

Rabail Chandio

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Education

Ph.D. Agricultural, Environmental & Development Economics, The Ohio State University, August 2023 (expected).

Advisors: Dr. Ani Katchova and Dr. Leah Bevis

M.S. Agricultural, Environmental & Development Economics, The Ohio State University, 2020.

B.Sc (Hons) Economics & Mathematics, Lahore University of Management Sciences, 2018.

Positions

Graduate Research Assistant, Farm Income Enhancement Program, Department of AEDE, The Ohio State University, August 2021-present.

Graduate Teaching Assistant, Department of AEDE, The Ohio State University, August 2019 - May 2021.

Graduate Research Assistant, Global Water Institute, College of Engineering, The Ohio State University, May-August 2021.

Research

Research Interests

Agricultural Economics, Agricultural Policy, Risk Management, Agricultural Finance, Applied Econometrics, Machine Learning Engineering

Job Market Paper

Chandio, R. and A. Katchova. "Sources of Bias in the USDA Baseline Projections." Working Paper, Department of AEDE, The Ohio State University, 2022.

Description: USDA's annual Agricultural Baseline Projections contribute significantly to agricultural policy in the United States, and hence their accuracy is vital. The baseline projections present a neutral policy scenario assuming a specific macroeconomic situation and allow the analyses of alternative policies and their micro and macroeconomic impacts in the United States. We investigate the trends and heterogeneity in the incidence of bias in the USDA International Baseline Projection reports from 2002 to 2021. The evaluation of bias as it varies geographically, temporally, and by crop-variable allows us to make inferential judgments about the sources of this bias. First, we use the dynamic time warping algorithm to examine whether experts tend to group together the projections for certain crops across different countries, producing similar projection trends. We find that projection series for all

countries in the sample are correlated with the United States in their trends. Second, we compute the bias in projections and decompose it by projection horizon. Third, we assess whether the bias is higher across crops or across countries with more substantial evidence for grouping behavior and find that for soybeans imports, soybeans ending stocks, and wheat area harvested, similarity in projection trends with the United States lowers the bias while for most other crop-variables it increases it. This suggests that the projections for our sample countries are unnecessarily made to follow similar trends to the United States projections which proves to be a bias inducing choice in most cases. [\[link\]](#)

Other Working Papers

Chandio, R. "Conflicts and Conservation in the Amazon." Working Paper, Department of AEDE, The Ohio State University, 2022.

Description: This study evaluates how environmental policy restricting land use influences incentives for landowning farmers and landless peasants, and affects illegal occupations and land conflicts in the Brazilian Amazon. I use a ten-year panel data for conflicts, agriculture, and deforestation in the Legal Amazon region of Brazil and employ various matching methods to estimate the causal effect of an anti-deforestation policy on land conflicts and occupations. My estimates show the policy increases the number of illegal occupations in the Priority List municipalities by 25.9% while the number of land conflicts decrease by 21.5%. Analyzing the heterogeneity in the impact with respect to land values suggests that landowners and squatters both made strategic choices about whether to engage in conflict depending on the value of the land being contested. Landowners directed their efforts in capital and labor investments in their lands when the value of engaging in conflict to protect the occupied parcel of their lands was not more than the cost. But, for higher valued lands, landowners chose violent conflict to defend their plots. There are no spatial spillovers of the policy.

Chandio, R. and L. Bevis. "Winners and Losers in India's Green Revolution." Working Paper, Department of AEDE, The Ohio State University, 2022.

Description: The green revolution in India has been lauded for its positive impact on agricultural productivity and, in turn, the farmers' lives. However, its effects on land redistribution and inequality, in the long run, are unclear. Large farmers may have benefited non-proportionately from the technologies that pervaded in the decades leading up to the turn of the 21st century. Richer farmers who own larger farms had early access to irrigation systems allowing them to profit more. Simultaneously, the smaller farmers who are unable to set up new irrigation technologies and thus cannot compete with the large farmers may be forced to sell their farms leading to systematic land redistribution. The poor farmers, in this process, may be worse off as a consequence of the green revolution in India. This raises the question of whether the policy implementation considered farmer welfare at all. Identifying the winners and losers in the green revolution is important not only to understand the current inequality in India but also to design appropriate agrarian and welfare policies. Moreover, this research has policy relevance specifically for countries in Africa that are more recent to new agricultural technologies and may inadvertently experience worsened inequality and welfare loss by non-optimal policies.

Presentations

Chandio, R. and A.L. Katchova. "Sources of Bias in the USDA Baseline Projections." Selected Paper, AAEA Annual Meeting, July 31-August 2, 2022.

Chandio, R. and L. Bevis. "Long term Impacts of the Green Revolution in India" Selected Paper, AAEA Annual Meeting, July 31-August 2, 2022.

Chandio, R. "Conflicts and Conservation in the Amazon." Selected Paper, AAEA Annual Meeting, July 31-August 2, 2022.

Katchova, A.L., S. Bora, R. Chandio, and K. Ding. "The Accuracy and Informativeness of Agricultural Baselines." Brown Bag Seminar, USDA-ERS, 6 July 2022.

Chandio, R. and A.L. Katchova. "Herding in the USDA Baseline Projections." Selected Paper, NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting and Market Risk Management, April 25-26, 2022.

Chandio, R. and L. Bevis. "Winners and Losers in India's Green Revolution" Edward F. Hayes Graduate Research Forum, The Ohio State University, March 4, 2022.

Katchova, A.L., S. Bora, R. Chandio, K. Ding, X. Fang. "Evaluating the USDA Agricultural Baseline Projections." Briefing to USDA-ERS MTED Administrators, 14 December 2021.

Chandio, R. "Conflicts and Conservation in the Amazon." Development Workshop, University of Georgia, October 22, 2021.

Chandio, R. "Conflicts and Conservation in the Amazon." Edward F. Hayes Graduate Research Forum, The Ohio State University, April 9, 2021.

Teaching Experience

The Ohio State University

AEDECON 3130 - Principles of Agribusiness Finance (Lead Instructor), Fall 2022

Expected enrollment: 80 students. Responsibilities: taught lectures, developed course content, supervised TA, graded HW and exams, held office hours.

Topics include: financial statements, capital budgeting, and risk management.

AEDECON 6130 - Applied Quantitative Methods III (Lab Instructor & Teaching Assistant), Spring 2021
Responsibilities: Taught weekly lab sessions (econometrics instruction with R), graded homeworks and exams, and held office hours.

Student Evaluation of Instruction Score: 5/5

AEDECON 7120 - Advanced Quantitative Methods II (Lab Instructor & Teaching Assistant), Fall 2020
Responsibilities: Taught weekly lab sessions (econometrics instruction with MATLAB), graded homeworks and exams, and held office hours.

Student Evaluation of Instruction Score: 4.67/5

AEDECON 7110 - Advanced Quantitative Methods I (Lab Instructor & Teaching Assistant), Fall 2020
Responsibilities: Taught weekly lab sessions (econometrics instruction with MATLAB), graded homeworks and exams, and held office hours.

Student Evaluation of Instruction Score: 4.89/5

AEDECON 4535 - International Economic Development (Teaching Assistant), Spring 2020
Responsibilities: Graded homeworks and exams, and held office hours.

AEDECON 3102 - Principles of Agribusiness Marketing (Teaching Assistant), Spring 2020
Responsibilities: Graded homeworks and exams, and held office hours.

AEDECON 3101 - Principles of Agribusiness Management (Teaching Assistant), Fall 2019
Responsibilities: Graded homeworks and exams, and held office hours.

Lahore University of Management Sciences

ECON 232 - Introduction to Game Theory (Teaching Assistant), Fall 2016; Fall 2018
Responsibilities: Graded homeworks and exams, and held office hours.

MATH 101 - Calculus I (Teaching Assistant), Spring 2017; Spring 2018
Responsibilities: Taught weekly recitations, graded homeworks and exams, and held office hours.

Extension/Outreach

Outreach Reports

Chandio, R., H. Wu, and A.L. Katchova. 2022. "Benchmarking Ohio Farms' Financial Health" Report, Department of Agricultural, Environmental, and Development Economics.

Chandio, R., and A.L. Katchova. 2022. "Accuracy in USDA International Baseline Projections for the U.S. Compared to Other Global Leaders in Corn and Soybeans." Report, Department of Agricultural, Environmental, and Development Economics. [\[link\]](#).

Chandio, R., and A.L. Katchova. 2021. "USDA and OECD Baseline Projections." Report, Department of Agricultural, Environmental, and Development Economics. [\[link\]](#).

Outreach Presentations

Katchova, A.L., and R. Chandio. "Farm Financial Health and Benchmarks" Ask the Expert, OSU Farm Science Review, 20-22 September 2022, London, OH.

Chandio, R. "Formalizing Farm Financial Documents for Better Farm Management" AAEA Extension Graduate Student Competition, AAEA Annual Meeting, July 31-August 2, 2022

Katchova, A.L. and S. Bora (R. Chandio contributor) "Are Our Farms Financially Secure?" Ask the Expert, OSU Farm Science Review, 21 September 2021, London, OH.

News Articles

"Farm Income Enhancement Program studies accuracy of agricultural baselines", News Report, Department of Agricultural, Environmental, and Development Economics. April 4, 2022. [\[link\]](#)

Media Mentions

Farm Income Enhancement Program studies accuracy of agricultural baselines, Ohio's Country Journal Online Edition, April 4, 2022. [\[link\]](#)

Honors and Awards

Finalist for AAEA Extension Graduate Student Competition, 2022.

University Fellowship, The Ohio State University, 2018-2019.

Dean's Honor List, Lahore University of Management Sciences, 2015-2018

Successful Completion, The Erdős Institute's Data Science Boot Camp, May 2021

Grants Experience

“Evaluating the USDA Agricultural Baseline Projections.” PI: A.L. Katchova, GRA: Rabail Chandio, USDA ERS Cooperative Agreement, ERS Administrator Office, \$90,000

Service/Leadership

Reviewer for European Review of Agricultural Economics, Applied Economics Perspectives and Policy, AAEA annual meeting 2022 abstracts

Contribution to journal reviews: American Journal of Agricultural Economics, Agricultural Finance Review, Agribusiness: an International Journal, Agricultural Finance Review outstanding article award selection

President, Graduate Women in Economics, January 2022-present.

Graduate Student Mentor, Department of Agricultural, Environmental and Development Economics, The Ohio State University, August 2021-present.

AEDE Liason, Graduate Women in Economics, May 2021-December 2021.

2nd Year Student Representative, AEDE Graduate Student Association, August 2019-May 2020.

Skills and Proficiencies

Programming: Stata, R, MATLAB, Python, L^AT_EX

Professional Affiliations

Agricultural and Applied Economics Association

NCCC-134: Applied Commodity Price Analysis, Forecasting and Market Risk Management

NC1177: Agricultural and Rural Finance Markets in Transition

References

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