

Daniel del Barrio-Alvarez

Assistant Professor

International Project Lab.,

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RESEARCH

- International cooperation and cross-border infrastructures (energy regionalism)
- Social innovation for the energy transition
- Sustainable energy and development
- Southeast Asia (Greater Mekong Subregion)
- Policy process analysis, comparative regionalism, sustainability transition

EMPLOYMENT

Department of Civil Engineering, The University of Tokyo 2020 -
Assistant Professor (助教), International Project Laboratory

Institute for Future Initiatives, The University of Tokyo¹ 2016 - 2020
Project researcher, Global Energy Policy, and East Asia Research Unit

Global Leader Program for Social Design and Management, The University of Tokyo 2017 – 2020
Specially appointed program faculty

International Energy Agency (IEA), Office of Global Energy Policy (GEP) July - October 2015
Intern, Division for Asia, Pacific & Latin America (APL)

PROSER, FCC-Group 2010 - 2011
Resident engineer at technical assistance to the client

IBERINSA, ACCIONA-Group July – August 2008
Intern, Transport department

IBERINSA, ACCIONA-Group August – September 2007
Intern, Transport department

EDUCATION

University of Tokyo, PhD (Eng.) 2016
Civil Engineering

¹ Previously Policy Alternatives Research Institute (until March 2019)

As of May 2022

Thesis: “Proposal of a comparative framework for multilateral development banks involvement in regional infrastructures”. (*Graded as A*)

The University of Tokyo, Global Leadership Program for Social Design and Management 2016

University of Tokyo, M.S. (Eng.) 2013
Civil Engineering

Thesis: “Identification of the governing mechanism of regional power systems integration: A case study of Central America”. (*Graded as A*)

Technical University of Madrid, M.S. 2009
Civil Engineering

Graduation project: “Study of offshore wind energy implementation in Chile, Chacao Offshore Windfarm” (*Graded as Honors*) (*In Spanish*)

PUBLICATIONS

(^authors contributed equally)

Peer-reviewed journal articles:

- del Barrio Alvarez, D., Sasakawa, A., Yamaguchi, K., Wang, Y. (in submission) Strategic priorities for regional power connectivity in Asia in the overlapping of subregional initiatives and China’s Global Energy Interconnection. *Asia Pacific Business Review*
- del Barrio Alvarez, D., Wang, N., Thuy, T.D., Numata, M., Sugiyama, M., (in preparation) Solar, wind, biomass, or none of the above: willingness to pay for renewable energy sources in Ho Chi Minh City
- del Barrio Alvarez, D., Wang, N., Thuy, T.D., Numata, M., Sugiyama, M., (in preparation) Sustainable mobility on two wheels: A choice experiment of electric motorcycles in Vietnam.
- Numata, M., Sugiyama, M., Swe, W., & del Barrio Alvarez, D. (2021). Willingness to Pay for Renewable Energy in Myanmar: Energy Source Preference. *Energies*, 14(5), 1505. <https://doi.org/10.3390/en14051505>
- Chaiyapa, W., Hartley, K., del Barrio-Alvarez, D. (2021) From end-users to policy designers: breaking open the black box of energy technocracy in Thailand. *Energy Research & Social Science*. <https://doi.org/10.1016/j.erss.2021.101912>
- del Barrio Alvarez, D., Sugiyama, M. (2020) "A SWOT Analysis of Utility-Scale Solar in Myanmar," *Energies*, vol. 13(4), pages 1-17, February. <https://doi.org/10.3390/en13040884>
- del Barrio-Alvarez, D., Horii, H. (2017). “Energy security and regional power sector cooperation in the Greater Mekong Sub-region: past developments and near-term challenges”. *Asian Journal of Public Affairs* 9 (2):e2. DOI: 10.18003/ajpa.20174
- del Barrio-Alvarez, D.; Komatsuzaki, S.; Horii, H. (2014) “Regional Power Sector Integration: Critical Success Factors in the Central American Electricity Market”. *OIDA International Journal of Sustainable Development*, Vol 07, No 12, pp. 119-136, 2014. <https://ssrn.com/abstract=2573105>

Academic conferences:

- del Barrio-Alvarez, D., Wang, N., Numata, M., Sugiyama, M. (2022-*forthcoming*) A comparative analysis of public preferences towards renewables across Southeast Asia countries. 43rd IAEE International Conference. 31 July – 4 August 2022, Tokyo (Japan).

- Chaiyapa, W., Beermann, H., del Barrio-Alvarez, D., (2022) A Threat to Whom/What? Investigating perceptions towards Climate and Security in Thailand and the Implications on Climate Governance. *7th Asia-Pacific Public Policy Network Conference*. March 17-18, 2022.
- del Barrio-Alvarez, D., Morikawa, So., Komikado, H., Komatsuzaki, S., (2021) Transnational city-to-city policy transfer for the energy transition in Japan. II International Conference on Policy Diffusion and Development Cooperation. 3 March 2021 (online) <https://youtu.be/jO3oy9SzViU>
- Umeda, M., Wong-Villanueva, J., Wang, G., del Barrio-Alvarez, D. (2021) Students' View on Sustainable Internationalization in the Post-Pandemic Era: The Case of the University of Tokyo. *2021 Virtual Conference on Sustainable and Inclusive Internationalization*. York University, Toronto, Canada. 20-22 January 2021
- Umeda, M., del Barrio Alvarez, D., Komatsuzaki, S. (2020) "Key factors for urban vulnerable people to develop voluntary payment behavior on electricity. A case study of electricity formalization process in Bogotá, Colombia". *25th SEEPS Annual Conference*, September 26-27, 2020.
- del Barrio Alvarez, D (2020) "How regional power connectivity became sustainable development: An analysis of the Greater Mekong Sub-region". *2020 Asia-Pacific Public Policy Network Conference*. University of Western Australia, Perth, Australia, Feb 13-14, 2020
- Morikawa, So; Komikado, H.; del Barrio-Alvarez, D.; Komatsuzaki, S. (2019) Localized public service with national infrastructure: A case of post-Fukushima energy governance in Higashi-Matsushima, Japan. *4th International Conference on Public Policy (ICCP)*, 26th - 28th June, 2019, Montreal (Canada).
- del Barrio-Alvarez, D., Morikawa, S., Komikado, H. (2018) "Social enterprises for energy access: a review of Ashden awards". *2nd International Conference on Solar Technologies & Hybrid Mini Grids to improve energy access*. October 17-19, 2018. Palma de Mallorca (Spain)
- Komikado, H., del Barrio-Alvarez, D., Morikawa, S. (2018) "Energy access after a natural disaster: Evidence from Higashi-Matsushima, Japan". *2nd International Conference on Solar Technologies & Hybrid Mini Grids to improve energy access*. October 17-19, 2018. Palma de Mallorca (Spain)
- del Barrio-Alvarez, D., Yamaguchi, K., Horii, H. (2018). Gradual Regional Power Sector Integration: Comparing the Pathways in the Greater Mekong Subregion and Central America. *SASE 30th Annual Conference*. Doshisha University (Kyoto, Japan): 23-25 June 2018
- del Barrio-Alvarez, D., Sugiyama, M. (2018). A SWOT Analysis of Solar Energy in Myanmar. *Japan Society of Energy and Resources (JSER) 37th Annual Meeting*, Osaka (Japan) June 2018.
- del Barrio-Alvarez, D., Morikawa, S., Komikado, H. (2017) "Business models and social value creation through electricity access projects". *Japan Forum for Business and Society, 7th Annual Conference*. September 8th, 2017, Waseda University, Tokyo (Japan).
- del-Barrio Alvarez, D., Horii, H. (2016). "The Principle of Gradualism in regional power sector integration GMS and Central American SIEPAC". *The 11th GMSARN International Conference on Innovative Energy, Environment and Development in GMS*. GMSARN, Asian Institute of Technology (AIT), and Kunming University of Science and Technology (KUST). 16-18 November 2016.
- del Barrio-Alvarez, D, Horii, H. (2016). "Energy security and regional power sector cooperation in the Greater Mekong Sub-region: past developments and near-term challenges". *Singapore Public Policy Network Conference*. August 27, 2016.

Books and book chapters

- del Barrio Alvarez, D., Garcia Riveros, J., Wong Villanueva, J.I., Yamaguchi, K. (forthcoming). Energy access and durable solutions for internally displaced persons: An exploration in Colombia. In *Energy Policy for Peace*. Elsevier. Eds: Yamaguchi, K., Yoshikawa, H.

As of May 2022

- del Barrio-Alvarez, D., Yamaguchi, K., Wang, G. (2019). "The institutional dimension of power grid connectivity". In Liu, H., "*Electricity Connectivity Roadmap for Asia and the Pacific Strategies towards interconnecting the region's grids*". Bangkok, Thailand. UN-ESCAP
- del Barrio-Alvarez, D. (2019). "Interconnection and Sustainable Development in the Greater Mekong Subregion". In Yoshikawa, H.; Venkatachaleam, A., "*Shaping Energy Policies to Achieve the Sustainable Development Goals in Myanmar and the Greater Mekong Subregion*". ERIA Research Project Report, 2019. No 10. <https://www.eria.org/publications/shaping-energy-policies-to-achieve-the-sustainable-development-goals-in-myanmar-and-the-greater-mekong-subregion/>
- del Barrio-Alvarez, D. (2018). "SWOT Analysis of Utility-Scale Solar Energy in Myanmar". In Yoshikawa, H.; Venkatachaleam, A., "*Electricity Futures in the Greater Mekong Subregion: Towards Sustainability, Inclusive Development, and Conflict Resolution*". ERIA Research Project Report, 2017. No 08. <https://www.eria.org/publications/electricity-futures-in-the-greater-mekong-subregion-towards-sustainability-inclusive-development-and-conflict-resolution/>

Other

- del Barrio-Alvarez, D., Numata, M., Yamaguchi, K., Yoshikawa, H. (2018). Universal energy access in Myanmar, challenges and opportunities. *Cuadernos de Energia*, Energy Club, No 57, December 2018.
- del Barrio-Alvarez, D., Sugiyama, M. (2018). Toward a sustainable electricity policy in Myanmar: Recommendations for policy makers and development partners. *PARI Policy Brief*. The University of Tokyo (Japan).
- Yamaguchi, K., del Barrio-Alvarez, D., Kittner, N. (2017). Energy for Peace in Myanmar. Greater Mekong Forum on Water, Food, and Energy. Inya Lake Hotel, Yangon, Myanmar, October 25-27
- del Barrio-Alvarez, D. (2016). "The challenge of using renewable energy in Japan and Asia, Europe in 2030 – Think of energy policies, urban planning, cost balance & benefit. *Special Guest Seminar and Workshop* Blue Laboratory, Yokohama City University. 14 December 2016. Yokohama (Japan)
- del Barrio-Alvarez, D., Koike N.^ (2016). "East Asia Biomass Town Concept Promotion Project: A case study for biomass promotion in small rural areas". Presentation at *6th ERI-PARI Joint Workshop*, 25 March 2016, Bangkok (Thailand).
- del Barrio-Alvarez, D., (2015), "Infrastructures beyond national borders". Poster presentation session, *European Research(ers') Day, EURAXESS Links Japan*. 11 December 2015, EU Delegation, Tokyo (Japan).
- del Barrio-Alvarez, D. (2014). "Infrastructures and Regional Cooperation". Presentation at *3rd Doctoral School on Latin American, European and Comparative Regionalism*, July 19, 2014, Quito (Ecuador). Universidad Andina / United Nations University on Comparative Regionalism (UNU-CRIS).

LANGUAGES

Spanish (Native) / **English** (Full professional competency) / **Japanese** (Basic competency)

RESEARCH PROJECTS

- 2019 – 2023 "Sustainable cross-border energy planning by using participatory multi-criteria evaluation in the Thai-Laos electricity system". Supported by KAKENHI, Grant-in-Aid for Early-

Career Scientists (Project 21K17923) <https://kaken.nii.ac.jp/grant/KAKENHI-PROJECT-21K17923/> (*Principal Investigator*)

- 2019 – 2022 “Public attitudes towards energy policy and sustainable development in ASEAN” Institute for Future Initiatives, The University of Tokyo. Supported by the Economic Research Institute for ASEAN and East Asia (ERIA) <https://ifi.u-tokyo.ac.jp/en/projects/public-attitudes-in-asean/> (*Project member*)
- 2016 – 2019 “Electricity futures in the Greater Mekong Subregion: Towards sustainability, inclusive development, and conflict resolution” Institute for Future Initiatives, The University of Tokyo. Supported by the Economic Research Institute for ASEAN and East Asia (ERIA) <https://ifi.u-tokyo.ac.jp/en/projects/electricity-in-the-greater-mekong/> (*Project member*)

TEACHING EXPERIENCE

Case Study: Social Design and Management 2021 -
Graduate School of Public Policy, The University of Tokyo

Adviser

In this seminar, students are expected to examine research in various fields such as resources, environment and energy, health and medicine, space and ocean, security, global economy, food and life, AI and digitalization, and learning and communication in relation to various social issues and attempt to design solutions (technical and institutional solutions) to social issues in concrete ways. In doing so, students will consciously consider what other fields of knowledge are necessary in addition to the knowledge in their own field of expertise, and students will attempt to compare various solution options. Students will also examine the challenges of implementing such solutions in society.

International Organizations for Sustainable Development in the 21st Century 2019 -
Graduate School of Public Policy, The University of Tokyo

Co-instructor

Through this course, students gain exposure to the functioning and role of international organizations in the context of a rapidly changing global environment, and with a special emphasis on the promotion and realization of the SDGs. Lectures are discussion-focused with invited experts from international organizations.

Innovations in Civil Engineering, The University of Tokyo 2018, 2020

Co-instructor

Lecture for students to learn the abilities and knowledge of innovation workshop by practice. Students experience the process of human-centered innovation through the development of ideas for social enterprises based on analogies with existing cases.

2nd course on innovation - IDEA PCIS, UNIMINUTO (Colombia) October 2016

Instructor

Idea creation for social innovation for regional revitalization in Colombia. One week program with participants from UNIMINUTO (students and faculty) and other Colombian universities.

AWARDS AND HONORS

As of May 2022

Best Essay Prize in “Security in Asia” Asian Journal of Public Affairs Conference, Lee Kuan Yew School of Public Policy (NUS)	2016
Award for Best Proposal 2014 GMSI-GSDM Summer Camp	2014
Chairperson of the International Students Association of Civil Engineering (ISACE) University of Tokyo	2013 – 2014
Monbukagakusho (MEXT) Scholarship Ministry of Education, Culture, Sports, Science, and Technology of Japan	2011 – 2016
Honors for graduation project Offshore windfarm Chacao Canal (Chile)	2009
FCC special graduate program	2009

INVITED PRESENTATIONS AND TALKS AT PUBLIC FORUMS

June 2021	<i>Invited speaker.</i> UNIMINUTO Summer School. “Transición energética y desarrollo sostenible: Reflexiones desde el sudeste asiático y Colombia” (In Spanish)
March 2021	<i>Presenter.</i> Workshop on Energy Market Integration in NER -India: International Economic Linkages and Strategic Choices for Sub-Regional Cooperation. Organized by Confederation of Indian Industry and ERIA
October 2020	<i>Co-chair.</i> Graduate students’ colloquium at ADBI-Chubu University Virtual Conference on Transport Infrastructure Development, Spillover Effects, and Quality of Life. https://www.adb.org/news/events/transport-infrastructure-development-spillover-effects-quality-in-life
July 2020	<i>Discussant.</i> “Challenges and Prospects for Energy Connectivity in the Covid-19 Era”. Organized by ASEAN-India Centre at RIS, Confederation of Indian Industry, Energy Studies Institute (NUS), and ERIA. https://esi.nus.edu.sg/docs/default-source/challenges-and-prospects-for-energy-connectivity-in-a-post-covid-19-era/webinar-agenda.pdf?sfvrsn=82bbc404_2
July 2020	Webinar in creativity and innovation, at UNIMINUTO Online Summer School