

Curriculum Vitae

Yosuke Shigetomi

Associate Professor

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Nationality: Japan

Primary Employment

Apr. 2024-Present Associate Professor, *Faculty of Science and Engineering, Ritsumeikan University*
Apr. 2023-Present Visiting Lecturer, *Faculty of Medicine, Nagoya University*
Oct. 2018-Present Co-Researcher, *Research Institute for Humanity and Nature*

Previous Employment

Nov. 2018-Mar. 2023 Associate Professor, *Institute of Integrated Science and Technology (Environmental Science), Nagasaki University*
Apr. 2016-Oct. 2018 Assistant Professor, *Institute of Integrated Science and Technology (Environmental Science), Nagasaki University*
Apr. 2014-Mar. 2016 Research Fellow (DC2), *Japan Society for the Promotion of Science*
Apr. 2013-Mar. 2014 Research Assistant, *National Institute for Environmental Studies, Japan*

Education

Apr. 2013-Mar. 2016 **Doctor of Philosophy in Energy Science**
Graduate School of Energy Science, Kyoto University, Japan
Dissertation: “Study of Mid-Term Impact of Japanese Households on Formation of Low-Carbon Society from Consumption-Based Approach”
Supervisors: Dr. Keisuke Nansai, Prof. Susumu Tohno
Apr. 2011-Mar. 2013 **Master’s Degree in Energy Science**
Graduate School of Energy Science, Kyoto University, Japan
Apr. 2007-Mar. 2011 **Bachelor’s Degree in Engineering**
Department of Applied Chemistry, Osaka Prefecture University, Japan

Research Areas and Interests

Industrial Ecology, Environmental Economics, Energy Science, Supply chain management, Decarbonized lifestyles, Climate Change, Aging and Shrinking Population, Work-Life Balance

Publications

(Peer-Reviewed Journal Article)

1. Narumi Kira, Yin Long, Yosuke, Shigetomi. (2024) Measuring the rebound of Japan's industry-specific household carbon footprints and emission inequalities during the COVID-19 pandemic in 2020-2021, *Resources, Conservation and Recycling*, 203, 107414.
 ✧ Press Release: Nagasaki University
2. Kwame Adjei-Mantey, Ken'ichi Matsumoto, Yosuke Shigetomi, Yuki Yamamoto, Tomoki Nakayama (2023) Factors affecting household air pollutants in West Africa: Evidence from Ghana and Nigeria, *Energy for Sustainable Development*, 76, 101288.
3. Andrew Chapman, Shamal Chandra Karmaker, Yosuke Shigetomi (2023) Investigating the impact of working arrangements and lifestyle factor importance on environmental consciousness, *Environmental Research Communications*, 5, 065010.
4. Jemyung Lee, Yosuke Shigetomi, Keiichiro Kanemoto (2023) Drivers of household carbon footprints across EU regions, from 2010 to 2015, *Environmental Research Letters*, 18, 044043.
5. Yin Long, Yoshikuni Yoshida, Yida Jiang, Liqiao Huang, Wentao Wang, Zhifu Mi, Yosuke Shigetomi, Keiichiro Kanemoto (2023) Japanese urban household carbon footprints during early-stage COVID-19 pandemic were consistent with those over the past-decade, *npj. Urban Sustainability*, 3(1), 19.
6. Timothy Fraser, Andrew, J. Chapman, Yosuke Shigetomi (2023) Leapfrogging or Lagging? Drivers of Social Equity from Renewable Energy Transitions Globally, *Energy Research & Social Science*, 98, 103006.
7. Yuzhuo Huang, Yosuke Shigetomi, Ken'ichi Matsumoto (2022) Evaluating carbon inequality by household type and income level across prefectures in Japan, *Sustainable Cities Society*, 87, 104236.
8. Andrew Chapman, Yosuke Shigetomi, Shamal Chandra Karmaker, Bidyut Saha, Caleb Brooks (2022) Cultural and demographic energy system awareness and preference: Implications for future energy system design in the United States, *Energy Economics*, 112, 106141.
 ✧ Press Release: Kyushu University, Nagasaki University, and the University of Illinois.
 ✧ The related articles were published in EurekaAlert and Science Daily.
9. Yin Long, Yida Jiang, Peipei Chen, Yoshikuni Yoshida, Ayyoob Sharifi, Alexandros Gasparatos, Yi Wu, Keiichiro Kanemoto, Yosuke Shigetomi, Dabo Guan (2021) Monthly direct and indirect greenhouse gases emissions from household consumption in the major Japanese cities, *Scientific Data*, 8, 301.
10. Andrew Chapman, Yosuke Shigetomi, Hajime Ohno, Benjamin MacLellan, Akihiro Shinozaki (2021) Evaluating the global impact of low-carbon energy transitions on social equity, *Environmental Innovation and Societal Transition*, 40(6), 332-347.
11. Andrew Chapman, Yosuke Shigetomi, Shamal Chandra Karmaker, Bidyut Baran Saha, Kathryn Huff, Caleb Brooks, James Stubbins (2021) The cultural dynamics of energy: The impact of lived

experience, preference and demographics on future energy policy in the United States, *Energy Research & Social Science*, 80, 102231.

12. Yosuke Shigetomi, Keiichiro Kanemoto, Yuki Yamamoto, Yasushi Kondo (2021) Quantifying the carbon footprint reduction potential of lifestyle choices in Japan, *Environmental Research Letters*, 16, 064022.
13. Hajime Ohno, Yosuke Shigetomi, Andrew Chapman, Yasuhiro Fukushima (2021) Detailing the economy-wide carbon emission reduction potential of post-consumer recycling, *Resources, Conservation & Recycling*, 166, 105263.
14. Yosuke Shigetomi, Yuichi Ishimura, Yuki Yamamoto (2020) Trends in global dependency on the Indonesian palm oil and resultant environmental impacts. *Scientific Reports*, 10, 20624.
 - ✧ The related article was published in Kankyo Tenbou.
15. Keiichiro Kanemoto, Yosuke Shigetomi, Nguyen Tien Hoang, Keijiro Okuoka, Daniel Moran (2020) Spatial variation in household consumption-based carbon emission inventories for 1,200 Japanese cities, *Environmental Research Letters*, 15(11), 114053.
 - ✧ Project website: <https://city.spatialfootprint.com/>
16. Anshuman Chaube, Andrew Chapman, Yosuke Shigetomi, Kathryn Huff, James Stubbins (2020) The role of hydrogen in achieving long term Japanese energy system goals. *Energies*, 13(17), 4539.
 - ✧ Selected as the Editor's Choice article by Energies.
17. Farhad Taghizadeh-Hesary, Aline Mortha, Hadi Farabi-Asl, Tapan Sarker, Andrew Chapman, Yosuke Shigetomi, Timothy Fraser (2020) Role of energy finance in geothermal power development in Japan, *International Review of Economics and Finance*, 70, 398-412.
18. Yosuke Shigetomi, Andrew Chapman, Keisuke Nansai, Ken'ichi Matsumoto, Susumu Tohno (2020) Quantifying lifestyle based social equity implications for national sustainable development policy, *Environmental Research Letters*, 15(8), 084044.
19. Hiroto Shiraki, Ken'ichi Matsumoto, Yosuke Shigetomi, Ehara Tomoki, Yuki Ochi, Yuki Ogawa (2020) Factors affecting CO₂ emissions from private automobiles in Japan: The impact of vehicle occupancy, *Applied Energy*, 259, 114196.
 - ✧ Press Release: Nagasaki University, E-konzal, University Press Center
20. Keiichiro Kanemoto, Daniel Moran, Yosuke Shigetomi, Cristian Reynolds, Yasushi Kondo (2019) Meat consumption does not explain differences in household food carbon footprints in Japan, *One Earth*, 1, 464-471.
 - ✧ The related articles were published in DailyMail, MarketWatch, Anthropocene, EL PAÍS, International Business Times, Courthouse News, iNews, Quartz, The University Network, mindbodygreen, Sustainability Times, RTL 102.5, La Vanguardia, EurekAlert, Phys.org, Kankyo Tenbou, and University Journal Online.
21. Yosuke Shigetomi, Hajime Ohno, Andrew Chapman, Hidemichi Fujii, Keisuke Nansai, Yasuhiro Fukushima (2019) Clarifying demographic impacts on embodied and materially retained carbon towards climate change mitigation, *Environmental Science & Technology*, 53, 14123-14133.

- ◇ Press Release: Nagasaki University, Tohoku University (Graduate School of Engineering), Kyushu University, and National Institute for Environmental Studies
 - ◇ Chosen as **Supplementary Journal Cover in vol. 53, *Environmental Science & Technology***.
22. Yuzhuo Huang, Yosuke Shigetomi, Andrew Chapman, Ken'ichi Matsumoto (2019) Uncovering household carbon footprint drivers in an aging, shrinking society, *Energies*, 12(19), 3745.
 23. Keisuke Nansai, Yasushi Kondo, Damian Giurco, David Sussman, Ken'ichi Nakajima, Shigemi Kagawa, Wataru Takayanagi, Yosuke Shigetomi, Susumu Tohno (2019) Nexus between economy-wide metal inputs and the deterioration of sustainable development goals, *Resources, Conservation & Recycling*, 149, 12-19.
 24. Ken'ichi Matsumoto, Yosuke Shigetomi, Hiroto Shiraki, Yuki Ogawa, Yuki Ochi, Tomoki Ehara (2019) Addressing key drivers of regional CO₂ emissions of the manufacturing industry in Japan, *The Energy Journal*, 40, 01.
 25. Yuki Yamamoto, Yosuke Shigetomi, Yuichi Ishimura, Mitsuru Hattori (2019) Forest change and agricultural productivity: Evidence from Indonesia, *World Development*, 114C, 196-207.
 26. Andrew Chapman, Yosuke Shigetomi (2018) Developing national frameworks for inclusive sustainable development incorporating lifestyle factor importance, *Journal of Cleaner Production*, 200, 39-47.
 27. Yosuke Shigetomi, Ken'ichi Matsumoto, Yuki Ogawa, Hiroto Shiraki, Yuki Yamamoto, Yuki Ochi, Tomoki Ehara (2018) Driving forces underlying sub-national carbon dioxide emissions within the household sector and implications for the Paris Agreement targets in Japan, *Applied Energy*, 228, 2321-2332.
 - ◇ Press Release: Nagasaki University, E-konzal, University Press Center
 - ◇ The related articles were published in Nagasaki Local Newspaper, Japan Business Press, and Kankyo Tenbodai.
 28. Andrew Chapman, Yosuke Shigetomi (2018) Visualizing the shape of society: An analysis of public bads and burden allocation due to household consumption, *Science of the Total Environment*, 639, 385-396.
 29. Yosuke Shigetomi, Keisuke Nansai, Shigemi Kagawa, Susumu Tohno (2018) Fertility-rate recovery and double-income policies require solving the carbon gap under the Paris Agreement, *Resources, Conservation & Recycling*, 133, 385-394.
 30. Yosuke Shigetomi, Keisuke Nansai, Shigemi Kagawa, Yasushi Kondo, Susumu Tohno (2017) Economic and social determinants of global physical flows of critical metals, *Resources Policy*, 52, 107-113.
 31. Keisuke Nansai, Ken'ichi Nakajima, Sangwon Suh, Shigemi Kagawa, Yasushi Kondo, Wataru Takayanagi, Yosuke Shigetomi (2017) The role of primary processing in the supply risks of critical metals, *Economic Systems Research*, 29(3), 335-356.
 32. Yosuke Shigetomi, Keisuke Nansai, Shigemi Kagawa, Susumu Tohno (2016) Influence of income differences on carbon and material footprints for critical metals: the case of Japanese households,

Journal of Economic Structures, 5 (1), 1-19.

33. Yosuke Shigetomi, Keisuke Nansai, Shigemi Kagawa, Susumu Tohno (2015) Trends in Japanese households' critical-metals material footprints, *Ecological Economics*, 119, 118-126.
34. Keisuke Nansai, Ken'ichi Nakajima, Shigemi Kagawa, Yasushi Kondo, Yosuke Shigetomi, Sangwon Suh (2015) Global mining risk footprint of critical metals necessary for low-carbon technology: the case of neodymium, cobalt, and platinum, *Environmental Science & Technology*, 49, 2022-2031.
35. Yosuke Shigetomi, Keisuke Nansai, Shigemi Kagawa, Susumu Tohno (2014) Changes in the carbon footprint of Japanese households in an aging society, *Environmental Science & Technology*, 48, 6069-6080.
36. Keisuke Nansai, Ken'ichi Nakajima, Shigemi Kagawa, Yasushi Kondo, Sangwon Suh, Yosuke Shigetomi, Yuko Oshita (2014) Global flows of critical metals necessary for low-carbon technologies: the case of neodymium, cobalt, and platinum, *Environmental Science & Technology*, 48, 1391-1400.
37. Yosuke Shigetomi, Akie Yuba, Yasuhiro Sadanaga, Akinori Takami, Shiro Hatakeyama, Shungo Kato, Yoshizumi Kajii, Norimichi Takenaka, Hiroshi Bandow (2012) Yearly variations of the transboundary air pollutants by the long-term continuous measurements at Cape Hedo, Okinawa, *Journal of Japan Society for Atmospheric Environment*, 47, 46-50. (in Japanese)

(Book chapter)

1. Yosuke Shigetomi (2023) Chapter 2(8) Input-Output LCA method with a focus on consumer's diversity, *CO₂ Emission Calculation and Reduction Case Study: Quantification by LCA / Promotion of Carbon Neutrality*, Gijutsu Jyoho Kyokai. (in Japanese)
2. Andrew Chapman J., Yosuke Shigetomi (2021) Social Equity and Lifestyle Conscious Policy Making for the Energy Transition, *Sustainable Production, Life Cycle Engineering and Management, EcoDesign and Sustainability II: Social Perspectives and Sustainability Assessment*, (Eds:) Kishita, Y., Matsumoto, M., Inoue, M., Fukushige, S., Springer Nature.
3. Andrew Chapman, Yosuke Shigetomi, Hidemichi Fujii, Shunsuke Managi (2019) Chapter 5: Evaluation indicators and policy making for promoting the SDGs, *Practice of the UN SDGs for local and regional activations: Toward the achievement of sustainable local society* (Eds:) Murakami, S., Endo, K., Fujino, J., Sato M., Managi, S., Senden Kaigi. (in Japanese)
4. Yosuke Shigetomi, Yuki Yamamoto (2018) Invisible links between palm oil and our lifestyle, *Monthly Agri-Bio (September)*, 2 (10), 44-46, Hokuryukan. (in Japanese)
5. Yosuke Shigetomi, Keisuke Nansai, Kayoko Shironitta, Shigemi Kagawa (2017) Chapter 16: Revisiting Japanese carbon footprint studies, *Environmental and Economic Impacts of Decarbonization: Input-Output Studies on the Consequences of the 2015 Paris Agreements*, (Eds:) Dejuán, Ó., Lenzen M., Cadarso, M-Á, 335-350, Routledge.

(Other Publications)

1. Yosuke Shigetomi Visualization of lifestyle CO₂, *Nagasaki Newspaper (morning)*, p.14, Jun. 17, 2021.
2. Yosuke Shigetomi (2021) Introduction to Environmental System Laboratory at Nagasaki University,

- Journal of Life Cycle Assessment, Japan*, 17, 47-49. (in Japanese)
3. Shinsuke Murakami, Jun Nakatani, Kenichi Nakajima, Eri Amasawa, Ryota Ii, Kiyotada Hayashi, Naoki Yoshikawa, Ichiro Daigo, Yusuke Kishita, Tomohiko Ihara, Koichi Shobatake, Yuki Kudoh, Masaharu Motoshita, Keiichiro Kanemoto, Minako Hara, Aiichiro Kashiwagi, Seiji Hashimoto, Yosuke Shigetomi, Masayuki Kanzaki, Yasunori Kikuchi, Hajime Ohno, Yasuhiro Fukushima (2019) EcoBalance 2018—Nexus of ideas: Innovation by linking through life cycle thinking (9–12 October 2018, Tokyo, Japan), *International Journal of Life Cycle Assessment*, 24 (8), 1544-1552.
 4. Yosuke Shigetomi Energy-Saving Effects in Metropolitan Areas, *Nagasaki Local Newspaper (morning)*, p.18 Aug. 18, 2018.
 5. Yasushi Kondo, Yasuhiro Fukushima, Shinsuke Murakami., Keiichi Okajima, Hirokazu Sugiyama, Kiyotada Hayashi, Kazuyo Matsubae, Minako Hara, Yasunari Matsuno, Hideki Kakisawa, Masaharu Motoshita, Michiyasu Nakajima, Ken'ichi Nakajima, Norihiro Itsubo, Yosuke Shigetomi (2015) Report on the International Conference EcoBalance 2014, *Journal of Life Cycle Assessment, Japan*, 11, 198-206. (in Japanese)
 6. Yosuke Shigetomi, Hatsuna Tadaka, Shunichi Hienuki, Shogo Eguchi, Arata Ito, Shunsuke Okamoto (2015) What should students learn through LCA studies?: A report of the Discussion Meeting at the 6th ILCAJ-SCN Summer Workshop, *Journal of Life Cycle Assessment, Japan*, 11, 55-58. (in Japanese)
 7. Shunsuke Okamoto, Yosuke Shigetomi, Shunichi Hienuki, Hatsuna Tadaka, Arata Ito (2014) History of Student Communication Network from the ILCAJ, *Journal of Life Cycle Assessment, Japan*, 10, 430-431. (in Japanese)

Conference Presentations

(Oral)

1. Yosuke Shigetomi, Asuka Ishigami: Clarifying the Japanese household food waste structures and its life cycle impacts, *The 19th Meeting of The Institute of Life Cycle Assessment*, Utsunomiya, March 2024 (in Japanese).
2. Yosuke Shigetomi: Toward an Equitable Carbon Neutral Society Utilizing a Holistic Evaluative Approach. I²CNER Three Thrusts Workshop, Kyushu University, Fukuoka, February 2024. *Invited*
3. Narumi Kira, Yosuke Shigetomi: Identification of direct and indirect greenhouse gas emissions focusing on the lifestyles of households certified for long-term care, *Annual Meeting of The Institute of Environmental Science 2023*, Kobe, September 2023 (in Japanese).
4. Yosuke Shigetomi, Andrew Chapman: Does a reduction in working time matter for the environment? The case of Japan, *The 11th International Conference on Industrial Ecology*, Leiden, July 2023.
5. Narumi Kira, Yosuke Shigetomi: Uncovering the household carbon footprint of people certified for long-term care in Japan, *The 11th International Conference on Industrial Ecology*, Leiden, July 2023.
6. Andrew Chapman, Shamal Karmaker, Yosuke Shigetomi: Impacts of working arrangements and

lifestyle factor importance on environmental consciousness, *The 11th International Conference on Industrial Ecology*, Leiden, July 2023.

7. Narumi Kira, Yosuke Shigetomi: Analysis of household carbon footprint structure among people certified for long-term care and support needed, *The 18th Meeting of The Institute of Life Cycle Assessment*, Tsukuba-Online Conference, March 2023 (in Japanese).
8. Yosuke Shigetomi: Life cycle environmental impact of the Japanese diet, *Gastronomy and Geopolitics Lectures/ Tohoku Branch of the Japan Society of Material Cycles and Waste Management, Regional Lecture Meeting in 2022*, Sendai, January 2023 (in Japanese). *Invited*
9. Jiahuan Wang, Yosuke Shigetomi, Yuki Yamamoto, Andrew Chapman: Analyzing the differences in household carbon footprints across age generations in the US, *The 15th EcoBalance International Conference*, Fukuoka, Japan, October-November 2022.
10. Keiichiro Kanemoto, Jumyung Lee, Yosuke Shigetomi: Carbon footprint of cities based on micro-consumption data, *International Conference on Economic Structures 2022*, Yokohama, March 2022.
11. Yuzhuo Huang, Yosuke Shigetomi, Ken'ichi Matsumoto: Carbon footprints of household consumption under the background of low marriage rate in 47 prefectures of Japan by income level, *International Conference on Economic Structures 2022*, Yokohama, March 2022.
12. Narumi Kira, Yosuke Shigetomi: Does the impact of COVID-19 pandemic on household carbon footprint vary by industry engaged?, *The 17th Meeting of The Institute of Life Cycle Assessment*, Online Conference, March 2022 (in Japanese).
13. Jiahuan Wang, Andrew Chapman, Yosuke Shigetomi: Identifying household carbon footprints associated with an aging society in the US, *The 17th Meeting of The Institute of Life Cycle Assessment*, Online Conference, March 2022.
14. Yosuke Shigetomi, Yuki Yamamoto: Quantification of the supply-chain palm oil consumption of households using global multi-regional input-output tables, *Annual Meeting of The Institute of Environmental Science 2021*, Online, September 2021 (in Japanese).
15. Yosuke Shigetomi, Andrew Chapman: Measuring the inequity of household consumption from a footprint perspective, *SNU-KYUSHU JOINT SYMPOSIUM 2021*, Online, June 2021. *Invited*
16. Yosuke Shigetomi, Keiichiro Kanemoto, Yuki Yamamoto, Yasushi Kondo: Estimating the reduction potentials of household carbon footprint for Japan using the microdata of consumer expenditure survey, *International Society for Industrial Ecology Day*, Online, June 2021.
17. Yosuke Shigetomi, Keiichiro Kanemoto, Yuki Yamamoto, Yasushi Kondo: Estimating the household carbon footprint using micro-consumption data in Japan, *The 16th Meeting of The Institute of Life Cycle Assessment*, Online Conference, March 2021. (in Japanese)
18. Hajime Ohno, Yosuke Shigetomi, Andrew Chapman, Yasuhiro Fukushima: Determining the performance requirement for recycling technologies for carbon-containing products based on the iceberg approach, *The 14th EcoBalance International Conference*, Online Conference, March 2021.
19. Yosuke Shigetomi, Yuichi Ishimura, Yuki Yamamoto, Mitsuru Hattori: Examining the Quantification of Supply Chain Environmental Burden Induced by Global Palm Oil Demands, *The*

- 15th Meeting of The Institute of Life Cycle Assessment*, Online Conference, March 2020. (in Japanese)
20. Yosuke Shigetomi, Yuichi Ishimura, Mitsuru Hattori, Yuki Yamamoto: Timeseries analysis of environmental impacts of palm oil consumption through the international supply chain, *The 36th National Energy Systems, Economics & Environment Conference*, Tokyo, Japan, January 2020. (in Japanese)
 21. Benjamin C. McLellan, Andrew Chapman, Eiji Yamasue, Yosuke Shigetomi, Farzaneh Hooman, Damian Giurco: Consequences of consequential transitions, *EcoDesign 2019*, Yokohama, Japan, November 2019.
 22. Andrew Chapman, Yosuke Shigetomi: Social Equity and Lifestyle Conscious Policy Making for the Energy Transition, *EcoDesign 2019*, Yokohama, Japan, November 2019.
 23. Yosuke Shigetomi, Andrew Chapman: Analyzing social equity associated with the distribution of incomes using an input-output approach, *Pan Pacific Association of Input-Output Studies: The 30th Conference*, Fukuoka, Japan, November 2019. (in Japanese)
 24. Yosuke Shigetomi, Andrew Chapman, Keisuke Nansai, Susumu Tohno: Visualizing Subjectively Weighted Lifestyle-Based Social Equity, *The 27th International Input-Output Conference*, Glasgow, United Kingdom, June-July 2019.
 25. Hajime Ohno, Yosuke Shigetomi, Yasuhiro Fukushima: Comprehensive quantification of potential benefits from plastic recycling, *The 10th International Symposium on Feedstock Recycling of Polymeric Materials*, Budapest, Hungary, May 2019.
 26. Yosuke Shigetomi, Andrew Chapman, Keisuke Nansai, Susumu Tohno: Visualizing Subjectively Weighted Lifestyle-Based Social Equity, *The 14th Meeting of The Institute of Life Cycle Assessment*, Fukuoka, Japan, March 2019. (in Japanese)
 27. Yuma, Aono, Yosuke Shigetomi: Analyzing lifestyle-based environmental footprints with a focus on time use shifts, *The 14th Meeting of The Institute of Life Cycle Assessment*, Fukuoka, Japan, March 2019. (in Japanese)
 28. Kenshun Zhu, Yosuke Shigetomi, Hidemichi Fujii: Analysis of the circular economy indices for electrical appliance manufacturing, *The 14th Meeting of The Institute of Life Cycle Assessment*, Fukuoka, Japan, March 2019. (in Japanese)
 29. Yosuke Shigetomi, Hajime Ohno, Yasuhiro Fukushima: The role of households in avoiding carbon release in end-of-life products: the case of Japan, *The 13th EcoBalance International Conference*, Tsukuba, Japan, October 2018.
 30. Andrew Chapman, Yosuke Shigetomi: A Generational Household Level Analysis of Public Bads and Environmental Injustice in an Aging, Shrinking Population, *The 13th EcoBalance International Conference*, Tokyo, Japan, October 2018.
 31. Hajime Ohno, Yosuke Shigetomi, Yasuhiro Fukushima: Evaluation of carbon intensity of goods consumed by households by integrating footprint and flow of carbon: the case of Japan, *The 13th EcoBalance International Conference*, Tokyo, Japan, October 2018.
 32. Ken'ichi Matsumoto, Yosuke Shigetomi, Hiroto Shiraki, Yuki Ochi, Yuki Ogawa, Tomoki Ehara:

- Regional-scale decomposition analysis of CO₂ emissions of the manufacturing industry in Japan, *The 41st IAEE International Conference*, Groningen, Netherlands, June 2018.
33. Yosuke Shigetomi, Ken'ichi Matsumoto, Tomoki Ehara, Yuki Ochi, Yuki Ogawa, Shiraki, Y., Yuki Yamamoto: Identifying Drivers of Residential Energy-Related CO₂ Emissions in 47 Prefectures, *The 13th Meeting of The Institute of Life Cycle Assessment*, Tokyo, Japan, March 2018. (in Japanese)
 34. Andrew J. Chapman, Yosuke Shigetomi: Generational Social Burden Issues due to Household Consumption, *The 13th Meeting of The Institute of Life Cycle Assessment*, Tokyo, Japan, March 2018. (in Japanese)
 35. Yosuke Shigetomi, Andrew Chapman: Evaluation of social equity associated with household consumption from the life cycle perspective, *The 34th National Energy Systems, Economics & Environment Conference*, Tokyo, Japan, January 2018. (in Japanese)
 36. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: How is carbon footprint of households affected by the Japan's new policy to raise birthrate and income? *The 8th International Conference on Industrial Ecology*, Chicago, USA, June 2017.
 37. Yosuke Shigetomi, Keisuke Nansai, Shigemi Kagawa, Susumu Tohno: Carbon footprint mitigation of Japanese households for achieving the Paris Agreement under the demographic and income scenarios, *The 25th International Input-Output Conference*, Atlanta, USA, June 2017.
 38. Yosuke Shigetomi, Keisuke Nansai, Shigemi Kagawa, Susumu Tohno: Agenda for achievement of the Paris Agreement on "A Society in Which All Citizens are Dynamically Engaged", *The 12th Meeting of The Institute of Life Cycle Assessment*, Kashiwa, Japan, March 2017. (in Japanese)
 39. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: The trade-offs between carbon and critical metal footprints of Japanese households, *The 24th International Input-Output Conference*, Seoul, South Korea, July 2016.
 40. Yosuke Shigetomi, Keisuke Nansai, Shigemi Kagawa, Yasushi Kondo, Susumu Tohno: Future scenario analysis of global flow structures with a focus on critical metals, *The 11th Meeting of The Institute of Life Cycle Assessment*, Kashiwa, Japan, March 2016. (in Japanese)
 41. Yosuke Shigetomi, Keisuke Nansai, Shigemi Kagawa, Susumu Tohno: Estimation of Global Flows of Critical Metals Using a Gravity Model, *Pan Pacific Association of Input-Output Studies: The 26th Conference*, Tokyo, Japan, October-November 2015.
 42. Yosuke Shigetomi: Household's carbon and material footprints in Japan – econometric approach for their future estimations. *International Workshop on Industrial Ecology*, Ohita, July 2015.
 43. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: Comparison between global carbon and material footprints of Japanese households, *The 10th Meeting of The Institute of Life Cycle Assessment*, Kobe, Japan, March 2015. (in Japanese)
 44. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: Supply security footprint of critical metals related to household consumption, *The 11th International Society for Industrial Ecology Socio-Economic Metabolism section conference and the 4th ISIE Asia-Pacific conference*, Melbourne, Australia, November 2014.

45. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: The impact of demographic change in Japan on supply security footprint of critical metals, *The 11th International Conference on EcoBalance*, Tsukuba, Japan, October 2014.
46. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: Change in supply security footprints of critical metals induced by Japanese household consumption from 2005 to 2035, *The 22nd International Input-Output Conference*, Lisbon, Portugal, July 2014.
47. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: The relationship between Japanese household consumption and international flow of rare metals, *The 9th Meeting of The Institute of Life Cycle Assessment*, Tokyo, Japan, March 2014. (in Japanese)
48. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: Forecast of Consumption-based GHG Emissions in Japan from the View Point of Household Consumption, *Pan Pacific International Input-Output Studies: The 24th Conference*, Nagoya, Japan, October 2013. (in Japanese)
49. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: Future projection of global greenhouse gas emissions associated with Japanese household consumption with a global link input-output model, *The 21st International Input-Output Conference*, Kitakyushu, Japan, July 2013.
50. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: Estimate of Japanese global GHG emissions considering the future transition of household composition, *The 8th Meeting of The Institute of Life Cycle Assessment*, Shiga, Japan, March 2013. (in Japanese)
51. Yosuke Shigetomi, Akie Yuba, Yasuhiro Sadanaga, Akinori Takami, Shiro Hatakeyama, Itsushi Uno, Shungo Kato, Yoshizumi Kajii, Norimichi Takenaka, Hiroshi Bandow: Yearly variations of the trans-boundary air pollutants by the long-term continuous measurements at Cape Hedo, Okinawa, *Japan Society for Atmospheric Environment, The 52th Annual Conference*, Nagasaki, Japan, September 2011. (in Japanese)
52. Yosuke Shigetomi, Akie Yuba, Yasuhiro Sadanaga, Akinori Takami, Shiro Hatakeyama, Itsushi Uno, Shungo Kato, Yoshizumi Kajii, Norimichi Takenaka, Hiroshi Bandow: Analysis of the trans-boundary air pollution derived from East Asia by the long-term continuous measurements of NO_y and HNO₃ at Cape Hedo, Okinawa, *The Chemical Society of Japan, The 91th Annual Conference*, Kanagawa, Japan, March 2011. (in Japanese)

(Poster)

1. Narumi Kira, Yosuke Shigetomi: Analysis of supply chain social and environmental impacts of increasing demand for long-term care, *The 19th Meeting of The Institute of Life Cycle Assessment*, Utsunomiya, March 2024 (in Japanese).
2. Jiahuan Wang, Yosuke Shigetomi, Andrew Chapman: Building scenarios for environmental footprint reductions based on diversity of environmental consciousness among races in the U.S., *The 19th Meeting of The Institute of Life Cycle Assessment*, Utsunomiya, March 2024.
3. Jiahuan Wang, Yosuke Shigetomi, Andrew Chapman: The importance of accounting for lifestyle differences among racial groups in the U.S. household carbon footprint, *Annual Meeting of The Institute*

of *Environmental Science* 2023, Kobe, September 2023.

4. Narumi Kira, Yosuke Shigetomi: Identification of direct and indirect greenhouse gas emissions focusing on the lifestyles of households certified for long-term care, *Annual Meeting of The Institute of Environmental Science* 2023, Kobe, September 2023 (in Japanese).
5. Jiahuan Wang, Yosuke Shigetomi, Andrew Chapman: The consequences of consumer behaviors and environmental consciousness among various races on household carbon footprints in the United States, *The 11th International Conference on Industrial Ecology*, Leiden, July 2023.
6. Yuzhuo Huang, Ken'ichi Matsumoto, Yosuke Shigetomi: Analyzing the differences in household carbon footprints across age generations in the US, *The 15th EcoBalance International Conference*, Fukuoka, Japan, October-November 2022.
7. Narumi Kira, Yosuke Shigetomi: Does the impact of COVID-19 pandemic on household carbon footprint vary by industry engaged?, *The 17th Meeting of The Institute of Life Cycle Assessment*, Online Conference, March 2022 (in Japanese).
8. Asuka Ishigami, Yosuke Shigetomi: Estimating food loss and lifecycle CO₂ emissions by household attribute under an aging, shrinking population, *Annual Meeting of The Institute of Environmental Science* 2021, Online, September 2021 (in Japanese).
9. Narumi Kira, Yosuke Shigetomi: Analysis of the impacts of lifestyle changes by COVID-19 pandemic on GHG emissions and its equality, *Annual Meeting of The Institute of Environmental Science* 2021, Online, September 2021 (in Japanese).
10. Yosuke Shigetomi, Andrew, C., Keisuke Nansai, Susumu Tohno: Visualizing Subjectively Weighted Lifestyle-Based Social Equity, *The 14th Meeting of The Institute of Life Cycle Assessment*, Fukuoka, Japan, March 2019. (in Japanese)
11. Kenshun Zhu, Yosuke Shigetomi, Hidemichi Fujii Analysis of the Circular Economy Indices for Electrical Appliance Manufacturing, *The 14th Meeting of The Institute of Life Cycle Assessment*, Fukuoka, Japan, March 2019. (in Japanese)
12. Yosuke Shigetomi, Ken'ichi Matsumoto, Yuki Yamamoto, Tomoki Ehara, Yuki Ochi, Yuki Ogawa, Hiroto Shiraki: Influence of regional socio-economic drivers on residential CO₂ emissions in Japan, *The 41st IAEE International Conference*, Groningen, June 2018.
13. Yuki Yamamoto, Yuichi Ishimura, Yosuke Shigetomi, Mitsuru Hattori: Forest change and agricultural productivity: Evidence from Indonesia, *The 6th World Congress of Environmental and Resource Economists*, Gothenburg, Sweden, June 2018.
14. Ken'ichi Matsumoto, Yosuke Shigetomi, Tomoki Ehara, Yuki Ochi, Yuki Ogawa, Hiroto Shiraki, Yuki Yamamoto: Addressing the key drivers of regional energy consumption of the manufacturing industry in Japan, *The 8th International Conference on Life Cycle Management*, Luxemburg, September 2017.
15. Yosuke Shigetomi: Promotion of household social policies with adoption of the Paris Agreement in Japan, *The 12th EcoBalance International Conference*, Kyoto, Japan, October 2016.
16. Yosuke Shigetomi, Keisuke Nansai, Shigemi Kagawa, Yasushi Kondo, Susumu Tohno: Future

- scenario analysis of global flow structures with a focus on critical metals, *The 11th Meeting of The Institute of Life Cycle Assessment*, Kashiwa, Japan, March 2016. (in Japanese)
17. Shogo Eguchi, Yosuke Shigetomi, Hatsuna Tadaka, Kento Tamura, Shunsuke Yokoi, Ryota Ito: ILCAJ-Student Communication Network Activity Report 2015, *The 11th Meeting of The Institute of Life Cycle Assessment*, Kobe, Japan, March 2015. (in Japanese)
 18. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: Finding common features of material footprints for critical metals and carbon footprint with Japanese household consumption, *The 7th International Conference on Life Cycle Management*, Bordeaux, France, August-September 2015.
 19. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: Comparison between global carbon and material footprints of Japanese households, *The 10th Meeting of The Institute of Life Cycle Assessment*, Kobe, Japan, March 2015. (in Japanese)
 20. Yosuke Shigetomi, Hatsuna Tadaka, Arata Ito, Shunichi Hienuki., Shogo Eguchi, Shunsuke Okamoto: ILCAJ-Student Communication Network Activity Report 2014, *The 10th Meeting of The Institute of Life Cycle Assessment*, Kobe, Japan, March 2015. (in Japanese)
 21. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: The relationship between Japanese household consumption and international flow of rare metals, *The 9th Meeting of The Institute of Life Cycle Assessment*, Tokyo, Japan, March 2014. (in Japanese)
 22. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: Environmental footprints of households from the viewpoint of an aging society with fewer children, *SETAC Europe 19th LCA case study symposium*, Rome, Italy. November 2013.
 23. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: Change in consumption-based greenhouse gas emissions and energy consumptions from households associated with the future transition of household composition in Japan, *The 6th International Conference on Industrial Ecology*, Ulsan, South Korea, June 2013.
 24. Yosuke Shigetomi, Keisuke Nansai, Susumu Tohno: Estimate of Japanese global GHG emissions considering the future transition of household composition, *The 8th Meeting of The Institute of Life Cycle Assessment*, Shiga, Japan, March 2013. (in Japanese)

Awards

1. Best Student Poster Presentation Award, 10th Conference of the Institute of Life Cycle Assessment, Japan, March 2024 with Narumi Kira (Supervised).
2. Best Presentation Award (1st Prize) for High School, Career College, and Bachelor Students, Conference of the Japanese Society of Environmental Science 2021 with Ms. Asuka Ishigami (Supervised)
3. Institute of Physics: Outstanding Reviewer Award for Environmental Research Letters 2020
4. The Institute of Life Cycle Assessment Japan: Young Researcher's Award 2021 "For Contributions in Research on Development of an Input-Output LCA Method Incorporating Consumer Diversity"

5. Institute of Physics: IOP Trusted Reviewer 2020
6. Best Student Poster Presentation Award, 10th Conference of the Institute of Life Cycle Assessment, Japan, March 2015.
7. Best Student Poster Presentation Award, 9th Conference of the Institute of Life Cycle Assessment, Japan, March 2014.

Skills

Languages: Japanese (native), English (professional proficiency)

Software: MATLAB; STATA; Microsoft Office including Word, Excel, and PowerPoint

Professional organizations

International Input-Output Association, International Society for Industrial Ecology, Institute of Life Cycle Assessment Japan, Pan Pacific Association of Input-Output Studies, Institute of Japan Energy and Resources, Society of Environmental Science Japan

Grant

1. Grant-in-Aid for Japan Society for Scientific Research (B), **Principal Investigator**, JPY14,300,000 (tentative), 2024-2027.
2. Health Labour Sciences Research Grant, Co-Investigator (PI: Dr. Keisuke Nansai), 2023-2025.
3. Grant-in-Aid for Japan Society for Scientific Research (B) (23H03607), Co-Investigator (PI: Dr. Yuki Yamamoto), 2023-2026.
4. Grant-in-Aid for Japan Society for Scientific Research (B) (22H03817), Co-Investigator (PI: Dr. Ken'ichi Matsumoto), 2022-2024.
5. Research Institute for Humanity and Nature (RIHN) Research Project, Co-Investigator (PI: Dr. Kentaro Hayashi), 2021-2027.
6. Grant-in-Aid for Japan Society for Scientific Research (B) (21H03673), **Principal Investigator**, JPY13,100,000, 2021-2023.
7. Grant-in-Aid for Japan Society for Scientific Research: Fund for the Promotion of Joint International Research (Fostering Joint International Research (B)) (21KK0187), Co-Investigator (PI: Dr. Tomoki Nakayama), 2021-2025.
8. Sumitomo Foundation, Grant for an Environmental Research Project, Special Research, Co-Investigator (PI: Dr. Tomoki Nakayama), 2020-2022.
9. Kyushu University QR Program TSUBASA, Co-Investigator (PI: Dr. Andrew Chapman), 2019-2021.
10. Grant-in-Aid for Japan Society for Scientific Research (B) (19H04340), Co-Investigator (PI: Dr. Yuki Yamamoto), 2019-2022.

11. Research Institute for Humanity and Nature (RIHN) Research Project, Co-Investigator (PI: Dr. Keiichiro Kanemoto), 2018-2024.
12. Grant-in-Aid for Japan Society for Young Scientists (18K18231), Principal Investigator, JPY 3,300,000, 2018-2021.
13. Asahi Glass Foundation, Humanity Research, Principal Investigator, JPY1,000,000, 2018-2020.
14. Nagasaki University Global Cooperative Support Fund, Principal Investigator, JPY800,000, 2018-2019.
15. Kyushu University QR Program New WAKABA Challenge, Co-Investigator (PI: Dr. Andrew Chapman), 2017-2018.
16. Grant-in-Aid for Japan Society for Research Activity Start-up (16Ho7072), Principal Investigator, JPY 2,300,000, 2016-2018.
17. Grant-in-Aid for Japan Society for the Promotion Science Fellows (No. 26 · 4971), Principal Investigator, JPY 2,200,000, 2014-2016.

Professional Experience

Mar. 2024-	Chairman of the Nagasaki Prefecture Food Loss Reduction Promotion Council
Oct. 2022-Apr. 2024	Committee of the Nagasaki City Environmental Council
Aug. 2021-	Organizing Committee of the EcoBalance International Conference
May. 2021-	Committee of the ILCAJ International Section
Jun. 2018-May. 2023	Organizing Committee of the ILCAJ Conference (14-18 th)
Apr. 2015-Mar. 2016	Head of the Student Communication Network at the Institute of Life Cycle Assessment, Japan (ILCAJ-SCN)
Apr. 2014-Mar. 2015	Vice Head of the Student Communication Network at the Institute of Life Cycle Assessment, Japan (ILCAJ-SCN)

Teaching

- Climate Change and Medicine, Faculty of Medicine, Nagoya University, 2023-Present
- International Environment Studies II, Faculty of Environmental Science, Nagasaki University, 2016-2023
- Sustainable Society I, Faculty of Environmental Science, Nagasaki University, 2019-2023
- Introduction to Environmental Science, Faculty of Environmental Science, Nagasaki University, 2016-2023
- Resource Management, Faculty of Environmental Science, Nagasaki University, 2016-2023
- Special Lecture on Environmental Science, Faculty of Environmental Science, Nagasaki University, 2019-2021
- Seminar on Environmental Science, Faculty of Environmental Science, Nagasaki University, 2016-2023

- Seminar on Fundamental Environmental Science, Faculty of Environmental Science, Nagasaki University, 2016-2023
- Freshman Seminar on Environmental Science, Faculty of Environmental Science, Nagasaki University, 2018, 2021
- Fundamental Environmental Policy, Graduate School of Fisheries and Environmental Sciences, Nagasaki University, 2018-2023
- Advanced Environmental Policy, Graduate School of Fisheries and Environmental Sciences, Nagasaki University, 2018-2023
- Environmental Economics and Policy Studies, Graduate School of Fisheries and Environmental Sciences, Nagasaki University, 2016-2023
- Special Lecture for Ph.D. Candidates at Graduate School of Fisheries and Environmental Sciences, Graduate School of Fisheries and Environmental Sciences, Nagasaki University, 2020

Refereeing Activities

ACS Environmental Au, Applied Energy, British Food Journal, Carbon Management, Ecological Economics, Ecological Indicator, Energies, Energy Policy, Environmental Economics and Policy Studies, Environmental Research Communication, Environmental Research Letters, Frontiers in Energy, International Journal of Energy Research, International Journal of Environmental Research and Public Health, Japan Journal of Environmental Information Science, Japan Journal of Environmental Science, Journal of Cleaner Production, Journal of Economic Structures, Journal of Environmental Management, Journal of Industrial Ecology, Journal of Japan Institute of Life Cycle Assessment, Journal of Material Cycles and Waste Management, Nature Communications, Nature Sustainability, One Earth, Processes, Resources, Resources Conservation and Recycling, Resources Policy, Science Bulletin, Structural Change and Economic Dynamics, Sustainable Cities and Societies, Sustainable Future, Sustainable Production and Consumption, Sustainability, Sustainability Science, Technology in Society, The Energy Journal

(Book)

Shinichiro Nakamura, (2023) *A Practical Guide to Industrial Ecology by Input-Output Analysis: Matrix-Based Calculus of Sustainability*, Springer Cham.

References

- Keisuke Nansai
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