2023
ANNUAL REPORT

UCLA School of Law
Emmett Institute on Climate Change & the Environment
For those of us committed to addressing climate change, the last year brought moments of great hope as well as setbacks. The record-breaking temperatures of July, August, and September showed that Earth has blasted through—if only temporarily—the 1.5-degree Celsius target of the Paris Agreement that many of us cheered at the U.N. climate talks seven years ago. The next few years are critical.

One way we confront troubling news is to double-down on the work and fortunately that’s been easy to do this year. The faculty, students, and staff of the Emmett Institute are working in overdrive. We have lots of positive updates to share with you in our 2023 Annual Report.

This year, we launched a new project advancing methane regulation. Students in one of our clinics helped to write—and pass—a new groundwater law. We held multiple convenings at the UCLA School of Law, including one that gathered experts from all over the world to discuss using technology to halt deforestation. We also expanded our staff to meet the growing demand for courses that take an interdisciplinary look at some of the thorniest problems in environmental regulation, how to solve them, and even how to communicate about the solutions.

Our core strengths are deep faculty expertise, commitment to change on the ground, the most talented law students anywhere, our location in a city and state known for climate leadership, and the resources of the nation’s number one public university. Thanks to this unique combination, the UCLA Emmett Institute is stronger than ever and has the support to keep expanding our influence in the critical years ahead.

Cara Horowitz
Andrew Sabin Family Foundation Executive Director
Emmett Institute on Climate Change and the Environment
BY THE NUMBERS
THE EMMETT INSTITUTE

$120,000
Tuition assistance and summer stipends for students

$2.5 MILLION
Dollars matched by the Emmett Foundation on donations through 2028

FIRST PLACE
Student team in statewide environmental negotiation competition

70
Visiting experts and scholars at our workshops and talks

200,000+
Page views to our Legal Planet blog in 2023

49
Students and faculty at the 2023 Environmental Law Conference in Yosemite

6
Language interpreters translating our deforestation workshop

1,312
People attended our in-person events this year

#1
UCLA’s rank among all public universities in the U.S.
The Emmett Institute has never been bigger or stronger, thanks to strategic expansion and a $5 million gift from the Emmett Foundation, which includes matching donations up to $2.5 million. The Institute is now home to 13 core and affiliated faculty members:

- **Sabrina Ashjian**, Clinical Supervising Attorney and Project Director for the California Environmental Legislation & Policy Clinic

- **William Boyd**, Professor of Law and Michael J. Klein Chair in Law; Professor, UCLA Institute of the Environment and Sustainability; Faculty Co-Director, Emmett Institute

- **Ann E. Carlson**, Shirley Shapiro Professor of Environmental Law (on leave as Acting Administrator at National Highway Transportation Safety Administration)

- **Kimberly Clausing**, Eric M. Zolt Chair in Tax Law and Policy

- **Jason Gray**, Project Director, Governors’ Forests and Climate Task Force

- **Cara Horowitz**, Andrew Sabin Family Foundation Executive Director, Emmett Institute; Director, Frank G. Wells Environmental Law Clinic

- **Timothy Malloy**, Professor of Law, Frank G. Wells Endowed Chair in Environmental Law

- **Mary Nichols**, Distinguished Counsel

- **Edward A. Parson**, Dan and Rae Emmett Professor of Environmental Law; Faculty Director, Emmett Institute

- **James Salzman**, Donald Bren Distinguished Professor of Environmental Law

- **Julia Stein**, Deputy Director, Emmett Institute; Director, California Environmental Legislation and Policy Clinic

- **Alex Wang**, Professor of Law; Faculty Co-Director, Emmett Institute

- **Jonathan Zasloff**, Professor of Law
The Emmett Institute is supported by full-time fellows, whose law and policy research, writing, and teaching provide critical support for our efforts. During 2022-2023, these fellows were Daniel Carpenter-Gold, Heather Dadashi, Beth Kent, Andria So, Gabriel Greif, and Ruthie Lazenby. Our Climate Intervention Fellows were Maithili Iyer and Duncan McLaren.

Our staff includes Staff Attorney Juan Pablo Escudero, Communications Director Evan George, and Program Manager Heather Morphew. We also have three UCLA undergraduate student workers who are involved in environmental studies: Emily Camarena, Malia Garcia, and Danielle Anz.
This October, California Governor Gavin Newsom signed a bill that was written—and passed—with help from students in one of our legal clinics.

AB 779 by Assemblymember Lori Wilson addresses inequities in California’s groundwater adjudication process. Three students in our California Environmental Legislation and Policy Clinic worked with the Assemblymember’s office on research, drafting, and even testifying at hearings in Sacramento. The students themselves wrote (here and here) about how the bill aims to level the playing field for small water users and disadvantaged communities. The bill was highlighted by the Los Angeles Times, the Sacramento Bee and other outlets.

This is the third year in a row that the clinic assisted with legislation that became law.

Last year, a student team helped Sen. Ben Allen’s office with SB 54 (a bill to significantly reduce single-use plastic waste). Students also helped to draft and pass AB 2243, developed with Assemblymember Eduardo Garcia’s office. In 2021, student research supported SB 63 (wildfire) and SB 83 (sea level rise revolving loan fund). Clinic students also supported California delegations to COP27 in Egypt and the 15th Biodiversity COP in Canada.

We know from both the students and the legislators that this clinic, overseen by Deputy Director Julia Stein, offers valuable experience. Our students get to work on cutting-edge environmental issues with legislative staff, contributing to innovative legislative solutions, while gaining a nuanced understanding of what it takes to make law in California.

This summer, Sabrina Ashjian joined as Clinical Supervising Attorney and Project Director for the clinic. This fall, clinic students are researching the challenges California faces as it phases out fossil fuel production, the management of electric vehicle battery waste, and the environmental justice implications of developing carbon capture projects in the Central Valley, among other projects.
This June, the Emmett Institute hosted 52 civil servants, technical experts, and trainers at UCLA for a cutting-edge technology workshop organized by the Governors’ Climate and Forests Task Force. Our participants traveled to UCLA from Brazil, Cote d’Ivoire, Ecuador, Indonesia, Mexico, Peru, and places around the U.S for this weeklong workshop to test out new remote sensing technology, build skills using hands-on exercises, and engage directly with product developers.

Scientists say mapping data can be used to help preserve forests. And because forests sequester tons of planet-warming carbon dioxide, forest preservation helps combat climate change. But the technology doesn’t always make it into the hands of the government officials whose job it is to fight deforestation. In early June, UCLA School of Law hosted civil servants from member jurisdictions to remedy this problem. The representatives spoke candidly about the obstacles they face and how deforestation hurts their communities.

The Governors’ Climate and Forests Task Force is a global network of states and provinces working to address tropical deforestation and climate change. Faculty Co-director William Boyd leads the project, which is co-sponsored by the Emmett Institute and housed at UCLA. Jason Gray is the Project Director.

The Governors’ Climate and Forests Task Force expanded its membership this year to include 3 new departments from Bolivia and 1 new province from Ecuador, now boasting 43 member states and provinces covering one-third of the world’s tropical forests, including the Brazilian Amazon.
This was a huge year for solar geoengineering and our Geoengineering Governance Project led by Faculty Director Ted Parson played a major role through engagement with policymakers and publication of influential analyses in academic, policy, legal, and popular outlets.

The year started with controversy when a tiny startup firm called Make Sunsets launched a couple of weather balloons containing a few grams of Sulfur Dioxide from a private property in Baja California, Mexico. The stunt became a lightning rod for geoengineering in the mainstream media. Parson was frequently quoted in the media (and widely read at Legal Planet) on why this rogue startup was a dangerous distraction from the real governance discussion.

This fall, the Climate Overshoot Commission—whose work has been significantly informed by Parson’s research—released its report on the risks of exceeding the temperature targets of the Paris Agreement.

The Commission, made up of a dozen global leaders, presented the report in New York ahead of the UN General Assembly and NY Climate Week. Advising the Commission took Parson to Jakarta and Nairobi this year as they finalized the report. It addresses how to equitably differentiate the responsibility to reduce greenhouse gas emissions, eventually to net zero, between industrialized and non-industrialized countries.

The past year was the first in which we offered a clinic on international climate law and policy, which provided research and analytic support to the Commission.

This year, three prominent statements by climate scientists and international experts have appeared, which propose responsible paths forward on the potential role of solar geoengineering and solar geoengineering research in climate response. This growing support for the research of geoengineering is an outgrowth of the Geoengineering Governance Project’s work. Parson participated in well over a dozen seminars, lectures, and climate conference presentations from Washington D.C. to Canada to Jamaica. Climate Intervention Fellows Maithili Iyer and Duncan McLaren supported this work.
A delegation led by Chairman Gao Yu of the Counselor’s Office of China’s State Council visited UCLA and spoke with Alex Wang about everything from green infrastructure to EV technology.

As a go-to expert on US-China climate cooperation, Faculty Co-Director Alex Wang participated in multiple public and private events with high-level delegates at this crucial time in international relations. Wang’s work makes it clear there is a real appetite for engagement from the Chinese side. He’s frequently quoted on the topic of what American policymakers can learn from China and vice versa, as in this Op Ed in the Los Angeles Times ahead of the Governor’s trip to China.

This fall, we hosted visitors from China’s State Council for a walking tour of UCLA’s campus and sustainability efforts. Chairman Gao Yu of the Counselor’s Office of the State Council and five other delegates visited UCLA Law and spoke with Wang about everything from green infrastructure to EV technology to UCLA history.

This summer, Wang participated in closed-door Track 2 dialogues with another high-level delegation in Los Angeles. “It was the first time we had deep conversations with key research-level people from China for some time and it was absolutely indispensable,” he says, “just to get a sense of where they stand and to what extent the barriers on the Chinese side are technical, informational, or political, economic.”

This year, Wang wrapped up a multi-year project on emissions trading in partnership with the lead designers of China’s carbon emissions trading system and the California-China Climate Institute. He has launched a new research project that examines China’s strategic use of environmentalism in a wide range of contexts beyond traditional environmental diplomacy.
In another case of national significance, we filed amicus briefs on behalf of Congressional Democrats related to vehicle fuel economy standards and tailpipe emissions in the U.S. Court of Appeals for the District of Columbia Circuit.

The unusual subject of another case was the Temblor Legless Lizard, a sand-swimming reptile unique to Kern and Fresno Counties whose survival as a species is jeopardized by the already extensive oil and gas drilling in the area it calls home. That case at the California Court of Appeal, Fifth Appellate District centers on a proposed Kern County ordinance to streamline oil and gas development that would harm local wildlife.

Work on these clinic cases was supported by the law and policy research of fellows Daniel Carpenter-Gold, Gabriel Greif, and Andria So.
Over two full days, the convening tackled the trickiest challenges and most promising opportunities created by the coming flood of methane data. The Emmett Institute will hold a side event at COP28 focused on methane regulation.

One of the most effective strategies to rapidly reduce global warming is to focus on methane, which has mostly evaded detection for decades. Now, the rapid advance of remote sensing technologies is making it easier to crack down on methane emissions.

That’s why the Emmett Institute launched the Advancing Methane Regulation Project, a globally focused initiative to help guide policymakers as they develop regulations to halt super-polluting methane using remote sensing and remote measurement technologies. While many countries, NGOs, and academic centers are focusing on methane, the regulatory use of remote observation remains relatively undeveloped.

Controlling methane emissions is an urgent goal of governments around the world, but some jurisdictions are farther along than others. We recently conducted a global survey of existing and proposed regulatory approaches to controlling anthropogenic methane emissions from the highest-emitting sources. That policy brief was written by Gabriel Greif, Emmett/Frankel Fellow of Environmental Law.
Our focus on energy law—long an area of expertise at the Emmett Institute—is getting supercharged.

**The clean energy transition demands big changes in our electric grid.** As we switch our buildings, industries, and vehicles to electric power and we replace coal- and gas-fired power plants with solar, wind, and battery-storage projects, we must upgrade our transmission system and even how we pay for all that electricity.

That's why we're expanding our work in this area led by Faculty Co-director William Boyd, whose recent writing and research is focused on who will own the clean energy future.

Boyd, who teaches our Energy Law and Regulation course, argues that private actors have made substantial claims on public resources in the energy transition. What, he asks, will the public seek in return?

Aiding this expansion, Ruthie Lazenby joined us this summer as the Shapiro Fellow in Environmental Law and Policy at UCLA School of Law for 2023-2025, where her work will focus on energy law and regulation. Lazenby closely tracks California Public Utility Commission proceedings around renewable energy and electricity rates. She recently embarked on a series of writings around the Commission’s income-graduated fixed charge policy.

And the expansion continues. The Emmett Institute is hiring an Energy Law and Policy Director, a new position that will help us boost this research to guide a path forward for government and industry while also training the next generation of leaders in the clean energy transition.
In one Pritzker Brief, we looked at tenant-friendly building decarbonization. The City of Los Angeles is working toward eliminating greenhouse gas emissions from all buildings in the city by 2050. One of the most crucial pieces will be retrofitting existing buildings. This paper by Emmett/Frankel Fellow Daniel Carpenter-Gold looked at various policy options. As reported here, the paper makes a series of recommendations for how to pursue decarbonization in a way that protects and benefits the city’s low-income tenants and it landed just as city departments were starting to grapple with these issues.

Another policy report focused on ending the enduring racial discrimination present in California land use policy. The report, titled “Concentrated Overburden,” offers 13 key recommendations for state lawmakers to end the structural racism embedded in California’s patterns of inequitable land use policies. This report was a collaboration between the Leadership Counsel for Justice and Accountability and the Frank G. Wells Environmental Law Clinic.

A Pritzker Brief by Emmett/Frankel Fellow Heather Dadashi examined California’s existing real estate disclosure practices as the threat of flooding and erosion is increasing throughout the United States due to a warming atmosphere. The brief suggests mechanisms to improve disclosure practices to account for the accelerating risk of rising sea levels.

A final Pritzker Brief explored how to increase access to green space and affordable housing through the coordinated development of projects that embrace both. After describing the barriers to building parks and affordable housing separately and concurrently, this paper by Emmett/Frankel Fellow Beth Kent describes the key entities involved in these types of joint development projects, as well as each entity’s funding sources, major programs, strengths, and constraints.
This year, the Emmett Institute created a new, funded opportunity for graduates interested in environmental justice and federal climate policy. The Postgraduate Fellowship for Federal Climate Justice is a two-year fellowship we created in partnership with the UCLA Law Fellowship Committee.

Our two inaugural fellows are Jay Parepally and Nicola Steelnack. They are currently placed at Communities for a Better Environment and Leadership Counsel for Justice and Accountability. Both are supporting advocacy efforts to shape and influence equitable implementation of federal climate programs, policies, and funding so that federal funding and resources actually reach local communities. These fellowships serve to expand the pipeline of new lawyers working on federal climate justice issues and can serve as a model for other institutions and programs around the country.
With this **Class of 2023**, we graduated our sixth cohort of students fulfilling the specialization in environmental law. Twenty-two graduates across UCLA Law programs earned the specialization in environmental law, including 13 J.D. students, 8 LL.M. students, and one Master of Legal Studies student. Training the next generation of leaders is central to the Emmett Institute’s mission and one of our favorite parts of this work. Our graduates go on to be leaders in government, nonprofits, and law firms and this year’s class exemplified the diverse careers pathways in environmental law.

“It was very interesting and thought-provoking to see the power of courts in shaping environmental law in the U.S. It opened another window for me to widen my perspectives.”

---

“I really enjoyed building relationships with the talented community of environmental law students who shared many of my interests and values.”
“The faculty was always there to answer my questions, and they helped me build connections in the world of environmental law. When I was deciding on which job offer to accept, I immediately went to my environmental faculty advisor for guidance.

Shasta Fields
J.D. Class of 2023

UCLA
Emmert Institute on Climate Change & the Environment

“ If you have a science background, you can still do law... I didn’t expect that I would become a lawyer, but I am so glad I did!

Sarah Repko
J.D. Class of 2023

UCLA
Emmert Institute on Climate Change & the Environment

“Once I learned that UCLA Law had not only the top environmental law program, but also the leading Critical Race Studies and Public Interest Law programs in the country, I knew there was no other school I wanted to attend.

Esme Levy
J.D. Class of 2023

UCLA
Emmert Institute on Climate Change & the Environment
The Emmett Institute held 18 public and private events this year, including our spring symposium focused on critical implementation questions surrounding the Inflation Reduction Act and the Bipartisan Infrastructure Law.

We've significantly expanded our capacity to hold all-day symposia and multi-day convenings thanks to Program Manager Heather Morphew.

This year, 70 visiting experts participated in our workshops, trainings, and talks. Among these was our “Fixing the Climate” event with visiting scholars David Victor (UC San Diego) and Charles Sabel (Columbia Law School) in conversation with our faculty and Steve Cliff, the Executive Officer of the California Air Resources Board.

On April 13, the Emmett Institute welcomed a wide range of policy experts, UCLA colleagues, alums, and students for a day of conversation and networking for our symposium titled “Make or Break: Transforming U.S. Infrastructure to Meet Climate Goals.”

The three panels, as well as the keynote address by former White House climate advisor David J. Hayes, are available as individual videos at this YouTube playlist or on our event page. Our law students joined the conversation by taking over the Emmett Institute’s social media feeds to provide summaries and short-form commentary on the panels. The symposium was also the subject of a longform review by the UCLA Journal of Environmental Law and Policy (JELP). In continuous publication since 1980, JELP is entirely run and produced by UCLA Law students.

Planning is underway for a number of major events in 2024 with several goals in mind: to advance important ideas and conversations among researchers and policymakers; to strengthen our community; and to introduce students to new ideas and to information about career opportunities. Our events program has grown thanks to our talented student workers Emily Camarena, Malia Garcia, and Danielle Anz.
Our 2023 symposium looked at the implementation challenges facing the recent federal infrastructure laws, especially as it relates to transmission and transportation sectors.

On one recent field trip, students and faculty got an insider tour of the Riverside campus of the California Air Resources Board, which includes this “petrified petrol station.”

Our slate of 2023 programs saw a return to mostly in-person events on campus that allowed for networking and discussion.

Students at our May 2023 graduation celebration.

Ann Carlson, on leave while serving in the Biden administration as the acting head of NHTSA, and Prof. William Boyd with students at our 2023 Welcome Mixer.

Students at our “Fixing the Climate” book talk.
A huge challenge to the U.S. meeting its climate goals is building green infrastructure quickly enough without compromising environmental laws. That tension, and the resulting tradeoffs, comprise what James Salzman has coined “The Greens’ Dilemma” in a recent paper by the same name. His ideas have laid a foundation for this emerging national conversation about permitting reform from academic journals to popular podcasts to the halls of Congress.

Salzman and co-author J.B. Ruhl have developed these ideas about this challenge to America’s clean energy transition for several years. Their new paper explores how a new regime could include federal preemption, centralizing federal authority, establishing strict timelines, and providing more comprehensive and transparent information sources and access. They outlined these proposals in an article for Noema Magazine titled “How to Fix Our Green Infrastructure Problem.”

The article has been frequently cited by the New York Times and journalist Ezra Klein who is currently writing a book on the subject of big policy challenges to progressive politics.

Salzman is the Donald Bren Distinguished Professor of Environmental Law with joint appointments at the UCLA School of Law and at the Bren School of Environmental Science & Management at UC Santa Barbara.
Late last year, Distinguished Counsel Mary Nichols helped unveil proposals from the UN’s High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities. In the wake of that report, Nichols forged ahead on ways to fight greenwashing using corporate climate disclosures in 2023—a breakthrough year for corporate accountability.

As time grew short for SB 253, the Climate Corporate Data Accountability Act, to pass the State Legislature, Nichols took the rare step of publicly endorsing the bill in a letter to legislative leaders. As former California Air Resources Board Chair, she made clear the measure was enforceable and important. Days later, the Legislature passed the bill, and the Governor signed it. The new law is part of a corporate accountability package. Students in our California Environmental Legislation and Policy Clinic provided early research support for the bills.

Nichols also focused her attention on international accountability during NY Climate Week where she participated in roundtables and panels in support of stronger disclosure requirements as the key foundational element for making credible and ultimately enforceable reductions in greenhouse gas emissions.

"Accounting may not be glamorous but without standards there is no way to assure pledges become real," Nichols says.

Nichols was elected to the board of the Energy Foundation-China and traveled to Beijing in fall for briefings on China’s climate and clean energy activities. Along with Alex Wang, she attended a high-level meeting with the Chinese State Council when they visited Los Angeles in October.
Climate change is a global problem requiring global solutions, so trade cooperation and international agreements can be powerful tools to motivate policy action. This kind of multilateral cooperation on climate change is at the heart of recent research by Kimberly Clausing, the Eric M. Zolt Chair in Tax Law and Policy at the UCLA School of Law.

Clausing previously was Deputy Assistant Secretary for Tax Analysis in the U.S. Department of the Treasury, serving as the lead economist in the Office of Tax Policy. Her research studies the taxation of multinational firms, examining how government decisions and corporate behavior interplay in the global economy. Clausing joined the affiliated faculty of the Emmett Institute last year. Given that tax policy is often also climate policy, Clausing brings invaluable insights and experience to our panel events and policy convenings.

This summer, Clausing published a paper recommending a methane border adjustment tax. Under such a plan, the U.S. and E.U. (and hopefully other collaborating countries) would coordinate their methane reduction policies in the oil and gas sector and ultimately impose border adjustments on imports from countries that fail to raise their standards. The goal: encourage oil and gas exporters to adopt comparable regulations or, if they fail to do so, pay a border adjustment fee.

“A coordinated approach on methane emissions would also help build environmental policy cooperation across the Atlantic,” Clausing and her co-authors write.

Clausing and co-authors write that a U.S.-E.U. methane border adjustment policy in oil and gas could reduce methane emissions by an estimated 15 to 45 percent worldwide, while having an indiscernible effect on key energy prices U.S. and E.U. households face.
Many believe that genomically engineered kelp holds enormous promise as a form of carbon sequestration, but there are big governance challenges anytime you propose gene editing. Timothy Malloy is leading efforts to grapple with those challenges.

Malloy, the Frank G. Wells Endowed Chair in Environmental Law at the Emmett Institute, is working with Dr. Siobhan Braybrook in UCLA’s College of Life Sciences, who is developing gene editing tools for kelp. These tools are needed to develop commercial applications for genomically-edited kelp and other brown algae. Eventually, this engineered kelp could be used not just as a carbon capture technology but for habitat restoration and animal feed additives to reduce agricultural methane emissions.

This year, Malloy and his team interviewed dozens of stakeholders in industry, government, and advocacy groups regarding genomic engineering of kelp. The team also developed an online survey to capture public views about the risks, benefits and regulation of using CRISPR technology on kelp. The survey was recently sent to 1,200 people in California and the data will be used to craft proposed governance frameworks.
Once again, UCLA Law students and the Emmett Institute were a major presence at the annual Environmental Law Conference in Yosemite. The 3-day conference is a unique chance to form new connections between leaders in the field—including our powerhouse alums—and future lawyers. This year, 49 of our students and faculty attended the 3-day conference thanks to scholarship assistance—far more than in any other year.

This year, the conversation saw a focus on the energy transition and environmental justice thanks to roundtables like the one above moderated by Jasmin Robinson (J.D. ’23) of Leadership Counsel that focused on the role lawyers should play working with community organizers.

Over those three days in October, we learned together in lively panel discussions as well as on hikes and nature walks. We also got to introduce current students to recent graduates.

We were thrilled to see our student delegation participate in panels, network, and organize their own events that help build the strong environmental law community at UCLA Law.

The opening night reception of the Environmental Law Conference in Yosemite.
Our capacity for strategic communications, in-house storytelling, and media training for law students grew mightily this year with the hiring of Evan George as our new Communications Director.

George comes from the public media world where he most recently was News Director of KCRW, the NPR member station in Los Angeles. He's a multi-media journalist with experience covering politics, the environment, state, and federal courts.

George now works with our law students to help them tell their own stories.

That includes helping them share a narrative story about their experiences at a U.N. climate conference, drafting legislation, or working on important litigation as a summer law intern. It also includes a new media training bootcamp he's launched for the Emmett Institute's law clinics and other public interest students to gain some foundational skills for providing interviews about law and policy work.

George also overhauled the Legal Planet blog that we host with the faculty of UC Berkeley Law, which has been a go-to source for environmental law and climate policy since 2009. This year, the site has seen well over 200,000 page views—more visitors and readers than it has in several years.

The Emmett Institute recently joined LinkedIn, Instagram, and Threads to connect more with students and alums. Find and follow us on social media for some of these stories.