

## CONTACT INFORMATION

Department of Agricultural and Consumer Economics (ACE)  
University of Illinois at Urbana-Champaign  
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Urbana, IL 61801

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## EDUCATION

Ph.D., Agricultural and Applied Economics, University of Illinois Urbana-Champaign 2025  
M.Sc., Agricultural and Applied Economics, University of Illinois Urbana-Champaign 2019  
B.Sc., Agricultural Economics, The University of Zambia, Lusaka, Main campus, Zambia 2015

## RESEARCH AREAS

Environmental Economics      Agricultural Economics  
Development Economics

## CURRENT POSITION

Adjunct Faculty, Illinois Wesleyan University (IWU) - School of Business & Economics - To date

## PUBLICATIONS

Ordonez, O., **Hadunka, P.**, Rossi, G., & Baylis, K. (2025). "When crops fail, forests follow: Agricultural shocks and deforestation in Zambia" - **Co-first author** *Proceedings of the National Academy of Sciences (PNAS)*.

Wang, J., Konar, M., **Hadunka, P.**, & Mulenga, B.P. (2025) "Dietary Transitions and Nutritional Dynamics in Zambia and Tanzania under Urbanization" *Agriculture & Food Security-Forthcoming*.

Wang, J., Konar, M., Anderson, P., **Hadunka, P.**, & Mulenga, B.P. (2025). "Exploring the Impact of Short-Term and Long-Term Climate Shocks on Crop Diversification in Zambia: Insights from Household- and District-Level Observations" *Climate Risk Management*.

Molitor, C., Cohen, J., Lewin, G., Cognac, S., **Hadunka, P.**, Proctor, J., & Carleton, T. (2025). "Monitoring Maize Yield Variability over Space and Time with Unsupervised Satellite Imagery Features" *Remote Sensing*

Wang, J., Konar, M., Baylis, K., Estes, L., **Hadunka, P.**, Caylor, K., & Xiong, S. (2023). "Potential impacts of transportation infrastructure improvements to maize and cassava supply chains in Zambia" *Environmental Research: Infrastructure and Sustainability*

Mulenga, B. P., **Hadunka, P.**, & Richardson, R. B. (2017) . "Rural households' participation in charcoal production in Zambia: Does agricultural productivity play a role?" *Journal of Forest Economics* 26, 56-62.

## IN REVIEW

**Hadunka, P.** (2025) "How does the availability of alternative livelihoods influence households' reliance on charcoal as a coping strategy?" - *World Development*.

**Hadunka, P.**, Songsermsawas, T., & Mulenga, B.P. (2025) "Climate resilience in agriculture: Can Climate Smart Agriculture counteract rainfall shocks?" - *Global Climate Change*.

**Hadunka, P.**, Baylis, K., Green, R & Zimmer, A. (2025) "The effect of invasive pests on food security: An understudied effect of climate change".

Xiong, S., **Hadunka, P.**, Estes, L., Mulenga, B. P., & Estes, L (2025) "Evaluating the Relationship Between Farm and Field Sizes in Sub-Saharan Africa: Multi-Year Insights from Zambia's National Surveys" - **Co-first author** *Agricultural Systems* - R & R.

Cecil, M., Estes, L., Caylor, K., **Hadunka, P.**, Evans, T., Chilenga, A., Gitonga, J., & Wolf, A. (2025)." Advantages and Limitations of Multiple Sensors for Smallholder Maize Land Surface Phenology Estimation" *Remote Sensing of Environment*.

Sullivan, J., Baylis, K., **Hadunka, P.**, & Konar, M., (2024)." Urban Legend: Disparities in Household Diets and Food Security Along a Rural-Urban Continuum" *Global Environmental Change*.

**WORKING PAPERS  
AND RESEARCH IN  
PROGRESS**

- Xiong, S., Wanjing, L., **Hadunka, P.**, Khallaghi. S., Abedi. R., Yao-Ting. Y., Chilenga. A., Khan. A., Potapov. P.,& Estes, L (2025) "High spatial and temporal resolution analyses reveal the changing characteristics of African croplands".
- Hadunka, P.**, Hardie, R & Figueiredo Walter, T. (2025) "Coping or Collapsing? How Charcoal Fuels a Poverty - Deforestation Feedback Loop".
- Hadunka, P.**, Baylis, K., Cardell, L., & Michelson, H. (2025) "What causes adverse outcomes in the maize markets?".
- Abedi, R., Chakraborty, T., **Hadunka, P.**, Alemohammad, H., & Estes, L (2025) "Learning Tillage Practices Under Spatial Uncertainty".
- Hadunka, P.**, Baylis, K., & Thornton, R. (2025) "Does the providing efficient transportation improve the price knowledge among rural households? Evidence from Malawi".

**RELEVANT WORK  
EXPERIENCE**

- Lecturer & Teaching Assistant (Micro & Macro economics, Environmental Economics, Applied Statistical methods & Machine Learning for Applied Economists, University of Illinois Urbana-Champaign, IL Jul 2017 - To date
- Co-Principal Investigator, International Growth Center - Climate change and deforestation : A think tank supervised by the University of Oxford and London School of Economics - To date
- Co-Principal Investigator, International Growth Center - Technology adoption, grain storage and climate resilience : A think tank supervised by the University of Oxford and London School of Economics - To date
- Principal Investigator, International Growth Center - FRA project: A think tank supervised by the University of Oxford and London School of Economics, Remote Dec 2023 - Jun 2024
- Research and Teaching Assistant, University of Illinois Urbana-Champaign, IL Jul 2017 - To date
- Data Quality Controller, Musika Development Initiative, World Food Program, and Business Development Services Africa - SME, Zambia Oct 2016 - Nov 2019
- Research Intern, Musika, Zambia Dec 2016 - May 2017
- Research Intern, Indaba Agricultural Policy Research Institute (IAPRI) Sep 2016 - Dec 2016
- Field Supervisor, International Maize and Wheat Improvement Center (CYMMIT) Oct 2015 - Dec 2015

**TEACHING**

**Applied Microeconomics (90 Undergraduates), Environmental Economics (70 Undergraduates), Macroeconomics (35 Undergraduates), Applied Statistical methods, Data Analytics (90 Undergraduates) & Machine Learning for Applied Economists (20 PhD students)**

- University-wide "List of Teachers Ranked as Excellent (Exceptional)" (Fall 2025), IWU
- University-wide "List of Teachers Ranked as Excellent" (Spring 2024), UIUC
- University-wide "List of Teachers Ranked as Excellent" (Fall 2023), UIUC
- University-wide "List of Teachers Ranked as Excellent" (Spring 2023), UIUC
- University-wide "List of Teachers Ranked as Excellent" (Fall 2020), UIUC

**POLICY REPORTS**

- Hadunka, P.**, Hardie, R., Waller, A & Figueiredo Walter, T. (2025) "[Climate shocks and charcoal production in Zambia](#)" International Growth Center, Policy brief.
- Hadunka, P** & Teschemacher, C. (2024) "[The effect of Zambia's Food Reserve Agency on agricultural market outcomes](#)" International Growth Center, Project report.
- Hadunka, P** & Janzen, J. (2023) "[Weather Shocks and Seasonal Commodity Market Returns: Evidence from Zambia's Maize Market](#)" University of Illinois at Urbana-Champaign, farmdoc.

Kasanda, E., **Hadunka, P.**, Lubinga, F., Mumba, K., Sakala, M., Arneson, S., Harper, T & Sichilima, T. (2017) "A Needs Assessment of Rural Agribusinesses: The Commercial Viability of SMEs" Musika Development Initiatives, Zambia.

Kasanda, E., Chanda, J, **Hadunka, P** & Sichilima, T. (2017) "The Status of Smallholder Dairy Markets and Farmers' Perceptions of Formal Markets in Western Province" Musika Development Initiatives, Zambia.

Chela, J & **Hadunka, P.** (2017) "A Qualitative Needs Assessment of Village Chicken Producers in Southern Province" Musika Development Initiatives, Zambia.

EXTERNAL GRANTS	International Growth Center (Fall 2025)	Technology adoption, grain storage and climate resilience - RCT
	International Growth Center	Climate change and deforestation (Fall 2024)
	International Growth Center	Evaluating the Food and Reserve Agency (Spring 2024)
	National Science Foundation	University of Illinois Urbana-Champaign (Summer 2023)
	Travel Grant	Agricultural and Applied Economics Association Annual Meeting (Summer 2022)
	Travel Grant	Agricultural and Applied Economics Association Annual Meeting (Summer 2023)
FELLOWSHIPS, GRANTS AND ACADEMIC AWARDS	Travel Grant	University of Illinois Urbana-Champaign (Summer 2023)
	Travel Grant	University of Illinois Urbana-Champaign (Spring 2023)
	Travel Grant	University of Illinois Urbana-Champaign (Summer 2022)
	Jean and John Due Fellowship	University of Illinois Urbana-Champaign (Spring 2020)
	University Fellowship	University of Illinois Urbana-Champaign (Fall 2019)
	Morgan Endowment	University of Illinois Urbana-Champaign (Summer 2020)
	Dunn and Linse Fellowship	University of Illinois Urbana-Champaign (Fall 2017)
	Best Undergraduate Thesis (got published after graduation), The University of Zambia (2015)	
PRESENTATIONS	2024: Led a discussion with senior officials from the Presidential Delivery Unit, Ministry of Agriculture, International Growth Center, and Food and Reserve Agency (FRA) on reforming the FRA (Lusaka, Zambia).	
	2023: Association of Environmental and Resource Economists (Portland, ME)	
	2023: Agricultural and Applied Economics Association Annual Meeting (Washington, DC)	
	2022: Agricultural and Applied Economics Association Annual Meeting (Anaheim, CA)	
	2022: Center for the Study of Africa Economies-University of Oxford (UK) (virtual)	
	2022: Midwest International Economic Development Conference (Minneapolis, MN)	
	2022: Sustainability and Development Initiative Conference (Virtual)	
	2019: Agricultural and Applied Economics Association Annual Meeting (Atlanta, GA)	
SERVICE AND LEADERSHIP	Member of the University of Illinois Urbana-Champaign Graduate Programs Committee (2018 - Present)	
	Abstract reviewer - Agricultural and Applied Economics Association (Annual meetings) - 2022, 2023	
	Guest Editor - Frontiers in Environmental Economics (special issue)	
ADDITIONAL INFORMATION	Software proficiency: Stata, R, python, LATEX, GitHub, GIS, GAMS, Microsoft Office Languages: English, Tonga (native), Bemba, Lozi, Nyanja, and Shona (Basic)	
PROFESSIONAL REFERENCES	<b>Kathy Baylis, Ph.D.</b> (Chair) Professor University of California, Santa Barbara baylis@ucsb.edu	<b>Hope Michelson, Ph.D.</b> Professor University of Illinois Urbana-Champaign hopecm@illinois.edu

**Shadi Atallah, Ph.D.**

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**Nicholas Paulson, Ph.D.**

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