

2024-25 YEAR IN REVIEW

Building sustainable prosperity in a changing global environment through rigorous, policy-relevant, interdisciplinary research and training of the next generation of leaders



CIERP BY THE NUMBERS: FY25

23

ACTIVE
GRANTS

OVER
31K

WEBSITE
VISITS

25

AFFILIATED
FACULTY

16

EVENTS

17

PUBLICATIONS

27

BLOG
POSTS

\$190K

IN NEW
GIFTS

\$2.5M

ANNUAL
BUDGET

43

MEDIA
OUTPUTS

30

SUPERVISED
CAPSTONES

9

FUNDED
INTERNS

28

STUDENT
EMPLOYEES

14

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DIRECTORS' NOTE

The 2024–2025 academic year has been a time of transition, resilience, and renewed purpose at the CIERP. We are pleased to share this Year in Review, which reflects the collaborative efforts of our team to advance impactful work in climate and energy policy, water diplomacy, and sustainable development.

This year brought an exciting leadership change at Fletcher, with Kelly Sims Gallagher appointed as Dean of the School. She continues to co-direct CIERP alongside Melissa McCracken, ensuring continuity in our mission and research. We also experienced transitions within our team. We bade farewell to our Program Coordinator, Max Zandi, whose contributions were deeply appreciated, and we warmly welcomed Alyssa Scheiner into the role. We are grateful to our administrative team – Sara Rosales Laverty, Mieke van der Wansem, and Jillian DeStone – whose steady support enables our continued progress.

Despite the challenges and uncertainties in higher education, as well as in the domestic and international environment and development policy landscapes, we remain committed to delivering accurate, evidence-based analysis. We are actively pursuing new sources of support to replace lost federal funding and remain focused on conducting policy-relevant work that informs real-world decisions. Our faculty and fellows continue to participate in global conferences and policy dialogues, and frequently share insights in *The Conversation*, *The New York Times*, *The Washington Post*, and other media outlets. We ensure our research meets the rigorous standards of peer review by publishing in journals including *Nature Water*, *Climate Policy*, and *Environmental Research Letters*, and we've shared numerous policy briefs and conversations with decision-makers to help bridge the gap between research and action.

We held our annual luncheon for graduating students this May – a meaningful tradition that reminds us of the talent and passion that define our community. As our graduates move into the next phase of their careers, we look forward to seeing the impact they will make. They join a growing network of CIERP alumni, including



Co-directors Dean Kelly Sims Gallagher and Professor Melissa McCracken with Nancy Zhou, Daniel Alegre, and Sophie Lehrenbaum at a luncheon for CIERP's graduating students.

former students, postdocs, visiting scholars, and participants in our Climate Policy Lab Academy. If you're one of them, please continue to stay connected.

We invite you to explore the pages that follow to learn more about our work over the past year. From mentoring students to engaging with policymakers, our team continues to pursue research that matters. With the uncertainties facing policy and research on environment and development topics, maintaining a community of support, open dialogue, and trust will be increasingly vital to increasing resilience and potential for positive change. Thank you for being a part of this community alongside the CIERP faculty, staff, students, and alumni. We appreciate your continued interest and support.

Sincerely,

Kelly Sims Gallagher
Co-Director, CIERP
Director, Climate Policy Lab
Dean, The Fletcher School

Melissa McCracken
Co-Director, CIERP
Director, Shared Waters Lab
William R. Moomaw Assistant Professor of
International Energy and Resource Policy

Distinguished Guest Lectures



Dr. Ayana Elizabeth Johnson visited Fletcher in October to discuss her latest work, *What If We Get It Right*, offering an inspiring and optimistic perspective on climate action.

Also in October, **Ambassador Michael Hammer** (F87), United Nations Special Envoy for the Horn of Africa, delivered a compelling talk to a full house of students on “Environmental Diplomacy and the Key to Surviving the 21st Century and Beyond.”



Professor Jenny Aker was hosted at Trinity College Dublin for the Trinity Impact Evaluation Unit (TIME) Annual Lecture, where she spoke on “The Mobile Phone Revolution in Africa: Successes, Failures and the Future.”



In November, CIERP and the Russia & Eurasia Program co-hosted **Dr. Asel Murzakulova** for a lecture on hydro policy challenges in Central Asia and the regional impacts of climate change.

International Policy Engagement

In November, **Professor Barbara Kates-Garnick** participated in a panel discussion titled “Trade, Tariffs, and Carbon: An Emerging International Policy Landscape,” alongside Senator Angus King and Dr. Karen Palmer. Professor Kates-Garnick also serves as Senior Advisor to Tisch College on the Commonwealth of Massachusetts’ Energy and Resilience Policy.



Cross-School Collaboration on Offshore Wind

Professor Kates-Garnick has continued her deep engagement with the Offshore Wind Energy Engineering program, which recently [celebrated five years](#) at Tufts. As highlighted in a [Tufts Now article](#), the collaboration has expanded to include not only Fletcher and the School of Engineering, but also Tisch College, thus bringing together students of policy, engineering, and civic life to tackle this challenge.

Leadership in Water Diplomacy

In Fall 2024, **Professor Melissa McCracken** was engaged in global conversations on transboundary water governance. At Stockholm World Water Week, she convened and spoke in several sessions, including those focused on innovative cooperation strategies, and the use of earth observation technologies. Together with Shared Waters Lab Partners, she co-hosted the launch of the Transboundary Freshwater Diplomacy Database Explorer. She also co-authored a poster presentation at the AGU Fall Meeting in Washington, D.C., presented at the Third Environmental Peacebuilding Conference, and was quoted in the research magazine *Horizons*.



Fall Conference Participation

In November, Climate Policy Lab (CPL) researchers **Dr. Hengrui Liu**, **Kate Chi**, and **Siddharth Jain** attended the conference “New Thinking in Industrial Policy: Perspectives from Developed and Developing Countries” at Columbia University.

Kate Chi and **Dr. Hengrui Liu** were invited to present their work on government energy research spending and China’s electric vehicle innovation, respectively, at a workshop on “China, Sustainable Development, and

Global Energy Transitions” at the Boston University Global Development Policy Center in November.

In December, CPL Research Fellow **Seth Owusu-Mante** contributed as a panelist at the West Africa Energy Cooperation Summit in Lomé, Togo. His session focused on “Energy Storage: Opportunities, Market Dynamics, Financing, and Regulation,” which brought together regional and international policymakers and stakeholders to explore the evolving role of storage technologies in Africa’s energy transition.



Seth Owusu-Mante, center, speaks at the West Africa Energy Cooperation Summit.

CPL Research Fellow **Bethany Tietjen** attended the American Meteorological Society’s Climate Policy Colloquium in Washington, D.C., in December, where she engaged with policymakers and academics working on issues at the nexus of climate science and policy in the U.S. federal government.

Fall Student Roundtable

The Fletcher Energy and Environment Club (FLEEC) hosted a student roundtable with **Professor Carlos Alvarado Quesada** – former President of Costa Rica and Professor of Practice at Fletcher – on diplomacy at COP29, Costa Rica’s climate leadership, and other student-driven topics.



Spring 2025 Highlights

Extreme Weather Preparedness

In February, **Professor Erin Coughlan de Perez**, Research Director and Dignitas Professor at the Friedman School of Nutrition and Senior Advisor at the Red Cross Red Crescent Climate Centre, participated in an American Red Cross meeting in Texas. The event focused on preparing for simulated extreme weather scenarios with teams from across the country.

Spring Conference Participation

Professor Sally Zhang presented her research on youth development, household economics, and gender dynamics at several prominent conferences in the first half of 2025, including the Midwest International Economic Development Conference, the New Advances in Family Economics Workshop in Bruges, the BSE Summer Forum, and an Utrecht University seminar.



CPL Research Fellow **Soyoung Oh** attended the International Studies Association (ISA) annual convention in Chicago in March, engaging with scholars on her dissertation and other CPL research topics.

In May, CPL Research Fellow **Kate Chi** attended the Boston/New England Area Working Group in African Political Economy (BWGAPE) at Brown University.

Professor Kates-Garnick moderated a panel about regional blue and green economies at a summit hosted at Tufts in June titled “Growing New England’s Next Generation Innovation Economy.”

Professor Marcia Moreno-Báez attended the 2025 United Nations Ocean Conference in Nice, France in June. She was invited to participate in the [Global Future Council on the Regenerative Blue Economy](#), of which she is a member. She also met with fellow advisors from the [Ocean Nexus](#) network, where she serves as an advisor. Later in the month she gave two



Professor Marcia Moreno-Báez with students Paul-Émile Pissier and Nathalie Estiévenart on the sidelines of the UN Ocean Conference in Nice, France.

presentations at the [international symposium of the RIEMARA network](#) held in Hermosillo, Mexico – one on financial inclusion and another on spatial planning for aquaculture in Mexico.

Welcomes & Transitions

New PhD Candidates: CIERP welcomed two new PhD candidates in Fall 2024: **Siddharth Jain** (MALD ‘23) and **Zheng Cui** (MALD ‘24). Both are serving as Junior Research Fellows with the Climate Policy Lab.

Visiting Scholars: CPL hosted two Visiting Scholars this academic year: **Zhiwei Yang** in Fall 2024 and **Dr. Kejia Yang** in Spring 2025.

Fullbright Scholar Visiting Professor: Dr. Miguel Angel Ojeda Ruiz de la Peña was welcomed at CIERP for a period of six months to work with **Professor Marcia Moreno-Báez** on projects related to small-scale fishing and aquaculture. This work is helping to understand and identify opportunities for policy development that support coastal communities in Mexico and Latin America.

Staff Transitions: In April, we bade a fond farewell to Program Coordinator **Maxwell Zandi** as he transitioned to a new role at Foreign Policy for America in Washington, D.C. We’re deeply grateful to Max for his dedication and many contributions and wish him continued success. In June, CIERP welcomed **Alyssa Scheiner** (MALD ‘24) as the new Program Coordinator.



New Faculty Appointment: We are delighted to welcome **Dr. Easwaran Narassimhan** as Assistant Professor of Climate and Energy Policy in August 2025. As a Fletcher MALD, PhD, and most recently faculty affiliate at Fletcher’s Climate Policy Lab, he has contributed to widely cited research papers, including analyses of emissions trading systems, the environmental efficacy of Chinese overseas energy investments, and the effectiveness of demand-side policies promoting electric vehicles in the United States.





Alicia Bárcena, Mexico's Secretary of Environment and Natural Resources, and Professor Marcia Moreno-Báez at the 2025 UN Ocean Conference.

CLIMATE POLICY LAB

The [Climate Policy Lab \(CPL\)](#) was established in 2016 to support countries in implementing the Paris Agreement and to advance knowledge about climate policy itself. Directed by Dean Kelly Sims Gallagher, it encompasses an extensive network of scholars, government officials, and policy experts who participate in the work of policy analysis through project-specific study teams and contribute insights to enable comparative study.



Community Water Supply Systems

In partnership with Winrock International, solar water pumps were installed in Ethiopia in a community with 17,000 people. CPL had contributed to an initial feasibility study, [policy brief](#), and completed baseline surveys.

Energy Security and Insecurity

Postdoctoral Research Fellow Dr. Nora Hampl published [a peer-reviewed article](#) in *The Fletcher Forum of World Affairs* exploring how renewable energy transitions reshape the concept of energy security in a climate-constrained world.

Dr. Hampl also contributed a chapter to the Routledge volume [Energy Justice in Latin America](#), analyzing indigenous rights and energy justice in hydroelectric projects in Costa Rica and Panama.

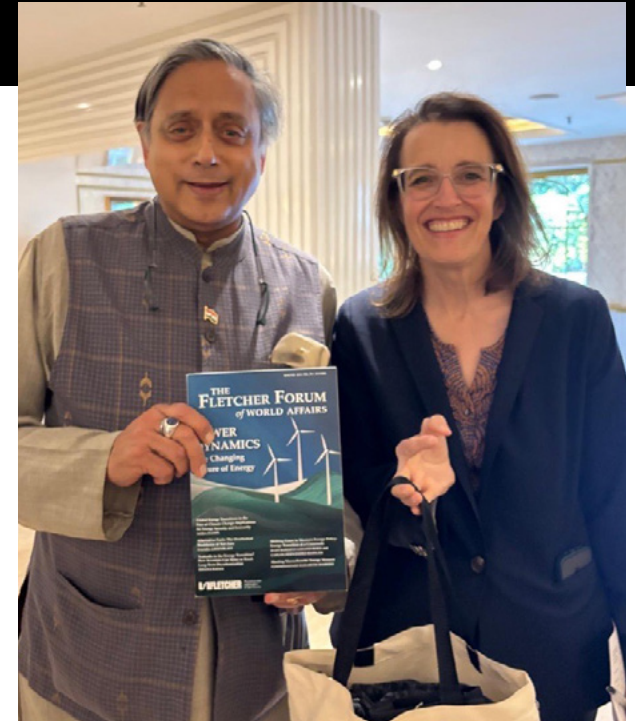
CPL Research Fellow Seth Owusu-Mante analyzed Ghana's energy transition in a [Climate Smart blog post](#).

Decarbonization Pathways by Country

CPL's "Raising Ambition" project assesses existing efforts and potential future policy pathways for specific countries to achieve deep decarbonization, while growing the economy and jobs. This year, six policy briefs were published focusing on achieving net-zero targets in India, China, South Africa, Indonesia, Mexico, and Brazil, summarized with additional achievements below. As part of this work, CPL has updated its [open-access database of policy inventories](#) for all six countries. In the next stages of the research, CPL will assess implementation gaps in each of the countries. Prior literature has focused on the "policy adoption gap" – the shortfall between needed and adopted policies – and less attention has been paid to the "policy outcome gap" – the gap between intended and actual outcomes after policies are implemented. This new research seeks to systematically assess the policy outcome gap in these six emerging economies, which are critical to global decarbonization pathways.

INDIA

Tarun Gopalakrishnan, Easwaran Narassimhan, and Kelly Sims Gallagher published [a policy brief on a phased policy mix](#) to achieve India's economic and climate goals, followed by a [paper published in Climate Policy](#), which grounds the analysis of the above briefing in peer-reviewed findings. Most comparable work using systems dynamics modeling



Dr. Shashi Tharoor, member of India's parliament, with Kelly Sims Gallagher during a visit to India.

to reconcile India's climate and socio-economic objectives is non-peer-reviewed. The climate policy scenario-building tool for India, developed in conjunction with Energy Innovation, has allowed CPL to inform Indian policymakers on how policies could be designed and implemented to effectively achieve the country's targets and further ensure that the country will be on a net-zero pathway by 2070. CPL's research also shows that converting fuel taxes to carbon pricing would contribute strongly to decarbonization in India in a manner that would build economic resilience, informing discussions on the fiscal steps needed for the conversion.

Dean Gallagher moderated a panel at Raisina Dialogue in Delhi, India.

CPL finalized a new round of climate policy inventory updates in December 2024. Based on the latest research examining China's policy gaps in achieving its carbon peaking and carbon neutrality goals, CPL produced two policy briefs: [one for public dissemination](#)

on China's progress to carbon peaking and neutrality, and another for internal exchange with Chinese stakeholders. Based on this research, a paper is forthcoming on the three types of policy gaps that China faces as it looks beyond 2030 to achieve its long-term climate goals.

Dean Gallagher presented these findings during a trip to Beijing in December and engaged in vibrant

Dr. Nora Hampl published a policy brief on “[Brazil's Net-Zero Future and Circular Bioeconomy: Achieving Nationally Determined Contribution \(NDC\) while Saving Vital Ecosystems](#)” in collaboration with the Talanoa Institute.

Research Fellow Seth Owusu-Mante published a [policy brief](#) on South Africa's decarbonization efforts, which was well-received by both the Department of Mineral Resources and Energy (DMRE) and the Department



Dean Gallagher, Dr. Nora Hampl, Kate Chi, and



of Forestry, Fisheries, and the Environment (DFFE). The DFFE indicated that they look forward to the results of the climate policy modeling and that the recommendations will be considered by the committee working on the updated Nationally Determined Contribution (NDC). Together with the Presidential Climate Commission (PCC), CPL is helping to grow a climate policy modeling community within South Africa that can be more responsive to the government's policy questions.

Research Fellow Tarun Gopalakrishnan published a [policy brief](#) on South Africa's framework climate law of 2024, outlining its key strengths, weaknesses, opportunities, and risks.

INDONESIA

Research Fellow Soyoung Oh and Agus Sari of Landscape Indonesia published an op-ed in *The Jakarta Post*, "[Why Indonesia's Path to Net Zero Requires Urgent Action at COP29](#)," highlighting challenges and opportunities for Indonesia's net-zero targets.

Soyoung Oh also published a [policy brief](#) on pathways for Indonesia's enhanced NDC.



Participants at the 2024 Climate Policy Lab Academy discussed country-specific policy approaches.

In collaboration with Landscape Indonesia, we are working on a policy brief and further papers with modeling results of decarbonization pathways for Indonesia.

MEXICO

Together with collaborators from Iniciativa Climática de México, CPL completed the Climate Ambition Scenario (CAS), which integrates ambitious climate targets tailored to Mexico's unique socio-economic context. The scenario reflects Mexico's evolving political priorities, particularly in the power sector,

and balances climate ambition with developmental goals. The joint research team published a [policy brief](#) explaining the results of the CAS.

A policy memo for the Mexican government was prepared that analyzed how Mexico can reconcile climate change and development.

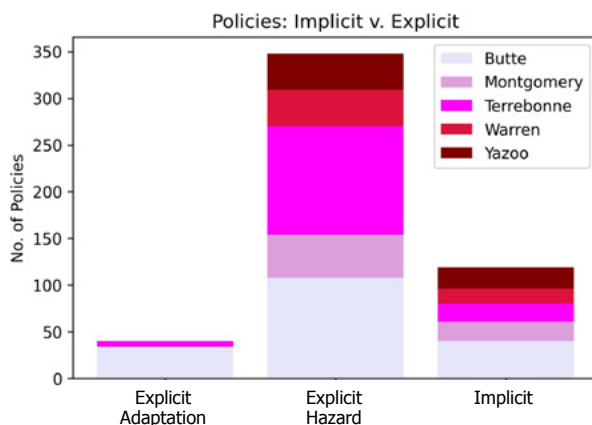
In line with this work, CPL is working on further papers incorporating additional modeling results and highlighting the importance of EVs in Mexico's economy and decarbonization pathway.

Policies for Industrial Decarbonization

CPL Research Fellow Soyoung Oh co-authored a [perspective piece](#) on industrial decarbonization strategies at industrial hubs, e.g., carbon capture, utilization, and storage (CCUS) and hydrogen. The paper highlights the importance of carbon pricing mechanisms to crowd in private investments.

Climate Adaptation & Disaster Planning

Research Fellow Bethany Tietjen and Professor Erin Coughlan de Perez co-authored a [novel policy assessment](#) of 508 adaptation policies across five U.S. counties, using an inclusive definition that captures both explicit and implicit climate policies. Their study introduces a novel methodology for benchmarking local adaptation progress and offers strategic recommendations to guide future investments in climate resilience nationwide. Bethany Tietjen was interviewed for a [Tufts Now article](#) highlighting this study's key insights.



Another [study](#) published by a team including CPL researchers Professor Erin Coughlan de Perez, Bethany Tietjen, and Professor Amy Myers Jaffe, documents substantial changes in the risk of extremes in the southeastern United States and proposes a generalizable framework for disaster preparedness simulations in a changing climate. This work was highlighted in another recent [article in Tufts Now](#).

Bethany Tietjen also co-authored an article in *Earth System Governance*, "[The State of Planning, Policy, and Justice for Human Mobility in National Adaptation Plans](#)," which explores the extent to which human mobility has been formally incorporated into the National Adaptation Plans of 57 countries.

Carbon Dioxide Removal Technologies

Research Fellow Soyoung Oh co-authored a [review of the economics and policies of carbon dioxide removal](#), examining why it has so far only played a limited role in mitigation, and what might be done to address this gap.

Electric Vehicle Transition



Led by Postdoctoral Scholar **Dr. Hengrui Liu**, CPL has just finished a new study on the growth of China's EV industry. The findings reveal that the interactions among city governance, corporate strategies, and culture may shape the pace and direction

of technological leapfrogging at the city-firm level. CPL is now analyzing the EV transition in three U.S. states: California, Texas, and Michigan.

CPL also recently completed a study (publication pending) investigating global supply chains of critical minerals used in the EV industry. Two case studies – nickel in Indonesia and cobalt in the Democratic Republic of the Congo – investigate how the United States and China have secured their supply chains and what impact this has on environmental and economic development in source countries.

Additional research on the global trade of used electric vehicles is ongoing, with interviews conducted with experts and private companies worldwide.

Recent Climate Smart blog posts by Dr. Hengrui Liu address the impact of [U.S. tariffs](#) and [legislation](#) on the electric vehicle industry.

Offshore Wind Expansion

A report on "[Offshore Wind Transmission Expansion for the U.S. Atlantic Coast](#)," co-authored by Professor Barbara Kates-Garnick, Professor Eric Hines, and their team, prototypes a system of models, methods, and processes that can be used for "responsive analysis" for offshore wind transmission expansion planning.





Climate Policy Lab Academy participants from Indonesia workshopped implementation gaps with Dean Gallagher.

SHARED WATERS LAB

The [Shared Waters Lab](#) (SWL), founded in 2022 by Professor Melissa McCracken, is a research initiative that works to explore the complexities surrounding cooperation over freshwater resources that transect or define boundaries, with the aim of promoting and encouraging effective cooperative processes that are equitable and sustainable. The Shared Waters Lab Partnership, a collaboration between Oregon State University, the Fletcher School at Tufts University, and IHE Delft, further supports this mission.



Professor Melissa McCracken, SWL Director, with Professors Aaron Wolf, OSU, and Susanne Schmeier, IHE Delft.

Role of Institutions in Transboundary Water Conflict

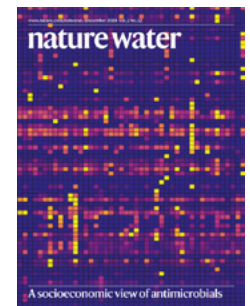
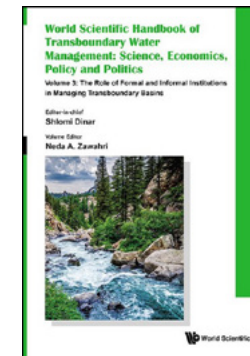
The SWL Partnership began a new project that evaluates how multiple institutions shape conflict and cooperation over a shared water resource. In particular, the project aims to answer questions about the roles these institutions play and whether their interplay has the potential to affect their ability to manage, prevent, and mitigate conflict or generate cooperation benefits.

Societal Resilience to Water and Climate Shocks

Understanding and promoting societal resilience to water disturbances is vital in the face of a changing climate and increasing resource scarcity. The SWL Partnership, in collaboration with the Global Water Security Center at the University of Alabama, is beginning research that aims to evaluate whether indicators of social resilience do, in fact, provide resilience in the face of disturbance and to develop conceptual models for how societal resilience can reduce conflict potential in human-environmental systems. This research was funded initially by the US Department of Defense's Minerva Social Science Research Initiative until the grant was terminated.

Publications on Water Conflict and Cooperation

Professor Melissa McCracken published a [perspective piece in *Nature Water*](#) calling for more ambitious and inclusive approaches to transboundary water governance. She emphasizes the need for trust, equity, and long-term vision in crafting agreements that can withstand political and environmental shocks. Her piece in [The Geographer](#) and her contribution to the [Encyclopedia of the Anthropocene](#) explore how international waters can be arenas of both conflict and cooperation, depending on institutional strength, political will, and how shared risks are managed. Professor McCracken and co-authors also tackled the evolving landscape of transboundary water governance in articles published by the [World Scientific Handbook on Transboundary Water Management](#), [New Security Beat](#), and [The Conversation](#).



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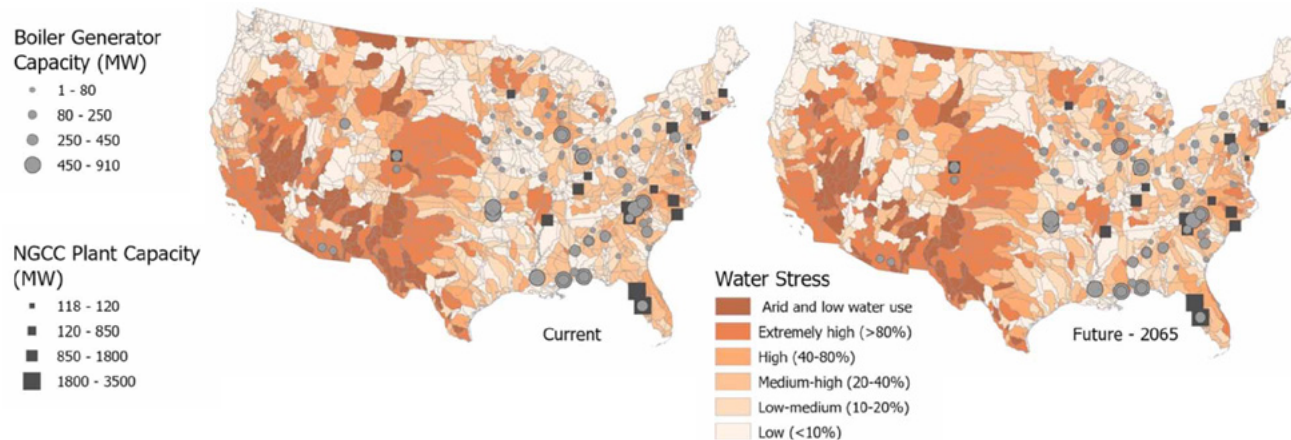
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A project of the SWL Partnership, the [Transboundary Freshwater Diplomacy Database \(TFDD\)](#) is an award-winning spatial database of the world's international river and lake basins, wetlands, and the institutions governing them. The database includes the largest compendium of international water conflict and cooperation events, institutions, and treaties available. It is regularly used by diplomats, policymakers, development partners, and researchers worldwide, with approximately 1500 unique visits per month. The database underwent extensive updates this year, creating a new interactive spatial platform of the world's international water basins and their respective institutional capacity data.



PhD candidate Kate Chi published a [research article](#) with Professor McCracken on how retrofitting cooling systems at coal-fired power plants in the U.S. affects water usage. Using an event study approach, they analyze changes in water withdrawal and consumption before and after retrofits. The findings highlight that while retrofits can reduce water withdrawals, the impact on water consumption varies depending on the type of cooling technology adopted, with implications for water resource management and energy policy.



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Seth Owusu-Mante, second from left, was a panelist at the West Africa Energy Cooperation Summit in Lomé, Togo.



Maulik Jagnani is an Assistant Professor of Economics focusing on microeconomic topics in environmental health and human capital in lower-income countries.

Indoor Air Quality

Professor Maulik Jagnani conducted two randomized experiments to understand why middle-class households in Dhaka, Bangladesh – one of the world's most polluted cities – rarely buy air purifiers despite being able to afford them. He finds that even though people know that outdoor air quality is extremely poor, they drastically underestimate how polluted their indoor air actually is, and doubt whether air purifiers really work. Even when given free air quality monitors or purifiers separately, households did not increase their willingness to pay for air purifiers or use the air purifiers, respectively. However, when given both technologies together, households used air purifiers 236% more and valued them 26% higher after extended use. The key insight: people need to understand both the severity of the problem and the effectiveness of the solution before they will use even free preventive health technologies, and actual hands-on experience with the technology further increases their valuation of it. Professor Jagnani and colleagues wrote about some of their findings in [VoxDev](#) and [The Business Standard](#).

A second study consisted of two randomized experiments with firms in Bangladesh's garment sector. The first experiment shows that air purifiers boost productivity and profits by up to 30% and pay for themselves in four high production months, yet virtually no firms own them. The second experiment reveals why: firms lack credible signals about whether the technology will work reliably and deliver the expected gains for their specific firm – information and credit do not help, but money-back guarantees and try-before-you-buy options increase willingness-to-pay by 25%. Firms from the first experiment, who had to return their purifiers, showed 80% higher willingness-to-pay a year later, confirming that firsthand experience provides the credible signal needed to overcome adoption barriers.



Rural Roads, Farm Labor Exits, and Crop Fires

Professor Jagnani and colleagues [published an article](#) investigating the relationship between human health and the environmental costs or benefits of antipoverty programs, specifically the externalities associated with policies that enable structural transformation or labor reallocation away from low productivity agriculture. The study shows that access to rural roads increases agricultural fires and particulate emissions. Farm labor exits are a likely mechanism: rural roads cause movement of workers out of agriculture and induce farmers to use fire – a labor-saving but polluting technology – to clear agricultural residue or to make harvesting less labor-intensive. The adoption of fires due to rural roads increases the infant mortality rate by 5.5% in downwind locations.

Parents and the Value of Equal Opportunity

Another [recent paper](#) co-authored by Professor Jagnani reveals the results of two experiments conducted to identify the value parents place on equality of opportunity when investing in children. The study finds that while parents in both experiments place some weight on maximizing returns (total household earnings), they also display a strong preference for equalizing opportunities (the investment in each child) and are willing to forgo roughly 15-45% of their potential earnings to do so. We find that parents in the higher-income countries also care about equalizing outcomes (child-level expected earnings), while parents in the lower-income country do not.



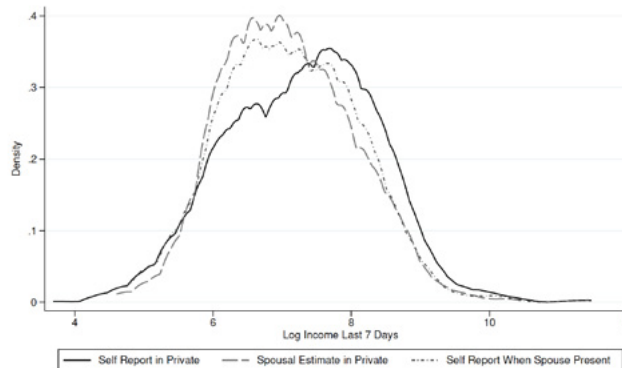
Sally Zhang is an Assistant Professor of Economics researching intrahousehold allocation, child development, and gender inequality in developing countries.

Empowered by Adversity

Professor Sally Zhang presented her paper, “[Empowered by Adversity: Economic Shocks and Noncognitive Skill Development in Ethiopian Youth](#),” (joint with Leonard Wantchekon) at the Midwest International Economic Development Conference. The paper presents three novel facts on the development of noncognitive skills using a longitudinal dataset from Ethiopia. First, they observe a weak correlation between parental wealth and noncognitive skills. Second, they find that while adverse weather shocks cause a slight decline in cognitive test scores, they boost noncognitive skills, including generalized self-efficacy, self-esteem, and internal locus of control. Lastly, they show that past exposure to adverse weather shocks is correlated with better mental health during the COVID-19 pandemic. They rationalize these surprising findings within a model of cognitive and noncognitive skill development, where child agency serves a key role.

Hidden Household Income

Professor Zhang presented another [paper on hidden household income](#) at the New Advances in Family Economics Workshop in Bruges. She is studying whether household members hide employment income from one another, and finds that respondents in Kenya and Indonesia underestimate the labor income of other household members, and underreport their own income when other household members are present. Households with measured hiding consume more private goods and transfer more to extended



families. In the paper, she develops and tests a household model where each member can strategically underreport income, increasing private consumption at the expense of household efficiency.



Jenny Aker is a Research Professor studying economic development in Africa, with a primary focus on the impact of information and information technology on development outcomes, particularly in the areas of agriculture, agricultural marketing and education.

Land Degradation and Rainwater Harvesting

Professor Jenny Aker and her research colleagues have worked since 2018 with the Ministry of Environment in Niger to test policy interventions to increase the adoption of rainwater harvesting techniques. Overall, they found that training alone increases the probability of adoption by over 90 percentage points, with lasting impacts on agricultural output and land usage. They have worked with the Ministry to scale up the training, but questions remain about whether the research findings will transition to an at-scale program. Current research entails working alongside the Ministry to test and analyze different training implementation models along three dimensions: 1) the type of training (one or multiple techniques; 2) the size of the training; and 3) the role of monitoring. If successful, the training will be incorporated into standard Ministry practice.



PHOTO: FATOUMATA DIABATE VIA OXFAM

Construction of demi-lunes, a rainwater harvesting technique in the Sahel.

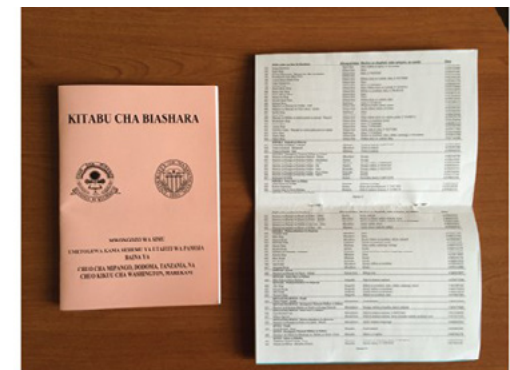
Farmer-Herder Conflicts in the Sahel

Farmer-herder conflicts have increased over the past few decades in the Sahel, a region directly affected by climate change. Much of the existing academic work uses cross-country comparisons, making it difficult to identify the key policy levers that could be used to address the root causes of conflict. Professor Aker and her team seek to learn more about local conflict

dynamics in a larger sample (400 villages and two regions) and over a full year, combining high frequency phone surveys with in-person surveys among farmers and herders and GIS data on migration corridors and pastureland quality. The ambition is to develop and scope interventions to help reduce and mitigate conflicts, through increasing pastureland, enabling coordination, and developing strategies for conflict mitigation.

Paper Telephone Directories and Firm Performance

Although mobile phones have quickly diffused through sub-Saharan Africa, they do not necessarily help small and medium enterprises expand their networks given the lack of a complementary information service such as a phone book or search engine. A [new research paper](#) by Professor Aker and colleagues shows that introducing paper business telephone directories – similar to the Yellow Pages – in Tanzania increased revenue by 104% for listed businesses, the number of sales by 47%, and the use of mobile money by 31%. And there are significant positive spillovers to unlisted firms in the same village.



(a) The directory booklet

Kiji-ukata au jina la biashara	Kiwango/mtao	Maelezo ya shughuli, ukata wenyewe, au mamba wenyewe	Namba ya simu
Karindji Supplies	Mukitini	Jumla, mwanzi ya kilele	A 789912025
Mumunzi na Muzaji wa miboga - Hija	Mukitini	Jumla, mwanzi ya biashara, mahindi	V 75757853
Sahara Group - Wauzaji wa miche ya miti na asili	Mukitini	A 787188339	A 787456754
MNENI - Wafanyabiashara wa Rejareja			
A Shop	Mukitini	Duka	T 652625962
George Is Mariani	Mukitini	Biashara ndogodogo	T 714319273
George Is Shungari	Mukitini	Biashara ndogodogo	A 684319959
Kilwa Dhotani	Mukitini	Sakani	A 682264565
Magna Shop	Mukitini	Duka; nafaka; A 785286999	T 717205419
Muzaji wa Mbogambogo - Viala	Mukitini	Biashara ndogodogo; viungo; matunda	A 782776215
Salim Shop	Mukitini	Duka	A 787011534
Vitali Super Shop	Mukitini	Duka; T 719066910	T 715634797
MUWU - Fandi			
Fundi Cherehani - Jera	Arusi Kati	Fundi cherehani	A 788610072
Fundi Cherehani - Mama Mchungaji	Arusi Kati	Fundi cherehani; A 681323267	A 685698421
Fundi Cherehani - Mama Zahara	Arusi Kati	Fundi cherehani; T 659921925	A 785521659

(b) Example directory entries



Marcia Moreno-Báez is a Research Professor studying the spatial distribution of economic activities, resource extraction, and policies – primarily in coastal and ocean environments – and supporting applied research that integrates social, economic, and environmental goals to promote equity and justice through inclusive, cross-sectoral collaboration in the Blue Economy.

Global Biodiversity

Professor Marcia Moreno-Báez has been involved in a global effort to study amphibian populations. She serves on the board of directors of an organization called Maine Big Night, where she also acts as a research adviser. This year, she contributed to the first global publication on roadkill data as part of a consortium of researchers. The study, titled “[Global Roadkill Data](#),” presents a comprehensive dataset on terrestrial vertebrate mortality caused by vehicle collisions.

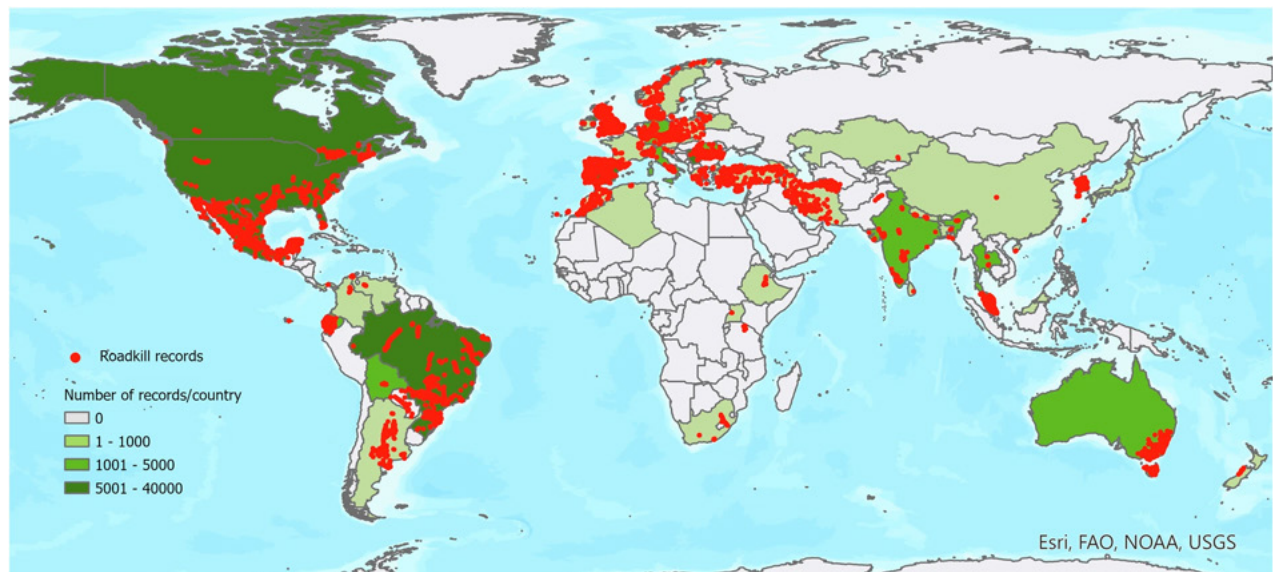
Small-Scale Fishing and Aquaculture

Professor Moreno-Báez is conducting research aimed at exploring the capacity of small-scale fishing communities in Latin America to adopt, adapt, and potentially scale the use of technology in support of

their economic activities and livelihoods. The project assesses how these communities perceive technology governance, their financial and economic ability to access technology, and the availability of local infrastructure. The goal is to identify the conditions under which technology can enable inclusive, sustainable, and replicable solutions and support more

equitable policymaking and resource allocation.

In addition to examining the technological aspects, she is also exploring the spatial dimension of small-scale oyster aquaculture as a potential alternative economic activity for these communities. Professor Moreno-Báez and her team have compiled aquaculture data from 2018 to 2024, and they are currently mapping all



Distribution and number of roadkill records per country. From: [Global Roadkill Data: a dataset on terrestrial vertebrate mortality caused by collision with vehicles.](#)



Several CIERP students were among the Fletcher delegation that attended the 2024 Arctic Circle Assembly in Iceland with Professor Rockford Weitz, second from right.

TRAININGS & CONVENINGS

COP29 in Baku

At COP29 in Baku, Azerbaijan in November, CIERP faculty and students met with government officials and research partners from around the world. The meetings were critical to learning about climate policy progress and shifting political conditions inside partner countries and between countries, which helped grow the knowledge hub for CPL Academy alumni and strategic country partners. Specifically, CPL presented results for modeling and policy research on Mexico, attended invite-only sovereign wealth fund meetings, and met with government and NGO representatives from Mexico, Brazil, Indonesia, and South Africa.

"In our CPL meetings, there was a focus on new climate target commitments that each UNFCCC country is obligated to submit at this year's upcoming COP30. The deadline for new, stronger climate targets was early 2025, and several countries, like the UK and Brazil, were already announcing their COP30 pledges at COP29."

- Dr. Travis Franck, Assistant Research Professor, Climate Modeling and Policy Director at Climate Policy Lab

Fletcher students also left their mark in Baku. **Sophie Lehrenbaum**, MALD 2025, moderated two panel discussions: one around trilateral climate cooperation between Japan, South Korea, and the United States, and another on renewable energy systems, and in particular, offshore wind. **Jenna Clark**, MALD 2025, walked away from COP29 with renewed hope and inspiration to push for local and state level progress after witnessing the New Collective Quantified Goal on Climate Finance (NCQG) negotiations firsthand. Both [Sophie](#) and [Jenna](#) authored blog posts about their experiences and are featured in this report's section on [Student Success](#), see page 25.



Sophie Lehrenbaum, top left, and Jenna Clark, lower left, at COP29.



Climate Laws Workshop

Climate Policy Lab organized and hosted a workshop on 'Designing Effective Climate Legislation' in February 2025. The workshop brought together a diverse cohort of legal scholars, policymakers, and practitioners from across the globe to examine how climate legislation can be designed to be more adaptive, inclusive, and durable.

KEY AREAS OF DISCUSSION

Global and Comparative Trends in Climate Legislation Design, where participants discussed the proliferation of climate laws worldwide, especially in Latin America and Africa and the emergence of comprehensive framework legislations such as the UK Climate Change Act of 2008.

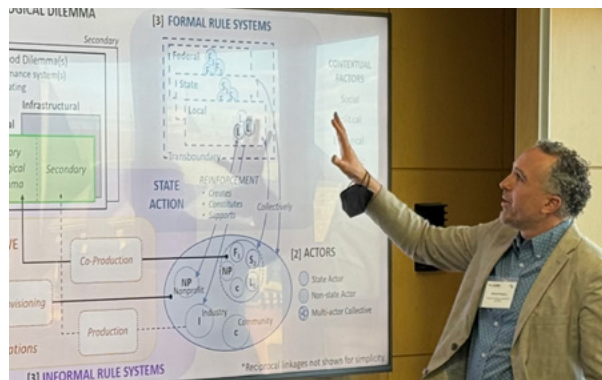
Climate Law-Making Through Institutional Interaction, which dealt with how laws interact with and empower a wide range of institutions – beyond parliaments – including courts, regulators, and advisory bodies.

The Role of Law in Climate Adaptation and Resilience, which examined resource and capacity constraints faced by local communities in responding to climate impacts.

Resilience and Climate Justice, Participation, and Legitimacy, which discussed the limitations of centralized governance in addressing localized impacts of climate change, such as migration and livelihood loss.



Dena Adler, Senior Attorney at New York University's Institute for Policy Integrity, spoke on the ability of government agencies to issue science-based regulations.



Daniel DeCaro, Associate Professor, University of Louisville, discussed adaptive and transformative environmental governance.

OUTPUTS

- A detailed [workshop synopsis](#), offering insights into the key discussions.
- A [policy brief](#) analyzing South Africa's Framework Climate Law.
- A [3-minute highlight video](#) offering a sense of the conversations and connections that took place.



LOOKING AHEAD

The deliberations helped identify future research needs and potential avenues for collaboration between the attendees. One area of research looks at the importance of participatory governance in creating effective climate policy. Another is a comparative look at climate legal systems. Preventing policy backsliding was another area that the panelists concluded was worth exploring. Finally, the role of law in climate finance was determined to be one of the most pressing challenges.

The workshop convened participants from North and South America, Africa, Europe, and South Asia, representing law schools, judiciary bodies, civil society organizations, and research institutions. Discussions were enriched by cross-sectoral perspectives and highlighted how legal design must reflect diverse social realities, especially those of vulnerable and historically excluded communities. CPL will incorporate learnings from this workshop into future convenings, including the Climate Policy Lab Academy.

Academy and Climate Policy Symposium

The Climate Policy Lab Academy is an annual gathering that brings together climate policy experts, researchers, and practitioners from around the world to deepen understanding and collaboration on effective climate policy design and implementation. Through a mix of online and in-person sessions, the Academy provides a platform for sharing tools, methodologies, and country experiences to address the urgent challenges of climate change.

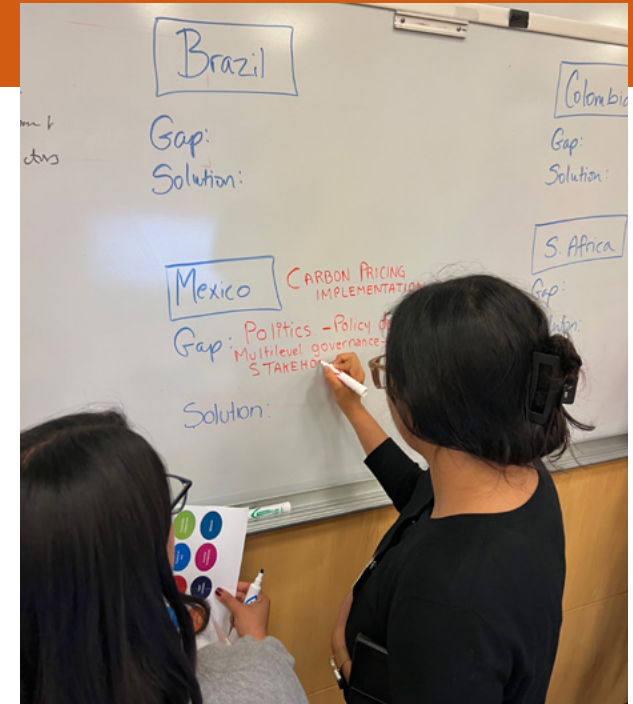


Akhilesh Tilotia, Head of Research at India's National Investment and Infrastructure Fund, receiving his certificate at the 2024 Academy.

In June 2024, the Academy convened participants from 11 emerging market economies – China, India, Indonesia, Vietnam, Brazil, Mexico, South Africa, Ethiopia, the African Union, Colombia, and Türkiye. The Academy covered important topics and tools, such

as Policy Gap Analysis (including system dynamics modeling), policy typology, process, alignment, sequencing, and evaluation; climate action and trade; voluntary carbon markets; decarbonization planning; and adaptation policy. Participants presented updates on their country climate policies – current and recommended – as well as known policy implementation gaps. One participant, Akhilesh Tilotia from India, reflected on his experience in a [blog post](#).

Building on this momentum, the 2025 CPL Academy will take place from September 16–19 and will include the inaugural Climate Policy Symposium from September 18–19. As in previous years, the Academy will begin with online sessions focused on CPL's Policy Gap Analysis methodology. The in-person portion of the Academy and the Symposium will emphasize identifying and overcoming climate policy implementation barriers – a key focus of ongoing CPL research. The timing of the event is designed to align with and contribute to the lead-up to New York Climate Week.



Academy participants brainstorm country-specific policy gap solutions during the 2024 program.

For more information about the 2025 Academy or the Climate Policy Symposium, please contact Mieke van der Wansem at mieke.wansem@tufts.edu.

CLIMATE POLICY SYMPOSIUM



September 18–19 | The Fletcher School

Mind the Gaps: Climate Policy Integration and Implementation

Register [here](#) or scan the QR code:



Directors' Note

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CIERP faculty, staff, and fellows gathered with graduating students to celebrate their accomplishments.

STUDENT SUCCESS

Nabiya Imran (MALD 2025), Climate Policy Lab Scholar, consistently reflected her unwavering commitment to climate action in the Global South. In summer 2024, Nabiya interned with the Permanent Mission of Pakistan to the United Nations, supporting negotiations in the Second Committee on climate finance, sustainable development, and the Global Digital Compact. The experience offered a front-row seat to multilateral diplomacy and deepened her understanding of global climate governance. In March 2025, she travelled to Bridgetown, Barbados to participate in the Sustainable Energy for ALL (SE4All) Global Forum, where she engaged with ministers, youth leaders, and practitioners on accelerating energy transitions in Small Island Developing States. She contributed to discussions on gender equity, youth inclusion, and the launch of Barbados's Energy Transition and Investment Plan – an ambitious roadmap to achieve net-zero emissions by 2035.

Sophie Lehrenbaum (MALD 2025) represented Fletcher at COP29 in Baku where she spoke at two panels: one around trilateral climate cooperation between Japan, South Korea, and the United States, and another on renewable energy systems, and in particular, offshore wind.

“Unquestionably, the United States has a responsibility to contribute to collective global climate action, as the largest historical emitter of greenhouse gases. However, there is so much inertia driving climate action that, despite what is a dereliction of duty on the part of major polluters, progress will continue to be made. Even within the United States, subnational



Shruti Katiyar, left, and Nabiya Imran, right, attended the Sustainable Energy for All Global Forum in Bridgetown, Barbados in March 2025.

actors, like states, cities, and the private sector, will continue to push forward on climate solutions.” Read her [full reflection on the Community Voices blog](#).

She also served as the Chief Editor of the [Fletcher Forum of World Affairs](#) and was instrumental in successfully ringing in the 50th Anniversary of the publication. At the launch of the 50th Anniversary edition, she moderated two panels featuring esteemed speakers including CIERP Founder and Professor William R. Moomaw and CPL Postdoctoral Fellow Nora Hampl.

Jenna Clark (MALD 2025) attended COP29 in Baku where she gained firsthand insights into international environmental negotiation processes and the challenges therein. “I left Baku still convinced of the vital nature of these events, including as a convening of people from hundreds of different countries and

backgrounds, an amalgam of cultures, languages, knowledge, and ideas. One event that I attended was a panel in English, Spanish, and Quechua about indigenous, female and locally led climate adaptation. Partway through, a Dutch negotiator came in and grabbed a mic, she was meant to be on the panel but was held up in negotiations. She faced the panelists and answered their question, the gist of it being: how will you tangibly help us? How will any of this affect us? What will it change? Maybe nothing came of this exchange, the negotiator could have left and never thought of it again. However, there are not a lot of spaces where local activists and leaders can hold decision makers to account in the middle of their work.”

Daniel Alegre (MGA 2025), Climate Policy Lab Scholar, travelled to Reykjavik to attend the Arctic Circle Assembly in the fall semester. “The experience was an unparalleled opportunity to engage with leading voices on climate policy, deepen my understanding of global environmental diplomacy, and explore new ways for advancing the clean energy transition in the Global South . . . I had the privilege of meeting Fletcher alumni Halla Hrunn Logadóttir, General Director of Iceland’s Office of Energy Affairs; Ambassador David Balton; and U.S. Embassy Deputy Chief of Mission in Reykjavik, Erin Sawyer. Through these conversations, I gained valuable insights into the importance of international partnerships and the opportunities they present for innovative and cooperative solutions.”

A photograph of two men standing side-by-side and giving thumbs up. The man on the left is wearing a black polo shirt with 'RE ON' in green, glasses, and an orange lanyard with a badge. The man on the right is wearing a dark suit, a patterned tie, and a blue lanyard. They are in a room with other people and equipment in the background.

Ishan Tewari, right, met representatives of many of Greentown Labs' startups, including REON Technology.

Directors' Note	News & People Notes	Climate Policy Lab
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Guest lecturer Dr. Ayana Elizabeth Johnson signed a copy of her book for Daniel Alegre.



Nancy Zhou



Kristen Weller

Our students also showed consistent commitment to climate action through internships – **Shruti Katiyar** at [ACT](#) and **Kristen Weller** at [CDP](#).

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The First 100 Days of the New U.S. Administration

April 15, 2025 | 12pm - 1pm ET | Cabot 702

Panelists:



Kelly Hise Gallagher
Dean
Fletcher School



Melissa McCracken
Assistant Professor
The Fletcher School



Steve Black
Professor of International Business
The Fletcher School



Barbara Kline-Gersick
Professor of Practice
The Fletcher School



Marcia Moreno-Salas
Research Professor
The Fletcher School



Brockton Smith
Professor of Practice
The Fletcher School



Josephine Spill
Associate Professor
The Fletcher School



Mieke van der Wansem
Director of Programs
CIERP, The Fletcher School

Moderator:



Mieke van der Wansem
Director of Programs
CIERP, The Fletcher School

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& INTERNATIONAL AFFAIRS

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Moderator:



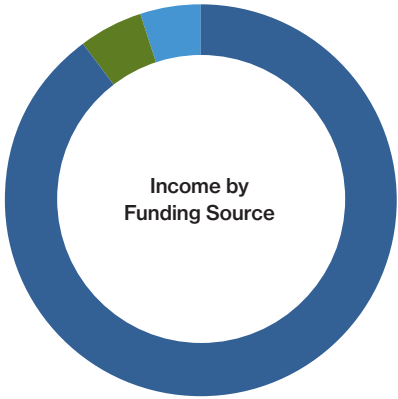
Mieke van der Wansem
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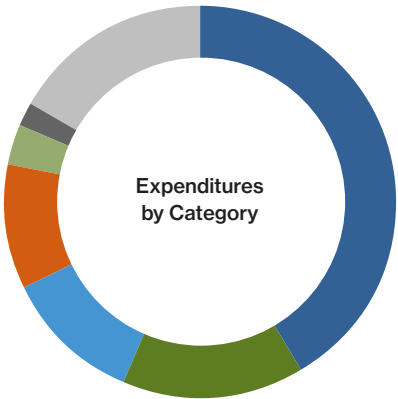
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Mieke van der Wansem, CIERP Director of Programs, moderates a faculty panel on "The First 100 Days of the New U.S. Administration."

FINANCIAL OVERVIEW 7/24-6/25

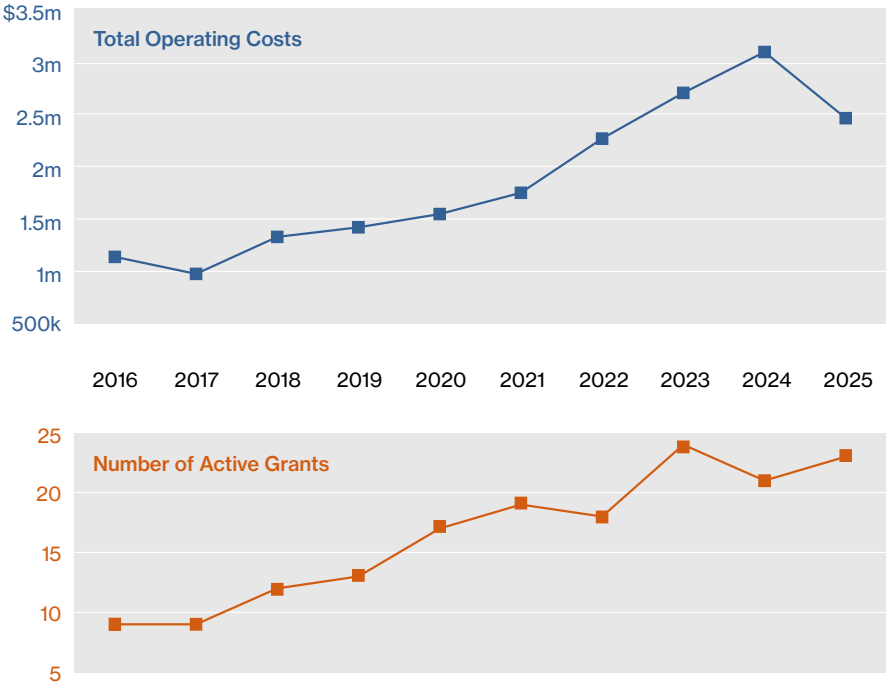


\$2,210,418	Grants
126,778	Gifts
121,654	Fletcher School Co-Funding of Staff
\$2,458,850	Total



\$1,021,190	Faculty, Postdoc & Staff Compensation
367,468	Subcontracts & Consultants
281,846	Student Compensation
253,013	Student Scholarships
81,189	Travel
44,695	Materials & Supplies
409,449	Overhead / Indirect Costs
\$2,458,850	Total

Center Growth by Fiscal Year (2016–2025)



Over the past decade, total expenditures have nearly tripled, rising from \$1.1 million in fiscal year 2016 to over \$3 million in 2024. The number of active grants grew from 9 to 23, supporting a wide range of projects. We gratefully acknowledge our [current grant funders](#) on our website.

This growth reflects the Center’s expanding research portfolio, increased staffing, and continued success in securing external funding. In the fiscal year ending in June 2025, expenditures decreased to \$2.5 million due to several temporary factors: the unexpected termination of several federal grants, the timing of

the annual Climate Policy Lab Academy for September 2025, thus outside of the fiscal year, and the smaller-than-usual delegation attending COP29. Nonetheless, the Center remains well-positioned for continued growth and impact in the coming year.



STAYING CONNECTED

We thank the many supporters of CIERP who make our work possible. Please follow us on social media and join our mailing list to hear about our latest work. We would love to hear your updates as well, please send us news and recent publications to share.

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