

**BROWN UNIVERSITY**

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**Education**

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**Ph.D. Candidate in Economics, Brown University**

2016-present

Expected Completion Date: May 2023

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

**References**Professor **Andrew Foster**

Department of Economics, Brown University

[afoster@brown.edu](mailto:afoster@brown.edu)

(401) 863-2537

Professor **Matthew Turner**

Department of Economics, Brown University

[matthew\\_turner@brown.edu](mailto:matthew_turner@brown.edu)

(401) 863-9331

Professor **Daniel Björkegren**

Department of Economics, Brown University

[danbjork@brown.edu](mailto:danbjork@brown.edu)

(401) 863-3690

Professor **Jesse Shapiro**

Department of Economics, Harvard University

[jesse\\_shapiro@fas.harvard.edu](mailto: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**

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Primary fields: Development Economics, Spatial Economics, Environmental Economics

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

**Research Papers**

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

This paper investigates the ways to resolve trade-offs between human and ecological well-being in tropical forests. We build a multi-sector spatial model of rainforest communities that features the concentration and dispersion forces of the population. To estimate the model, we use detailed georeferenced data with fine spatial resolution from major river basins in the Peruvian Amazon without road access and exploit exogenous river networks. We find that the agglomeration externality in agricultural production outweighs the dispersion force in access to land, leading to higher productivity with smaller deforestation per farmer by concentrating. We also find the congestion externality with spatial spillovers in natural resource extraction (e.g., fishing, hunting). We provide evidence that the agglomeration is primarily driven by the economies of scale in transport technology as well as agricultural intensification to a lesser degree. A quantification

exercise reveals that the agglomeration externality contributes substantially to improving human welfare and reducing deforestation, while increasing natural resource depletion through a general equilibrium effect in the basin. 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 works primarily to conserve biodiversity by increasing the congestion force in extractive activities within more compact areas for human settlements. Improving transport infrastructure that integrates hinterlands works primarily to reduce 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, further supports this mechanism. Moreover, the concentration of jihad in ‘past-core-and-present-periphery’ areas in West Africa is consistent with a global-scale phenomenon.

## **Publications**

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**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**

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**“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**

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### **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

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 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

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)