



# EDF Impact Report 2021

Seizing new opportunities  
for climate progress



# About EDF

With your support, EDF's scientists, economists, attorneys and policy experts work around the globe, alongside hundreds of partners, to fight climate change and protect people and the planet.

**2.5M** supporters

**28** countries

**750** staff

# Connecting the dots

The terrible damage done by extreme weather has brought a new urgency, and with it, opportunity. EDF has seized this moment.

This year, more than ever, people everywhere have connected the dots between climate change and the terrible damage done by extreme weather. This has brought a new urgency, and with urgency comes opportunity. People are growing more receptive to the needed climate solutions, so policymakers are open to bolder action. In the past year, EDF has made major strides to translate this moment into progress toward our vision of a vital Earth for everyone.

In this report, you'll find EDF partnering with others to change the way natural resources are managed, strengthening the ability of forests, coastal wetlands and other ecosystems to reduce climate impacts. You'll see us helping people in areas ravaged by storms, in the drought-stricken Western U.S., and in communities harmed the most by past pollution. We're improving livelihoods by helping farmers and fishing communities thrive even in the face of climate change. And we're speeding the transition to electric cars and trucks and toward a global clean energy economy with no net climate pollution.

For example, EDF climate scientist Ilissa Ocko and her colleagues have published new research demonstrating that in the next 10 years, methane — a long-underrated greenhouse gas — will do more to warm the Earth than all the carbon dioxide from burning fossil fuels. This work has helped move methane to the top of the climate change agenda. In fact, at the recent COP26 climate summit, more than 100 countries pledged to cut methane pollution at least 30% by 2030. Cutting methane is the fastest way to slow the rate of global warming and reduce the impact of climate change on our lives.

As more people understand that the damage from climate change is here, we must lead adoption of bolder solutions. You and every EDF donor have our heartfelt thanks for the support that makes this progress possible.



*Amanda Leland*  
**Amanda Leland**  
Executive Director

*Fred Krupp*  
**Fred Krupp**  
EDF President

*Mark Heising*  
**Mark Heising**  
Chair, Board of Trustees

We drive global action to cut methane pollution — the fastest way to slow climate change.

# World seizes the Methane Moment

Research led by EDF climate scientist Ilissa Ocko, published this spring, came to a striking conclusion: concerted global action, using existing technologies, could cut methane pollution in half by 2030 and slow the rate of global warming by as much as 30%.

Those findings were echoed in a landmark United Nations assessment in May, which found that cutting methane was among “the most cost-effective strategies to rapidly reduce the rate of warming.” Soon afterward, the authoritative U.N. Intergovernmental Panel on Climate Change underscored the need to slash methane.

A decade of EDF-led science and advocacy has put methane at the forefront of the global climate agenda. The EU and the U.S. agreed in September to cut methane emissions from major sources, including oil and gas and large-scale agriculture, at least 30% by 2030. By November, at the U.N. climate summit in Glasgow, more than 100 countries joined the Global Methane Pledge.

“The Methane Moment is here,” says Mark Brownstein, EDF Senior VP of Energy Transition. “What matters now is turning country and company commitments into action and holding them accountable.”

In Europe and China, EDF is working with partners in government, industry, nonprofits and academia to develop new rules to limit methane emissions. In the U.S., we helped build bipartisan support for a successful effort in Congress to overturn a Trump-era rollback on regulations to reduce methane pollution from new oil and gas facilities. Because of this work, the EPA, led by EDF alumnus Michael Regan, is poised to strengthen and expand those rules to cover, for the first time, the roughly 800,000 older wells that account for the bulk of the industry’s methane pollution.

» **What’s next:** EDF subsidiary MethaneSAT will be ready to launch the world’s most advanced methane-tracking satellite in late 2022. It will locate and measure methane emissions worldwide, turn its data around in days and offer it free to everyone.

Infrared image of methane leaking from oil and gas storage tanks



As part of an EDF initiative, a technician in Romania checks for methane emissions at a natural gas facility.

### Methane detective

“Reducing CO<sub>2</sub> is incredibly important and will benefit my grandkids. But actions to reduce methane will help us right now,” says EDF scientist Ilissa Ocko (right, shown with Harvard research associate and MethaneSAT scientific partner Jonathan E. Franklin).



## On the ground Families fight oil and gas pollution

Laurie Anderson, a Colorado organizer for EDF-affiliate Moms Clean Air Force, lives half a mile from 18 oil and gas wells and is working for strong state and federal rules to limit the oil and gas industry’s emissions of methane and toxic air pollution.



FROM THE HIP PHOTOGRAPHY COLORADO



The world must take swift action to reduce methane emissions. EDF has highlighted the urgency of this issue and is helping lead the way to effective solutions.

**SHEILA AGGARWAL-KHAN**  
Director, U.N. Environment Program Economy Division



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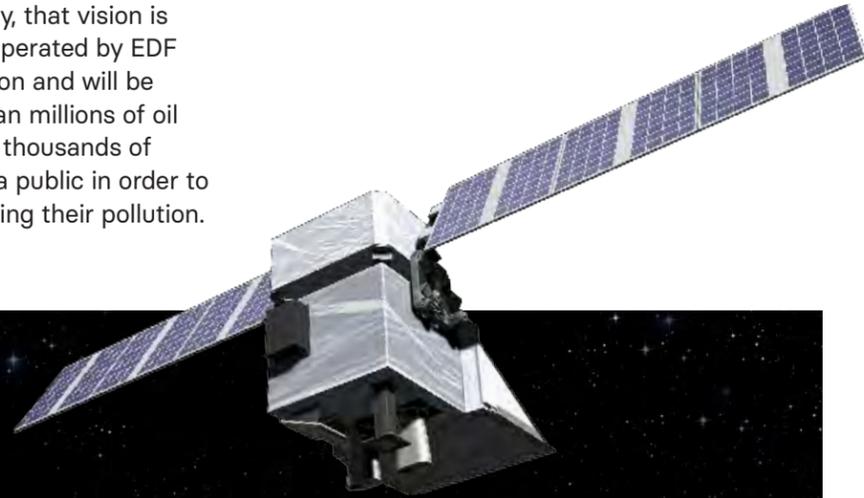
Methane has more than 80 times the warming power of CO<sub>2</sub> in the first 20 years after its release.

“Twice, I’ve experienced facial swelling during well drilling nearby that doctors said was probably caused by chemical exposure. We’ve made progress in Colorado on reducing pollution from the oil and gas industry, but we need to do more. My kids, and families across the country, need clean air and a safer climate.”

**LAURIE ANDERSON**  
Colorado Organizer  
Moms Clean Air Force

## The Methane Moment A satellite solution

In 2018, EDF announced that it would launch a satellite to locate and measure methane pollution worldwide. Today, that vision is becoming a reality. MethaneSAT, designed and operated by EDF subsidiary MethaneSAT LLC, is under construction and will be ready to launch in late 2022. It will be able to scan millions of oil and gas sites around the globe and hundreds of thousands of miles of major pipelines. It will also make its data public in order to hold oil and gas producers responsible for reducing their pollution. Here's a look at this unique satellite.



### MethaneSAT by the numbers

	<b>Satellite body</b>
<b>Dimensions</b>	Approx. 56"x42"x42" (not including solar array)
<b>Weight</b>	750 lbs
<b>Launch vehicle</b>	SpaceX Falcon 9 rocket
<b>Launch window</b>	Opens October 1, 2022
	<b>How it moves</b>
<b>Altitude</b>	340—390 miles
<b>Speed</b>	268 miles/second
<b>Orbit</b>	Pole to pole every 100 minutes
<b>Frequency</b>	200 target areas revisited every 3—4 days
	<b>How it sees</b>
<b>Field of view</b>	124 miles wide
<b>Sensitivity</b>	Can detect 2 parts per billion increase in methane over a 0.4 sq. mile area, roughly 1/3 the size of Central Park
	<b>How it transmits data</b>
<b>Data transmission</b>	120 images/3 terabytes of data per day
<b>Downlink stations</b>	Argentina, New Zealand (Mission Control) and Norway

### MethaneSAT data will support and drive action:



**By oil and gas companies** to stop leaks.



**By investors** who evaluate corporate responsibility and climate risk.



**By fence-line communities** concerned about harmful chemicals that leak along with methane.



**By governments** — such as China, the EU and U.S. federal and state governments — that are considering ways to tackle methane emissions.

“ I have to give EDF credit for having brought methane to the attention of decision-makers around the world. ”

**BRENDAN DEVLIN**  
Adviser, Directorate General of Energy  
European Commission



We unite powerful partners to accelerate the transition to clean transportation.

# Driving the clean car revolution

**Our full-court press on clean vehicles is transforming the U.S. auto industry.** This summer, with EDF President Fred Krupp in attendance, leaders of the Big Three U.S. automakers and United Auto Workers stood alongside President Biden at the White House as he announced his goal of making half of new passenger vehicles sold in the U.S. zero-emission by 2030.

EDF, working with automakers, labor unions and regulators, was instrumental in building consensus around this goal. Our many meetings with General Motors helped lead to the company's transformative announcement that it is taking action to sell only zero-emission vehicles by 2035. We also worked extensively with Ford, which has said that 40%–50% of its global sales will be electric by 2030. The company plans to spend \$11.4 billion on four new U.S. facilities for manufacturing batteries and electric trucks, creating 11,000 jobs. U.S. automakers have already invested more than \$24 billion in electrification, with more than \$75 billion planned over the next five years.

We're also working with partners to advance zero-emitting trucks and buses. EDF analysis helped inform a public-private initiative to roll out 100 electric trucks at ports and warehouses in Southern California — the largest such deployment in North America — which will reduce tailpipe pollution in local communities. We are working with companies like IKEA and FedEx, both of which have committed to making their deliveries pollution-free.

» **What's next?** EDF is urging the Biden administration to establish pollution standards that would help ensure all new cars sold in the U.S. are zero-emission by 2035, and freight trucks and buses by 2040 — and many urban trucks and buses as early as 2027. This would save tens of thousands of lives and cut billions of tons of climate pollution.



Diesel trucks and buses produce more asthma-inducing nitrogen oxides and particulate pollution than any other highway vehicle.



### Turbocharging the economy

New or renovated auto plants in the U.S. are expected to create more than 24,000 jobs.



We have worked with EDF to develop a shared vision of an all-electric future and an aspiration to eliminate tailpipe emissions from new light-duty vehicles by 2035.

**MARY BARRA**  
CEO, General Motors



Transportation is the number 1 source of U.S. climate pollution.

## On the ground Fighting for clean air, right here

Across the nation, communities of color are most exposed to harmful air pollution. Kim Wasserman, who leads the Little Village Environmental Justice Organization, an EDF ally, knows this all too well. Her group is fighting diesel pollution in Little Village, a busy Latino neighborhood in Chicago.



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"We have the second-highest rate of asthma in the state and now we're inundated by trucks driving to nearby warehouses. We want companies to electrify their fleets, but electrification needs to be done equitably. Our drivers, our mom and pop diesel repair shops, need training and access to clean technology jobs. This is about our environment, our livelihoods and the health of our families."

**KIM WASSERMAN**  
Little Village Environmental Justice Organization

We fight climate change by making the world's tropical forests worth more alive than dead.

# Breakthrough investment to save rainforests

Two decades ago, EDF and Brazilian partners pioneered the concept of paying those who reduce greenhouse gas emissions by preserving tropical forests. Today, that idea has blossomed into LEAF (Lowering Emissions by Accelerating Forest finance), an innovative fund that aims to save large-scale tropical forests and help the Indigenous people who defend them. The coalition of three governments and 19 leading businesses has already mobilized an initial \$1 billion, with much more to come. LEAF aims to launch a new international market for tropical nations to sell carbon credits to private companies, where the credits are tied to genuine and verifiable reductions in deforestation at the scale of whole countries or states.

EDF helped establish the infrastructure for LEAF and recruit many of the founding companies, including Salesforce and Airbnb. The initiative already represents the largest private sector investment ever aimed at saving these threatened ecosystems. And it is expected to grow rapidly — channeling tens of billions of dollars toward the goal of ending all tropical forest loss by 2030.

Saving tropical forests is critical to the fight against climate change. They store and sequester vast amounts of carbon dioxide, and are home to many Indigenous peoples and forest communities. They also shelter and sustain more biodiversity than any other terrestrial ecosystem on Earth. Ending forest loss, coupled with reforestation, could reduce global greenhouse gas emissions by at least 25%.

"There is no way to stabilize the climate without protecting tropical forests," says Steve Schwartzman, EDF's senior director of tropical forest policy. "So we must make trees worth more alive than dead."

» **What's next:** Carbon markets could help the world double its emissions reductions at no extra cost. But the current patchwork of informal markets lacks consistent standards and oversight. EDF experts are working with the Nature Conservancy, World Resources Institute, Conservation International and many others to expand the use of voluntary carbon markets that meet rigorous, global standards.



Indigenous and traditional communities, like the Kayapó, protect land that stores 58% of the carbon in the Amazon.



### Forever wild

The Amazon is home to one in 10 known species on Earth, including harpy eagles, pink river dolphins and this majestic jaguar.

## On the ground Protecting forests on farmers' land

Marcelo Stabile, of the Amazon Environmental Research Institute (standing at left, with farmers), is working with EDF and the Woodwell Climate Research Center on a pilot project that compensates farmers in the state of Mato Grosso for preserving forest on their property.



EDF dreams big, and the LEAF Coalition is the realization of one of those bold dreams. It's a game-changer in our fight to save the tropical forests that protect our planet.

**LORENZO BERNASCONI**  
Head of Climate and Environmental Solutions, Lombard Odier Investment Managers

 **8.3M**

From 2002 through 2019, global tropical forest loss averaged 8.3 million acres a year — an area larger than Belgium.

"For 20 years, farmers have heard rumors about programs that pay for keeping trees standing. But for the farmers I work with, this is the first time anyone has come to them with a real plan. The pressure to clear land will always remain, but as this region suffers through the worst drought in decades, there is a growing understanding that a future in farming depends first of all on a stable climate."

**MARCELO STABILE**  
Amazon Environmental Research Institute

We protect and restore vital ecosystems to fight climate change and build resilient communities.

## New protections for storm-battered coasts

**Plans for the largest individual ecosystem restoration effort in U.S. history reached a major milestone this year, when the U.S. Army Corps of Engineers gave the thumbs-up to an EDF-backed plan to restore thousands of acres of precious Louisiana wetlands.**

In a state that loses, on average, one football field of land to the sea every 100 minutes, the \$1.8 billion project in the Mississippi River Delta will help shield Louisiana's embattled coastal communities and the city of New Orleans from storm surge and flooding. The restored wetlands will also provide vital habitat for countless species of wildlife.

The vast undertaking is part of EDF's rapidly expanding work to protect our coasts, and coastal communities, from climate change, which every year pummels the U.S. with stronger, wetter storms and higher seas, placing millions of homes and livelihoods at risk.

In New York, where nearly half a million people face the risk of coastal flooding, we are part of a coalition pushing to secure a \$3 billion state investment in seashore and wetland restoration, water quality improvements and more. In Florida, we helped persuade authorities to expand flood protection efforts to incorporate coral reefs and mangroves, which also play an important role in wildlife protection. We are also engaged in resilience projects in New Jersey, North Carolina, Texas, Virginia and Cuba, drawing on more than three decades of expertise gained in Louisiana.

Of the Louisiana milestone, part of the state's 50-year, \$50 billion plan to address its land loss crisis, EDF's head of coastal resilience, Natalie Snider, said: "This critical decision is an exciting stride forward in our efforts to protect people and nature in one of the most unique and beautiful parts of the country."

» **What's next:** The U.S. Army Corps of Engineers decision means final permits to begin work could be issued as soon as 2022. The project will harness the power of the mighty Mississippi River to shift massive amounts of sediment to gradually rebuild and maintain 28 square miles of coastal land.



As climate changes, and seas warm and rise, the historic city of New Orleans faces ever greater risk of flooding. Rebuilding coastal wetlands can help.



### Conserving habitat

Protecting coastal Louisiana also safeguards habitat for this piping plover chick, one of millions of migratory birds that pass through the region each year.

## On the ground Hold back the floods

Angela Chalk founded Healthy Community Services to fortify her community's defenses against hurricanes and floods. The devastation caused by Hurricane Ida this summer only reinforced the need for bold action.



JULIE DERMANSKY PHOTOGRAPHY



EDF is a vital partner in Louisiana's efforts to implement some of the largest, most ambitious ecosystem restoration projects anywhere on the planet.

**BREN HAAS**  
Executive Director,  
Coastal Protection and  
Restoration Authority,  
Louisiana



**\$1.8M**  
One square kilometer of  
coastal wetlands saves an  
average of \$1.8 million a  
year in property damage  
from storms.

"With the disappearing of land in Louisiana goes our culture, our history, our people. If this coast erodes much more, New Orleans is going to end up with the Gulf of Mexico at our front doors. We are resilient but we can't continue to be sitting ducks. Pushing for action begins in the community, but governments and utilities must uphold their end, too."

**ANGELA CHALK**  
Healthy Community Services  
Founder

Around the globe, EDF supports local communities, while protecting the natural resources they depend on.



DONALD QUINTANA PHOTOGRAPHY

### New hope for drought-plagued California

In a bill sponsored by EDF, California pledged \$50 million to help farmers reduce water use in the parched state. The money, part of a groundbreaking statewide water conservation effort, will help landowners repurpose some areas of farmland to less water-intensive uses such as parks, rangelands or habitat for species like the endangered San Joaquin kit fox (pictured). We are now working with state water agencies and local landowners to identify the types of projects that could benefit from the program. A number of pilots will be launched next year. The budget, which Governor Gavin Newsom signed into law in September, offers a model for Arizona, Colorado and other drought-stricken Western states.



COSTA HUMBERTO TORRES

### A groundbreaking fishing collaboration

The Humboldt Current, off the west coast of South America, is part of one of the world's most productive ocean ecosystems, providing more than 10% of fish caught globally. But warming seas and other impacts of climate change are causing fish to move, shifting available catch and potentially sparking international conflict. In a first-of-its-kind collaboration, EDF is helping Chile, Peru and Ecuador share data about changing ocean conditions to develop an online early warning system that will show in real time how climate change is affecting their fisheries. The nations will use the system to adapt how they manage fisheries, protecting marine and coastal ecosystems and safeguarding the livelihoods of 850,000 people.



MARIE D. DE JESUS PHOTOGRAPHY

### Supporting community-led clean air efforts

Sunnyside is a historically Black neighborhood in Houston where people tend community gardens, occasionally ride horses down the street and frequently look out for each other. It's also a neighborhood where the city placed two landfills, an incinerator, concrete plants and metal recycling facilities, all of which generate air pollution near homes, churches and schools. Rates of asthma and chronic obstructive pulmonary disease, which can be triggered or exacerbated by this pollution, are among the highest in the city. "We have stories and experiences, but limited data," says Jo Ann Jones-Burbridge (pictured, center), vice president of the Sunnyside Community Redevelopment Organization. SCRO worked with EDF to install a community-owned and -operated network of monitors that will detect local air pollution and help identify its sources. "We know that data drives decisions," says Jones-Burbridge. "When we collect the data, we will inform the community, city, county and state to hold the government accountable in finding solutions."



“Today, more than ever, we must protect people, especially the most vulnerable, from environmental pollution. EDF is a critical partner in this effort.”

GEORGES C. BENJAMIN, M.D.  
Executive Director  
American Public Health Association

We hold the world's biggest companies accountable for their role in climate change.

# Investors deliver major boardroom victory



Just 100 companies have extracted the oil, gas and coal responsible for more than 70% of the world's greenhouse gas pollution. We are galvanizing investor pressure to compel some of the worst polluters to slash emissions from their operations and business models. And it's working.

Last spring, a small, activist hedge fund named Engine No. 1 stunned the corporate world by winning three seats on Exxon Mobil Corporation's board of directors. The vote was a clear signal to the oil and gas sector that investors want meaningful climate action. We supported Engine No. 1's effort, emphasizing to major shareholders that for Exxon — and all the world's biggest emitters — the global climate crisis is a business risk.

Soon after the board vote, EDF announced a partnership with Legal & General Investment Management America, the American arm of the world's 11th largest investment management firm. Together we will use the power of investors to push major oil and gas and transportation companies to rapidly transition to net zero emissions.

"This is a watershed moment for the oil and gas industry and leading investors," says EDF President Fred Krupp. "The message is clear: Climate change has become a board-level priority."

» **What's next:** The Securities and Exchange Commission is expected to release new rules requiring companies to declare meaningful information about the risk climate change poses to their bottom lines. EDF engagement with the SEC and testimony on Capitol Hill figured prominently in the push for these new rules, and we are continuing to work to ensure a strong final rule.



Climate risk is business risk: In Lower Manhattan, a worker cleans up after a storm.

REUTERS SERVICES



Investors are listening to EDF, which fills a critical gap by bringing the highest-caliber expert insights and concrete actions to climate conversations.

**JOHN HOEPPNER**  
Head of U.S. Stewardship and Sustainable Investments at Legal & General Investment Management America



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### A climate imperative

Cutting industrial emissions is key to avoiding the worst effects of climate change.



**55%**  
Estimated decline in global oil demand over the next 30 years

## On the ground When climate change becomes personal

Nicholas Zuba, an EDF Climate Corps alumnus, has spent his career helping homeowners and businesses fight for a cleaner, healthier environment.



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"After seeing lives changed forever by super-storm Sandy, I decided to dedicate my life to fighting climate change. This September, the fight became personal. I watched out my window as the remnants of Hurricane Ida deluged my community of Mamaroneck, New York. Six feet of floodwaters turned our main street into an extension of the Mamaroneck River. I was scared for my safety, grieving for my community and angry that we are still letting this happen. Ida took 52 lives in the Northeast. It brought home that climate change is everywhere and everyone is vulnerable."

**NICHOLAS ZUBA**  
EDF Climate Corps alumnus

# More 2021 successes

Your generosity delivered protections for people and the planet.



## EDF Climate Corps expands to India

EDF's summer fellowship program, which trains top graduate students to power environmental progress at leading companies and organizations, is now active in three countries crucial to solving climate change. This year's 149 Climate Corps fellows, our largest cohort ever, worked in the U.S., China and — for the first time — India. The 17 India fellows showed companies including Amazon, McDonald's and Mahindra & Mahindra ways to slash carbon emissions and build sustainable supply chains. One fellow, Kuladeep Kumar Sadevi (pictured), developed a plan for a leading Indian real estate developer to become carbon neutral, including transitioning to zero-emission buildings, by 2035. Since 2008, Climate Corps has deployed more than 1,200 young climate leaders to more than 540 organizations.

## "No" to unnecessary pipelines

EDF won a major victory in our long-standing fight to stop unnecessary oil and gas pipelines that lock the country into a fossil fuel-dependent future. A federal appellate court invalidated the operating certificate of the \$287 million Spire STL Pipeline, which runs from Illinois to Missouri. The court found that the Federal Energy Regulatory Commission approved the project even though there was no clearly demonstrated need for additional capacity in the region. In a subsequent victory, the Supreme Court denied Spire's request to block the lower court's ruling. FERC is now facing greater public scrutiny of its authorization process, and we are pushing the commission to reform its review procedures.

## Washington state raises the bar on climate action

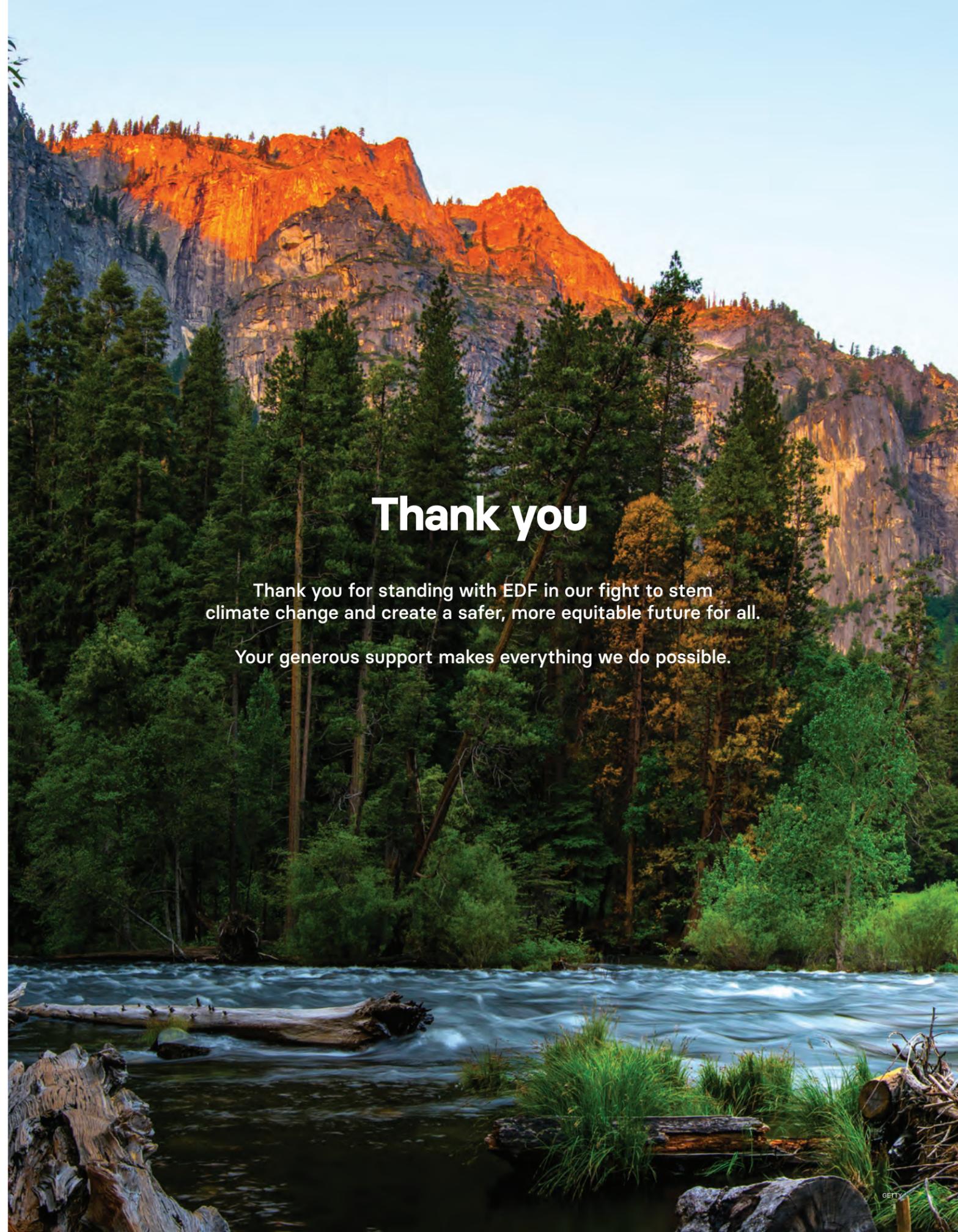
For a year, EDF worked with Governor Jay Inslee and the Washington state legislature, along with many local partners, to pass meaningful climate change legislation. That work paid off in May, when the state passed the nation's most ambitious limit on climate pollution. The Climate Commitment Act slashes greenhouse gas emissions at the pace and scale the climate crisis demands, while simultaneously tackling local air pollution and serving as a model for other states and federal policymakers. Washington and California are now the only two states with binding, declining limits on emissions across all major sectors of their economies.

## Fueling more climate friendly skies

If aviation were a nation, it would rank as the world's sixth-largest carbon emitter, right between Japan and Germany. And emissions from planes are expected to rise rapidly, with fuel consumption projected to double from pre-COVID levels by 2050. To put the industry on a more sustainable flight path, EDF has teamed up with RMI, a clean energy think tank, and corporate partners to launch the Sustainable Aviation Buyers Alliance. The alliance will help decarbonize aviation by accelerating investment in, and adoption of, sustainable aviation fuels. By creating a transparent certificate system, SABA will help companies and airlines identify the sustainable aviation fuels capable of substantially reducing airline emissions.



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# Thank you

Thank you for standing with EDF in our fight to stem climate change and create a safer, more equitable future for all.

Your generous support makes everything we do possible.



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