

EMILY BURCHFIELD

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RESEARCH AND TEACHING INTERESTS

Remote Sensing and GIS; Spatial Analysis; Resource Management; Environmental Geography

EDUCATION

Vanderbilt University *June 2017 (expected)*

Ph.D. in Environmental Engineering
Graduate Fellow, Vanderbilt Institute for Energy and Environment

University of Louvain, Belgium *July 2012*

Master of Arts in Economics
In Defense of Crisis: Understanding System Capacity and Change
Grande Distinction

Clemson University *May 2010*

Bachelor of Arts in Economics
Calhoun Honors College, Magna Cum Laude, Phi Beta Kappa

University of Louvain, Belgium (dual-degree) *May 2010*

Bachelor of Science in Economics and Management
Transatlantic Exchange in Economics scholar

SPECIAL TRAINING

Borlaug Summer Institute on Global Food Security *June 2014*
Purdue University, USA

NSF Summer Seminar on STS, Environmental Sociology and Policy *May 2014*
Vanderbilt University, USA

Belgian Technical Cooperation Training Program *June 2011*
Belgium Development Agency, Belgium

Global Climate Change: Risk and Management, Summer Course *July 2008*
University of Oxford, UK

TEACHING EXPERIENCE

Guest Lecturer: *Discounting and the value of time* *November 2016*
Vanderbilt University

Instructor, Weekends at Vanderbilt University *October 2015*
Developed “Geospatial Ecology” course for gifted high school students.

Instructor, Vanderbilt Summer Academy *Summer 2015*
Developed “Remote Sensing and Spatial Analysis” and “Spatial Smarts” courses for gifted high school students.

Seminar Coordinator, Spaces of Global Capitalism *Spring 2015*
Vanderbilt University

Certificate in College Teaching
Vanderbilt University

May 2014

Guest Lecturer: *Introduction to Remote Sensing*
Vanderbilt University

January 2014, May 2015

Graduate Research Assistant, University of Oxford
Supervised undergraduate coursework and field excursions.

June - August, 2009 - 2012

Economics Tutor for Visual- and Hearing-impaired Students
University of Louvain, Belgium

August 2011 - July 2012

High School English Language Instructor
French Ministry of Education, Toulouse, France

August 2010 - May 2011

PUBLICATIONS

Gunda, T., Benneyworth, L., **Burchfield, E.** (2015). *Exploring water indices and associated parameters: A case study approach*, *Water Policy*, 17(1), pp. 98 - 111.

Nwosu, O., Hennessey, E., **Burchfield, E.**, Barnes, S., Brinkley-Rubenstein, L., and Shields, S. (2013). Faculty and Student Experiences as a Model for the Academy in Action. In Barnes, S. L., Brinkley-Rubenstein, L., Doykos, B., and Martin, N. (Eds). *Academics in Action! A Model for Community-Engaged Research, Teaching, and Service*.

PAPER PRESENTATIONS

The application of PCA for the identification of adaptive agricultural systems in the tropics, presented at the Workshop on the Use of Remote Sensing for Decision-Making in Agricultural and Water Management in Colombo, Sri Lanka, August 2015.

Institutions and Imagery: Mapping Water Management in Rural Sri Lanka, presented at the Association of American Geographers Conference in Chicago, IL, April 2015.

ADAPT-SL: Agricultural Decision Making and Adaptation to Precipitation Trends in Sri Lanka, presented at the National Science Foundation Water, Sustainability and Climate PI meeting in Washington, D.C., February 2015.

Patterns of Meteorological and Agricultural Drought in Sri Lankan Agricultural Areas, presented at the Gordon Research Seminar on Science, Technology and Policy, in Waterville Valley, NH, August 2014.

Resettlement and Coloniality in the Mahaweli Ganga Watershed, presented at the Annual Dimensions of Political Ecology Conference on Nature/Society in Lexington, KY, February 2013.

POSTER PRESENTATIONS

Agricultural adaptation to water scarcity in the Sri Lankan dry zone: A comparison of two water management regimes, presented at the National Science Foundation Water, Sustainability and Climate PI meeting in Washington, D.C., February 2015.

Mapping water management: A case study from Sri Lanka, presented at the American Geophysical Union Annual Conference, in San Francisco, CA, December 2014.

Patterns of Meteorological and Agricultural Drought in the Sri Lankan Dry Zone, presented at the Gordon Research Conference on Science, Technology and Policy, in Waterville Valley, NH, August 2014.

Patterns of Agricultural Drought in Sri Lankan Paddy Fields: Spatiotemporal Image Analysis, presented at the Borlaug Summer Institute on Global Food Security, Lafayette, IN, June 2014.

A Comparison of Vegetation Health in Major and Minor Irrigation Systems during Drought, presented at the Spatial Analysis: Multidisciplinary Applications conference in Nashville, TN, December 2013.

GRANTS

American Institute for Sri Lankan Studies Dissertation Planning Grant	2015
Vanderbilt University Graduate Travel Grant	2014, 2015

HONORS AND AWARDS

Humanities, Arts, Science and Technology Alliance and Collaboratory Scholar	2014-15
University Graduate Fellowship, Vanderbilt University	2012
Phi Beta Kappa, Clemson University	2009
Martin Luther King Award for Service Excellence, Clemson University	2009
Duckenfield Scholarship, University of Oxford	2008

PROFESSIONAL MEMBERSHIPS

American Association of Geographers
American Society of Photogrammetry and Remote Sensing

TECHNICAL STRENGTHS

Geospatial Software	ArcGIS, QGIS/GRASS
Statistical Software	R, MATLAB
Computer Languages	Python

LANGUAGE PROFICIENCIES

English	Native Speaker
French	Fluent Written and Spoken