SWATY KAJARIA

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EDUCATION

University of Georgia, Athens 2020 - 2025 (Expected)
Ph.D., Department of Agricultural & Applied Economics
Major in Environmental Economics

University of Georgia, Athens 2024 - 2025 (Expected)
MNR, Warnell School of Forestry & Natural Resources
Specialization in Geographic Information Systems (GIS)

Indian Institute of Forest Management (IIFM), India Apr 2015
PG Diploma, Environmental Management

Pune University, India May 2003
Bachelor of Engineering, Instrumentation & Control

CERTIFICATIONS

NASA's Applied Remote Sensing Training (ARSET)

- Overview of SeaDAS 8.4.1 for the Processing, Analysis, and Visualization of Optical Remote Sensing Data for Water Quality Monitoring — Feb 2024
- Disaster Assessment Using Synthetic Aperture Radar — Oct 2022
- Accessing and Analyzing Air Quality Data from Geostationary Satellites — Oct 2022
- Selecting Climate Change Projection Sets for Mitigation, Adaptation and Risk Management Applications — Sep 2022
- Monitoring and Modeling Floods using Earth Observations — Sep 2022
- Evaluating Ecosystem Services with Remote Sensing — Aug 2022

Rio+21 IYWC India Program

- Short Term Course Study in Water Cooperation — 2013-2014

WORKING PAPERS

"Shoreline Wonders: Navigating Mangroves with Geographic information system"
Mangroves are highly productive coastal forests that play a crucial role in ecosystem resilience, acting as natural buffers to protect human settlements and landscapes from storm surges and coastal erosion. However, a comprehensive analysis of changes in mangrove cover from the 1980s is not available. This study addresses this gap by employing a machine learning approach to map mangrove forests in southwest Florida from 1984 to 2020, using Google Earth Engine (GEE). Ground truth data were obtained from the Global Mangrove Forests Distribution, v1 (2000), and ESA World Cover 10m (2020). Vegetation indices such as NDVI, NDMI, MNDWI, and SR, along with elevation data, were used to train models based on Decision Tree, Random Forest, and Support Vector Machine algorithms to effectively delineate mangrove areas.

"Let 'Em Grow: Do Florida Coastal Property Owners Value Mangroves?" - (with Susana Ferreira and Yukiko Hashida)
This paper focuses on the non-market valuation of coastal mangrove forests, a critical yet undervalued component of our natural environment. Mangroves provide a plethora of ecosystem services, including storm surge protection, erosion control, habitat for commercially valuable species, carbon sequestration, and flood mitigation. Despite their significance, these services often go unrecognized in economic planning and conservation efforts due to the absence of formal market mechanisms for their valuation. This gap in recognition and valuation poses a significant risk to the sustainability and conservation of mangrove forests. Using hedonic pricing approach, the study estimates households' marginal willingness to pay for changes

in mangrove forest area along the coast and examines how different attributes of mangrove affect property values.

WORK IN PROGRESS

"Nature's Shield: Deciphering Mangroves' Influence on Property Value Dynamics in the Wake of Hurricane Irma" - (with Susana Ferreira and Yukiko Hashida)

ACADEMIC EXPERIENCE

Graduate Research Assistant, University of Georgia — Jan 2021 - Present
Guest Lecture - Adv. Quantitative Methods for Economists, UGA — April 2023

Teaching Assistant:

- ENVM 3060: Principles of Resource Economics — Jan 2024 - May 2024
- AAEC-8610: Adv. Quantitative Methods for Economists — Jan 2023 - May 2023
- AAEC-4/6710: Rural Economic Development & Growth — Jan 2022 - May 2022

Research Assistant:

- Working with Dr. Susana Ferreira on Sea Grant Project: — Aug 2024 - May 2025
  - Developing a tool for Glynn County, GA, residents to locate nearby Superfund sites
  - Estimating economic impacts of coastal inundation and contamination from nearby Superfund sites in Glynn County, GA
- Worked with Dr. Yukiko Hashida — Aug 2021 - Dec 2021
  - Conducted initial data exploration and analysis as part of a research project

Lecturer, Dr. B. C. Roy Engineering College, India — Sep 2004 - Sep 2005

INDUSTRY EXPERIENCE

Division Manager, Fincare Small Finance Bank, *Bangalore, India* — Oct 2016 - Nov 2020
Received Role Model Performance Award for the FY 2016-17

- Managed and monitored the bank's liquidity risk, ensuring accurate forecasting and control
- Prepared and reported the bank's statutory liquidity profile to regulatory authorities
- Automated risk reporting systems and ensured compliance with Reserve Bank of India (RBI) regulations
- Handled escalated customer complaints, resolving cases with the Banking Ombudsman and RBI

Manager - Risk Analytics, FFSL - Disha Microfin, *Bangalore, India* — Apr 2015 - Oct 2016

- Developed credit check processes and sanction decision logic for risk management
- Handled data management and ensured compliance with regulatory reporting requirements
- Onboarded and integrated credit bureaus for enhanced report analysis
- Led Aadhar-based e-KYC testing and pilot programs for Microfinance

Software Engineer, Mindteck (India) Pvt Limited, *Bangalore, India* — May 2011 - May 2013

- Testing of Storage software for the NetApp products

CONFERENCES AND PRESENTATIONS

Confluence: UGA Water Science and Policy Poster Symposium, *Athens, GA* - 3rd prize — Oct 2024
Association of Environmental and Resource Economists (AERE), *Washington, DC* — May 2024
Southern Agricultural Economics Association (SAEA), *Atlanta, GA* — Feb 2024
Southern Economic Association (SEA) Annual Conference, *New Orleans, LA* — Nov 2023
GIS Day Conference, UGA, *Athens, GA* — Nov 2023
Confluence: UGA Water Science and Policy Poster Symposium, *Athens, GA* - 3rd prize — Oct 2023
Agricultural & Applied Economics Association (AAEA), *Washington, DC* — Jul 2023
Georgia Water Resources Conference (GWRC), *Athens, GA* — May 2023

Georgia Climate Conference (GCC), *Athens, GA* Mar 2023

Fellowships and Awards

- UGA Graduate School Summer Doctoral Research Assistantship May 2024 - Jun 2024
- UGA Graduate School Domestic Travel Grant Award 2023, 2024
- UGA Sea Grant Project Award Aug 2024 - Apr 2025

Professional Memberships

- Agricultural and Applied Economics Association (AAEA) 2022 - Present
- Association of Environmental and Resource Economists (AERE) 2022 - Present
- Southern Economic Association (SEA) 2023 - Present

Languages

- R, Python, ArcGIS, LaTeX, JavaScript
- English, Hindi, Bengali

Interests

Environmental Economics, Ecosystem Services & Valuation, Natural Resource Management, Machine Learning, Spatial Modeling, Geospatial Analytics, Geospatial Semantics.