

Maguette Sembene

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EDUCATION

Virginia Tech, Department of Agricultural and Applied Economics <i>Ph.D. in Applied Economics</i>	Expected 2027
Virginia Tech, Department of Agricultural and Applied Economics <i>Master of Science in Agricultural and Applied Economics</i>	2023
École Nationale Supérieure d'Agriculture de Thiès, Senegal <i>Agricultural Engineering Degree</i>	2020

RESEARCH INTERESTS

Development Economics, Climate Change Economics, Gender and Labor Economics, Remote Sensing Applications in Agriculture

PUBLICATIONS AND RESEARCH PAPERS

Published

- Sembene, M., Mills, B., & Gupta, A. (2025). Economic costs of extreme heat on groundnut production in the Senegal Groundnut Basin. *Food Policy*, 136, 102970.

Working Papers

- “Short-Term Changes in Land Access in the Senegal Groundnut Basin” (2025). With B. Mills and A. Gupta.
- “Land Access, Climate Variability, and Youth Exit from Farming in the Senegal Groundnut Basin” (2025). With B. Mills and A. Gupta.

Other Research and Policy Briefs

- “Groundnut Exports from Senegal to China: Domestic Effects.” Sembène, M. (2025). Research paper.
- “Gestion de la matière organique du sol dans le bassin arachidier du Sénégal.” Mbaye, T., Mills, B., Touré, K., Sembène, M., Diatta, P., & Diédhiou, I. (2022). Policy brief.
- “Utilisation des médias par les jeunes et perceptions du climat et des pratiques agricoles.” Sembène, M., Mbaye, T., Touré, K., & Mills, B. (2023). Policy brief.

CONFERENCES AND PRESENTATIONS

“Short-Term Changes in Land Access in the Senegal Groundnut Basin” • Agricultural and Applied Economics Association (AAEA) Annual Meeting, Denver, CO	2025
“Economic Costs of Extreme Heat on Groundnut Production in the Senegal Groundnut Basin” • Department Seminar, Virginia Tech Department of Agricultural and Applied Economics	2023

RESEARCH EXPERIENCE

Virginia Tech Graduate Research Assistant • Conducted primary data collection through in-person interviews with seed producers, traders, and regulators; analyzed satellite data using remote sensing techniques for agricultural productivity assessments • Applied econometric methods to analyze weather variability impacts on groundnut production in Senegal; utilized GPS technology and QGIS for spatial analysis and parcel mapping • Authored comprehensive groundnut seed-sector review; contributed to research briefs on youth and gender roles in agriculture examining field access and climate resilience • Participated in drafting Institutional Review Board protocols and informed-consent documents for large-scale household surveys	2021 – Present
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Feed the Future Innovation Lab for Peanut <i>Undergraduate Research Assistant</i>	2020 – 2021
<ul style="list-style-type: none"> Analyzed survey data using R statistical software to identify gender and age disparities in groundnut production revenues Produced 50-page undergraduate thesis analyzing patterns in agricultural gender disparities with policy implications 	

TECHNICAL SKILLS

Programming & Statistical Software: R, Python, Stata, MATLAB, Excel
Geospatial Analysis: QGIS, GPS technology, satellite data analysis
Research Tools: LaTeX, Tableau
Languages: French (native), English (fluent), Wolof (native)

GRANTS AND FELLOWSHIPS

Paul J. Driscoll Fellowship	2023, 2024
Graduate Assistantship at Virginia Tech	2021-Present
Senegalese Government Excellence Scholarship	2016

HONORS AND AWARDS

Outstanding Master’s Thesis Award, VT Graduate School	2023
Award for Innovation at the University of Thiès, Senegal	2020
Winner of the Student Scientific Article Writing Competition	2018

ADDITIONAL PROFESSIONAL EXPERIENCE

Ferme Wa Keur Khadim <i>Research Intern</i>	2019
<ul style="list-style-type: none"> Conducted land prospection and socio-economic analysis; performed parcel mapping using GPS technology for spatial analysis 	
Regional Inspection of Water and Forests of Dakar <i>Research Intern</i>	2018
<ul style="list-style-type: none"> Identified coordination mechanisms and stakeholders within regional environmental services 	
École Nationale Supérieure d’Agriculture de Thiès <i>Research Intern</i>	2016
<ul style="list-style-type: none"> Analyzed community sociology and economics; participated in agricultural fieldwork and reported findings 	

REFERENCES

Dr. Bradford Mills Advisor, Professor Department of Agricultural and Applied Economics Virginia Tech 205A Hutcheson Hall, Blacksburg, VA 24061, USA Phone: +1-540-231-6461 Email: bfmills@vt.edu	Dr. Anubhab Gupta Assistant Professor Department of Agricultural and Applied Economics Virginia Tech 205B Hutcheson Hall, Blacksburg, VA 24061, USA Phone: +1-540-231-0912 Email: anubhab@vt.edu
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