Building sustainable prosperity in a changing global environment through rigorous, policy-relevant, interdisciplinary research and training of the next generation of leaders.
**Director’s Note**

The 2016 – 2017 academic year was a year of considerable growth for CIERP.

We sent a delegation of 11 students, along with Associate Director Penny Storey and myself, to the UN Framework Convention on Climate Change Conference of the Parties (COP22) in Marrakech, Morocco, where CIERP launched our newest research initiative, the Climate Policy Lab, and hosted an official side event on next steps for the international negotiations (together with the Harvard Project on Climate Change). We were also fortunate to sign a memorandum of understanding with the UN Development Programme (together with the Harvard Project on Climate Change). We were also invited to participate in the World Climate Conference of the Parties (COP22) in Marrakech, Morocco, where CIERP Storey and myself, to the UN Framework Convention on Climate Change (UNFCCC), served as observers. We sent a delegation of 11 students, along with Associate Director Penny Storey and myself, to the UN Framework Convention on Climate Change Conference of the Parties (COP22) in Marrakech, Morocco, where CIERP launched our newest research initiative, the Climate Policy Lab, and hosted an official side event on next steps for the international negotiations (together with the Harvard Project on Climate Change). We were also fortunate to sign a memorandum of understanding with the UN Development Programme (together with the Harvard Project on Climate Change). We were also fortunate to sign a memorandum of understanding with the UN Development Programme (together with the Harvard Project on Climate Change). We were also fortunate to sign a memorandum of understanding with the UN Development Programme (together with the Harvard Project on Climate Change).

As climate change policy enters the post-Paris era, national policymakers around the world need to understand which policies work in practice, which don’t, and why. The Climate Policy Lab (CPL) convenes teams of scholars and practitioners to evaluate existing climate policies empirically and works with governments contemplating new climate policies. See our dedicated website at https://www.climatepolicylab.org/. We are grateful to an anonymous donor, BP International Ltd., The William and Flora Hewlett Foundation, the Energy Foundation China, and ClimateWorks for new grants that are already supporting the work of the Lab.

Although the political climate has shifted, the need to address energy and environment issues across the globe is still as pressing as ever. To lend insight to the Lab’s investigations, CIERP also welcomed Kevin Knobloch, former Chief of Staff with the Department of Energy at the U.S. State Department, to the Center as a Senior Research Associate. Kevin played an important role as a mentor to IERP students, and has also launched a new initiative on corporate engagement on climate change in the Trump era together with Professor of Practice Bobbi Kates-Garnick.

Two CIERP faculty were on sabbatical (Avery Cohn, Spring 2017 and Shinsuke Tanaka, Spring 2016 – Fall 2017). Avery Cohn made good use of his research sabbatical, publishing five new articles at the intersection of land-use change, climate, and agriculture in Conservation Letters, the Annual Review of Environment and Resources, and Wiley Interdisciplinary Reviews: Climate Change. Shinsuke Tanaka has two new working papers on valuing nuclear energy risk and automotive fuel efficiency.

We also congratulated Drs. Laura Kuhl and Kartikeya Singh, both of whom successfully defended their doctoral theses this academic year and began work at Northeastern University and the Center for Strategic International Studies, respectively.

This summer, I finished my latest book manuscript, tentatively titled *Titans of the Climate: Explaining Climate Policy Outcomes in the United States and China*, co-authored with Xiaowei Xuan and have been intensively working on a policy gap analysis for China with Dr. Fang Zhang and partners at Energy Innovation and the National Center for Climate Strategy (NCSC) in China.

Outside of Fletcher, our affiliates were also very busy. IERP lecturer Mihaela Papa accepted a new position as Assistant Director for International Activities in the Office of the Provost at MIT. Professor of Practice Patrick Verkooijen accepted a new position as Special Representative for Climate Change at the World Bank, and Professor of Practice Hans Hoogeveen also accepted a new position as the Netherlands Ambassador / Permanent Representative to the United Nations Food and Agriculture Organization (UN FAO), as well as Permanent Representative to the World Food Program (WFP) and the International Fund for Agricultural Development (IFAD).

Last, but far from least, I am delighted to announce that as of next year, Professor Jenny Aker has agreed to join me as Co-director of the Center for International Environment and Resource Policy. With this appointment, we believe that the Center exemplifies our true commitment to reconciling environment and development internationally. Jenny has been one of the most committed and engaged faculty in the Center as head of our program on Sustainable Development Economics. In the last year, Jenny has been examining mobile phone-based adult education in West Africa, and has also been exploring the impact of ICT for agriculture. On climate, Jenny is conducting research on rainwater harvesting techniques in Niger as a potential means to improve resilience to climate change.

I am also glad to announce that we have formed a small advisory board for CIERP, co-chaired by alums John Harper (F85-MALD) and Bobbi Kates-Garnick (F73-MA, F78-MALD, F84-PhD). We thank Andy Darrell (F80-MALD), John Holdren, Ed Hoyt (F62-MALD, F64-PhD), and Chris Wendel (F93-MALD) for agreeing to join our CIERP endeavor and look forward to their contributions and advice.

There’s much, much more to describe about the work of our fantastic affiliated faculty, pre- and post-doctoral research fellows, and master’s degree students this year. . . read on!

Kelly Sims Gallagher
Professor of Energy and Environment Policy at The Fletcher School
Director of the Center for International Environment and Resource Policy
Operating Budget

CIERP’s operating budget for FY17 was $976,520. Grants remain the most significant source of income to the Center, largely supporting programmed research in climate policy and sustainable development economics. The School generously supports the Center through contributions to administrative staff. This year was marked by the use of new gifts, in particular the Moomaw Professorship, and new contributions of gifts in support of student experiential learning and internships. The budget was sourced as follows:

Grant Funders:
- BP International Limited
- Dutch Ministry of Economic Affairs
- ESRC / DFID Joint Fund for Poverty Alleviation Research
- MIT Agricultural Technology Adoption Initiative
- Energy Foundation
- Tufts Institute of the Environment (TIE) Environmental Interdisciplinary Research Project
- Smith Richardson Foundation
- Energy Foundation China

Gifts were generously contributed by two anonymous donors and by:
- Barbara Kates-Garnick (F73-MA, F78-MALD, F84-PhD) and Marc Garnick
- Darrell Climate Results Fund
- Ed Hoyt (F62-MALD, F64-PhD) and Sarnia Hoyt
- The Mint Energy Research Fund
- Sean M. Becker, F98, and Melisa Lai-Becker
- Douglas R. Carpenter, F09
- Charles C. Chester, F96, AG96
- Christi E. Electris, F07, and Igor Veytskin
- Melissa C. Freitag, F13, and Lee Freitag
- John W. Furlow, F97
- Kelly Sims Gallagher, F00, F03, and Kevin P. Gallagher, AG99
- Wyatt C. King, F05
- Kristina Hare Lyons, J87, F98
- Kristen Kurczak Nightingale, F04
- Thomas A.H. Pols, F15
- Lesley J. Pories, F13
- Julia P. Radice, F14
- David S. Reinfeld, F97
- Wendin D. Smith, F00
- Edward S. Spang, F06, F12
- Elsa M. Tung, F14, and Kevin C. Shin
- Robin G. White, F06

To support a CIERP research program, contribute to student-centered activities, or to fund a summer internship, please contact Bob Sherburne 617.627.2721 or Penny Storey 617.627.2778
Energy, Climate, and Innovation Program

Directed by Professor Kelly Sims Gallagher and focused on policy for energy innovation, climate change, energy security, energy access, and sustainable prosperity, the Energy, Climate, and Innovation Program (ECI) concentrates on the United States, China, and India.

PUBLICATIONS


Agriculture, Forests, and Biodiversity Program

PUBLICATIONS


The Agriculture, Forests, and Biodiversity program (AFB) is directed by Avery Cohn and is composed of the Cohn Research Group as well as researchers and affiliates from across campus and around the world.

This year, members of the Group published in journals such as Wiley Interdisciplinary Reviews: Climate Change, Conservation Letters, Applied Geography, and the Annual Review of Natural Resource and the Environment. Notable papers explored: the climate regulation value of ecosystems for agriculture, smallholder agriculture and climate change, the influence of remote sensing-based forest governance on the behavior of deforesters, the performance of crop-livestock-forest integration in a changing climate, crop yield modeling by combining remote sensing and machine learning, the sensitivity of tea production to climate change, and new algorithms for performing remote sensing analysis of the hydroclimate. Members of the Group presented at the American Geophysical Union Meeting, The Forests and Livelihoods Network Annual Meeting, Stanford University, and the Conservation and Financial Markets Initiative.

The group’s work continued to expand and grow with new projects initiated in 2017. Graham Jeffries and Professor Cohn are collaborating on a new project led by AFB affiliates Sally Thompson (UC Berkeley) and Tim Griffin (Tufts) and funded by the National Socio-Environmental Synthesis Center on “The economic value of climate stability from forests: The case the Brazilian agricultural frontier.” Cohn will be co-Principal Investigator (with Amy Pickering of Tufts Civil and Environmental Engineering) on a “Tufts Collaborates” grant to investigate how climate change can be expected to influence household water fetching in Sub-Saharan Africa. Cohn spent the Spring 2017 on a pre-tenure sabbatical at Stanford University’s Center on Food Security and the Environment. At Stanford, he developed several new research partnerships including a collaboration with Stanford and the University of Illinois.

continued on next page
The principal activity in this program is the Sustainable Development Diplomacy (SDD) course, co-taught by Professors Mihaela Papa and Patrick Verkooijen. The course examines how to integrate economic, environmental and social equity goals in foreign policy making. It discusses the emergence of sustainable development as a concept and international institutions and negotiation processes that facilitate its implementation. Focusing on climate, forest, and ocean diplomacy, students explore the complexity of the competing claims on natural resources and the role that global natural resources play in national and international security, business relations, and trade policies. The course combines SDD themes with insights from practice and comprises a full-day negotiation training on UN forest diplomacy, where students received negotiation advice and insights from CIERP Professor of Practice Hans Hoogeveen.

**PUBLICATIONS**


In 2017, AFB affiliates published on topics such as: “The leakage and livelihood impacts of PES contracts: A targeting experiment in Malawi” (Kelsey Jack), “Development of a dietary environmental index to assess nutritional quality versus environmental effect of foods and dietary patterns” (Tim Griffin), and “Property-level assessment of change in forest clearing patterns: The need for tailoring policy in the Amazon” (Juliano Assunção). Former postdoctoral fellows John Duncan and Nishan Bhattarai retained collaborative positions while transitioning to Research Fellow positions at The University of Western Australia and the University of Michigan, respectively.

**Sustainable Development Diplomacy and Governance Program**

The principal activity in this program is the Sustainable Development Diplomacy (SDD) course, co-taught by Professors Mihaela Papa and Patrick Verkooijen. The course examines how to integrate economic, environmental and social equity goals in foreign policy making. It discusses the emergence of sustainable development as a concept and international institutions and negotiation processes that facilitate its implementation. Focusing on climate, forest, and ocean diplomacy, students explore the complexity of the competing claims on natural resources and the role that global natural resources play in national and international security, business relations, and trade policies. The course combines SDD themes with insights from practice and comprises a full-day negotiation training on UN forest diplomacy, where students received negotiation advice and insights from CIERP Professor of Practice Hans Hoogeveen.

**PUBLICATIONS**


Sustainable Development Economics Program

Recognizing the multi-faceted and complex nature of sustainable development.

Working on a broad range of topics related to agriculture, education, the environment, health and technology, we seek to understand the short-, medium- and long-term constraints to sustainable development, as well as understanding which policies are the most effective for the world’s poor. With staff from The Fletcher School and the Economics Department at Tufts, our research team works with and through a network of partners to conduct research that directly influences policy.

Primary research streams this year have focused on the use of information technology as part of adult education programs in Niger; identifying and overcoming constraints to the adoption of an agricultural technology for small-scale farmers in Niger; a mobile phone directory for firms in Tanzania; and identifying the potential and pitfalls of the use of information technology for agricultural outcomes and public service provision. Each one of these research streams worked with and through local partners to design the intervention, and used rigorous economic techniques to measure the impact of different policies. In addition, in an attempt to influence policy, results have consistently been shared with donors, governments, non-governmental organizations and the private sector.

PUBLICATIONS


Works in Progress: Shinsuke Tanaka also has two new working papers on valuing nuclear energy risk and automotive fuel efficiency entitled “Valuing Nuclear Energy Risk: Evidence from the Impact of the Fukushima Crisis on U.S. House Prices” and “Mind the Gap! Tax Incentives and Incentives for Manipulating Fuel Efficiency in the Automobile Industry.”

Executive Education

CIERP develops and conducts executive education courses for international environmental and energy practitioners and has a strong reputation for developing effective simulation materials.

This year, we completed two executive education programs:

- Reaching Sustainable Solutions through Effective Negotiations, a skill-building training held at the IUCN World Parks Congress, Honolulu, Hawaii, in September 2016

- Using Sustainable Development Diplomacy to Reframe Organizational Challenges, a training session within the “Stakeholder Engagement and Facilitative Leadership Workshop,” organized for large Dutch public-private organizations and held at the Massachusetts Institute of Technology in May 2017

The Center has developed a new in-house course that is close to launch. The objectives of the Climate Policy Training Program are to provide professionals with the knowledge and understanding of current climate change policy approaches and their successes and failures, as well as technical and analytical tools to more effectively and efficiently address climate change policy and governance. Climate policy experts will impart valuable information on the state of global, national, and bi-lateral climate policy.
Climate Policy Lab

What is the Climate Policy Lab?
The Climate Policy Lab (CPL) convenes teams of scholars and practitioners to evaluate existing climate policies empirically and works with governments contemplating new climate policies. The main questions the Lab seeks to answer are: Which climate policies work in practice? Which don’t work? Why? Under what conditions would they work elsewhere? The scope of the Lab is global, with a particular emphasis on international comparative analysis. The Lab is highly attuned to state, national, and bi-lateral policy processes while maintaining a global perspective — the motto of The Fletcher School. In addition, we focus on, and work with, multilateral organizations.

Launch:
The Climate Policy Lab was officially launched in Marrakech at the UNFCCC climate negotiations in November 2016. The launch event, a dinner hosted in beautiful historic Marrakech, included an introduction to the Climate Policy Lab by Director, Professor Kelly Sims Gallagher and a discussion by all participants of research needed to support the implementation of the commitments made in Paris. The launch was attended by negotiators, representatives of multilateral organizations and other leading climate practitioners from around the world. Participants were enthusiastic about the important role that the CPL could play in supporting developing countries with the design and implementation of climate policies.

As part of the launch in Marrakech, the CPL announced a new partnership with the United Nations Development Programme (UNDP). A memorandum of understanding was signed to collaborate in supporting developing countries with policy design and implementation. The CPL is working with UNDP to provide rigorous analysis and context-specific evidence-based recommendations for policy questions that developing countries face.

Current Projects with UNDP:
- National Climate Funds: The CPL is supporting Fiji in the design of a national climate fund. Research fellow Rishikesh Bhandary was part of a joint mission with UNDP to conduct a workshop with the Fijian government regarding a feasibility study on a national climate fund. Based on the outcomes of the workshop, the team also interviewed private sector actors regarding their role in the potential new fund. In addition, the CPL co-hosted a South-South learning workshop for Pacific Island nations on national climate funds, which allowed Fiji, Tuvalu, Tonga, and Papua New Guinea to share experiences. This project ties into Rishi’s broader research on climate finance from the perspective of developing countries.

- Climate Information and Early Warning Systems: Fletcher MALD student Elizabeth Minchew, working with post-doctoral fellow Laura Kuhl, spent the summer of 2017 in Papua New Guinea as an intern with UNDP to work on a new project on climate information and early warning systems. The CPL is supporting Papua New Guinea to develop a project that would increase
the use of climate information for decision-making and early warning systems. The project will identify the information needs of different users, differences in planning for different hazards, and how using climate information for adaptation planning differs from its use in disaster risk reduction.

- **Integrating Climate Change and Development**: Issues and Opportunities

  Fletcher MALD student Matthew Arnold, working with Professor Kelly Sims Gallagher, was based in Niue and Samoa for the summer as a UNDP intern working on new proposals from Pacific Islands on resilience, adaptation, and development. The project identified synergies and tradeoffs among adaptation, mitigation, and development.

- **Domestic Emissions Trading Scheme**: 

  Fletcher MALD student Zerin Osho interned with UNDP India this summer, working on a pre-feasibility study for a domestic emissions trading scheme in collaboration with the Ministry of Environment. This project will contribute to the broader CPL research on carbon pricing.

### Additional CPL Research Projects

In addition to work through the partnership with UNDP, the CPL has a number of other research projects underway:

- **Clean Energy Innovation**: In June 2017, Professor Kelly Sims Gallagher and Research Fellows Zdenka Myslikova and Fang Zhang attended the Clean Energy Ministerial and Mission Innovation meetings in Beijing, China. The CPL supported the planning of the Clean Energy Ministerial and hosted a side event on Innovation of Growth Pattern: Clean Energy Economic Transition.” The team also produced a report entitled “Mission Innovation 2.0: Recommendations for the Second Mission Innovation Ministerial in Beijing, China” that analyzes data from the 22 Mission Innovation countries (+ the European Union) and provides recommendations for accelerating clean energy innovation.

- **Carbon Pricing**: Research Fellow Easwaran Narassimhan and MALD students Stefan Koester and Julio Rivera Alejo, working with Professor Kelly Sims Gallagher, conducted a study examining the efficacy of carbon pricing instruments in practice. The resulting discussion paper reviews the existing evidence on how carbon pricing mechanisms work in practice, highlights similarities between the different mechanisms, details several design implementation issues with a carbon tax and a cap-and-trade mechanism, provides brief overviews of select national (EU, Ireland, Norway, Mexico, Chile, Japan, India, Republic of Korea, and China) and sub-national (California, British Columbia, Quebec) policies, and finally, concludes with a discussion of real world policy.
SPOTLIGHT ON RESEARCH

“The results are being used to inform the World Bank’s Carbon Pricing Leadership Coalition. As part of this project, the CPL is also working with the Mexican government to support the Latin American Carbon Forum and Summit of the Americas, as well as advising the governments of Mexico and Chile on carbon pricing.

Policy Gap Analysis: A policy gap analysis is being conducted by Research Fellow Fang Zhang and Professor Kelly Sims Gallagher at the request of the Chinese government with the goal of supporting policy design to overachieve China’s 2030 climate targets. The research explores what the gaps are between existing, already implemented, climate policies and those that will be needed to exceed China’s INDC. This project will serve as a model for additional policy gap analyses that can be conducted in the future by the CPL using a similar methodology.

Overseas Coal Finance: The CPL is examining the role of Chinese coal investments in Southeast Asia and the Mekong Delta. This study will assess local stakeholder views on these investments, the economics of coal versus alternative cleaner options in each specific country, the respective roles of the donor versus recipient, and policy incentives on both sides in shaping the investment decision. Fieldwork is being completed in India, Indonesia, Nepal, and Vietnam by Research Fellows Rishikesh Bhandary and Easwaran Narassimhan.

Corporate Engagement on Climate Change: CPL’s Senior Research Associate and Director of Corporate Approaches to Climate and Clean Energy, Kevin Knoblock, along with Stefan Koester and Coralie Hormache, are conducting in-depth research and corporate engagement to assess whether the increasing momentum toward a low-carbon economy over recent years is sufficient to withstand the significant energy and climate change policy shift being advanced by the current administration. The project will provide an

“We are delighted to partner with the outstanding academic body in Fletcher, to foster innovative approaches to adaptation planning and budgeting,”

— Adriana Dinu, Executive Coordinator of UNDP Global Environment Finance Unit
up-to-date understanding of the perspectives and positions of key leaders in the U.S. corporate and private equity sectors (along with foreign-based companies doing significant business in the U.S.) in the face of declining technology costs, increasing deployment of clean energy, and potentially dramatic policy shifts.

Local Incentives in Terrestrial Climate Mitigation Policy: Professor Avery Cohn, together with PhD students Graham Jeffries and Ozgur Bozcaga, are conducting research on the potential for local incentives in Brazil to drive climate mitigation policy and reduce deforestation, focusing on the land use, land use change, and forestry sectors. Questions this study is addressing include: How and why do co-benefits drive changes in climate change mitigation policy? Can co-benefits-focused strategies grow constituencies for climate action? What strategies have successfully employed co-benefits discourses to drive change in climate policy? Why or why not might such strategies be transferrable? Might co-benefits help to coordinate climate action with actions towards achieving other aims such as the Sustainable Development Goals? What are priority actions to harness local incentives information to promote climate action?

Grid of the Future: Fletcher MALD student Gregory Goodwin, interned at Greentown Labs in Somerville, MA to research and develop a compelling proposal for a 'grid of the future', an accelerator program run by Greentown Labs and its partners. The purpose of this program will be to redefine how utilities and corporates work with early stage technologists to enhance the resiliency, efficiency and digitalization of the future electricity grid to enable further deployment of renewables.
Thanks to the generous donations of iERP alumni, CIERP was able to support student travel to conferences and internships all over the globe, to encourage experiential learning.

**Supported Student Travel**

A delegation of 10 students and 1 post-doctoral fellow were able to attend the climate negotiations in Morocco, and participate in CIERP’s official side event.

**Post-Docs (1):**
- Laura Kuhl

**PhD Students (1):**
- Anna Schulz (as part of Earth Negotiations Bulletin)

**Masters Students – Fletcher (9):**
- Vasundhara Jolly
- Sydney-Johanna Stevns
- Aditya Kaushik
- Angga Dwi Martha
- Elizabeth Minchew
- Julio Rivera Alejo
- Fatima Anjum Quraishi
- Harper Gay
- Ananda Paez Rodas
- Easwaran Nassahirim, a CIERP pre-doctoral fellow, attended a conference in Switzerland.
- Rishikesh Bhandary, a CIERP pre-doctoral fellow, received support to travel to Fiji, Brazil, Bangladesh and Philadelphia.
- Fang Zhang, CIERP pre-doctoral fellow, travelled to San Francisco and Beijing.
- Zdenka Myslikova, CIERP pre-doctoral fellow, travelled to Beijing, China in June.
- Three Masters students, Yao Wu, Merita Salihu, and Alexandra Jeszek, attended the NEWIEE gala in Boston in the fall.
- IERP student Harper Gay attended the Green Tie Gala, in Boston.
- IERP students Elizabeth Minchew and Stefan Koester were supported in attending the Sustainable Energy for All conference in NYC.
- Lauren Nutter, Steven Young, Andrea Becarra, and Korawat Wuttiwong were supported to attend the World Bank spring meeting in Washington, DC.
- Maggie Kellogg was sent to the Net Impact Conference in Philadelphia.
- Jean-Christophe Mauduit attended an UN/Austria symposium on Integrated Space Technology Applications for Climate Change in Graz, Austria.

Students also benefit from the research and experiences that faculty bring to the classroom. IERP faculty travelled to:
- Kelly Sims Gallagher: Beijing, San Francisco, New York, Washington DC
- Sulmaan Khan: Beijing, Shanghai, Hong Kong, Bishkek (Kyrgyzstan),
- Jenny Aker: Seattle, Niamey (Niger), Germany
- Avery Cohn: Brasilia, Sao Paolo (Brazil), Rome (Italy), The Hague (Netherlands), Beijing, NYC, Scotland
With over 40 students supported this year, CIERP endeavors to help IERP students obtain hands-on experience that informs their studies and professional lives.
Policymaker Interactions

CIERP faculty and research fellows are encouraged to apply their work to real-world problems and policies. The following are a sampling of policymakers with whom we have had policy interactions:

- Jing Xu, Director General for Innovation and Development, Ministry of Science and Technology (MOST), China
- Zhaoli Jiang, Deputy Director General for Climate Change, National Development and Reform Commission (NDRC), China
- Junfeng Li, Director of the National Center for Climate Change Strategy and International Cooperation (NCSC), National Development and Reform Commission (NDRC), China
- Hairan Gao, Division of International Cooperation, National Development and Reform Commission (NDRC), China (a Fletcher alum!)
- Sanlin Jin, Research Department of Rural Economy, Development Research Center of the State Council, China
- Jun Ma, Chief Economist, Research Bureau, the People's Bank of China, China.
- Dharmendra Pradhan, Honorable Minister of Petroleum and Natural Gas, Government of India
- Dipal Barua, CEO of Bright Green Energy Foundation
- Mr. Kajihara, Vice-Minister for Global Environmental Affairs, Ministry of the Environment of Japan
- Hyung-jong Lee, Director General of Climate Change, Energy & Environmental Affairs Bureau in the Ministry of Foreign Affairs, South Korea.
- Shawkat Ali Mirza, Director for Climate Change, Ministry of Environment and Forests, Bangladesh
- Gyan Chandra Acharya, High Representative for LDCs and Under-Secretary-General
- Sione Fulivai, Tonga Climate Fund, Tonga
- Zaheer Fakir, former Co-Chair, Green Climate Fund Board
- Pepetua Latasi, Least Developed Countries Expert Group (LEG) Chair and coordinator of the Tuvalu Climate Change Fund
- Ram Hari Lamsal, Joint Secretary, Ministry of Environment, Science and Technology, Nepal
- Jitendra Singh, Permanent Secretary, Ministry of Agriculture, Rural and Maritime Development and Disaster Management, Fiji
- Samuela Lagataki, Permanent Secretary, Ministry of Forests, Fiji
- Makereta Konrote, Permanent Secretary, Ministry of Economy, Fiji
Every semester, CIERP hosts at least four research seminars and one title speaker. This year, research seminar speakers included Ujjayant Chakravorty, Kelly Sims Gallagher, David O’Connor, Rishikesh Ram Bhandary, Kartikeya Singh, Jennie Stephens, and Stacy VanDeveer. Our headlining speaker for the fall was Jonathan Pershing, then the Special Envoy for Climate Change at the U.S. Department of State, and currently the new Program Director of Environment at the William and Flora Hewlett Foundation.

In the spring we hosted Greta Bull, CEO, Consultative Group to Assist the Poor (CGAP), World Bank.

In addition to these events, CIERP also hosted Mr. Dharmendra Pradhan, Minister of State for Petroleum and Natural Gas for the Government of India, as well as several speakers who joined Professors Kates-Garnick and Gallagher in their courses. These guests included: Roberta Brown of NE ISO, Ed Krapels, Judy Change, Janet Besser of Northeast Clean Energy Center, John Howe of Ogon, Tilak Subrahmanian of Eversource, Tobias Schmidt from ETH Zurich, and Kevin Knobloch.
SPOTLIGHT RECENT PHDS

Spotlight on recent PhDs

Laura Kuhl defended her dissertation in November 2016. Her dissertation, entitled “Innovation and Technology Transfer for Climate Change Adaptation in the Agricultural Sector,” analyzed how different types of agricultural adaptation efforts contribute to innovation, leading to more effective adaptation and the development of policies to manage a transition to a climate-resilient future. Through case studies of agricultural adaptation in Ethiopia and Honduras, she looked at technology transfer and adoption, mainstreaming climate resilience, and innovation for adaptation at various scales from the household level to the national level. Professor Kelly Sims Gallagher was the Chair of her dissertation committee and Professors Jenny Aker (Fletcher) and Rosina Bierbaum (University of Michigan) were readers. Laura was the recipient of the Peter Ackerman Award for an outstanding doctoral dissertation demonstrating scholarly merit, originality, and contribution to the field and to society. She joins Northeastern University in September as Assistant Professor of Resilience.

Kartikeya Singh defended his dissertation in August 2016. His dissertation, titled “Surya’s Promise: the scaling-up (or not) of Off-Grid Technologies in India,” examined what firm-level factors facilitate the diffusion of decentralized solar technologies in a country where a quarter of a billion people still lack access to electricity. He did so by creating a model to assess which firms were succeeding at achieving unit scale of technology deployed and supported his work by unpacking the complexities of financing for the end-user and the firm. His research also highlighted the importance of networks that facilitate the diffusion (and maintenance) of such technologies in rural areas. All chapters of his dissertation have been published after undergoing external peer-review. Professor Kelly Sims Gallagher was the Chair of his dissertation committee, and Professors Jenny Aker (Fletcher) and Ambuj Sagar (Indian Institute of Technology, New Delhi) were readers. Kartikeya received the IDRC Fellowship from the Center for Global Development in September of 2016 to continue to unpack the findings of his research and joined the Center for Strategic & International Studies in January 2017 as Deputy Director of the Wadhwani Chair to lead a State Department funded project to advance U.S.-India subnational cooperation on energy.

Laura Kuhl conducted her field work in Honduras and Ethiopia
Spotlight on Student: Rishikesh Bhandary

Rishi Bhandary is a doctoral candidate at The Fletcher School of Law and Diplomacy and a pre-doctoral fellow at CIERP. He received his Master of Arts in Law and Diplomacy from The Fletcher School and completed his undergraduate education in Quantitative Economics and International Relations from Tufts University. He has worked for the Ministry of Forests, Nepal, and the Forest Carbon Partnership Facility at the World Bank and was an Avantha Fellow at the Aspen Institute India.

As a part of his dissertation, Rishi studies how a range of developing countries — including Bangladesh, Brazil, Guyana, Ethiopia and Indonesia — are mobilizing climate finance with the help of national climate funds. As many countries are looking to these early movers to inform their own national climate finance choices, he hopes his dissertation can generate insights that may be useful to other countries.

Rishi was able to apply his studies in a practical way on the design of Fiji’s National Climate Fund, as a collaboration between CIERP and UNDP. In March 2017, Rishi traveled to Fiji for two weeks, met with a range of stakeholders, and presented potential design options to the Fijian government. In addition, Rishi was a co-facilitator for a South-South learning workshop in Fiji, cohosted by CIERP and UNDP, wherein four countries of the South Pacific shared their experiences in setting up national climate funds.

Rishi has worked collaboratively with many CIERP students, researchers, and faculty. In the spring of 2016, he worked with Professor Gallagher to organize a high-level roundtable on international climate finance, with speakers including the Co-Chair of the Green Climate Fund’s board. This event brought together representatives of various multilateral agencies, ministries and think tanks. Takeaways from this event, and the roundtable at the United Nations Climate Change Summit in Paris, were published as “Post-Paris Research Needs in Climate Change Policy,” which Rishi co-authored with Professor Kelly Sims Gallagher and other CIERP fellows.

This past year, Rishi worked with Research Fellow Easwaran Narassimhan to co-author a CIERP policy brief in November 2016 that explored how linking the revenue collected from the Paris market mechanisms to the Green Climate Fund would enable the fund to take on transformational projects with higher risk profiles.

Fletcher’s Sustainable Development Diplomacy class brings together practitioners and academics to discuss innovative ways to solve vexing global problems. With Professor Emeritus Bill Moomaw, Postdoctoral Fellow Laura Kuhl and Professor of Practice and Special Representative for Climate Change at the World Bank Patrick Verkooijen, Rishi crystallized the insights and findings that emerged from that class into an article that was published in the journal Global Policy.

Through CIERP, Rishi also got the opportunity to work on the IPCC’s Assessment Reports. He was a contributing author to the Fifth Assessment Report’s chapter on national and sub-national policies and institutions and is currently working on a paper that lays out how sustainable development can be further integrated into the IPCC’s reports to bring mitigation and adaptation closer together.
Spotlight on Kevin Knobloch

Kevin Knobloch joined the CIERP team as Senior Research Associate in 2017 and will direct Corporate Approaches to Climate and Clean Energy in 2018. Kevin is the perfect addition to our Climate Policy Lab with his impressive skills and deep knowledge about science for policy, policy for science, public-private partnerships in energy and climate policy, and citizen advocacy.

As Chief of Staff at DOE and senior aide to Secretary of Energy Ernest Moniz, Kevin worked domestically to implement DOE’s portion of Obama’s Climate Action Plan, and internationally on the Clean Energy Ministerial and the Paris Agreement. As President of the Union of Concerned Scientists, he was a dynamic leader that bolstered UCS’s scale and influence. We are delighted to welcome Kevin to our team where he will develop and lead a new initiative on the role of the private sector in energy innovation.

This initiative, Corporate Engagement on Climate Change, will feature in-depth research and corporate engagement to assess whether the increasing momentum toward a low-carbon economy over recent years is sufficient to withstand the significant energy and climate change policy shift being advanced by the Trump Administration. The project will provide an up-to-date understanding of the perspectives and positions of key leaders in the U.S. corporate and private equity sectors (along with foreign-based companies doing significant business in the U.S.) in the face of declining technology costs, increasing deployment of clean energy, and a dramatic policy shift sought by the current Administration.

Spotlight on Kelly in the Media

This year, CIERP Director Kelly Sims Gallagher was called upon to give expert commentary on energy and environmental policy by a diverse set of media outlets.

“This reneging on Paris commitments undoes many years of work building up trust that the U.S. will honor the commitments it makes at the presidential level.”

— Kelly Sims Gallagher, quoted in the New York Times on March 18, 2017
This year, CIERP strengthened its network of local alumni with the establishment of a CIERP-Boston alumni group, thanks to the initiative of Fletcher alumnus and CIERP Board Member John Harper (F85-MALD).

The purpose of the alumni group is to provide a forum for CIERP alumni (and Fletcher alumni with interests that align with energy, environment and policy issues) in the Boston area to stay connected to each other; to the Center, CIERP faculty, and current students; and for CIERP to have a more active hand in maintaining the relationships. It further allows alumni to stay abreast of current academic thinking, to source talent, and to maintain their connection to the school through events at Fletcher and off-campus.

So far, recent alums have taken the lead in organizing the events, in partnership with CIERP and Fletcher’s Office of Development and Alumni Relations. We would like to thank Alex Schulte (F16-MALD) and Liz Peyton (F15-MALD) for spearheading this effort and bringing it to life. Liz is relocating to Florida, and while we’ll miss her enthusiasm and vision, we hope she will bring together Fletcher alumni working in energy and environment-related fields there, as well.

In terms of events: The first Energy and Environmental Alumni Night was held in December 2016 in Cambridge and featured CIERP Founder and Professor Emeritus of International Environmental Policy, Bill Moomaw, and Professor of Practice and CIERP Senior Research Fellow, Bobbi Kates-Garnick (F73-MA, F78-MALD, F84-PhD) talking about the impact of the election on international environmental policy and Massachusetts energy policy, respectively.

The second Energy and Environmental Alumni Night was held in March 2017 at Fletcher and featured CIERP Director and Professor of International Energy and Environmental Policy, Kelly Sims Gallagher (F00-MALD, F03-PhD), who spoke about International Climate Policy in the Trump Era.

Recent Alumni

The invaluable experiential learning that students get, through working alongside faculty as teaching and research assistants and through the opportunities that open to them through travel and internships, is evident in the positions that our supported students of the past have secured.

Fahad Siddiqui

Clean Energy Fellow at Third Way, Washington, DC

A CIERP internship grant allowed Fahad to intern with the U.S. Department of State.

“...I enormously enjoyed my time at the State Department... the internship will certainly be instrumental in my intended career in energy with the Federal Government: I contributed to energy diplomacy in the real world, learned firsthand about the roles of various sections of the State Department, and I made connections with colleagues both at State and in other government agencies that expanded my ideas for career options after graduation.” — Fahad Siddiqui

continued on next page
Recent Alumni

**Lynn Massengill**  
**Economist at Federal Energy Regulatory Commission, Washington, DC**

Internship funding supported Lynn in an otherwise unfunded internship at the US State Department’s Bureau of Energy Resources.

“I spent my summer working for the Bureau of Energy Resources at the U.S. Department of State in Washington, DC. As an intern in the Office of Electricity and Energy Efficiency, I conducted research, drafted papers, and prepared for workshops on topics ranging from energy efficiency in buildings in the Lower Mekong Region of Southeast Asia to power sector transformation in Nicaragua.”

— Lynn Massengill

**Harper Gay**  
**Policy Specialist, International District Energy Association, Brookline, MA**

CIERP supported Harper’s internship at the State Department’s Bureau of Energy Resources.

“It is hard to overstate CIERP and BNGF Climate Results Fund’s impact on my summer. The generous support I received permitted me to opt for an unpaid internship that has continued my energy education, while allowing me to see firsthand the important, diverse roles that energy plays in diplomatic exchanges.”

— Harper Gay

**Carl-Magnus Kjellman**  
**Senior Associate at Kearns & West, Washington, DC**

A CIERP travel grant enabled him to facilitate the delivery of a negotiation simulation he had developed for a conference.

“The CIERP Travel grant enabled me to further build my experience and skill as a practitioner by allowing me to present and run the negotiation simulation that I spent my summer creating as a research assistant for Concur Inc.”

— Carl-Magnus Kjellman

**Alex Schulte**  
**Director of Operations, BlueWave Solar, Boston, MA**

Travel funding enabled Alex to attend Forum 20/20 in Boston during his first spring semester.

“Possibly even more important in the longer term [than the meeting agenda] are the contacts I made. The biggest benefit of being one of the few students present was that the rest of the attendees were all heads of organizations and had years of experience in the industry; as a result, the average quality of the contacts I made was very high. Furthermore, when I met people and introduced myself as a Fletcher student, they immediately knew from my presence at the conference that both my school and I are serious about clean energy”

— Alex Schulte

Other recent alumni placements include:

- Caroline Ott, Senior Associate at Rocky Mountain Institute, Washington, DC
- Timothy Grant, Portfolio and Knowledge Management Analyst at World Bank Group, Washington, DC
- Jesse Simmons, Investment Analyst at Align Impact, Santa Monica, CA
- Lisa Tessier, Economic and Financial Analyst at Castalia, Washington, DC
Faculty

**Kelly Sims Gallagher**, CIERP Director, Director of the Climate Policy Lab, Professor of Energy and Environmental Policy, The Fletcher School

**Jenny Aker**, Director of Sustainable Development Economics Program, Assistant Professor of Development Economics, The Fletcher School

**Ujayant Chakravorty**, Professor of Economics, Tufts University

**Avery Cohn**, William R. Moomaw Assistant Professor of International Environment and Resource Policy, Director of Agriculture, Forests, and Biodiversity Program

**Tim Griffin**, Associate Professor and Director of the Agriculture, Food and Environment program, Friedman School, Tufts University

**Hans Hoogeveen**, Netherland Ambassador/Permanent Representative to UNFAO, Permanent Representative to WFP and IFAD, Non-resident Professor of Practice, The Fletcher School

**Kelsey Jack**, Assistant Professor of Economics, Tufts University

**Barbara Kates-Garnick**, Professor of Practice, The Fletcher School and CIERP Senior Research Fellow

**Rachel Kyte**, CEO of Sustainable Energy for All, Non-resident Professor of Practice of Sustainable Development, The Fletcher School

**Sulmaan Khan**, Director of Water and Oceans Program, Assistant Professor of Chinese Foreign Relations, The Fletcher School

**Gilbert Metcalf**, Professor of Economics, Tufts University

**William Moomaw**, Professor Emeritus of International Environmental Policy at The Fletcher School, Co-Director of the Global Development and Environment Institute, Tufts University

**Colin Orians**, Professor of Biology, Tufts University

**Mihaela Papa**, Assistant Director for International Activities in the Office of the Provost at MIT, Lecturer in Sustainable Development, The Fletcher School

**Shinsuke Tanaka**, Assistant Professor of Economics, The Fletcher School

**Patrick Verkooijen**, Special Representative for Climate Change at the World Bank, Non-resident Professor of Practice of Sustainable Development Diplomacy

**Daphne Schalekamp** (Dutch)

Visiting Scholars
Board

John Harper

Andy Darrell

Ed Hoyt

Barbara Kates-Garnick

John Holdren

Chris Wendel

Fellows

Rishikesh Bhandary, Predoctoral Fellow

Kevin Knobloch, Senior Research Fellow, Director, Corporate Approaches to Climate and Clean Energy

Easwaran Narassimhan, Junior Fellow

Laura Kuhl, Predoctoral Fellow

Zdenka Myslikova, Junior Fellow

Fang Zhang, Predoctoral Fellow, China Research Coordinator

Staff

Elayne Stecher, Staff Assistant

Penny Storey, Associate Director, Administration & Finance

Mieke van der Wansem, Associate Director, Educational Programs
Research and Teaching Assistants

Here at Fletcher, students also benefit from research assistantships and teaching assistant positions.

**Julio Rivera Alejo** – Teaching Assistant to Professor Kates-Garnick

**Sydney-Johanna Stevns** – Teaching Assistant to Professor Cohn

**Anaya Hall** – Research Assistant to Professor Cohn

**Elouise Doyle** – Research Assistant to Professor Cohn

**Graham Jeffries** – Research Assistant to Professor Cohn

**Julia Pillowsky** – Research Assistant to Professor Cohn

**Fang Zhang** – Teaching Assistant to Professor Gallagher

**Zdenka Myslikova** – Research Assistant to Professor Gallagher

**Qi Qi** – Research Assistant to Professor Gallagher

**Stefan Koester** – Research Assistant to Professor Gallagher

**Juan Taborda** – Teaching Assistant to Professor Aker

**Grant Bridgman** – Research Assistant to Professor Cohn

**Sangeetha Madasamy** – Research Assistant to Professor Cohn

**Abhishek Maity** – Research Assistant to Professor Aker

**Jamilah Welch** – Research Assistant to Professor Aker

**Megan Rouseville** – Research Assistant to Professor Aker

**Melita Sawyer** – Research Assistant to Professor Aker

**Liz Ludan** – Research Assistant to Professor Khan

Sponsored Students

**Laura Kuhl** – Sponsored to attend COP22

**Vasundhara Jolly** – Sponsored to attend COP22

**Sydney-Johanna Stevns** – Sponsored to attend COP22

**Aditya Kaushik** – Sponsored to attend COP22

**Angga Dwi Martha** – Sponsored to attend COP22

**Elizabeth Minchew** – Sponsored to attend COP22, summer internship with UNDP in Papua New Guinea, and travel bursary to attend SEforAll Symposium

**Julio Rivera Alejo** – Sponsored to attend COP22

**Fatima Anjum Quraishi** – Sponsored to attend COP22

**Harper Gay** – Sponsored to attend COP22 and Green Tie Gala

**Ananda Paez Rodas** – Sponsored to attend COP22

**Easwaran Nassahirim** – Sponsored to attend ETH Zurich PhD Academy Conference on Sustainability and Technology in Switzerland

**Rishikesh Bhandary** – Travel bursary to support research travel to Fiji, Bangladesh and Brazil; sponsored to attend ISA in Philadelphia; and sponsored to attend UNFCCC negotiations in Bonn, Germany

**Fang Zhang** – Research travel to Energy Innovation Limited, Mission Innovation 2 and CEM8 Beijing

**Zdenka Myslikova** – Research travel to Mission Innovation 2 and CEM8 Beijing

**Yao Wu** – Sponsored to attend the NEWIEE Gala

**Merita Salihu** – Sponsored to attend the NEWIEE Gala

**Alexandra Jeszek** – Sponsored to attend the NEWIEE Gala

**Elizabeth Minchew** – Travel bursary to attend SEforAll Symposium

**Stefan Koester** – Travel bursary to attend SEforAll Symposium

**Lauren Nutter** – Travel bursary to attend World Bank Spring Meeting

**Andrea Becarra** – Travel bursary to attend World Bank Spring Meeting

**Maggie Kellogg** – Travel bursary to attend the Net Impact Conference in Philadelphia in the fall

**Jean-Christophe Mauduit** – Sponsored to attend UN/Austria symposium on Integrated Space Technology Applications for Climate Change

**Matt Arnold** – Summer internship with UNDP in Samoa

**Grego Goodwin** – Summer internship with Greentown Labs

**Andrew Kimball** – Summer internship with Mint Energy

**Zerin Osho** – Summer internship with UNDP in India
CIERP
THE CENTER FOR INTERNATIONAL ENVIRONMENT AND RESOURCE POLICY

July 2016-June 2017

1 New Professorship
2 PhDs Graduated
4 New Grants
6 Research Programs
18 Guest Speakers
32 Publications
40 Students Supported