

and the los

13

## 2022 IMPACT REPORT

A vital Earth. For everyone.

- 3 Thank you from EDF's leadership
- 4 U.S. commits to historic climate action
- 6 Tackling methane around the world
- 8 Groundbreaking partnership for rainforests
- 10 The science of clean air
- 12 Plentiful food for a global population
- 14 Combating drought in the American West
- 16 Training the climate pioneers of tomorrow
- 18 Where our funding comes from

### **EDF: a growing global force**

3 MILLION DEDICATED MEMBERS AND ACTIVISTS

### 1K+

MORE THAN 1,000 SCIENTISTS, ECONOMISTS, POLICY EXPERTS, LAWYERS AND MORE



STRATEGIC INITIATIVES AND PARTNERSHIPS IN 30 COUNTRIES

# A landmark year for climate

Your unflagging commitment delivered remarkable progress this year — including U.S. climate action that many had thought impossible. The Inflation Reduction Act, the biggest climate investment in America's history, is projected to help cut U.S. emissions more than 40% by 2030.

It's been a turbulent year as well. War and a lingering pandemic remind us that no crisis occurs in isolation. As we work to stabilize the climate, we also support people's health and strengthen the ability of people and nature to thrive. Thanks to you, we continue to develop partnerships to drive the changes necessary to build a vital Earth, for everyone.

#### You expanded our global reach

We collaborate with local experts to develop durable, local solutions to global problems. For example, in India we are developing partnerships to improve the diet and health of dairy cattle, boosting livelihoods and nutrition while also reducing climate pollution from animal agriculture. This report is filled with dispatches from our deeply rooted work across the world.

#### You advanced scientific impact

Our scientists ask questions that guide environmental progress and facilitate informed

policy decisions. For example, this year, as dozens of countries embarked on plans to develop hydrogen energy, our research revealed that hydrogen leaks can have serious near-term climate consequences. Now, the European Union is funding research on leak detection, citing EDF's work. And the U.S. Department of Energy is recommending that infrastructure for an \$8 billion hydrogen initiative be designed to minimize leaks.

#### You put communities first

People are at the heart of our work. In New York, we led a campaign to educate voters about a \$4.2 billion environmental bond proposal. This historic investment in climate, environmental justice, health and community flood protection passed with overwhelming support. We are also supporting the development of the Frontline Resource Institute, an organization guided by environmental justice leaders that helps community groups on the frontlines of climate change access resources and technical assistance.

This report features many more highlights of a year to remember. And it marks just the beginning of what we can achieve together.

We give you our heartfelt thanks.

Ananderkland

Amanda Leland | Executive Director

Tred Brupp

Fred Krupp | President

m/

Mark Heising | Chair, Board of Trustees





T IS THE BIGGEST INVESTMENT IN CLIMATE ACTION in U.S. history — and together we helped get it passed. With \$369 billion in clean energy and climate resilience investments, the Inflation Reduction Act promises to help reduce heat-trapping emissions by 40% by the end of the decade, putting the U.S. within reach of its climate commitments while demonstrating climate leadership around the world.

<u>This victory was hard won</u>. Time and time again, negotiations appeared to stall. But EDF staff continued to meet with key senators on Capitol Hill to push it across the finish line. Our experts also provided extensive technical assistance to the bill drafters to maximize the impact of the final legislation.

The transformational law will give a major boost to renewable energy, accelerate the transition to electric vehicles, slash climate-destroying methane pollution from oil and gas operations and promote climate-smart agriculture. The law is projected to create more than 9 million jobs and it channels unprecedented resources toward environmental justice efforts. The investment bank Credit Suisse predicts that, over the next ten years, the law will result in roughly \$1.7 trillion in climate investments. It also includes extensive amendments to the Clean Air Act, strengthening the Environmental Protection Agency's authority to combat climate change.

This win builds on the progress made last year with the \$1.2 trillion bipartisan Infrastructure Act. As lawmakers wrangled over language, EDF worked to retain many of the most important priorities, including funding for electric vehicle charging stations and electric buses, <u>cleaning up</u> <u>abandoned oil and gas wells</u> and replacing lead pipes. The measure also includes \$47 billion to help communities prepare for extreme floods, storms and droughts that are worsened by climate change.

EDF is now working with stakeholders including the African American Mayors Association, communities and businesses to ensure the new laws deliver on their promises.

### **60K** EDF ACTIVISTS COMPLETED 60,000 EMAILS, CALLS AND CONSTITUENT MEETINGS TO HELP PASS THE INFLATION REDUCTION ACT.

77

The Inflation Reduction Act is the biggest, most transformative climate measure in U.S. history, one that will move us into the era of affordable clean energy while creating family-sustaining jobs and healthier communities. It was a long road to get here and EDF was with us every step of the way.

#### — Tom Carper

U.S. Senator (D-Delaware)





**Watch** Peek behind the scenes to see how EDF helped to pass a historic climate law. (<u>edf.org/IRA2022</u>) METHANE

# Tackling methane around the world

The oil and gas industry is a major source of methane pollution worldwide.

**ODAY'S METHANE POLLUTION COULD WARM THE** planet more over the next 10 years than carbon dioxide from burning fossil fuels. EDF's groundbreaking science made clear that cutting methane is the fastest way to slow global warming. Now our expertise is guiding methane reduction efforts in countries and companies across the globe.

In the U.S., new draft regulations to cut oil and gas methane pollution are the nation's strongest and most comprehensive yet. They draw on a decade of EDF research and rules we helped develop and enact in key oil and gas states, Canada and Mexico. Starting in 2024, the U.S. will charge polluters a fee for excess methane emissions — the first-ever U.S. federal price on climate pollution.

In the European Union, we successfully campaigned for regulations on domestic methane pollution from oil, gas and coal. As the bloc — the world's largest importer of natural gas — seeks to reduce its dependence on Russian fossil fuels, it is advising member countries to source gas that would otherwise have been wasted as methane pollution.

And in 18 nations and counting, from Asia to the Americas, Africa and the Middle East, hundreds of regulators, lawmakers and oil and gas industry representatives have joined methane reduction workshops developed by EDF. We're building a global cohort of experts working to cut methane.

To date, 150 countries have signed the Global Methane Pledge to reduce methane pollution by 30% by 2030. With this progress, and the 2023 launch of a groundbreaking satellite from EDF affiliate MethaneSAT, which will locate and measure methane pollution almost anywhere on Earth, we are forging a new path for climate action.

### **30%** RAPIDLY REDUCING METHANE POLLUTION COULD SLOW THE RATE OF GLOBAL WARMING AS MUCH AS 30%.

### "

Environmental Defense Fund's cutting-edge methane science and constructive engagement over the past decade have spurred companies and countries to action on methane pollution and helped make the Global Methane Pledge possible. They've been a critical partner on a critical issue for energy and climate.

Fatih Birol
Executive Director,
International Energy Agency



EDF showcased MethaneSAT's leak detection capability at ADIPEC, an influential global energy conference in Abu Dhabi, in fall 2022.

TROPICAL FORESTS

# Groundbreaking partnerships save rainforests and fight climate change

HERE IS NO WAY TO STABILIZE THE CLIMATE WITHOUT conserving tropical forests, and Indigenous peoples and local communities have long been powerful leaders in this fight. EDF is supporting these forest guardians by helping ensure they have the local control and financial resources to keep forests thriving for us all.

This year, we helped publish the <u>Tropical</u> <u>Forest Credit Integrity Guide</u>, which sets out five principles to help companies invest in forest conservation that delivers lasting climate and biodiversity benefits and directly supports forest communities. Developed by Indigenous peoples' organizations and a group of leading environmental nonprofits, including EDF, WWF, The Nature Conservancy and World Resources Institute, the guide will bolster demand for, and supply of, high-quality forest carbon credits. The LEAF Coalition, which we helped launch last year, is continuing to grow in size and scope. Backed by the U.S., the U.K., Norway and some of the world's biggest companies, including Amazon, LEAF (Lowering Emissions by Accelerating Forest Finance) is the largest-ever public-private investment in tropical forests. The program has received 37 proposals from jurisdictions in Africa, Asia and the Americas seeking to sell forest credits that would preserve more than half a billion hectares of forest — an area larger than the European Union.

LEAF's system of independent, third-party measurement and verification ensures projects are genuinely preserving forests and benefiting Indigenous and local communities. LEAF is on track to begin providing funding in 2023 and has already received pledges well in excess of \$1.5 billion — a historic step toward the goal of ending deforestation by 2030.

### 250 BILLION METRIC TONS, OR AROUND ONE-QUARTER OF ALL TERRESTRIAL CARBON ON THE PLANET IS STORED IN TROPICAL FORESTS.

### "

We are proud to be a co-founder of the LEAF Coalition, a scalable mechanism for financing tropical forest protection and reducing emissions from deforestation.

— Kara Hurst

Vice President, Worldwide Sustainability, Amazon



EDF's Indigenous Peoples Partnerships liaison, Santiago Garcia Llore (right), with international advocate Tuntiak Katan of the Shuar Nation, Ecuador. Forests on Indigenous peoples' lands have lower deforestation rates than lands managed by other groups.

HEALTH

### The science of clean air

Free to play: EDF is powering clean air progress in India and across the world.

HANKS TO YOUR SUPPORT, IT'S NOW POSSIBLE TO not only identify the pollutants in our air, but also pinpoint where they are coming from. This is part of our broader effort to help policymakers, community groups and the private sector hold polluters accountable.

For example, in India, where air pollution is a leading cause of death and disease, EDF and The Energy and Resources Institute consolidated 200 emission inventory reports into a single, national database. This gives city regulators and pollution control boards the ability to identify air pollution sources — a critical first step toward tighter regulation.

EDF and the World Resources Institute continue to lead Clean Air Catalyst, a five-year program funded by the U.S. Agency for International Development that works to identify and close data gaps while helping develop local solutions to address pollution. Launched in 2021, the pilot cities include Indore, India; Nairobi, Kenya and Jakarta, Indonesia, where WRI is the implementing partner. In the U.S., we launched a multi-city project that combines air quality and weather data with real-time scientific analysis to track polluters and the communities most impacted by dirty air. Air Tracker is now available in Houston, Pittsburgh, Salt Lake City, Birmingham, AL and Vallejo, CA, with more cities to come.

A 2022 report commissioned by EDF scientists found that reducing concentrations of fine particulate matter — a tiny but deadly form of pollution caused primarily by burning fossil fuels — would save nearly 20,000 lives a year and reduce incidents of heart and lung disease that disproportionately affect Black, Hispanic and low-income areas. Community members and EDF used this information to advocate for more protective standards, and the EPA is now reviewing the national limit.

### "

General Motors has the ultimate goal of eliminating tailpipe emissions from new light duty vehicles by 2035. As new standards are being developed, we are pleased to join the Environmental Defense Fund to provide recommendations that support accelerated adoption of electric vehicles to put us on the path toward that goal.

 Mary Barra CEO, General Motors





**Watch** We're supercharging the transition to electrification and tackling America's biggest source of air pollution. Our goal? That all new car and truck sales are clean by 2035. (edf.org/Electrification) FOOD SECURITY

On land and at sea, plentiful food for a growing global population

Eduardo Tume, who passed away from COVID-19 in 2021, was a passionate advocate for sustainable fisheries on Peru's northern coast.

ROUND THE WORLD, CLIMATE CHANGE THREATENS food security for millions. In the U.S., as changing weather patterns bring both deluge and drought, our cutting-edge science is quantifying the challenges ahead for staple crops — wheat in Kansas, corn in Iowa and soybeans in Minnesota — and finding ways to help farmers adapt and thrive, with lower emissions and costs. We co-founded the Food and Agriculture Climate Alliance to develop and advocate for climate policies with agriculture stakeholders.

The alliance called on the U.S. Department of Agriculture to fund projects that reduce greenhouse gas emissions and sequester carbon, while creating and expanding markets for climate-smart crops and livestock. This year, USDA allocated over \$3 billion to pilot projects. EDF contributed to multiple proposals that were awarded grants under the program, including dedicated funding for smaller-scale, Indigenous and Black producers.

In tropical nations, warming waters are driving fish away from the billions who rely on seafood as a vital source of protein. We are working with more than 100 communities across 12 countries to highlight the role of seafood in meeting nutritional needs, including:

- Indonesia, to help sustainably manage the blue swimming crab fishery in two key provinces where crabs provide livelihoods to hundreds of thousands of people;
- Belize, to help develop a finfish management plan that further establishes the country as a model for climate-resilient fisheries management;
- Chile, Peru and Ecuador, to launch a multinational scientific collaboration to predict and alert countries to the impacts of climate change on ocean health and fisheries that feed hundreds of thousands of people.

In the U.S., we launched the <u>Coalition for</u> <u>Sustainable Aquaculture</u> to advocate for legislation that would create rigorous standards for offshore aquaculture. The legislation would create a homegrown industry in healthy, more climate-friendly seafoods while benefiting historically disadvantaged and excluded communities.

### 

Our collaboration with EDF has been extremely fruitful, allowing us to advance important research to predict and alert fisheries actors to the impacts of climate on ocean health. Together, we're fostering a long-term vision for responding to a changing climate in the Humboldt Current.

— Dr. Carlos Montenegro

Director of Fisheries, Chile Fisheries Development Institute



EDF works with farmers, including North Carolina's Millard and Connie Locklear, to help them reap the financial and environmental benefits of sustainable and climate-resilient practices.

WATER CONSERVATION

## Defying unprecedented drought in the American West

Dry times for California's Lake Oroville and other reservoirs across the West. N CALIFORNIA'S CENTRAL VALLEY, OVER A MILLION PEOPLE are without a reliable source of drinking water. In 2020, your generosity allowed us to launch the world's first open-source water accounting and trading platform — an online tool that helps California farmers track and save water and avoid depleting drinking water wells in local communities. This year, the California Department of Water Resources teamed up with EDF to work toward making the platform available to more than 260 groundwater sustainability agencies, responsible for managing up to 60% of California's water supply during dry years.

In another response to the most extreme megadrought the Southwest has seen in at least 1,200 years, California awarded \$40 million in grants to help landowners begin to transition up to 1 million acres of irrigated farmland to habitat for wildlife, recreational spaces and other uses that require less water. The grants are part of California's new land repurposing program, which was modeled after EDF-sponsored legislation in the state. EDF was chosen to co-lead the implementation of the program.

OpenET, an online platform co-developed by EDF that uses satellites to measure water consumed by crops, is putting easy-to-use water data into the hands of farmers and water managers across the West. Four states in the Upper Colorado River Basin are using satellite data to enable more collaborative and responsive decision-making across state lines as the river's reservoirs, which provide water to 40 million people, plummet to dangerously low levels.

The OpenET team is now working to provide scientifically robust water data outside the western U.S. — beginning in Mississippi's Alluvial Plain and Mexico's Mexicali Valley to guide improved water management at all scales, from small-scale farmers to large water districts and entire states.

**17** SATELLITE-BASED WATER MANAGEMENT DATA IS HELPING 17 WESTERN U.S. STATES TO MANAGE WATER SUPPLY AND DEMAND AMID RECORD DROUGHT.

### "

EDF's scientific and policy expertise, along with its ability to bring diverse parties together to find common ground and agreement, is helping us prepare for a drier future by reimagining how we use and share water in the West.

#### — Karen Ross

Secretary, California Department of Food and Agriculture



Multiple benefits: California's new land repurposing program will save water and create habitat for endangered species such as the San Joaquin kit fox.

YOUNG LEADERS

### Training climate pioneers across the world

Climate Corps<sup>®</sup> alumni and EDF staff at a climate advocacy workshop in New York in September 2022.

IFTEEN YEARS AGO, EDF'S CLIMATE CORPS<sup>®</sup> PROGRAM began with just eight MBA students who spent a summer helping a handful of companies improve their energy efficiency.

Since then, 1,500 graduate students have been trained and placed in summer fellowships to power environmental progress at hundreds of top-tier companies and organizations across the world. Together, they've helped companies reduce emissions, improve supply chain sustainability, advance environmental justice and more.

In 2022, we recruited more than 200 fellows to organizations in India, China and the U.S. They worked on projects including supply chain sustainability at Williams-Sonoma, mapping a path to net zero emissions at Google and, for the first time, tackling food waste at grocery chains such as Albertsons.

The Climate Corps fellowship has also launched impressive careers. Former fellow Jenny McColloch is now Chief Sustainability Officer for McDonald's, one of 1,200 alumni who continue to work on climate or energy issues in more than 40 countries.

EDF also empowers young leaders through Defend Our Future, which harnesses the talents and passion of college students across America. This year, leading up to the passage of the Inflation Reduction Act the most ambitious climate legislation the U.S. has ever passed — Defend Our Future activists organized and participated in more than 100 events and meetings to urge elected officials to protect our climate.

Students also attended a multi-day training on community organizing in Washington, D.C., hosted and led by Defend Our Future staff. For Allyssa Wright, from New Mexico State University, the training was her first visit to the U.S. Capitol. "It was empowering to connect with students from across the nation who are also motivated to create change," she said.

### 

The EDF Climate Corps program was critical to calculating Lyft's carbon footprint and establishing the groundwork from which our sustainability program will be built.

#### — Sam Arons,

Former Director of Sustainability, Lyft, Inc.

Lyft has hosted eight Climate Corps fellows and committed to using only electric vehicles by 2030.



2022 Climate Corps fellow Junmei Hu worked at China's Huafeng Group, which supplies textiles to Nike and Adidas. She helped create a guide to drive the company's transition to 100% renewable electricity by 2025.

# You make our work possible

The majority of EDF's funding comes from you, our supporters. Thank you for advancing the fight to stabilize the climate, strengthen communities and support people's health.

A complete, audited 2022 financial statement will be available in February 2023 at edf.org/finances



### 44

We looked for an organization that was international, respected science and also worked in the Bay Area. EDF was the perfect fit.

#### Ashley Huang, 13

Violinist, on choosing EDF to receive the funds from her Saratoga, CA music school Raincat Studio's annual student-led fundraising concert to fight climate change

### $\mathbf{X}$

As Midwesterners, we're proud to support EDF because it focuses on important issues here where we live and all around the world.

Robert and Sonja Pavlik Retired educators and EDF members since 2013

### Υ.

EDF is laser-focused on practical solutions that directly impact the environment and human health.

**Dr. Georges C. Benjamin** EDF board member and Executive Director of the American Public Health Association



envdefensefundenvdefensefund

environmental\_defense\_fund

in environmental-defense

edf.org

257 Park Avenue South, New York, NY 10010

A fully interactive version of this report is available online at impact2022.edf.org