

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 Economics

Research Papers

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

While the conservation of tropical forests is a key element of global efforts to slow climate change and preserve biodiversity, it is unclear how conservation efforts will affect the material standard of living among local populations. We argue that this question turns on the direction and magnitude of agglomeration economies in agricultural production, forest clearing, and natural resource extraction. In particular, this paper builds and estimates a multi-sector spatial model of rainforest communities using detailed georeferenced data from major river basins in the Peruvian Amazon and plausibly exogenous variation in the structure of river networks. We find that the agglomeration externality in agricultural production outweighs dispersion forces in access to land, implying 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 estimated agglomeration externality, which is primarily driven by the economies of scale in transport technology and agricultural intensification, has large impacts on improving welfare and reducing deforestation but leads to natural resource depletion through general equilibrium effects. Counterfactual simulations demonstrate that well-targeted place-based protection policies and river infrastructure investments are complementary to improving human-ecological well-being. While protecting the rural frontier primarily mitigates natural resource depletion, transport infrastructure that integrates hinterlands can reduce deforestation by generating moderate-sized but dispersed settlements and spreading the agglomeration benefits 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, Volume 155, March 2022, 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 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

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

Research Assistant for Professors Daniel Björkegren 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

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

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

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)