

## KYUNGSUN LEE

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### CURRENT POSITION

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**Teaching Assistant Professor**, Department of Environmental Studies, College of Arts and Sciences

**University of Colorado Boulder** (Boulder, USA)

July 2022 – Present

### EDUCATION

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**Ph.D.** *Environmental and Natural Resources Policy*, 2018

**SUNY College of Environmental Science and Forestry** (Syracuse, USA)

- Dissertation Title: “Exploring Eco-Industrial Parks via a Technological Innovation Systems Lens: the Sustainability Transitions of Industrial Parks in Korea and Japan”
- Advisor: Prof. David A. Sonnenfeld
- Steering Committee: Prof. Cliff Davidson (Syracuse University) and Prof. Theresa Selfa
- External Examiners: Prof. David Popp (Syracuse University) and Prof. Terada Ryoichi (Meiji University, Japan)

**M.S.** *Interdisciplinary Program in History and Philosophy of Science*, 2012

**Seoul National University** (Seoul, Korea)

- Advisor: Prof. Jongtae Lim
- Thesis: “Colonial Science Museum Established by the Empire of Japan: The Popularization of Science by the Eunsa Memorial Science Museum in Colonial Period, 1925 – 1945”

**B.S.** *Department of Chemical and Biological Engineering*, 2007

**Seoul National University** (Seoul, Korea)

### POSTDOCTORAL EXPERIENCES

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*Postdoctoral researcher* **Texas A&M University** (College Station, USA) November 2018 – July 2022

- Worked with Prof. Wendy Jepson for the X Grant Project, *Pathways to Sustainable Urban Water Security: Desalination and Water Reuse in the 21st Century*

### RESEARCH AND TEACHING INTERESTS

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Sustainability Transition

Urban sustainability transition, geography of transition, politics of transition

Industrial Ecology

Political industrial ecology, life cycle assessment, social life cycle assessment

Environmental Policy

Global environmental policy, environmental governance, innovation policy

## PEER REVIEWED JOURNAL ARTICLES

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- Cindy Figueroa, **Kyungsun Lee**, Wendy Jepson (2022). "Water in Corporate Social Responsibility: A Review." *WIREs Water*. <https://doi.org/10.1002/wat2.1607>
- Rob Greer, **Kyungsun Lee**, Amanda Fencl, Gretchen Sneegas (2021). "Public-Private Partnerships in the Water Sector: The Case of Desalination". *Water Resources Management*. 35, 3497–3511. <https://doi.org/10.1007/s11269-021-02900-9>
- Kyungsun Lee**, Wendy Jepson, (2021). "Environmental Impact of Desalination: A Systematic Review of Life Cycle Assessment" *Desalination*, 509, 115066.
- Gretchen Sneegas, Sydney Beckner, Christian Brannstrom, Wendy Jepson, **Kyungsun Lee**, Lucas Seghezzo (2021). "The Use of Q Method on the Environmental Issues: A Systematic Review." *Ecological Economics*, 180, 106864.
- Kyungsun Lee**, Wendy Jepson (2020). "Drivers and Barriers to Implement Urban Wastewater Reuse: A Systematic Review" *Water Security*, 11, 100073.

## MANUSCRIPTS UNDER REVIEW

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- Sneegas, Gretchen, Lucas Seghezzo, Wendy Jepson, Christian Brannstrom, Sydney Beckner, **Kyungsun Lee** (Accepted). "The use and potential of Q method in environmental planning and management." *Journal of Environmental Planning and Management*
- Kyungsun Lee**, Wendy Jepson (Under review). "Technological development trajectories and environmental sustainability in desalination: a patent analysis." *Water Reuse*
- Cindy Figueroa, Christian Brannstrom, Wendy Jepson, **Kyungsun Lee**, Lucas Seghezzo (Under review). "Perspectives on Sustainability in the Global Corporate Desalination Sector" *Sustainability: Science, Practice and Policy*

## MANUSCRIPTS IN PROGRESS

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- Kyungsun Lee**, David A. Sonnenfeld. "Effects of Political Regime Change on Sustainability Transitions: Eco-Industrial Parks in South Korea, 2002-2016." *Environmental Innovation and Societal Transitions*,
- Kyungsun Lee**, Cindy Figueroa, Wendy Jepson, "Water Sustainability in Desalination Industry: a CSR Report Analysis." Anticipated journal: *Corporate Social Responsibility and Environmental Management*.
- Kyungsun Lee**, David A. Sonnenfeld. "Transition towards A Recycling-Based Society in a City: The Development of Kitakyushu Eco-Town in Japan." Anticipated journal: *Sustainable Cities and Society*.
- Kyungsun Lee**, Cliff I. Davidson, David A. Sonnenfeld. "Exploring Industrial Symbiosis via a Technological Innovation Systems Lens: A Literature Review." Anticipated journal: *Journal of Industrial Ecology*.
- Kyungsun Lee**, Wendy Jepson. "Analyzing the Structure of Desalination Project Using Network Analysis", Anticipated journal: *Water International*.
- Sneegas, Gretchen, Sydney Beckner, Christian Brannstrom, Wendy Jepson, **Kyungsun Lee**, Lucas Seghezzo. "Q-methodology, sustainability, and participatory governance: A critical review."

Anticipated journal: *Environmental Science and Policy*.

**Kyungsun Lee**, Terada Ryoichi, David A. Sonnenfeld. “From Pollution Sinks to Eco- Town: Sustainability Transition experience in Minamata, Japan.” Anticipated journal: *Sustainability Science*

**Kyungsun Lee**, Wendy Jepson, “The Structure and Knowledge Flow of Desalination Technology: A Patent Citation Network Analysis” Anticipated journal: *Economic Geography*.

## BOOK

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**Kyungsun Lee** (2013), *Scientists and Engineers without Borders: Appropriate Technology for a Sustainable World* (Seoul: Danielstone Publishing Co., ISBN 978-8958074878). [in Korean]

- 2014 Excellence Certification Science Books by Ministry of Science, ICT and Future Planning of Korea
- Best Environmental Books of the Years by Ministry of Environment of Korea
- Best Environmental Books for Youth by Eco Justice; Recommended Books for Summer by *Chaekttase*

## POLICY REPORTS

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Woo Hyun Chung, Chang-hoon Lee, **Kyungsun Lee**, Kyunga Noh (2013), *Enhancing Sustainability of Overseas Development Projects*, Korea Environmental Institute. [in Korean]

Woo Hyun Chung, Ji Hye Jo, **Kyungsun Lee** et. al. (2012), *Building the Green Village based on Biomass Energy in Guatemala (II): Guideline for Building the Green Village*, Korea Environmental Institute.

## OTHER PUBLICATIONS

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**Kyungsun Lee** (2017), *Makers Make the World: New York World Maker Faire*, PUBLIY. [in Korean]

**Kyungsun Lee** (2011), *100 Selected Appropriate Technologies for Developing Countries*, Scientists and Engineers without Borders. [in Korean]

Young Je Yoo, **Kyungsun Lee** (2012), “The Necessities and Challenges for R&D for Appropriate Technology in Korea”, *Journal of Unitef*, 1(1), pp. 38-40. [in Korean]

Sang ho Lee, **Kyungsun Lee**, and Chonghun Han (2008), “Current Research Trends on Methane-Hydrate in Japan,” *News & Information for Chemical Engineers*, 26(1), pp. 74-78. [in Korean]

## PRESENTATIONS AND INVITED LECTURES

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“Corporate Water Disclosure in Desalination: A Content Analysis of CSR Reports” *Annual Meetings of the American Association of Geographers* (New York, New York (Online): March 2022)

“Pathways to Sustainable Urban Water Security: Global Desalination Sector” *University of Colorado Boulder Geography Department Colloquium Series* (Boulder, Colorado: January 2022)

“Transition towards a Recycling-Based Society: The Development of Kitakyushu Eco-Town” *The Six Biennial Conference of East Asian Environmental History* (Kyoto, Japan (Online): September 2021)

“From Pollution Sink to Eco-Industrial Parks: the Sustainability Transitions of Industrial Parks in South Korea and Japan” *Geography Colloquium Series* (Texas A&M University: April 2019)

- “From Pollution Sinks to Eco-Town: Sustainability Transition experience in Minamata, Japan” *American Society of Environmental History Conference 2018* (Riverside, California: March 2018)
- “Transition towards A Recycling-Based Society in a City: The Development of Kitakyushu Eco-Town in Japan” *Waste in Context* (Leiden, the Netherlands: November 2017)
- “The Policy Cycle of Industrial Ecology: The Case of South Korea’s Eco-Industrial Park, 2005-2015” *The National Association of Graduate-Professional Studies Pre-Conference Graduate Research Methods Forum* (Syracuse, New York: November 2017)
- “Emergence and Implementation of the Socio-Technical System in the City: The Case of Kitakyushu Eco-Town in Japan” *International Sustainability Transitions Conference 2017* (Gothenburg, Sweden: June 2017)
- “The Transition to Eco-Industrial Parks: Experiences from Korea and Japan,” *Department of Environmental Studies Spring Seminar Series* (SUNY-ESF: March 2017)
- “Environmental Movement in the World: In the Perspective of Political Opportunity Structures,” Lecture for *History of American Environmental Movement* (SUNY-ESF: December 2016).
- “Alternative Environmental Movements,” Lecture for *History of American Environmental Movement* (SUNY-ESF: October 2016).
- “Tracing the Development of Eco-Towns in Japan: The Similarity and Difference at Local Level,” *IGES Study Meeting* (Kitakyushu, Japan: February 2016)
- "From Pollution Sinks to Eco-City: The Role of Actor-Network in the Development of Eco-Town in Kitakyushu," *The Gathering of the Japan Foundation Fellows 2015* (Tokyo, Japan: December 2015).
- "Small Change, Big Difference: The Case of Recycling Program in Korea," *The 3rd Higashida Conference for Sustainability: Building Human Capacity for Sustainability* (Kitakyushu, Japan: October 2015).
- “Technology for Sustainable Production and Consumption in Asia: Technology Assessment of the 3Rs Technology,” *The 2nd International Conference on Sustainable Future for Human Security* (Kyoto, Japan: October 2011).
- “Making an Effort to Enhance the Status of *Eunsa* Memorial Science Museum in the 1930s,” *Annual Meeting of the Korean History of Science Society* (Jeonju, Korea: November 2010). [in Korean]
- “Displayed Science in Colonial Korea: *Eunsa* Memorial Science Museum,” *Annual Meeting of the Korean History of Science Society* (Gwacheon, Korea: November 2009). [in Korean]

## HONORS, AWARDS and FELLOWSHIPS

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2022	Arts & Sciences Instructor Travel Fund, University of Colorado Boulder
2018	The Graduate Student Association Travel Grant Spring 2018, <i>SUNY-ESF</i>
2018	ASEH-NSF Travel Grant, <i>American Society for Environmental History</i>
2017 - 2018	Dissertation Writing Grant, Randolph G. Pack Environmental Institute, <i>SUNY-ESF</i>
2016 - 2017	Graduate Assistantship, <i>SUNY-ESF</i>
2016	Junior Fellowship, International Center for Korean Studies, Kyujanggak Institute for Korean Studies, <i>Seoul National University</i>
2015 - 2016	Japanese Studies Fellowship, <i>The Japan Foundation</i>

2014	NSF Summer Workshop on Environmental Sociology and Environmental STS, <i>Vanderbilt University with Prof. David Hess</i> (competitively selected).
2013 - 2015	Graduate Assistantship, <i>SUNY-ESF</i>
2011	Global Intern Fellowship, <i>National Research Foundation of Korea</i>
2006	Grand prize, <i>LG Global Challenger</i>
2003 - 2007	Presidential Science Scholarship, <i>Korea Science and Engineering Foundation</i>

### **TEACHING EXPERIENCE – Instructor**

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Environmental Justice, University of Colorado Boulder	Fall 2022, Spring 2023
Energy Policy and Society, University of Colorado Boulder	Fall 2022, Spring 2023
Cornerstone: Water-Energy-Food Nexus, University of Colorado Boulder	Fall 2022, Spring 2023

### **TEACHING EXPERIENCE – Teaching Assistant / Teaching Fellow**

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College-wide Graduate Assistant Colloquium on Teaching and Learning, SUNY-ESF	Fall 2018
Environmental Impact Assessment, SUNY-ESF	Spring 2017
History of American Environmental Movement, SUNY-ESF	Fall 2013, 2014, 2016
Senior Seminar in Environmental Studies, SUNY-ESF	Spring 2014, 2015
Social Processes and Environment, SUNY-ESF	Spring 2014, 2015

### **TEACHING CERTIFICATION / MICRO-CREDENTIALS**

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<i>CIRTL First Year Faculty Teaching Academy</i>	Summer 2022
<i>ACUE Micro-credential Designing Learner-Centered and Equitable Courses</i> Texas A&M University	Summer 2022
<i>CIRTL Practitioner of the College Classroom Teaching: Integration of Research, Teaching, and Learning</i> Texas A&M University	Spring 2022
<i>ACUE Micro-credential Creating an Inclusive and Supportive Learning Environment</i> Texas A&M University	Fall 2021
<i>CIRTL Associate of the MOOC: Introduction to Evidence Based Teaching,</i> Texas A&M University	Summer 2021
<i>CIRTL Associate of the MOOC: Advancing Learning Through Evidence-Based STEM Teaching,</i> Texas A&M University	Spring 2021
<i>CIRTL Associate – Fellow of the Academy for Future Faculty</i> Texas A&M University	Spring 2021

### **RESEARCH AFFILIATIONS**

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<i>Junior Fellow</i>	Seoul National University (Seoul, Republic of Korea)	March – August 2016
<i>Visiting Student</i>	Meiji University (Tokyo, Japan)	September 2015 – February 2016

## PROFESSIONAL EXPERIENCES

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- Intern* **Institute for Global Environmental Strategies** (Kitakyushu, Japan) May – July 2015
- Conducted research on the policy implication of Kitakyushu Eco-Town.
  - Worked for Kitakyushu Urban Center, particularly activities in the area of sustainable city.
  - Supported UNIDO Seminar on Eco-Town Management
- Researcher* **Korea Environment Institute** (Seoul, Korea) July 2012 – July 2013
- Conducted research projects on the voluntary agreement in South Korea.
  - Worked for Environment Policy Strategy Center and Global Strategy Center
  - Assisted the KEI International Conference.
- Coordinator* **Scientists and Engineers Without Borders** (Seoul, Korea) December 2011 – July 2012
- Provided analysis in the role of science and technology in ODA and present policy proposal.
  - Conducted case studies of Korean appropriate technologies for developing countries.
  - Coordinated the International Conference on Appropriate Technology.
- Intern* **United Nations Centre for Regional Development** (Nagoya, Japan) February – October 2011
- Worked for Environment Unit, particularly activities in the area of Sustainable Production and Consumption.
  - Supported the Conference on Building Partnerships for Moving towards Zero Waste
- Research Associate* **Samsung Engineering** (Seoul, Korea) February 2007 – February 2008
- Worked for Petrochemical/Energy Technology Department in R&D center.

## PROFESSIONAL SERVICE

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### *Professional service within the University of Colorado, Boulder*

- 2022 – Present ENVIS Undergraduate Curriculum Committee
- 2022 – Present ENVIS Peer Teaching Evaluation Committee
- 2022 – Present ENVIS Honors Representative
- 2022 – Present ENVIS Club and Activities Committee
- 2022 – Present Climate Action Plan - Academics & Student Life Working Group
- 2022 – Present A&S BIPOC Faculty & Staff Mentoring Program, Mentee

### *Professional service outside of the University of Colorado*

- 2022 AAG 2023 Local Arrangement Committee

### *Journals reviewed for*

Journal of Environment and Development, Journal of Cleaner Production, Society & Natural Resources, Sustainable Cities and Society, Journal of Environmental Studies and Sciences, The Professional Geographer, Desalination

## **PROFESSIONAL ASSOCIATIONS**

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American Association of Geographers  
Sustainability Transitions Research Network

## **COMPUTER SOFTWARE EXPERIENCE**

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R, Python, MAXQDA, NVivo, MATLAB, ArcGIS, Gephi, Microsoft Office, Minitab,

## **LANGUAGES**

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Korean (Native), English (Fluent), Japanese (Fluent)