

BROWN UNIVERSITY

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Education

Ph.D. Candidate in Economics, Brown University

2016-present

Expected Completion Date: May 2023

Thesis Title: “Essays on Economic Geography, Environment, and Development”

ReferencesProfessor **Andrew Foster**

Department of Economics, Brown University

afoster@brown.edu

(401) 863-2537

Professor **Matthew Turner**

Department of Economics, Brown University

matthew_turner@brown.edu

(401) 863-9331

Professor **Daniel Björkegren**

Department of Economics, Brown University

danbjork@brown.edu

(401) 863-3690

Professor **Jesse Shapiro**

Department of Economics, Harvard University

jesse_shapiro@fas.harvard.edu

(617) 444-9571

M.A. Economics, Brown University

2017

M.Phil. Economics, The University of Tokyo

2016

B.S. Agriculture, Hokkaido University

2014

Visiting student, Shri Ram College of Commerce (University of Delhi)

2012-2013

Teaching and Research Fields

Primary fields: Development Economics, Spatial Economics, Environmental Economics

Secondary fields: Political Economy, Conflict, Agricultural & Resource Economics

Research Papers

“Human and Nature: Economies of Density and Conservation in the Amazon Rainforest”(with Mari Tanaka and Yoshito Takasaki) **Job Market Paper**

This paper formalizes the concentration and dispersion forces of economic activity in tropical forests with a multi-sector quantitative spatial model to investigate ways to resolve inherent trade-offs between human and ecological well-being. The model is estimated with detailed georeferenced data from major river basins in the Peruvian Amazon and plausibly exogenous river networks. We find that the agglomeration externality in agricultural production outweighs dispersion forces in access to land, such that higher concentration leads to higher productivity with smaller deforestation per farmer. We also find a strong congestion externality with spatial spillovers in natural resource extraction. The agglomeration force is primarily driven by the economies of scale in transport technology and agricultural intensification. The agglomeration externality is revealed to have quantitatively large impacts on improving welfare and reducing deforestation, but

leads to natural resource depletion through general equilibrium effects. Counterfactual experiments demonstrate that well-targeted place-based protection policies and river infrastructure investments are complementary to improve human-ecological well-being. Protecting the rural frontier primarily conserves biodiversity by increasing the congestion force in extractive activities within more compact areas for human settlements. Improving transport infrastructure that integrates hinterlands primarily reduces total deforestation by making the agglomeration benefits spread more evenly across the basin.

“The Golden City on the Edge: Economic Geography and Jihad over Centuries”

(with Masahiro Kubo) *Hayami Award 2022*

This paper uncovers the evolution of cities and Islamist insurgencies, so called *jihad*, in the process of reversal of fortune over centuries. In West Africa, water access in ancient periods predicts core cities of inland trade routes—the trans-Saharan caravan routes—created up to 1800s, when historical Islamic states played significant roles in economy before European colonization. On the other hand, the ancient water access does not have a persistent influence on contemporary city formation and economic activities. Since European colonization and the invention of modern trading technologies, along with the constant shrinking of water sources, landlocked pre-colonial core cities contracted or became extinct. Employing an instrumental variable strategy, we show that these deserted locations are replaced by battlefields for jihadist organizations today. We argue that the power structure of Islamic states and the European military during the colonial era in the 19th century shapes the persistence of jihadist ideology as a legacy of colonization. Investigation into religious ideology related to jihadism, using individual-level surveys from Muslims, supports this mechanism. The concentration of jihadist violence in ‘past-core-and-present-periphery’ areas in West Africa is consistent with a global-scale phenomenon.

Publications

Tsuda, Shunsuke. “Refugee inflows, surplus farm labor, and crop marketization in rural Africa.”

Journal of Development Economics (2022): 155, 102805.

This paper sheds light on the structure of factor and output market frictions to investigate long-term effects of refugee inflows on host farmers. Combining a canonical agricultural household model, the natural experimental setting of mass refugee inflows into Tanzania in the early 1990s, and longitudinal panel data from the host economy, I show that refugee inflows cause market-specific gains and losses. Refugee inflows tighten the off-farm labor market participation constraint, implying an increase in surplus farm labor and labor market inefficiency. On the other hand, I observe a positive impact on the transition from subsistence to crop marketization. This transition is revealed to be primarily due to a reduction in fixed transaction costs around refugee camps, not due to an increase in consumption demand by refugees. While the overall impact on agricultural labor productivity is negative, the “surplus farm labor effect” and the “crop marketization effect” act in opposite directions.

Works in Progress

“De-Radicalization and Reintegration from Violent Extremism.” (with Robert Blair, Jun Goto, and Yosuke Nagai)

“Caste Segregation and Spatial Misallocation in Village India.” (with Kazuki Motohashi and Mike Neubauer)

“The Economics of Subsistence in Africa.” *S4 Graduate Student Paper Prize 2020, the 2nd place*

Professional Activities

Referee

Journal of Development Economics, Journal of Urban Economics

Presentations

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| 2022 | University of Georgia; Osaka University; IRES Graduate Workshop (Chapman)*; Growth Lab (Brown)*; Applied Micro Breakfast (Brown); Applied Micro Lunch (Brown, twice); JADE Conference (Virtual)* |
| 2021 | Applied Micro Breakfast (Brown); Applied Micro Lunch (Brown) |
| 2020 | NEUDC (Dartmouth, Virtual); Working Group in African Political Economy (WGAPE) Annual Meeting (Virtual); Research Conference on Forced Displacement (UN City, Copenhagen); Kobe Development Economics and Economic History Seminar (Kobe-DEEH) |

2019 Applied Micro Lunch (Brown, twice)
 2018 North East Universities Development Consortium (NEUDC, Cornell)
 2016 Hitotsubashi Summer Institute; JEA meeting (Nagoya-U); Microeconomics Workshop (U-Tokyo)

**Presented by a coauthor*

Affiliations

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| Graduate Affiliate, Institute at Brown for Environment and Society, Brown University | 2021-present |
| Guest Researcher, CREPE, The University of Tokyo | 2020-present |
| Trainee, Population Studies and Training Center, Brown University | 2017-present |
| Fellow, Spatial Structures in the Social Sciences, Brown University | 2017-present |

Research Experience and Other Employment

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| Research Assistant for Professors Daniel Bjorkegren and Nick Tsivanidis | 2019 |
| Research Assistant for Professors Jesse Shapiro and Matthew Turner | 2018 |
| Research Assistant for Professor Andrew Foster | 2017-2018 |
| Research Assistant for Professor Yoshito Takasaki | 2015-2017 |
| Research Assistant for Professors Yasuyuki Sawada, Takashi Kurosaki, and Jun Goto | 2015-2017 |
| Operation of Self-Help-Groups program, Internship at Chetanalaya, India | 2012-2013 |

Teaching Experience

Brown University, Department of Economics

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| ECON2020 Computing for Economists, Instructor | Spring 2020, Spring 2021, Spring 2023 |
| CEEC0925 Econometrics: Statistical Tools to Understand Economic Data, TA for Kenichi Shimizu | 2019 |

The University of Tokyo, Graduate School of Economics and Graduate School of Public Policy

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|---|------|
| Development Economics: Macroeconomic Approach, TA for Professor Kenichi Ueda | 2016 |
| Natural Resource and Environmental Economics, TA for Professor Yoshito Takasaki | 2015 |
| Case Study: Financial Development and Inequality, TA for Professor Kenichi Ueda | 2015 |

Honors, Fellowships, and Grants

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| Interdisciplinary Opportunity Dissertation Completion Fellowship | 2021-2022 |
| Teaching Award, Brown University | 2021 |
| The Bravo Center Research Funding, Brown University | 2020 |
| The Murata Science Foundation Research Grant | 2020 |
| Graduate Program in Development (Watson Institute, Brown University) Summer Funding | 2020 |
| S4 (Spatial Structures in the Social Sciences) Graduate Student Paper Prize, the 2nd place | 2020 |
| Japan Student Services Organization Scholarship | 2016-2019 |
| Research Fellow of Japan Society for the Promotion of Science (DC1) | 2016 |
| Sato Yo International Scholarship Foundation | 2012-2013 |

Others

Computer skills: Stata, Julia, Python, Matlab, ArcGIS, Git, LaTeX, Qualtrics

Languages: English (fluent), Japanese (native), Spanish (basic), Hindi (beginner)