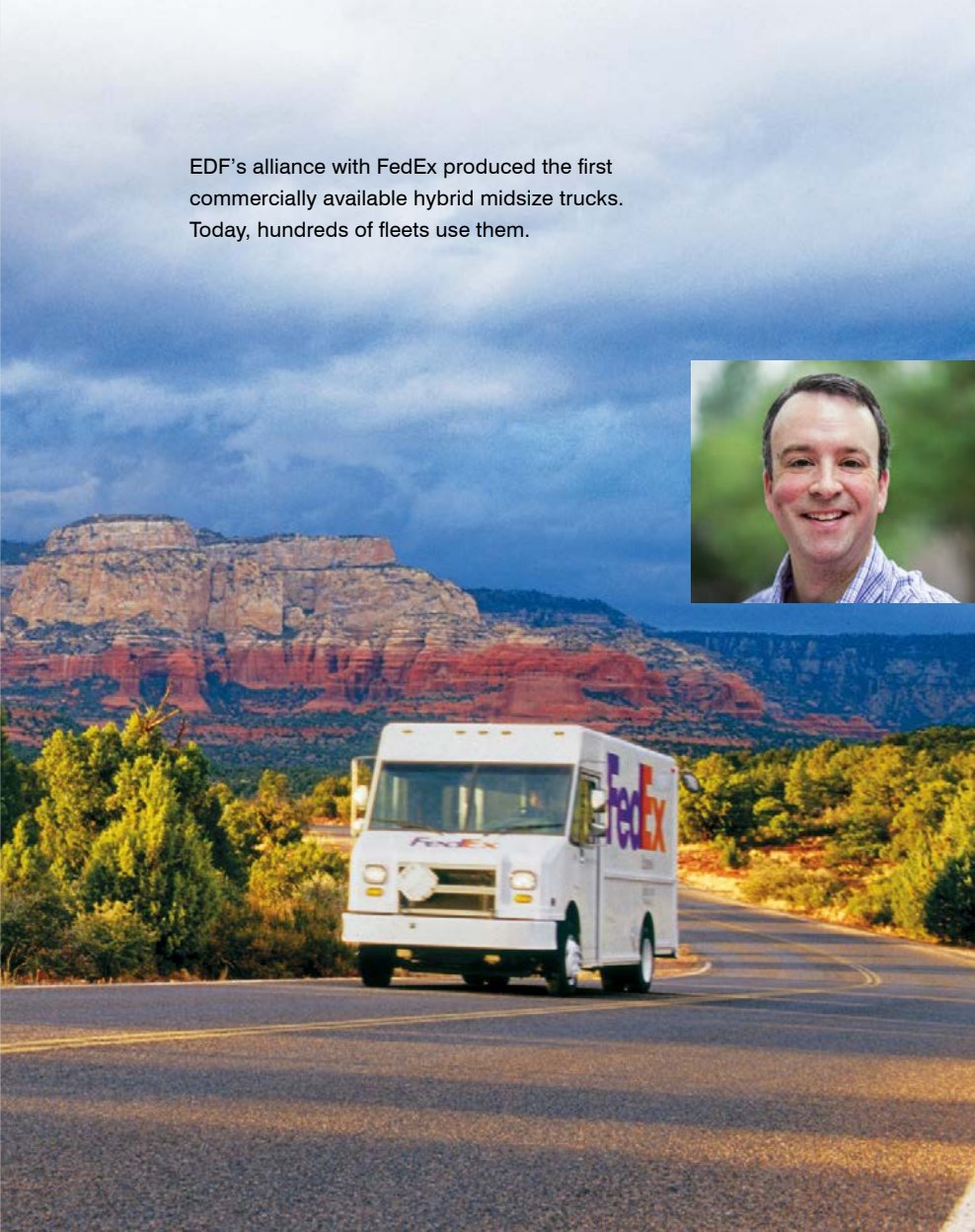


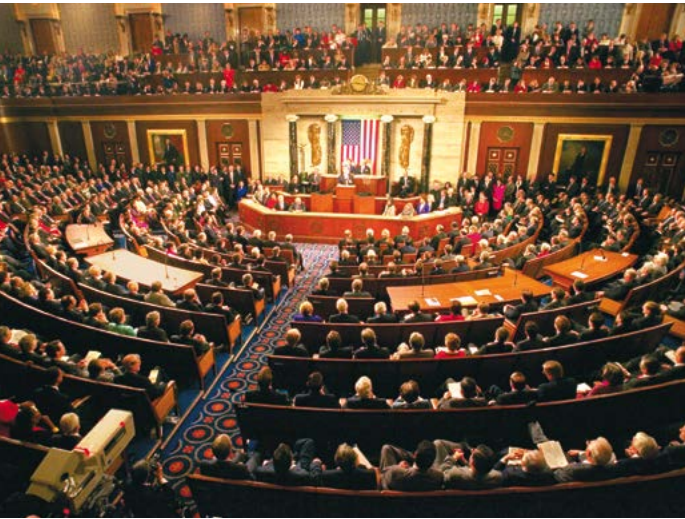
EDF's alliance with FedEx produced the first commercially available hybrid midsize trucks. Today, hundreds of fleets use them.



Greening companies for 25 years

“Our corporate partnerships set aggressive goals and improve sustainability performance across industries and supply chains,” says our VP for corporate partnerships Tom Murray (*left*). Corporate partnerships have been a cornerstone of EDF’s approach ever since we launched our first one with McDonald’s 25 years ago. Since then, we’ve sparked market transformations with industry leaders in shipping, retail, private equity and other sectors.





Rising above partisan politics

In politically polarized Washington, EPA's Clean Power Plan came under withering attack from Congressional opponents in 2015—and our political advocacy partner EDF Action responded with a vigorous defense.

The Clean Power Plan will cut power plants' carbon dioxide emissions nearly one-third below 2005 levels by 2030, but it is fiercely resisted by some in Congress, who introduced at least ten pieces of legislation in 2015 to block the landmark program. Our opponents' failure to stop the plan is a tribute to the effectiveness of EDF Action and its allies, who have worked tirelessly behind the scenes for clean air and a stable climate.

“The plan marks the onset of a clean energy revolution in the United States, which is exactly why some in Congress are trying so hard to block it,” says Elizabeth Thompson, president of EDF Action. “While the rest of the country is moving forward, they remain stuck in the past.”



Elizabeth Thompson is president of EDF Action, our sister organization in Washington, as well as VP for U.S. climate and political affairs for Environmental Defense Fund.



Clearing the air: EDF Action runs timely ads that expose misrepresentations by corporate lobbyists.

Opponents of the Clean Power Plan have a huge war chest, but the majority of Americans support the plan—and we’re helping amplify their voices.



EDF is backing grassroots movements such as Moms Clean Air Force and Defend Our Future, to broaden support for environmental action.

EDF Action designed a campaign of radio, TV and Internet advertising to sway members of Congress in key states. We mobilized Moms Clean Air Force, whose members reached out to their representatives in Congress, urging them to block opposition to the plan. EDF’s Strategic Partners, our network of influential supporters, lobbied 43 members of Congress in one-on-one meetings. Our allies were similarly effective and, as a result, moves to derail the plan have stalled.

Because EDF Action raises funds that are not tax deductible, it is free to do things EDF cannot, including unlimited lobbying of Congress. In a divided government, environmental progress

requires engaging with both Republicans and Democrats. “On Capitol Hill as well as in the states, we work both sides of the aisle to advance environmental progress,” says Thompson. “That means fighting for good bills and against bills taking us in the wrong direction.”

An important part of our climate strategy is to involve people who care deeply about climate but don’t always vote. EDF’s Defend Our Future campaign engages millennials who pledge to persuade candidates to support climate action. Having recruited 100,000 young people in key states in 2014, Defend Our Future is now working to sign up millennials nationwide.

“EDF doesn’t just talk about problems. They help design smart government policies, combine them with private sector know-how, and create solutions.”

Michael Bloomberg

Former Mayor of New York City





Climate

Turning the corner on climate change



“With realistic actions in key countries, the world’s greenhouse gas emissions can start to go down by 2020. This can be done with current technology at reasonable cost.”

Gwen Ruta

Senior VP Climate and Energy

EDF has a vision for a clean energy future: to stop once and for all the centuries-old rise in global greenhouse gas emissions, and to reach the turning point where emissions level off and begin to decline. It can happen in the next five years— if countries around the world contribute.

“This is a generational challenge,” says Gwen Ruta, senior VP for climate and energy. “Whenever I need a lift, I spend some time with our Climate Corps fellows.” Ruta founded EDF’s Climate Corps program, which taps young leaders to find energy savings. “I’m inspired by their optimism, smarts and unwavering belief that every one of us can make a difference.”

Our work in 2015 made clean energy choices easier for tens of millions of people. EDF is helping to sweep away obsolete rules that encourage pollution and replacing them with policies that reward innovation. Last year, the U.S. clean energy market grew 14%—nearly five

times the rate of the overall economy—to \$200 billion. That’s roughly the size of the U.S. pharmaceutical industry. In response, we’re helping modernize the power grid so it can support the coming surge of renewable energy.

No group can solve these challenges alone. That’s why EDF has formed a strategic alliance with The Nature Conservancy to position the United States as a global leader on climate change. This work focuses on building non-partisan alliances, developing federal policies that speed the pace of emissions reductions and aiding in the transition to clean energy.

We’re optimistic about climate, because the world’s economies are already showing that they can grow and decarbonize at the same time. Strong commitments by the United States, China and other nations helped usher in a new global agreement in Paris. And the ambitious national goals are being bolstered by decentralized action in states, provincial capitals and businesses. EDF and its allies are at the forefront of these changes.

With our partners, we have identified high-impact actions in key countries and sectors that will be enough to reverse the rise in global emissions of both long-lived and short-lived climate pollutants by 2020.



Breakthroughs in 2015

U.S. Clean Power Plan. EPA’s bold plan to cut power plant emissions shows that the United States can deliver on its climate commitment. EDF and its allies played a key supporting role.

Methane. EDF successfully advocated federal rules that represent a first step in cutting emissions of methane, a potent short-lived pollutant.

China. EDF helped lay the groundwork for Beijing’s pledge to limit carbon pollution, breaking a decades-long impasse and inspiring other nations.

Rainforests. To slow deforestation, EDF helped advance a mechanism for rewarding countries such as Brazil that protect their forests.

Tomorrow's energy today

To help transform how America makes and uses electricity, EDF is working in nine states that make up half the U.S. electricity market. “With \$2 trillion in grid investment coming in the next 20 years, we have **a once-in-a-generation opportunity** to build a resilient system that wastes less energy and gives people clean energy choices,” says Rory Christian, who directs our New York clean energy program.

EDF's Rory Christian (*right*) visits a solar installation with Con Edison VP Matthew Ketschke. We've teamed up with the utility and state officials to help New York remake its energy system, paving the way for community microgrids and other innovations.



Training a new generation of business leaders

EDF Climate Corps trains MBA and grad students to spot energy savings during fellowships at companies and institutions. They have found ways to save **\$1.5 billion** in energy costs while preventing emissions equal to taking 420,000 cars off the road. Our 2015 projects ranged from skyscrapers in Chicago to a shoe factory in Shanghai. “The investment is a no-brainer. Our EDF fellows far exceeded expectations,” says Scott Tew of Ingersoll Rand.

Climate Corps fellow Devashree Ghosh helped develop a microgrid to provide backup power for critical buildings like fire stations, pharmacies and senior housing in Hoboken, NJ, which lost most of its power during Superstorm Sandy. The microgrid provides a template for other cities, like Chicago (*seen here*).



Ending the era of unlimited climate pollution



The Clean Power Plan covers 1,000 plants including the oldest and dirtiest, many located near residential neighborhoods.

President Obama made history on August 3, 2015, when he unveiled EPA's Clean Power Plan, the first-ever national standards to cut climate pollution from new and existing power plants. The plan sent a clear signal to the world that the United States is serious about climate change.

EDF had been working toward this moment for years, alongside allies like the American Lung Association and the Natural Resources Defense Council. The plan requires that the nation's 1,000 fossil fuel power plants—which cause roughly a third of U.S. greenhouse gas emissions—cut their emissions 32% below 2005 levels by 2030. EDF members submitted 481,000 public comments.

EPA estimates that by 2030 the Clean Power Plan will cut about \$8 a month from the average residential utility bill and create tens of thousands of jobs. “States are in the driver's seat,” says EDF general counsel Vickie Patton. EPA has given states the flexibility to deploy solutions that reflect local priorities while minimizing costs. Many states and power companies have indicated they can meet the standards and are already making clean energy investments.

The fight is far from over. Twenty-seven states have filed lawsuits, and there are ongoing attempts in Congress to derail the plan. “We're in for a



Opponents of EPA's Clean Power Plan have sued, but in the heartland the transition to clean energy is already underway.

**Projected annual health benefits
from the Clean Power Plan in 2030**

As many as

↓ **3,600**

fewer premature deaths

↓ **90,000**

fewer asthma attacks
in children

political fistfight,” says Jeremy Symons, associate VP for climate policy, “but we have the public on our side.” EDF is committed to supporting and defending the plan—in the courts and in outreach to policy makers and the public. EPA’s authority to act was established in a series of court cases in which EDF played a key role, including at the U.S. Supreme Court.

“The rhetoric is out there that the Clean Power Plan is bad for business,” says Mark Buckley, VP for environmental affairs at Staples, “but that is absolutely not the case.” Staples is one of 365 companies to send a letter to governors requesting finalization of state plans.

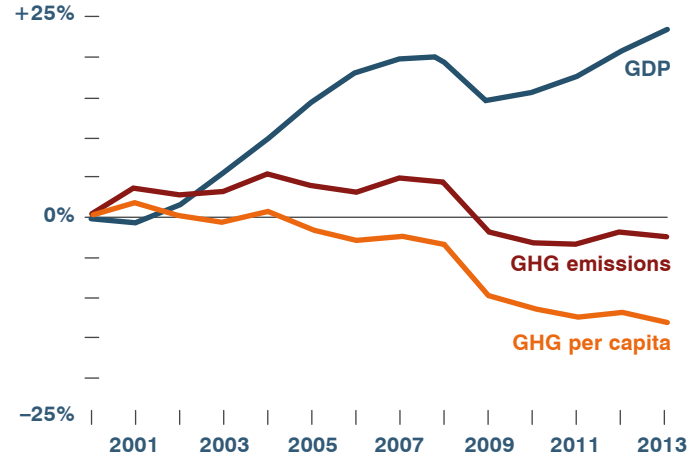
Among its many benefits, the plan is accelerating an energy revolution that’s underway but needs to go faster. That’s why our clean energy team is working in key states such as Illinois, Pennsylvania and Texas, and with power companies like Xcel Energy. We’re unleashing markets for clean technology by eliminating rules that favor outmoded dirty energy and replacing them with ones that foster a modern, efficient grid.

With the Clean Power Plan and investments in clean energy, the era of unlimited carbon pollution from U.S. power plants is finally coming to an end.

Climate action shines in the Golden State

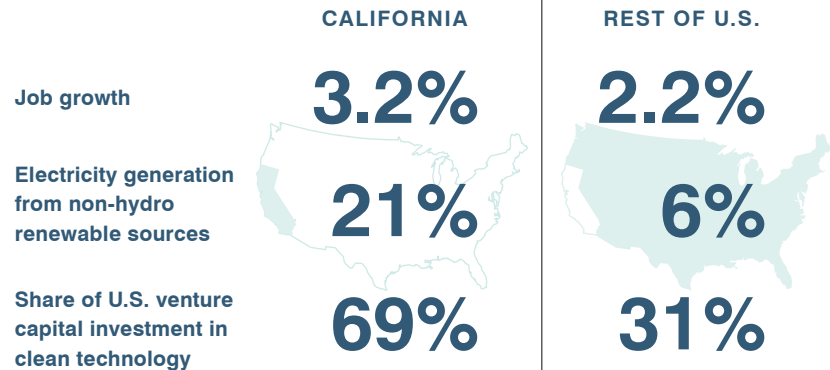
California's Global Warming Solutions Act, cosponsored by EDF in 2006, has reduced greenhouse gas emissions even as the state's economy has surged. The law's centerpiece is a cap-and-trade program covering nearly 450 of the largest polluters. California also has set rigorous environmental standards spurring changes in how automakers design cars, utilities generate electricity and refineries make fuel.

CALIFORNIA ECONOMY IS GROWING WHILE EMISSIONS FALL




Source: California State Senate

LEADING THE NATION



All percentages for 2014

An aerial photograph of a green tractor working in a rice field. The field is characterized by distinct, curved rows of rice plants, creating a rhythmic pattern across the landscape. The lighting is bright, casting long shadows and highlighting the texture of the crops.

In 2015, California approved a protocol for rice growers, designed largely by EDF, that rewards farmers who reduce methane. It's one example of the important role agriculture can play in solving the climate challenge.

A dark, atmospheric photograph of a mountain range with significant snow cover. The peaks are jagged and partially obscured by mist or low clouds, creating a sense of depth and scale. The overall tone is cool and serene.

“California is helping set the stage for carbon pricing programs globally, including by linking directly with Quebec’s carbon market today.”

Dr. Nathaniel Keohane
VP Global Climate

China pledges a limit on carbon



The road to stabilizing the world's climate leads through China, which is the world's largest greenhouse gas emitter, burning as much coal annually as all other countries combined. After years of growth, a rising middle class is calling for a shift to clean, sustainable development. EDF is engaged at every level to help Beijing deliver.

In 2014, President Xi Jinping joined President Obama in making historic commitments to curb climate pollution. China promised to peak its carbon emissions by 2030 and expand the use of alternatives to fossil fuels to at least one-fifth of the nation's energy mix. In 2015, China pledged to launch a national cap-and-trade program for carbon by 2017, based on a set of seven pilot programs that EDF helped develop.

Twenty-five years ago, Beijing called on Dr. Daniel Dudek, now EDF VP for Asia, to participate in the country's first pilot projects with economic incentives for pollution control.



EDF's Daniel Dudek (*left*) serves on China's highest international advisory body on environmental affairs, which reports directly to Premier Li Keqiang (*right*).

Most recently, EDF provided technical assistance as China launched carbon-trading programs in five cities and two provinces, home to 250 million people.

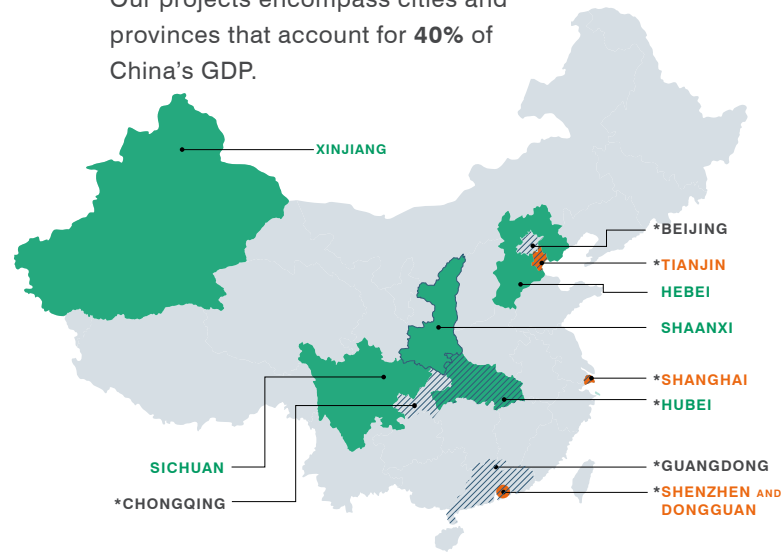
EDF's goal is to help China develop infrastructure, policies and regulations needed to shift the country's economy as quickly as possible toward a low-carbon future. China's environmental transformation is being implemented by a new generation of enforcement officers, many trained through a program EDF set up with Peking University. So far, 29,000 professionals, more than one-third of enforcement officers nationwide, have graduated from our program and fanned out across the country to enforce compliance with environmental laws.

Since much of China's pollution comes from factories that export goods, we also began a green supply chain initiative, endorsed by the 21-member Asia-Pacific Economic Conference, that uses the purchasing power of the government and multinationals to improve energy efficiency and cut carbon pollution.

"By finding these leverage points, we can rapidly scale change," says Dudek.

EDF'S WORK IN CHINA

Our projects encompass cities and provinces that account for **40%** of China's GDP.




***CARBON TRADING:** EDF is providing technical assistance and training to all seven of the government's carbon-trading pilots. These pilots provide the government with the necessary experience to launch a nationwide program by 2017.

LOW-CARBON FARMING: EDF partnered with the State Council's Poverty Alleviation Office to create a program in which 400,000 poor farmers can earn income by reducing carbon emissions through improved agricultural practices, such as turning waste into energy.

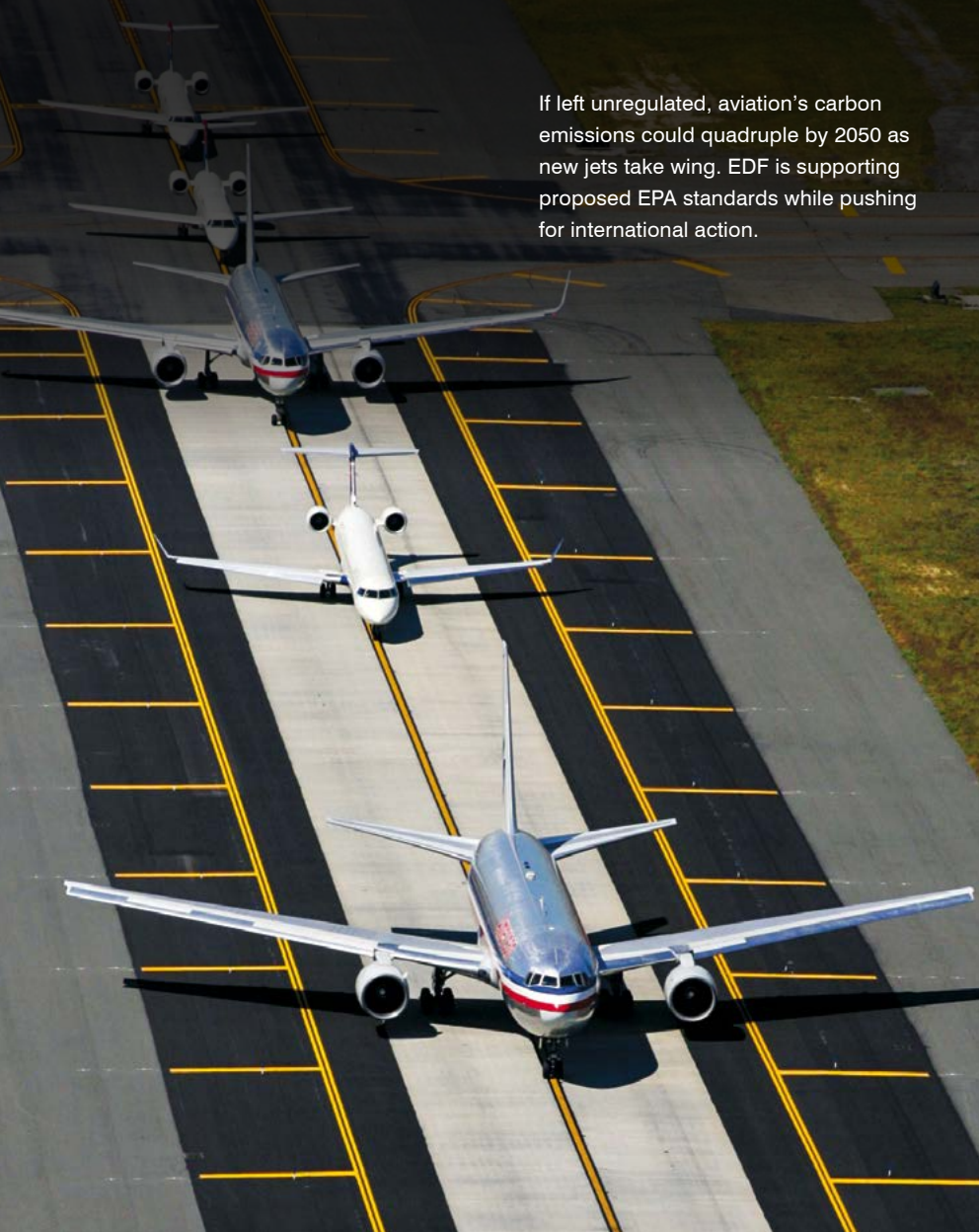
GREEN SUPPLY CHAIN: Our green supply chain initiative gives factories an incentive to slash energy use: a competitive edge when working with big purchasers such as IKEA and Shanghai GM that have strict environmental requirements.

Protecting tropical forests

Deforestation accounts for about **15% of global carbon emissions**, so protecting tropical forests offers one of the biggest immediate opportunities the world has to reduce emissions. EDF is working to help countries that protect their forests to reap the rewards by selling credits in carbon markets.

A photograph of a tropical forest landscape. In the foreground, a large, vibrant green tree stands prominently. The background features rolling hills and mountains covered in dense forest, with white mist or clouds filling the valleys between the peaks. The sky is overcast with soft, grey clouds.

EDF has been working with state governments and indigenous communities in Brazil to ensure that preserving forests—and their carbon—is more valuable than clearing the land for farming. We're now working with partners like McDonald's to implement strong commitments to ending deforestation.



If left unregulated, aviation's carbon emissions could quadruple by 2050 as new jets take wing. EDF is supporting proposed EPA standards while pushing for international action.

Cutting aviation pollution

If aviation were a country, it would be the world's **seventh largest climate polluter**. EDF is working with the International Civil Aviation Organization to cap carbon pollution from all international flights, using carbon markets to help airlines meet that cap cost-effectively.

EDF takes aim at methane, a potent greenhouse gas

The Environmental Protection Agency in 2015 proposed the first national standards to cut methane pollution from oil and gas operations. EDF was central to this important progress. Methane, the main component of natural gas and a byproduct of oil production, accounts for a quarter of the global warming we're experiencing today. Thanks in part to EDF's leadership, this once-ignored climate issue is now on the map.

In 2012, as the shale gas boom accelerated, no one could say exactly how much methane was leaking from the oil and gas supply chain. So EDF launched our most ambitious scientific research ever: 16 peer-reviewed field studies involving nearly 100 partners from academia and industry to measure emissions across the entire U.S. natural gas supply chain. To date, two dozen papers have been published based on the research. It is now becoming clear that

methane emissions are at least 50% higher than previously estimated.

The results of EDF's studies have been key to informing state and federal action. But EPA's rules, if adopted, cover only new and modified sources. More action is needed to reach the White House goal to reduce emissions 40–45% by 2025, so we'll continue the fight. EDF worked with industry in Colorado to enact tough rules that cover both new and existing sources of methane, showing that strong standards need not cost jobs or production. EDF also challenged inventors to design real-time methane detectors, which are now being tested.

“The EDF studies confirm there are cost-effective technologies that will allow us to reduce methane emissions right now,” says Southwestern Energy's Mark Boling, “and they are playing a key role in driving change in our industry.”





Globally, a 45% cut in methane pollution from oil and gas operations would have the same climate benefit over 20 years as shutting down roughly 1,000 coal-fired power plants.



EDF partnered with Google Earth Outreach to use Street View cars equipped with special sensors to detect methane leaks under city streets. Interactive maps on edf.org make pollution visible, and utilities are starting to embrace our methodology.

LEADING ON SCIENCE: THE ALFRED P. SLOAN FOUNDATION



“EDF’s research has played an important role in elevating attention to the methane leakage issue,” says Paul L. Joskow, president of the Alfred P. Sloan Foundation. The foundation has provided grant support for EDF’s scientific studies on methane leakage across the natural gas supply chain.

“We support scientific research and are not policy advocates,” Joskow says. “EDF stands out in its ability to organize and manage nonpartisan research and to bring stakeholders together to understand and use it effectively.”

It was EDF’s commitment to developing a sound factual basis for environmental policies that brought the organization to the Sloan Foundation’s attention. “Better science means better understanding of the environment and better public policy,” says Joskow.

**“EDF is influential because it is
committed to getting the facts right.”**

Paul L. Joskow
President, Alfred P. Sloan Foundation

“I attribute a lot
of our progress to
Environmental
Defense Fund. This
is an organization
that likes results.”

Senator Tom Udall (D-NM)

*From remarks at a press conference
announcing the 60th cosponsor of the
Frank R. Lautenberg Chemical Safety Act*





Health

Reducing exposure to chemicals and pollution



“Every American deserves a strong national law that will protect us from hazardous chemicals.”

Dr. Sarah Vogel
VP Health

When Sarah Vogel first learned that hazardous chemicals were showing up in human breast milk, she realized that hundreds of toxic substances—many not in existence 50 years ago—were now being passed down from one generation to the next. “That’s when I understood the full meaning of the phrase ‘pollution is personal,’” says Vogel, now EDF’s VP for health.

Today our bodies bear evidence of toxic emissions from coal-fired power plants and diesel trucks, along with hundreds of hazardous chemicals that have slipped through our flimsy chemical safety net.

EDF foresees a healthier, more sustainable future, one in which air and water are cleaner and food and consumer goods safer. In 2015, we made significant progress toward that future. We used science, the courts, partnerships, activism and the political process to advance our goals.

After two decades of work by EDF and our allies, the U.S. Senate passed sweeping bipartisan legislation that promises to fix our broken chemical safety system by setting strong, health-based standards against which all chemicals will be assessed. Now EDF will work with members of both parties to ensure that the strongest possible bill gets through the House-Senate negotiations and arrives on the president's desk.

Harmful substances that can cause poor health and disease are with us at every stage of our lives. They're found in the food we eat, the products we buy and the air we breathe.

For that reason, every EDF program works on improving the health of people, their communities and the natural systems on which human health depends.



Safeguarding human health



Congress is closer than ever to reforming the Toxic Substances Control Act and establishing a law that will finally work to protect Americans from hazardous chemicals.



EDF's partnership with Walmart to remove potentially dangerous chemicals from the products on its shelves triggered changes by other retailers and product manufacturers.



In 2015, we went to court to defend the EPA Mercury and Air Toxics Standards, which slash deadly mercury and other pollutants from coal-fired power plants.




The EDF-backed citizens group Moms Clean Air Force helped advance protections against air pollution and toxic chemicals.

Rethinking the supply chain

Since 2009, EDF has worked with Walmart to **replace hazardous chemicals** in everyday products on its shelves. In response, suppliers have reformulated many products to replace chemicals of concern with safer substitutes, and Walmart is publishing all the ingredients of its private label products.

Note: EDF accepts no funding from Walmart or any other corporate partners, or from their corporate foundations. We do accept funding from private foundations and individuals.





FLAME RETARDANTS

Triphenyl phosphate

PESTICIDES

N, N-diethyl-m-toluamide

PLASTICIZERS

Diisobutyl phthalate

Diethyl phthalate

Bis(2-ethylhexyl) phthalate

4-Chlorophenyl isocyanate

CHEMICALS IN
PERSONAL CARE PRODUCTS

Benzophenone

Triclosan

Butylated hydroxyanisole

COMBUSTION BY-PRODUCTS

1-Methylnaphthalene

2,6-Dimethylnaphthalene

Naphthalene

Phenanthrene

FRAGRANCES

Galaxolide

Lifting the veil on chemical exposure

Just what chemicals are we exposed to in everyday life? No one knows. But EDF is helping to answer that question with new wristband technology that can detect **more than 1,400 chemicals**. We enlisted volunteers to wear the wristbands, and the results are eye-opening. They show that hazardous chemicals are pervasive in our daily environment. That's why the need to act on chemicals is urgent.

One wearer of a wristband came into contact with all these chemicals during a single week. Analysis did not determine level of exposure or if chemicals were absorbed into the body.

A relentless voice for safer chemicals



The long fight to reform America's obsolete chemical safety law has reached critical mass. First passed in 1976—the year Apple sold its first computer—the Toxic Substances Control Act (TSCA) has proved so woefully inadequate that EPA hasn't been able to control even known human carcinogens like formaldehyde. In almost 40 years, TSCA has required testing of only about 3% of the 85,000 chemicals available for use.

Nearly two decades ago, EDF began a long quest for fundamental reform. In 1997, we published *Toxic Ignorance*, a seminal report which revealed that even the most common chemicals lacked basic health data. Since then, we've worked with EPA, states, and health, labor, business and consumer groups to push TSCA reform.

From the beginning, EDF's Dr. Richard Denison was at the center of this process. He worked with all parties, overcoming resistance



EDF scientist Dr. Richard Denison is a leading force for Congressional action on chemical safety.



A legacy of TSCA: Most couches in the U.S. contain at least one potentially hazardous flame-retardant chemical.

10 trillion

Pounds of chemicals produced per year in the United States

24

Number of years since EPA last tried (and failed) to regulate a chemical under TSCA (asbestos)

from industry opponents. Denison’s regular blog posts on edf.org, explaining the scientific and political implications of the debate, became a must-read for all players. And when a chemical spill in 2014 near Charleston, WV, left 300,000 people without drinking water, Denison served as a key resource for beleaguered residents looking for answers.

In 2015, bipartisan legislation, the Frank R. Lautenberg Chemical Safety Act, offered the first serious revision of TSCA ever. When it came before the Senate, we helped strengthen it. Denison worked closely with cosponsors Senator Tom Udall (D-NM) and Senator David Vitter

(R-LA), providing expert advice as they made hundreds of improvements to fix flaws and broaden support. Our lobbying arm, EDF Action, kept open the lines of communication between Republicans and Democrats.

A filibuster-proof 60 senators have signed on to the Lautenberg bill, creating the potential for a huge bipartisan win—a rarity in today’s politics. The support ranges from liberal Democrats like Ed Markey (D-MA) to conservative Republicans like Jim Inhofe (R-OK).

“The public has waited long enough,” said Denison. “The Lautenberg Act deserves to become law as soon as possible.”

Tanya Brown (*left*) joined Moms Clean Air Force because her ten-year-old daughter Sanaa (*center*) suffers from asthma. "I've finally started connecting the dots between the health of the environment and the health of my family," says Brown, who was invited on stage when President Obama unveiled the Clean Power Plan.



Elected officials, listen to your mothers

No one is more committed to her child's health than a mother. Moms Clean Air Force is an EDF-backed community of more than **570,000 parents united** against air pollution and climate change. Visiting the White House, governors' mansions and legislators nationwide, this clean air constituency is a clear and consistent voice holding elected officials accountable.



Exposure to mercury through eating contaminated fish can lead to severe neurological problems.



EDF goes to court to defend mercury rule

EDF has long fought to limit toxic mercury from power plants, culminating in a strong 2011 EPA rule that will safeguard the health of children. Most power plants now comply with the mercury rule, but opponents went to court, and **EDF stepped in to fight for the rule.** In 2015, the U.S. Supreme Court directed EPA to re-evaluate the costs of the rule, which EPA will soon address.

Environmental justice for low-income communities

Too often, the right to breathe clean air has been denied to low-income communities and communities of color. People living near the nation's ports, truck routes and industrial facilities are disproportionately exposed to dangerous air pollution.

“People who live in pollution hot spots face an increased health risk from smog and fine particles and toxics like benzene and mercury,” says Dr. Elena Craft, an EDF toxicologist who works with these communities. Smog is a particular problem, contributing to heart and lung diseases and worsening asthma.

Refineries are a big contributor to smog and air toxics, but federal rules on refinery pollution are weak. Thanks in part to EDF's advocacy, EPA in 2015 announced stronger rules for regulating toxic air emissions from refineries. Then, after a lawsuit filed by EDF and others, EPA tightened

the national air quality standard for ozone, the main cause of smog.

Cars and trucks are the largest source of smog-forming pollutants. EDF is helping slash such pollution from trucks for the 18 million mostly low-income people who live near America's ports. At the port of Houston, one of the nation's busiest, we helped develop a low-interest loan and grant program that helps the port's truckers replace older, polluting trucks with new models. In 2015, EPA expanded the program.

Nationwide, big freight trucks are getting a makeover, too: Proposed new standards, which EDF and our allies helped secure, will make heavy trucks almost 25% more efficient. Improved engine standards mean less smog—and that means Americans with lung ailments can breathe a little easier.





EDF helped activists such as Houston's Yudith Nieto acquire air samplers that for the first time provide a more accurate picture of what they're breathing. "At the end of the day, there has to be hope," says Nieto, "hope that our voices will be heard."

"Dr. Elena Craft and EDF have helped us build partnerships that can be a model for other ports around the country," says EPA Administrator Gina McCarthy (*right*), with Craft in Houston.

A RIPPLE EFFECT: STEPHANIE BARKO



As a young child in Houston in the 1960s, Stephanie Barko ran behind trucks that were spraying DDT, as many children did before the pesticide was banned.

"We've come a long way since then," says Barko, "but chemicals are still everywhere. It's an outrage that we have so little regulation."

Barko trusts EDF to fight for reform of the nation's weak and outdated chemical safety law and to help retailers move toward selling safer products. That's one reason she has included EDF in her estate plans.

A literary publicist, Barko calls on authors and bloggers she knows to fight pollution through Moms Clean Air Force, an EDF-backed campaign. "It's amazing the ripple effect one person's action can have," she says.

**"EDF understands that working with
retailers is a critical part of the solution
to get dangerous chemicals off shelves."**

Stephanie Barko

“The combination of rights-based management and fully protected marine reserves, long advocated by EDF, gives me great hope that we can revive global fisheries.”

Dr. Jane Lubchenco

Former Administrator, National Oceanic and Atmospheric Administration; Vice Chair, EDF Board of Trustees





Oceans

More fish in the water, more food on the plate



“When fishermen see the ocean as a renewable resource, they will protect it. Together, we then can bring the ocean back to life.”

Amanda Leland
Senior VP Oceans

Growing up in New England, Amanda Leland always loved the sea. Her great-grandfather was a lobsterman, and as a kid she would fish for “blues” with her grandfather. The decline of the New England cod fishery inspired her career in marine science.

Leland, now EDF’s senior VP for oceans, recalls a fisherman once telling her, “If I don’t catch the last fish, someone else will.” She grew convinced that fishermen shouldn’t have to choose between conserving the resource and providing for their families. And as a marine biologist, she knew that smart management could unleash the ocean’s natural resilience and achieve a dramatic recovery in fish populations.

EDF has championed an innovative approach that grants fishermen secure rights to fish, now and in the future. This creates more of an incentive to fish sustainably, because local fishermen and their communities benefit





economically as the fishery grows and catch limits are raised. “With secure fishing rights,” says Leland, “fishermen’s incentives flip from catching as much as possible today to protecting the fishery for the long term.”

Globally, three billion people rely on seafood as an important source of protein, but 40% of the world’s fisheries are in trouble. Climate change, habitat loss, ocean pollution and other threats

contribute to the problem, but overfishing is the leading cause of fishery depletion worldwide.

Now, new research by EDF and partners at the University of California at Santa Barbara and the University of Washington quantifies the immense potential of fisheries to recover if we manage them properly. Presented at the 2015 World Ocean Summit in Lisbon, our research shows that sustainable fishing could more than double the number of fish in the water by 2050, in most places, when compared to current trends. A typical fishery could recover in just nine years.

EDF’s growing list of successes in the United States, Belize and Mexico demonstrates what’s possible with the right set of policies and incentives. We’re now focusing on a dozen governments that account for more than three-fifths of the global catch, including the European Union, where we helped reform the common fisheries policy, committing Europe to end overfishing by 2020.

Reforms at this scale could tip the global fishing economy so that sustainable methods of catching fish take hold worldwide.

THE OCEAN’S VAST POTENTIAL

New research by EDF and our partners shows that by 2050, compared to current trends, sustainable fishing could result in:



112%
more fish in the water



23%
more seafood on the plate

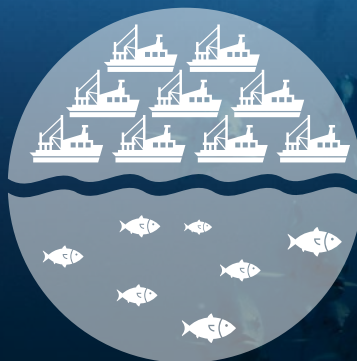


315%
increase in value

How fishing rights work

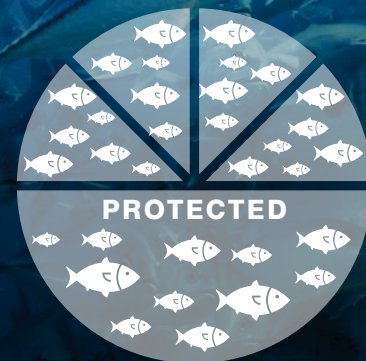
With secure fishing rights, a percentage share of the allowed catch—or a fishing area—is dedicated to individual fishermen, communities or fishery associations. The sustainable limit on the total catch is determined each year. Fishermen then have the flexibility to fish when they choose, so long as they stay within the limit.

PROBLEM: TOO MANY BOATS, TOO FEW FISH



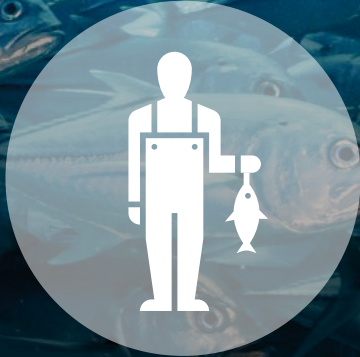
In a classic “tragedy of the commons,” fishermen try to catch the last fish before someone else does. In the frenzy, catch limits are breached, habitats are destroyed and fish are wasted, thus accelerating a downward spiral that can only end in collapse.

A SOLUTION BASED ON SCIENCE



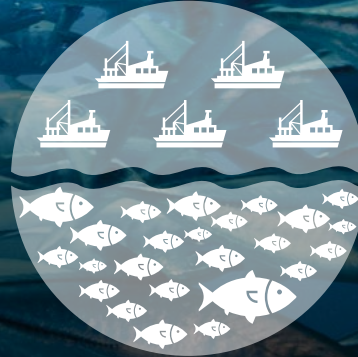
Scientists and policy makers determine a sustainable limit for each fishery that allows fish populations to rebound. Fishermen—or communities—are assigned percentage shares, based on their catch history. As fish populations recover, the percentage shares grow.

FISHERMEN CONTROL THEIR DESTINY



As owners of a renewable asset, fishermen now have a sense of security and take pride in their stewardship of the fishery for the long haul. With renewed dignity as providers for their families, they look forward to handing down their secure share of the catch to their children.

RETURN TO ABUNDANCE



Many fishermen who were once opponents of protected areas have become strong advocates. Secure fishing rights provide more fish in the water, more food on the plate and more prosperity for fishermen and fishing communities.

Granting fishermen secure fishing rights, known as catch shares in the United States, has proven successful in more than 200 fisheries around the world. The approach works because it aligns the needs of fishermen with the needs of the oceans and all the people who depend on them for food.

The path of U.S. fisheries reform



For centuries, people have thought of the oceans as an inexhaustible source of seafood. But generations of heavy fishing and ill-conceived management have proved devastating for fish and coastal communities.

In the United States, fishery managers typically tried to control fishing by shortening the season, which gave rise to dangerous races in which boats go out in any weather. In the frenzy, crews were forced to discard tons of dead or dying fish. The heavy-handed regulations failed to solve the overfishing problem.

EDF proposed a simpler, smarter approach: Why not reward fishermen for being stewards of the resource? We brought fishermen to Washington and helped end a Congressional moratorium on market-based methods to protect fisheries. We then helped design a catch share program for red snapper in the Gulf of Mexico. Since the program began in 2007, Gulf snapper



Joe Pennisi, a fourth-generation fisherman from Monterey, CA, has partnered with EDF to design a light-trawl net that cuts fuel costs and won't damage sensitive habitats.





U.S. catch shares save enough fish from being discarded to feed **17 million people** their seafood for an entire year.



populations have tripled, and other species such as grouper have been added to the program.

In 2010, NOAA adopted catch shares as part of its official policy, and EDF helped implement programs in New England and on the West Coast. Today, 65% of fish caught in federal waters are under catch shares. Fishermen who once fiercely competed now share information to avoid overfished species. And rather than fighting against protected areas, many are now putting this conservation tool into action on their own.

In 2015, the National Marine Fisheries Service declared that overfishing in U.S. waters

is steadily declining, in part due to catch shares. In recent years, 32 commercially important fish stocks have been restored, including several species of Pacific groundfish.

We're now working to develop catch share programs for recreational fishing, which accounts for half the red snapper catch in the Gulf of Mexico but currently is poorly managed. We're also using science to understand how fisheries are changing as a result of global warming and to help inform how fisheries can be managed for greater resiliency in the face of climate change.

Gulf Wild: The next wave in sustainable seafood

Wouldn't it be nice to know where the fish on your plate came from—and that it was caught sustainably? In the Gulf of Mexico, red snapper and grouper fishermen worked with EDF to create Gulf Wild, a system for verifying the safety, sustainability and location of their catch. At a time when up to a third of the seafood sold in the U.S. is mislabeled, the Gulf Wild label guarantees authenticity.



FROM GULF

Under catch shares, fishermen are assigned a percentage of the scientifically determined allowable annual catch. This permits them to fish when weather and market prices are good—and gives them an incentive to conserve, because their shares grow as fish populations recover.

TO DOCK

Fishermen who are part of Gulf Wild, like Buddy Guindon, sign a “conservation covenant” that commits them to practices above and beyond federal regulations. This reduces waste. “We’re catching bigger fish,” says Guindon, “and our prices at the dock have increased.”



TO MARKETS

The recovery of the fishery has been so remarkable that the Monterey Bay Aquarium took Gulf red snapper off the “Avoid” list of its Seafood Watch guide in 2013. Now consumers nationwide can get a steady supply of fresh, sustainably caught fish.



TO THE DINNER PLATE

As Gulf red snapper stocks rebound, chefs like Rick Moonen are featuring freshly caught snapper on their menus. More than 1.2 million Gulf Wild fish have been sold since the program began in 2011.

“This is exactly what diners are demanding. They want to know that the Gulf fish we are buying is authentic, safe and from a sustainable fishery. Gulf Wild provides that assurance.”

Chef Rick Moonen
RM Seafood, Las Vegas, NV

Reviving fisheries around the world

With the success of catch shares in U.S. waters, EDF scientists have been asked to advise on fishery management in other countries around the world. Similar approaches can work for large commercial fisheries in Europe and elsewhere, as well as for small-scale fisheries within a few miles of shore. Nearly half the wild fish people eat are caught in small-scale fisheries, many of which are poorly managed or have no rules at all.

Working with local fishermen and governments, EDF is using science to show how sustainable management can turn the tide.

In Belize, the Mesoamerican Reef—the largest barrier reef in the Western Hemisphere—supports more than 500 species of fish, but overfishing is taking a toll. EDF teamed up with the Wildlife Conservation Society and local partners to enlist fishermen and policy makers to help protect this extraordinary reef. The government authorized two fishing-rights pilot





projects in 2011. Under the programs, local fishermen have secure rights to fish in a designated area. In exchange, they help crack down on illegal fishing, a major problem.

After four years, fish populations are rebounding and illegal fishing has dropped 60%. That success led the government of Belize to ask for EDF's help rolling out the system nationwide. In 2015, the national cabinet approved the plan.

EDF fishing rights programs are also beginning to take hold in Mexico's Gulf of California, where we are helping restore the curvina fishery by reducing the total catch, boosting profits and ensuring the long-term

health of the species. To augment incomes, EDF helped create the Gulf's first women-run fishing cooperative.

"EDF's approach has the flexibility needed to adapt to varying cultural and legal circumstances," says Dr. Laura Rodriguez, oceans director for EDF de México.

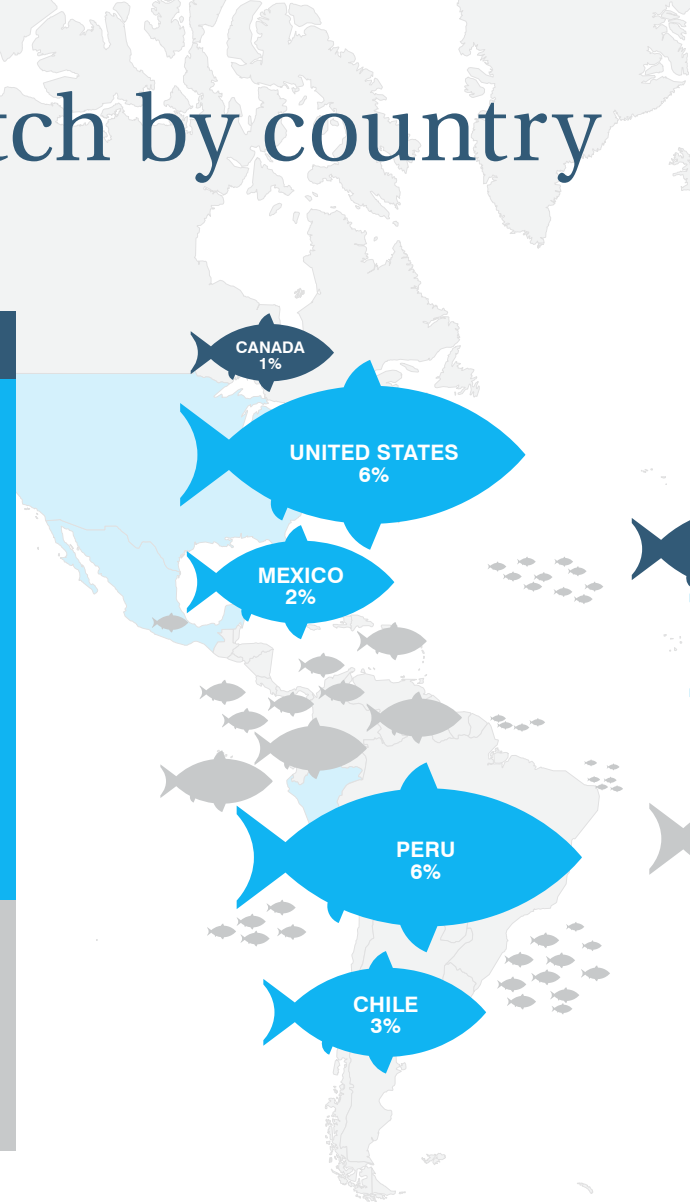
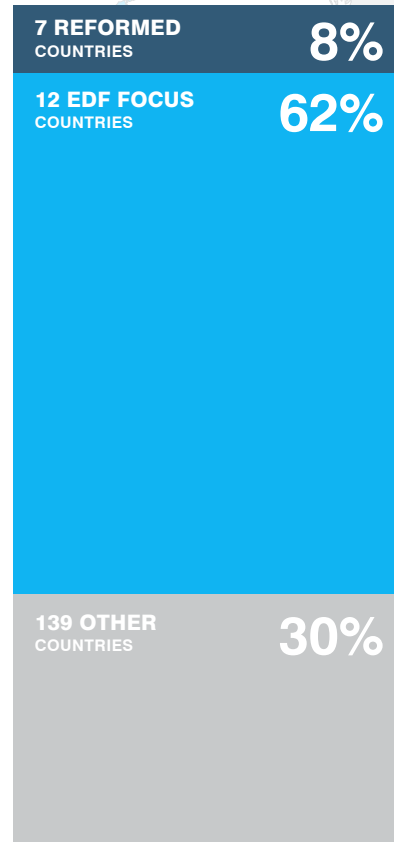
Now the idea is catching on. EDF has been invited to help with reforms in Asian states that produce nearly 20% of the world's seafood: Indonesia, Japan, Myanmar, the Philippines and the Pacific island states that together control the world's largest tuna fishery.

To succeed globally, fisheries reform must include the Asia Pacific region, one of the most heavily fished parts of the world. So EDF is working with fishermen, leaders and local partners in several key Asian countries.

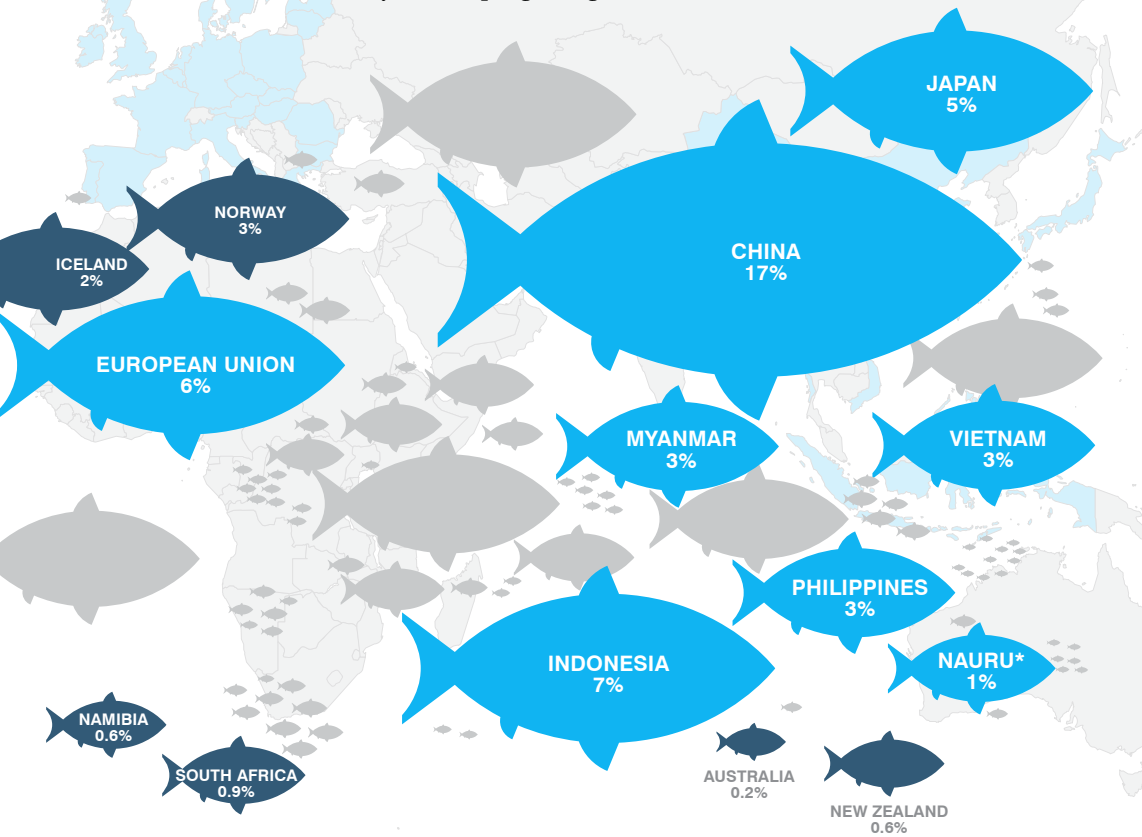
Oceans of abundance

EDF is providing practical, science-based advice to governments and partnering with fishermen to help make sustainable fishing the norm in countries that account for more than three-fifths of the global catch. Reforms at this scale could tip the entire global fishing economy toward sustainable fishing.

World catch by country



Seven countries, shown in dark blue, already have transformed their policies and practices to sustainable fishing. EDF is focusing on 12 additional governments, shown in bright blue and representing 62% of the catch. Many partners with essential local expertise, such as the Wildlife Conservation Society, are helping bring about reforms in these areas.



*Nauru refers to the Parties to the Nauru Agreement governing tuna fishing: Micronesia, Kiribati, the Marshall Islands, Nauru, Palau, Papua New Guinea, the Solomon Islands and Tuvalu. All percentages for 2012.

“EDF takes a pragmatic approach and works with fishermen and tries to involve them. That has enormous potential at the EU and national level.”

John Goodlad
Chair, Fisheries Innovation Scotland

A shared vision for Cuba

A half-century of limited development has meant that Cuba's coastal waters have escaped much of the devastation seen elsewhere in the Caribbean. This could soon change. As Havana opens the door to private enterprise and tourism, safeguards are critically needed.

Operating under a special license from the U.S. government, EDF has been working with Cuban scientists for 15 years. Our efforts helped build and support an island-wide network of marine protected areas, including the Gardens of the Queen, a marine park that teems with large fish rarely encountered in the region.

This success helped set the stage for a formal U.S.-Cuba agreement in 2015 to collaborate on the science and management of marine protected areas. Such joint scientific work is critical for the two countries, whose ecosystems are interconnected.

Sharks are particularly vulnerable. Populations of some large sharks have fallen dramatically, perhaps by as much as 90% in the Gulf of Mexico. In 2015, EDF helped the Cuban government develop its national plan of action for sharks. The plan includes protection for juveniles, improved monitoring of threatened species and conservation areas where fishing for sharks is prohibited.

To curb overfishing, the Cuban government is also engaged in an initiative with EDF called SOS Pesca aimed at combining fishing rights with catch limits and marine protected areas. This community-based project will equip local leaders with the tools to manage their own fisheries.

“Our goal is to build capacity to protect our shared resources,” says Dan Whittle, director of EDF's Cuba program.





EDF and Cuban scientists have identified possible nursery grounds for globally threatened whitetip sharks off Cuba's northwest coast.



Cuba has 3,000 miles of coastline and four primary reef systems, each roughly as long as the Florida Keys.

AN OCEANS CHAMPION: KATHRYN MURDOCH



“Overfishing is a problem we can turn around in years—not decades,” says Kathryn Murdoch, speaking of her close partnership with EDF’s staff to revive the world’s fisheries.

Murdoch, an avid scuba diver, is an EDF trustee and co-founder of the Quadrivium Foundation with her husband, James Murdoch.

“I believe in EDF because they understand human nature,” she says. “Most people want to do the right thing, but they need help to align their economic needs with conservation goals. That’s where EDF excels.”

Murdoch believes that most people see environmental problems as too big and hopeless. “EDF shows there are solutions. We can do this,” she says. It’s a message she wants to share. “You don’t have to be an environmentalist. People who care about poverty, health, children and nutrition can all get behind this work.”

“Every bit of what EDF does is grounded in science. I really respect that.”

Kathryn Murdoch

“EDF habitat exchanges offer conservation options suited to our changing circumstances. Every credit sale makes species and habitat better off.”

Steve McCormick

*Former President and CEO,
The Nature Conservancy*





Ecosystems

Making conservation pay



“If we are going to meet our growing needs for food and water and energy, we will have to do it in ways that stop harming the environment and start helping the ecosystems we depend on to survive.”

David Festa
Senior VP Ecosystems

Twenty years ago, EDF wanted to test a new idea: Would offering rewards for practices that improve ecosystems result in the widespread adoption of those practices?

Acting on the theory that most private landowners want to be good stewards, we introduced a way for them to protect habitat without restrictions that kept them from making a living. The result—Safe Harbor—saved more than four million acres of prime habitat.

Ever since, EDF has sought to balance human interests with the needs of ecosystems. We mobilize financial, legal and technical incentives to reward landowners who restore habitat and reduce pollution.

With climate change putting added stress on ecosystems today, we need to protect our land, water and wildlife at a scale never before attempted. EDF aims to increase the resilience of these systems so they can thrive, even under

stress. That means working hand in hand with the people whose livelihoods are tied to healthy land and water.

Today, thanks to public-private partnerships launched by EDF, landowners nationwide are frontline stewards of clean water, healthy air, vibrant habitat and a stable climate. Where EDF and its partners work, coastal erosion, fertilizer runoff, habitat loss and water consumption are being decreased. And landowners are discovering that when they improve land and freshwater systems, they save money.

“Inevitably, when I’m on a farm or a ranch, the owner often starts talking about the wildlife and the water quality,” says David Festa, EDF’s senior VP for ecosystems. “The habitat they restore is often their favorite part of the ranch. They can’t stop talking about it.”



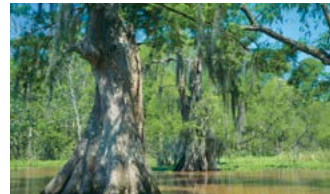
EDF landowner partners:



Apply fertilizer precisely to reduce nutrient runoff harmful to aquatic life, improve water quality and reduce greenhouse gas emissions.



Create and improve wildlife habitat to help at-risk species.



Restore wetlands to filter pollution, protect communities from floods and recharge groundwater, building resilience against droughts.



Improve soil health to reduce the impacts of climate change and enhance food security.

A Hill Country success

Fort Hood Army Base in Texas is home to the largest population of golden-cheeked warblers. The base needed to conduct maneuvers, so EDF created a habitat exchange, allowing the Army to pay nearby ranchers to improve warbler habitat on their properties. Once-skeptical landowners expanded habitat. The result? The known population of **warblers nearly doubled** from 5,000 to 9,000 birds. The cost? One-eighth of what easements would have cost.

The endangered golden-cheeked warbler nests only in central Texas.





“I’d still be fighting the U.S. government if it weren’t for EDF. Thanks to you guys, I’ve seen a huge change in how the U.S. Fish and Wildlife Service works.”

Kerry Russell

Texas rancher who restored warbler habitat on his land at the edge of Austin

Bringing conservation into the 21st century with habitat exchanges



Celebrated for its colorful courtship displays, the greater sage grouse is in trouble. Once numbering in the millions, the bird's population has plummeted by more than 70%.

In fast-changing rural America, existing tools for protecting wildlife can no longer preserve habitat on a large enough scale. Dozens of species slip closer to extinction as conflicts between developers, landowners and conservationists escalate.

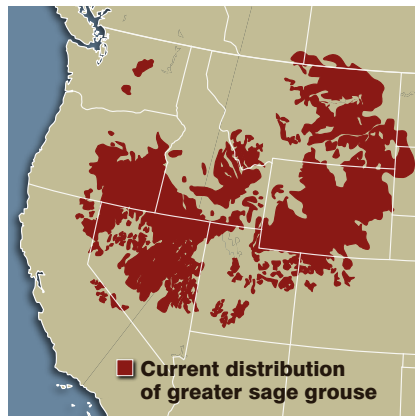
Nowhere is the urgency greater than in the West, where the oil and gas boom threatens a shy bird that symbolizes the Western prairie—the greater sage grouse. In 2015, the U.S. Fish and Wildlife Service considered listing the sage grouse under the Endangered Species Act, a move that would have triggered costly legal battles throughout the bird's 11-state range, without any guaranteed benefit for the bird.

EDF had a different idea. We developed incentives for private landowners, industry and conservationists to share resources, so that everyone wins, including the sage grouse.

With EDF habitat exchanges, ranchers and farmers are paid to improve habitat on their working lands and to play host to appropriate wildlife—much the way Airbnb lets homeowners get paid for taking in travelers. A company that degrades habitat is required to fund the creation of enough better-quality terrain to more than compensate for the damage it causes. EDF



Sage grouse are dependent on sagebrush for both food and cover. Protecting their habitat will benefit the entire ecosystem, not just one species.



scientists helped develop a reliable way to gauge the impacts and benefits to the grouse.

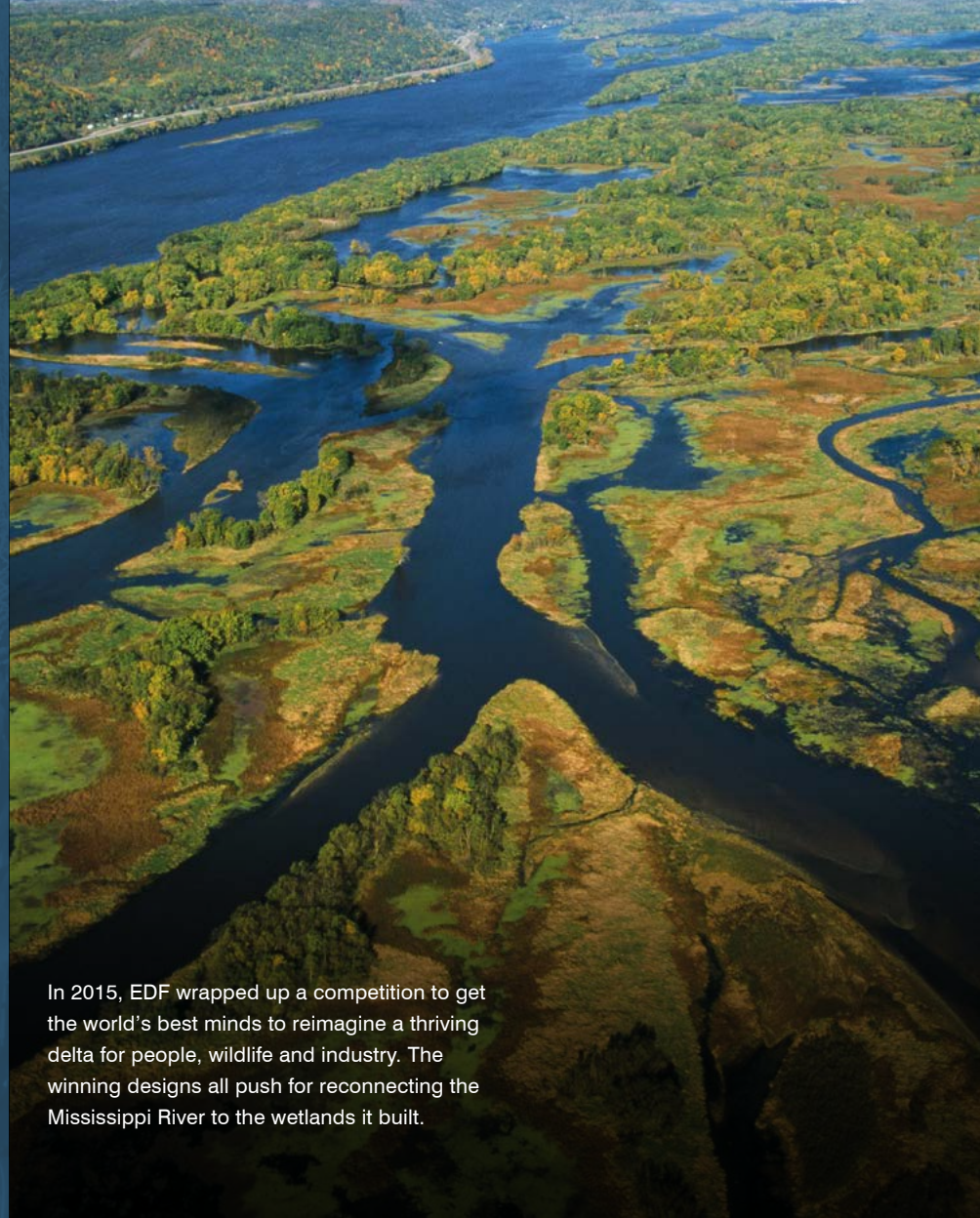
Impressed by the program, Colorado Governor John Hickenlooper helped EDF develop an exchange for sage grouse. “It’s inspiring to see Colorado ranchers, conservationists and business leaders come together for this iconic bird,” the governor said. Colorado, Nevada and the federal Bureau of Land Management now recognize habitat exchanges as a way to save imperiled species without onerous regulations.

By mid-2015, EDF and its partners won enough restoration commitments from ranchers to persuade the Fish and Wildlife Service that a sage grouse listing is not warranted.

“Securing the future of the sage grouse without having to resort to the Endangered Species Act’s safety net is a win for wildlife and people across the West,” says Fish and Wildlife Service director Dan Ashe. “I never thought I would be so happy and so proud to hear the words ‘not warranted.’”

Justice comes to America's grandest delta

The world's largest coastal restoration is ramping up in Louisiana, thanks to the infusion of billions of dollars from BP's settlement for damages from the 2010 oil disaster. **EDF has been working to make sure the money leaves coastal communities better off**, while helping to lead science and policy efforts to restore the state's vanishing coastal wetlands.



In 2015, EDF wrapped up a competition to get the world's best minds to reimagine a thriving delta for people, wildlife and industry. The winning designs all push for reconnecting the Mississippi River to the wetlands it built.



In California's Central Valley, 90% of disadvantaged communities rely exclusively on private wells, many of which have gone dry. We're making sure they benefit from sustainability plans.

Helping California weather the drought

California's underground aquifers are vital for drinking water, farms and ecosystems, but many are being sucked dry faster than nature can replenish them. EDF is helping at-risk counties develop **market mechanisms to sustainably manage their groundwater**. We're also developing policy reforms for water trading to benefit ecosystems and disadvantaged communities.

On the farm, thinking like an ecosystem

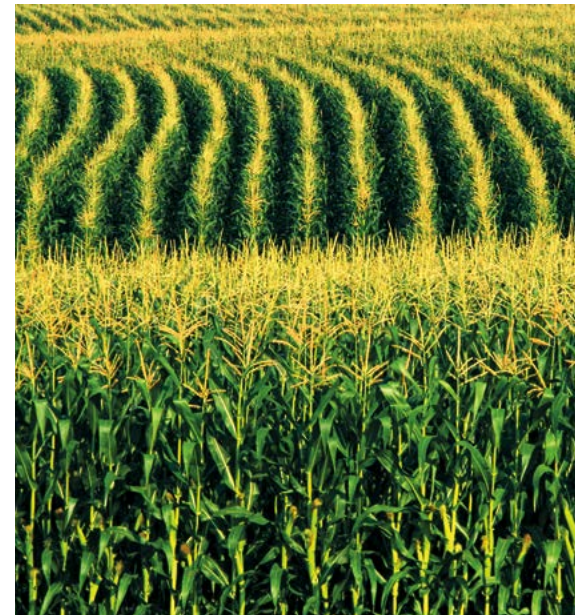
In August 2015, the “dead zone” in the Gulf of Mexico swelled to 6,474 square miles, the size of Connecticut and Rhode Island combined. Such algae blooms, driven by fertilizer, regularly choke marine life and threaten drinking water for millions from Lake Erie to the Chesapeake Bay. Excess fertilizer also forms nitrous oxide, a potent greenhouse gas. The problem is, farmers often don’t know exactly how much fertilizer to use, so they tend to apply too much.

EDF is tackling the issue with a focus on corn, the biggest source of fertilizer runoff. Over the past decade, working with crop managers and others, we’ve helped farmers on 750,000 acres in 12 states cut fertilizer loss by an average of 25%—while maintaining yields. We’re also advocating natural filters such as wetlands to keep the nation’s waterways healthy.

But to truly solve the problem, we need to scale up this approach nationwide. The fastest

way to make sustainable practices the norm in U.S. food production is to get major food companies and agribusiness on board. So EDF teamed up with Walmart, the nation’s largest grocer, to create demand for sustainably produced grains. With such a signal, the response wasn’t long in coming: United Suppliers, whose members advise growers managing 45 million acres, developed a plan to cut fertilizer and soil loss. In 2015, Campbell’s Soup, General Mills and others asked EDF to help them implement the plan to improve growing practices for their products. Together, a range of companies have committed to adopt best practices on 23 million acres by 2020.

“Besides saving money, I feel good that my operation is helping improve water quality and keeping fertilizer out of lakes and rivers,” says Brent Bible, a farmer who grows corn and soybeans on 3,000 acres in northwest Indiana.





EDF is working with farmers and businesses to improve farming practices. So far, 15 companies representing 30% of the U.S. food and beverage market have committed to using fertilizer more efficiently and improving soil health.



Twenty times more fertilizer is used in the Corn Belt today than in the 1950s—but half of what's applied isn't absorbed by crops, leading to air and water pollution. The fertilizer crisis could become "one of the costliest and most challenging" of the 21st century, EPA says.

ALLIES FOR WILDLIFE

"We are looking for practical solutions that work for the environment and for people, and that is EDF's mission," says Gary Knoblock, lead program officer for the S. D. Bechtel, Jr. Foundation.



EDF's habitat exchange approach helps achieve one of the foundation's core goals: advancing conservation on privately owned land in California. "Habitat exchanges help make landowners allies in protecting habitat, and that's a powerful paradigm shift," says Knoblock. "Landowners and state and local government officials are keenly interested in new approaches that can work."

The foundation shares EDF's focus on results. "With habitat exchanges, we can measure concrete benefits to the ecosystem from the money spent on conservation," Knoblock says. "Previously, that's been quite hard to do."

"Conservation is our goal, but it has to be in the context of practical solutions. EDF excels at that."

Lauren B. Dachs

President, S. D. Bechtel, Jr. Foundation

Financial overview

Environmental Defense Fund’s work entails a lasting commitment to preserve natural systems on which life and livelihoods depend. We must maintain the financial strength needed to fund this long-term effort.

EDF continued to grow during fiscal 2015, as total operating expenses reached \$145 million, an 8% increase over fiscal 2014. A significant portion of this year’s work was supported by restricted multiyear grants awarded in prior years. Nonprofit accounting principles require us to record income in the year funds are raised, not in the year designated for use.

Support and revenue of \$146 million in fiscal 2015 showed sound fund-raising strength. Non-foundation funding increased 22%, with more than two-thirds of total support and revenue coming from individual contributions and membership.

Program spending in fiscal 2015 was 85% of total expenses. Development represented 7% of expenses, while management and administration was 6%. Membership and new member acquisition totaled 2%.

Over the past five years, EDF’s net assets have grown almost 50% to \$209 million, providing a strong financial foundation as we embark on the ambitious goals of *Blueprint 2020*, our strategic plan for the next five years.

We are thankful for your support and realize that as more donors recognize EDF’s innovative program work, we have an ongoing responsibility to steward your investment well, while delivering strong results for the environment and human health.

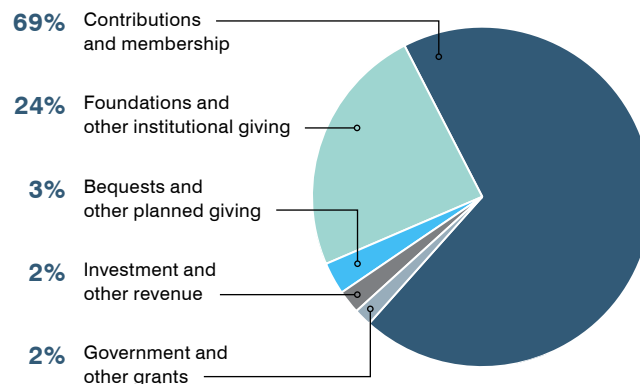
Cynthia Hallenbeck
Chief Financial Officer

TOTAL PROGRAM AND SUPPORTING SERVICES EXPENSES

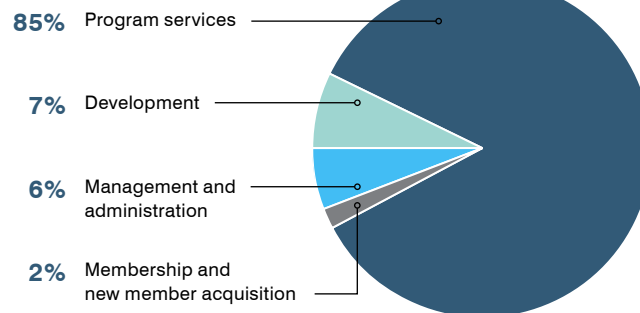
In millions of dollars



SOURCES OF SUPPORT AND REVENUE



EXPENSES



STATEMENT OF ACTIVITIES

Year ended September 30

| | Unrestricted | Restricted | Total 2015 | Total 2014 |
|---|----------------------|----------------------|----------------------|----------------------|
| OPERATING SUPPORT AND REVENUE | | | | |
| Support: | | | | |
| Contributions and membership | \$ 19,810,682 | \$ 80,877,337 | \$100,688,019 | \$ 81,403,557 |
| Foundations and other institutional giving | 192,414 | 34,476,898 | 34,669,312 | 60,974,093 |
| Bequests and other planned giving | 4,270,009 | – | 4,270,009 | 3,360,690 |
| Government and other grants | 178,127 | 2,516,192 | 2,694,319 | 3,356,721 |
| Total support | 24,451,232 | 117,870,427 | 142,321,659 | 149,095,061 |
| Revenue: | | | | |
| Investment income allocated for operations | 2,359,909 | 282,629 | 2,642,538 | 2,477,537 |
| Fees, royalties and other income | 659,511 | 30,000 | 689,511 | 670,794 |
| Total revenue | 3,019,420 | 312,629 | 3,332,049 | 3,148,331 |
| Net assets released from restrictions | 121,826,086 | (121,826,086) | – | – |
| Total support and revenue | 149,296,738 | (3,643,030) | 145,653,708 | 152,243,392 |
| EXPENSES | | | | |
| Program services: | | | | |
| Climate and energy | 66,537,070 | – | 66,537,070 | 60,419,668 |
| Oceans | 21,148,146 | – | 21,148,146 | 21,190,430 |
| Ecosystems | 19,940,260 | – | 19,940,260 | 18,941,562 |
| Health | 7,096,924 | – | 7,096,924 | 5,937,427 |
| Education | 5,986,910 | – | 5,986,910 | 5,381,835 |
| Membership activities | 1,975,333 | – | 1,975,333 | 1,061,942 |
| Total program services | 122,684,643 | – | 122,684,643 | 112,932,864 |
| Supporting services: | | | | |
| Management and administration | 8,440,051 | – | 8,440,051 | 8,296,709 |
| New member acquisition | 301,533 | – | 301,533 | 509,583 |
| Fundraising: | | | | |
| Membership | 2,801,490 | – | 2,801,490 | 2,466,492 |
| Development | 10,823,624 | – | 10,823,624 | 9,791,106 |
| Total supporting services | 22,366,698 | – | 22,366,698 | 21,063,890 |
| Total operating expenses | 145,051,341 | – | 145,051,341 | 133,996,754 |
| Change in net assets from operations | 4,245,397 | (3,643,030) | 602,367 | 18,246,638 |
| Other expenses, net of contributions and other income | (730,572) | – | (730,572) | (51,195) |
| Investment results, net of allocation to operations | (2,030,497) | 100,965 | (1,929,532) | 1,199,958 |
| Change in net assets | 1,484,328 | (3,542,065) | (2,057,737) | 19,395,401 |
| Net assets, beginning of year | 47,358,467 | 164,168,732 | 211,527,199 | 192,131,798 |
| Net assets, end of year | \$ 48,842,795 | \$160,626,667 | \$209,469,462 | \$211,527,199 |

This statement of activities represents the consolidated activities of Environmental Defense Fund, Incorporated, EDF Action and California Fisheries Fund, Inc. Copies of the complete audited financial statements are available upon request or at edf.org/audit.

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