ABU AHAMED SABBIR

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San Marcos, TX, USA

RESEARCH INTERESTS

My research focuses on environmental and resource economics, land, water and energy economics spatial data analysis, production economics and technology adoption in agriculture. I am increasingly drawn to GIS, remote sensing and AI as tools to extend this work into the spatial and computational domain to explore how productivity patterns can be measured and understood at new scales.

EDUCATION

M.S. in Integrated Agricultural Sciences (Agricultural Economics) Expected August 2026
Texas State University, San Marcos, TX, USA

- Thesis: Structural Break Analysis of Land Productivity in U.S. Agriculture (Bai–Perron framework)
- GPA: 3.90 | DOE-EM Scholarship | TXST Grad Merit Fellowship | Graduate College Scholarship | Student Government Scholarship

M.S. in Agricultural Economics (Production Economics) March 2024
Bangladesh Agricultural University, Mymensingh, Bangladesh

- Thesis: Willingness to Expand Freshwater Aquaculture Production by Fish Farmers in Bangladesh
- CGPA: 3.75 | Applied discrete choice modeling and regression analysis to farmers' investment behavior

B.S. in Agricultural Economics February 2022
Bangladesh Agricultural University, Mymensingh, Bangladesh

- CGPA: 3.25
- Represented Bangladesh Agricultural University at South Asian Universities Youth Festival 2020, India

TECHNICAL SKILLS

- **Programming and Analysis:** R (advanced — econometric modeling, time-series analysis, structural break testing), Python (data analysis: pandas, NumPy, scikit-learn, matplotlib)
- **Geospatial & Remote Sensing:** ArcGIS Pro (spatial data management, geoprocessing, raster & vector analysis, map-based visualization)
- **MS Office Suite, Kobo Toolbox, ODK**.

PROFESSIONAL EXPERIENCE

Graduate Teaching Assistant Sep 2025 – Present
Department of Agricultural Sciences, Texas State University, San Marcos, TX

- Main Instructor for AG 2383, Introduction to Agricultural Economics – independently manage course syllabus, contents, assessments and student support
- Lead instructor for AG 3317 Ranch and Farm Management Lab — independently manage course delivery, assessments, and student support
- Course instructor for AG 2390 Computer Applications in Agriculture — teaching quantitative and computational methods to undergraduate students

Graduate Research Assistant Jun 2025 – Aug 2025
Texas State University, San Marcos, TX

- Understanding the factors affecting students' composting attitude and knowledge'
- Conducted statistical analysis and literature review; prepared research manuscript
- Mentored a high school intern in research methods, data collection, and scientific writing

Graduate Instructional Assistant Aug 2024 – May 2025

Department of Agricultural Sciences, Texas State University, San Marcos, TX

- Supported undergraduate instruction through grading, tutoring and academic feedback

Research Assistant (Econometric Analysis) Aug 2023 – Jun 2024

Bangladesh Agricultural Research Council (BARC) — Atlas of Climate Adaptation in South Asian Agriculture Project

- Managed large-scale primary and secondary datasets; conducted hazard, exposure, vulnerability, and risk assessments
- Applied econometric modeling and spatial analysis to evaluate climate adaptation strategies
- Facilitated stakeholder workshops and coordinated with national and international partners

Project Associate Feb 2023 – Jun 2023

Digital Innovation for Impact (Dii) — Sub-Seasonal to Seasonal Climate Forecasting for Agriculture Project, Dhaka, Bangladesh

- Developed agro-advisories for diverse weather scenarios and analyzed how climate information shapes farmer decision-making
- Conducted surveys, focus group discussions, and stakeholder consultations; produced analytical reports

PUBLICATIONS & CONFERENCE PRESENTATIONS

Published

- Salman M, Hoque SS, Haque S, Jannat A, Al Rafi DA, Faisal MK, Sabbir AA, Vortia P. (2022). Factors determining the fruit consumption level in a peri-urban area of Bangladesh. Fundamental and Applied Agriculture, 7(4): 351–358. doi: 10.5455/faa.64383

Under Review

- Sarkar MAR et al. & Sabbir AA. Changes in agricultural commodity prices and household consumption of skilled workforce after COVID-19 movement restrictions in Bangladesh. Submitted to Scientific Reports (Springer Nature).
- Sudhakaran PO, Hossain ME, Sabbir AA, Pandey SR, Khan MA, & Elizondo A. Are consumers willing to pay more for enhanced seafood safety attributes? Evidence from Texas, United States. Submitted to the Journal of the Agricultural and Applied Economics Association.

Conference Presentations

- Sudhakaran PO, Sabbir AA, & Kiran P. (2025, March). Determining the technical and economic efficiency of traditional shrimp aquaculture in India. Oral presentation at Aquaculture 2025, New Orleans, LA, USA.
- Sabbir AA. (2024, November). Agriculture, forestry, and aquaculture on GHG emissions in the USA. Poster presentation at the DOE-EM Symposium, Texas State University. Funded by the U.S. Department of Energy.
- Sabbir AA, Sattar MN, & Sarker T. (2024, February). Factors affecting the expansion of freshwater aquaculture area by fish farmers in Bangladesh. Oral presentation at the 7th SANEM Annual Economists' Conference, Dhaka, Bangladesh.

HONORS & AWARDS

- DOE-EM Scholarship — U.S. Department of Energy, Texas State University
- TXST Graduate Merit Fellowship — Texas State University
- Graduate College Scholarship — College of Science and Engineering, Texas State University
- Student Government Scholarship — Texas State University

PROFESSIONAL AFFILIATIONS

- General Member, Bangladesh Agricultural Economists Association (ID: 2-01-2016-01310)
- Founder, Tarunno Mirzapur (voluntary community development organization), Bangladesh — est. 2020