

THERESA NG'ANDU

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EDUCATION

Ph.D. Candidate, Agricultural and Applied Economics, University of Wisconsin – Madison, August 2022 – Present

Includes microeconomics, macroeconomics, and econometrics sequence with the Economics department

Certificate in Higher Education Teaching and Learning, University of Wisconsin – Madison, September 2025

MS in Agricultural and Applied Economics, University of Wisconsin – Madison, June 2024.

B.A. with Honors Major in Economics, and Honors Minor in French, Swarthmore College, May 2019

RESEARCH FIELDS

Development economics, Environmental and health economics, Economics of Education

RESEARCH IN PROGRESS

Flooding and Health Outcomes in Zambia

I examine the impact of flooding on the incidence of diseases such as malaria, cholera, typhoid, dysentery, and non-typhoid non-dysentery diarrhea from 2012 to 2024 in Zambia. I use health data from the Zambian Ministry of Health, Health Management Information System (HMIS), and a combination of satellite flood data from the NASA MODIS Water Product and local flood data in a fixed effects model, which relies on changes of flood events at the ward level, to estimate this impact. I also use count models to study how many cases of each type of disease can be attributed to floods. I also look at the impact of these floods on the number of deaths from diarrhea. I find that floods increase the incidence of malaria and cholera, but not typhoid, and in the case of dysentery and non-typhoid non-dysentery diarrhea, floods have a mitigating or flushing effect on the incidence of these two diseases.

Development and Flooding in Zambia

I study how rapid development, as measured by deforestation and the appearance of impervious surfaces in Zambia, affects the prevalence of floods from 2012 to 2019. I use deforestation data from Global Forest Change (Hansen et al 2013) and dynamic impervious surfaces data (Huang et al 2021) to examine the impact, leveraging the year-to-year changes in deforestation and impervious surfaces as a source of variation. Preliminary results show that deforestation has a larger effect on increasing floods than increasing total impervious surface area or even increasing marginal impervious surface area.

Automatic Grade Progression Policy, Education Attainment, and Child Labor

I examine the impact of the automatic grade progression policy implemented by the Zambian government from 2013 to 2022 on educational attainment and child labor for affected individuals of school-going age. I use the annual 2012 to 2022 Labor Force Participation Surveys compiled by the Zambia Statistics Office (Zamstats), and school-level grade 7 and grade 9 national examinations data from the Examinations Council of Zambia (ECZ). I leverage the fact that while the policy was introduced in 2013, it was only in 2018 that it was emphasized, and therefore, school supply constraints were removed to define the treated cohorts. I use a difference-in-difference estimation strategy. I define eligibility post 2018 as an individual of school-going age (can enroll in grade 7) residing in a district with grade 7 examination failure rates above 50%, and compare outcomes with similar individuals residing in districts with schools that have lower grade 7 examination failure rates.

PRESENTATIONS

(Upcoming) Association of Environmental and Resource Economists (AERE) at the Southern Economics Association (SEA) Conference, 2026

Work to be presented: Flooding and Health Outcomes in Zambia

CSAE Conference 2026 Economic Development in Africa, 2026

Work to be presented: Flooding and Health Outcomes in Zambia

Interdisciplinary Ph.D. Workshop on Sustainable Development, Columbia University, 2025

Work presented: Development and Flooding in Zambia

Association of Environmental and Resource Economists (AERE) at the Western Economic Association International (WEAI) Conference, 2025

Work presented: Flooding and Child Health Outcomes in Zambia

RESEARCH EXPERIENCE

Research assistant for Professor Jeremy Foltz, May 2023 – December 2024

Projects: Climate change and conflict in Mali

Research Analyst, Compass Lexecon – London, UK, and Chicago, IL, October 2019 – July 2022

TEACHING EXPERIENCE

Teaching Assistant for Professor Dustin Frye, AAE 101: Introduction to Agricultural and Applied Economics, Spring 2026

Teaching Assistant for Professor Tessa Conroy, AAE 101: Introduction to Agricultural and Applied Economics, Fall 2025

Teaching Assistant for Professor Jeremy Foltz, AAE 350: World Hunger and Malnutrition, Spring 2025, Summer 2025

SKILLS AND LANGUAGES

Language mastery: Fluent in Bemba (native), English, French, and Nyanja; working proficiency in Spanish, and elementary proficiency in Kaonde.

Technical: STATA, SAS, L^AT_EX, Python, Julia, GitHub, Matlab, MS Word, Excel, PowerPoint, QGIS, ArcGIS

FELLOWSHIPS, AWARDS, and GRANTS

AAEA Teaching Academy Travel Grant (\$500), AAEA, 2026

Barbara Forest Travel Award (\$1000), Agricultural and Applied Economics, University of Wisconsin – Madison, 2026

Zambia Evidence Lab (ZEL) Ph.D. Fellow, International Growth Centre and Zambian Ministry of Finance and Planning, 2025

Student Research Grants Competition (\$600), University of Wisconsin – Madison, 2025

International Growth Centre (IGC) Exploratory/Pilot Work Research Grant (\$36,000), 2023

Travel award for the Berkeley/Sloan summer school in Environmental and Energy Economics (\$900), 2023

Two-year Academic Graduate School Fellowship, University of Wisconsin-Madison,
Agricultural and Applied Economics Department, 2022
Swarthmore College Hannah A. Leedom Fellowship Award (\$5,000), 2022

PROFESSIONAL SERVICE

Association of Environmental and Resource Economists (AERE) 2025 Conference Abstract
Reviewer
Association of Environmental and Resource Economists (AERE) @ Western Economic
Association International (WEAI) 2026 Abstract Reviewer
Agricultural and Applied Economics Association (AAEA) 2025 Conference Abstract
Reviewer

GRADUATE SCHOOL SERVICE

Student Research Colloquium (SRC) Coordinator, Agricultural and Applied Economics
Department, University of Wisconsin – Madison, 2024 – 2025

Justice, Equity, Diversity, and Inclusion (JEDI) Committee Co-Chair, Agricultural and
Applied Economics Department, 2023 – 2024

Mentor, GRADLINK, University of Wisconsin – Madison, 2025

DISSERTATION COMMITTEE AND REFERENCES

Professor Jeremy Foltz, Ph.D. (Advisor), Agricultural and Applied Economics
Email: jdfoltz@wisc.edu

Professor Priya Mukherjee, Ph.D., Agricultural and Applied Economics
Email: priya.mukherjee@wisc.edu

Professor Rhiannon Jerch, Ph.D., Agricultural and Applied Economics
Email: rhiannon.jerch@wisc.edu

Professor Dustin Frye, Ph.D., Agricultural and Applied Economics
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