# CONGYI DAI

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## ACADEMIC APPOINTMENTS

**Edmund A. Walsh School of Foreign Service, Georgetown University**, Washington, D.C
Postdoctoral Associate, 2026 – Present

**Boston University Global Development Policy Center**, Boston, MA
Global China Predoctoral Fellow, 2025 – 2026

## EDUCATION

**University of Michigan**, School for Environment and Sustainability, Ann Arbor, MI
Ph.D. in Environment and Sustainability, 2026

- Committee: Pamela Jagger (Chair), Omolade Adunbi, Brandon Finn, Benjamin Goldstein
- Dissertation Title: "China's Role in Shaping Energy Access in Africa"

**Texas A&M University**, Bush School of Government & Public Service, College Station, TX
M.A. in Public Administration, 2020

**Nanjing Agricultural University**, School of Economics and Management, Nanjing, China
B.A. in Economics, 2018

## RESEARCH INTERESTS

My research examines how great power competition over the **global energy transition**, waged through development finance, industrial policy, and trade, reshapes energy access and resource governance across the Global South, with a focus on China's expanding role in critical mineral access, electricity infrastructure, and clean energy manufacturing. Drawing on interdisciplinary training in economics, political science, and environmental studies, I trace these dynamics, from mineral acquisitions in Africa to the US-China clean energy supply chain, using causal inference and geospatial analysis.

## OTHER PROFESSIONAL EXPERIENCE

**The World Bank Group**, Washington, D.C.
Consultant, 2025

**United Nations Development Programme**, Port Louis, Mauritius
Programme Assistant, 2020 – 2022

**Institute for Agriculture and Trade Policy**, Minneapolis, MN
Summer Intern, 2019

## PEER-REVIEWED PUBLICATIONS

- **Dai, C.** Development Quid Pro Quo: Chinese finance and critical mineral access in Africa. (Revise & Resubmit) Working Paper available: here.
  Featured: The China-Global South Project, Boston University Global Development Policy Center
- **Dai, C.**, Guan, J. & Jagger, P. Energy infrastructure investment in Africa delivers delayed electricity access for communities. (Under Review)
- Mao, H., Zhou, C., Fu, Y. & **Dai, C**. (2026). The digital economy and rural household energy consumption in China. *Energy Policy, 210*, 115063.
- **Dai, C.**, McCord, R., Beach, K., Mahieu, A., Chilongo, T., Jumbe, C. & Jagger, P. (2026). Unlocking financial inclusion through solar technology adoption in Malawi. *Energy Economics*, 109138.
  Featured: University of Michigan News, The Conversation
- Mao, H., Xiao, Y., Quan, Y. & **Dai, C.** (2026). Farmers' willingness to participate in energy investment: A discrete choice experiment study. *Journal of Rural Studies*, *124*, 104140
- Mao, H., Shi, C., Tang, H., & **Dai, C.** (2026). Risk preferences and rural energy transition in China: based on experimental data analyses. *China Agricultural Economic Review*, 1-21.
- Mahieu, A., McCord, R., Beach, K., **Dai, C.**, Chilongo, T., Jumbe, C. & Jagger, P. (2025). Can off-grid household solar provide sustainable energy for all? Adoption and sustained use of solar technologies in Malawi. *Energy Research & Social Science*, *127*, 104249
- Lu, Y., Mao, H., Liu, Q & **Dai, C.** (2025). The role of new agricultural business entities in guiding smallholder farmers' green production: Evidence from chemical fertilizer reduction in China. *Environmental Impact Assessment Review*, *114*, 107963.
- Wang, R., Liu, Y., Guan, J., Zuo, C., **Dai, C.**, Liu, X., Liang, Z. & Zhao, G. (2024). Environmental justice of Texas recreational water quality – The disproportionate E. coli levels and trends. *Journal of Environmental Management*, *370*, 122969.
- Guan, J., **Dai, C.**, Wu, Q., Fu, H., Song, Y. & Wang, R. Examining the Influence of Lake Water Quality on Visitor Sentiment: Insights from 82 U.S. Lakes. (Under Review)

**Work in Progress**

- Review of energy transitions in sub-Saharan Africa.
- **Dai, C.** & Springer, C. Industrial electrification in the Global South: China's potential role. (Working paper forthcoming at BU GDP Center)
- **Dai, C.** & Lewis, J. China's strategic shift in clean energy technology development amid growing global protectionism.
- Adjei, NA. & **Dai, C.** Pledges to power: African negotiation strategies and the delivery of FOCAC energy commitments.

## OTHER PUBLICATIONS

- Industrial Decarbonization in East Asia: Transforming Energy, Finance, Technology, and Jobs. (2025). *World Bank Group*. https://doi.org/10.1596/43645

## TEACHING & MENTORING

***Co-Mentor*** for *Graduate Research Assistant*
Georgetown University, 2026-Present

- Help supervise a graduate research assistant on a research project related to the U.S-China clean energy supply chain

***Graduate Student Instructor*** for EAS570: *Environmental Economics*
University of Michigan, Fall 2024

- Graduate level class for students with concentration on Environmental Policy & Planning, Sustainability and Development, and Environmental Justice

***Research Mentor*** for *Undergraduate Research Opportunity Program (UROP)*
University of Michigan, 2024-2025

- Participated in a one-year UROP mentoring an undergraduate student (political science & data science double major) on my *Development Quid Pro Quo* research project. The student's poster presentation was selected for Blue Ribbon Award for exemplary research presentation.

## MEDIA MENTIONS & OUTREACH

- Solar power is taking off in Malawi: but poor households need financial help to make it work for them. *The Conversation*. Link
- Development Quid Pro Quo Drives China's Development Agenda in Africa. *The China-Global South Project*. Link
- SEAS PhD candidate's research aims to understand the effects of China's investment in Africa's energy sector. *University of Michigan*. Link
- China's Coordinated Pull on Critical Minerals. *Phenomenal World*. (Forthcoming)

## GRANTS & AWARDS (TOTAL: $213,871+)

- Global China Initiative Research Grant ($10,000), Co-PI, 2026-2027
- Global China Predoctoral Fellowship ($30,535), 2025-2026
- Rackham Predoctoral Dissertation Fellowship ($43,788 + tuition), 2025-2026
- Energy Poverty Fellow, NSF Funded PIRE Grant ($63,749 + tuition), 2022-2025
- Rackham Graduate Student Research Grant ($1,500 + $ 3,000), 2024, 2025
- Rackham Conference Travel Grant ($1,150 + $1,400), 2024, 2025
- SEAS Travel Grant ($250 + $250), 2024, 2025
- SEAS Departmental Fellowship ($38,249 + tuition), 2022-2023
- CSC Scholarship for International Organizations Internship ($12,500), 2020-2021
- George and Barbara Bush Scholarship ($7,500), 2018-2019

## PRESENTATIONS & TALKS

- American Political Science Association Annual Meeting. Remote. 2026
  - Pledge to power: African negotiation strategies and the delivery of FOCAC energy commitments
- Lusaka Conference on Poverty Reduction and Climate Resilience. Lusaka, Zambia. 2025
  - Unlocking financial inclusion through solar technology adoption in Malawi
- International Conference on Energy Economics and Energy Policy. Nice, France. 2025
  - Unlocking financial inclusion through solar technology adoption in Malawi
- Applied Training Course on Energy Transition Policymaking. Cape Town, South Africa, 2024
  - Bridging researchers and policy practitioners around critical energy transition issues facing sub-Saharan Africa, in a week-long workshop at the University of Cape Town

## ACADEMIC SERVICE

**Review**

*China Agricultural Economic Review*, *Climate Policy*, *Economics Analysis and Policy*, *Energy Economics (*2)*, *Energy Research & Social Science (*2)*, *Journal of Asian Economics*, *Journal of Environmental Management*, *Open Research Europe*.

**Departmental Service**

Participate in faculty meetings at Georgetown's Science, Technology and International Affairs Program to help steer core curriculum design for undergraduate and graduate students

## ADDITIONAL SKILLS

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|---|---|
| Languages | Mandarin Chinese – Native English – Fluent |
| Software | R, Stata, Python, ArcGIS, Microsoft Office Suite |

## REFERENCES


- **Pamela Jagger**. University of Michigan, Ann Arbor
  Samual Trask Dana Professor of School for Environment and Sustainability, Director of the PhD/Postdoctoral Program, Associate Director of African Studies Center
  E-mail: pjagger@umich.edu

- **Omolade Adunbi**. University of Michigan, Ann Arbor
  Professor of Anthropology and Afroamerican and African Studies at the College of Literature, Science, and the Arts, Director of African Studies Center
  E-mail: oadunbi@umich.edu

- **Kevin P. Gallagher**. Boston University
  Professor of Global Development Policy at the Frederick S. Pardee School of Global Studies, Director of Global Development Policy Center
  E-mail: kpg@bu.edu

- **Joanna Lewis**. Georgetown University
  Professor of Energy & Environment at Edmund A. Walsh School of Foreign Service, Vice Dean of Undergraduate Affairs
  E-mail: Joanna.Lewis@georgetown.edu