

Sahan T. M. Dissanayake

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CURRENT POSITION

Visiting Assistant Professor, Department of Economics, Portland State University Fall 2011–Spring 2012

EDUCATION

Ph.D. Agricultural and Applied Economics, University of Illinois, 12/2011

Dissertation Title: Three Essays on Conservation: dynamic and spatial reserve design and valuing preferences for ecosystem attributes

Committee: Hayri Önal (chair, director of research), Amy W. Ando (director of research), Richard Brazee, Stephen Polasky (University of Minnesota), James D. Westervelt (US Army ERDC-CERL)

Program started in Fall 2007, proposal defended in Summer 2010, dissertation defended on 09/09/2011.

M.S. Applied Mathematics, University of Illinois, 2010

B.A. Computer Science and Economics (cum laude), Ohio Wesleyan University (OWU), 2004

RESEARCH AND TEACHING INTERESTS

Research Interests: Non-market valuation using choice experiments, spatial and dynamic mathematical programming, dynamic simulation

Teaching Interests: Environmental and resource economics, mathematical programming, dynamic simulation, microeconomics (masters level), economic development and trade (undergraduate), introductory and intermediate microeconomics and macroeconomics (undergraduate)

SELECTED PUBLICATIONS AND JOB MARKET PAPER

S. T. M. Dissanayake and A. W. Ando. *Economic valuation of ecosystem attributes for optimal ecosystem restoration design: A Choice Experiment Survey* [**JOB MARKET PAPER**]

S. T. M. Dissanayake, and H. Önal. *Amenity Driven Price Effects and Conservation Reserve Site Selection: A Dynamic Linear Integer Programming Approach*. 2011. *Ecological Economics*. Vol 70, No 12, 2225-2235.

S. T. M. Dissanayake, H. Önal, J. D. Westervelt, and H. Balbach. *2012 Optimum Selection of Clustered Conservation Areas for Species Relocation*. *Ecological Modeling*. Vol 224 Iss 1. 65-75.

SELECTED TEACHING EXPERIENCE

Advanced Microeconomics (Masters Level), Portland State University, Instructor	Winter 2012
Mathematical Economics (ECON 4/580), Portland State University, Instructor	Fall 2011
Intermediate Microeconomics (ECON311), Portland State University, Instructor	Fall 2011
Natural Resource Economics (ACE/NRES/ENVS 310), University of Illinois, Instructor	Fall 2010
Summer Math Camp for Masters and PhD Students, University of Illinois, Instructor	August 2009/10
Principles of Macroeconomics (ECON103), University of Illinois, Head Teaching Assistant	Spring 06 - 10
Environmental Economics (ECON/ACE210), University of Illinois, Teaching Assistant	Spring 2010/11

SELECTED AWARDS AND RECOGNITION

Outstanding PhD Student, 2011, Agricultural and Consumer Economics, University of Illinois
Outstanding Senior in Economics, 2004, Department of Economics, Ohio Wesleyan University
Robert Ferber Dissertation Award for excellence in survey research, 2011, Survey Research Laboratory, U of I
North American Colleges and Teachers of Agriculture (NACTA) Graduate Student Teaching Award, 2011
Louis V. Logeman Graduate Student Teaching Award, 2011, College of ACES, University of Illinois
Named on the Center for Teaching Excellence's list of "*Teachers Ranked as Excellent*" for 8 semesters

GRANTS

Optimal Management of DoD Lands for Training, Ecosystem Service and Renewable Energy Generation (with Hayri Onal). US Army Construction Engineering Research Laboratory. 2010-12. \$114,274
Estimating the Value of Grassland Habitat Restoration: Evidence from a Choice Experiment Survey (with Amy W. Ando). Research Board. University of Illinois. 2010-2011. \$4,630

WORKING PAPERS (available online at <http://sahan.org/workingpapers.html>)

- S.T.M Dissanayake. *Using STELLA Simulation Models to Teach Natural Resource Economics*
S. T. M. Dissanayake and H. M. Núñez. *Optimal Selection of Land for Conservation: A GE Analysis*
H. Önal, S. T. M. Dissanayake and J. D. Westervelt. *Designing Compact and Contiguous Conservation Areas*
S. T. M. Dissanayake, H. Önal, J. D. Westervelt and H. Balbach. *Spatial Reserve Design Models: Identifying Land for Conservation within Military Installations*, in P. A. L. D. Nunes, P. Kumar and T. Dedeurwaerdere (eds) Handbook on the Economics of Biodiversity and Management of Ecosystem Services.

WORK IN PROGRESS

- Ordering and Learning Effects in Choice Experiment Surveys: A revisit. S. T. M. Dissanayake and A. W. Ando
Optimal Prioritization of Biodiversity Areas in Response to EU's Natura 2000: The Case of Sicily.
S. T. M. Dissanayake and G. Signorello (University of Catania, Italy)
Meta-clustering in Selecting Conservation Areas.
S. T. M. Dissanayake, H. Önal, J. D. Westervelt, and H. Balbach.
Risk Preferences and Technology Adoption by Beekeepers: A Choice Experiment Survey.
K. Baylis, S. T. M. Dissanayake and B. J. Gross

OTHER PUBLICATIONS

- S. T. M. Dissanayake, H. Önal, and J. D. Westervelt. 2011. *Optimum Selection of Conservation Reserves: Extensions to Multiple Land Use*. Military Operations Research, Vol 16, No. 1.
V. Kudaligama and S. T. M. Dissanayake. *Sri Lanka's Peace Dividends: The End of the War and Beyond*. The Illinois International Review. Fall 2009. (Not peer reviewed)
B. C. Daniels, S. T. M. Dissanayake, and B. R. Trees. 2003, *Synchronization of coupled rotators: Josephson junction ladders and the locally-coupled Kuramoto model*, Physical Review E, Vol 67.
S. T. M. Dissanayake, H. Önal, J. D. Westervelt, and H. Balbach. *Optimal Selection of Conservation Lands at Fort Stewart Using Integer Programming*. US Army Construction Engineering Research Lab (CERL) Technical Report. ERDC/CERL TR 11-39. (Not peer reviewed)
S. T. M. Dissanayake, H. Önal, J. D. Westervelt, and H. Balbach. 2011. *Optimum Selection of Clustered Conservation Areas within Military Installations*. US Army Construction Engineering Research Lab (CERL) Technical Report. ERDC/CERL TR 11-40. (Not peer reviewed)

OTHER TEACHING EXPERIENCE

- Teaching Assistant for Principles of Macroeconomics (ECON103), University of Illinois Fall 2006/05
Instructor and TA for Economics, Mathematics and Web design for the Upward Bound Program
Ohio Wesleyan University, Summer 2001 to 2003; University of Illinois, Summer 2007
Certificate in Technology-Enhanced Teaching, CTE, University of Illinois expected 2012
Graduate Teacher Certificate, Center for Teaching Excellence (CTE), University of Illinois 2007

MENTORING EXPERIENCE

- Supervising a masters student conducting a choice experiment survey of preference for ecosystem services.
Supervising an undergraduate student conducting a cost benefit analysis on converting a coal power plant.
Mentored two high school students as part of the ACES-Research Apprenticeship Program. Each student wrote a paper, created a poster and presented their work.
Worked with five students from the natural resource economics class on short projects.

OTHER AWARDS AND RECOGNITION

- Northeastern Ag and Resource Economics Association (NAREA) Graduate Student Conference Scholarship
Finalist Ribbon, 2009, Poster Session, Agricultural and Applied Economics Association Annual Meeting
Travel Grants from EAERE, AAEA, and the University of Illinois Graduate College
Alice Empekey Batchelor Graduate School Scholarship awarded to the most promising senior in Economics, Department of Economics, Ohio Wesleyan University, 2004
David H Staley Outstanding Junior Prize-2nd Place, Department of Math and CS, OWU, 2003
Dean's List (All semesters between Spring 01 – Spring 04), Ohio Wesleyan University
Trustee Scholarship (\$85,000 over four years), Ohio Wesleyan University, 2000-2004

RESEARCH PRESENTATIONS

Non-Market Valuation and Public Preferences for Restoring Ecosystems. Sahan T. M. Dissanayake.

- **EcoTrust.** Portland OR. January 2012. [Scheduled]
- **Department Seminar,** Economics Department, Portland State University. January 2012 [Scheduled]
- **Institute for Sustainable Solutions Seminar Series.** Portland, OR. January 2012 [Scheduled]

Estimating values, tradeoffs, and complementarities in ecosystem attributes: Evidence from a choice experiment survey. S. T. M. Dissanayake, and A. W. Ando.

- **Heartland Environmental and Resource Economics Workshop^P,** Urbana Champaign, IL, October 2011
- **Agricultural and Applied Economics Association (AAEA) Annual Meeting[†],** Pittsburgh, PA, July 2011
- **Association of Environmental and Resource Economics (AERE) Inaugural Summer Conference,** Seattle, WA, June 2011
- **Midwest Graduate Student Summit on Regional, Population, Health and Environmental (RPHE) Economics,** Urbana, IL, April 2010

Using STELLA Simulation Models to Teach Natural Resource Economics. S. T. M. Dissanayake.

- **Northeastern Agricultural and Resource Economics Association Meeting,** Pittsburgh, PA, July 2011
- **AEA Conference on Teaching Economics and Research in Economic Education,** Palo Alto, CA, June 2011

Location Based Amenity Price Effects in Conservation Reserve Design: A Dynamic Linear Integer Programming Model for Site Selection. S. T. M. Dissanayake, and H. Önal.

- **Southern Economic Association (SEA) Annual Meeting[†],** Atlanta, GA, November, 2010
- **Agricultural and Applied Economics Association (AAEA) Annual Meeting[†],** Denver CO, July 2010
- **World Congress of Environmental and Resource Economics (WCERE),** Montreal, Canada, June 2010.
- **Heartland Environmental and Resource Economics Workshop^P,** Urbana-Champaign, IL, October 2009
- **ACE Research Celebration;** Second year PhD requirement. University of Illinois, October 2009.
- **Agricultural and Applied Economics Association (AAEA) Annual Meeting^P,** Milwaukee, WI, July 2009

Optimal Allocation of Land for Conservation: A GE Analysis. S. T. M. Dissanayake and Héctor M. Núñez.

- **Heartland Environmental and Resource Economics Workshop,** Urbana Champaign, IL, October 2010
- **Agricultural and Applied Economics Association (AAEA) Annual Meeting[‡],** Denver CO, July 2010
- **Midwest Graduate Student Summit on Regional, Population and Health Economics,** April 2010.

Optimal Selection of Conservation Land within Military Installation: The Case of Ft. Benning GA and Ft. Stewart GA. S. T. M. Dissanayake, H. Önal, J. D. Westervelt, and H. Balbach. (Poster).

- **Heartland Environmental and Resource Economics Workshop^P,** Urbana Champaign, IL, October 2010
- **Agricultural and Applied Economics Association (AAEA) Annual Meeting^P,** Denver CO, July 2010

Optimum Selection of Clustered Conservation Areas for Species Relocation. S. T. M. Dissanayake, H. Önal, J. D. Westervelt, and H. Balbach.

- **EAERE/FEEM/ Belpasso Summer School,** Belpasso, Italy, September 2010.

Invited presentation. *Non-market valuation using conjoint analysis.* S. T. M. Dissanayake. Department of Agricultural Economics, University of Peradeniya, Peradeniya, Sri Lanka. January 2010.

Optimal Selection of Conservation Reserves: Extensions to Multiple Land Use and a Mechanism Design Approach. S. T. M. Dissanayake, H. Önal, and J. D. Westervelt. AERE Sponsored Session

- **Agricultural and Applied Economics Association (AAEA) Annual Meeting, Milwaukee WI,** July 2009.

National Security versus Environmental Stewardship: Optimum Selection of Conservation Reserves In and Around Military Installations. S. T. M. Dissanayake, H. Önal, J. D. Westervelt, and H. Balbach.

- **Midwest Graduate Student Summit on Regional, Population and Health Economics,** April, 2009.
- **Southern Economic Association (SEA) Annual Meeting,** Washington, DC, November 2008.
- **INFORMS Annual Conference[‡],** San Diego, CA, November 2008.

[†] AERE- Sponsored Session

^PPoster

[‡] Presented by Coauthor

SOFTWARE AND PROGRAMMING SKILLS

Optimization and Simulation: GAMS, Matlab, Mathematica, STELLA

Statistical: Stata, R

Programming: C++, Java, Scheme, Fortran 90, HTML, SQL, PHP

GIS: ArcGIS, GeoDA

SELECTED LEADERSHIP

- President – ACE-Department Graduate Student Organization, University of Illinois, 2010-2011
- Vice-President – ACE-Department Graduate Student Organization, University of Illinois, 2009-2010
- President – Sri Lankan Society, University of Illinois, 2009-2010, 2010-2011
- President – Association of Computing Machinery- OWU Chapter, Ohio Wesleyan University, 2003-2004
- Board Member - Honors Student Board, Ohio Wesleyan University, 2001-2004.

PROFESSIONAL MEMBERSHIP

- Association of Environmental and Resource Economists (AERE)
- Agricultural & Applied Economics Association (AAEA)
- American Economic Association (AEA)
- European Association of Environmental and Resource Economists (EAERE)
- Northeastern Agricultural and Resource Economics Association (NAREA)
- Southern Economic Association (SEA)
- South Asian Network for Development and Environmental Economics (SANDEE)

WORK EXPERIENCE

Resident Manager, University Housing, University of Illinois	June 2010 to Sept 2011
Community Aide, University Housing, University of Illinois	August 2006 to June 2010
Web Services Coordinator, Ohio Wesleyan University	June 2004 to June 2005

SELECTED SERVICE

- Lead Co-Organizer: Midwest Graduate Student Summit on Regional, Population, Health and Environmental (RPHE) Economics at Urbana-Champaign, Illinois (2011)
- Session chair: SEA Annual Meeting (2010), Midwest Graduate Student Summit (2009)
- Discussant: AAEA Annual Meeting (2009, 2010), Midwest Graduate Student Summit (2009)
- Search Committee: University Housing: Leasing Coordinator 2009, Associate Complex Director 2010
- Organized presentation sessions for graduate students presenting at AAEA, (August 2009, August 2010)
- Assisted with the Heartland Environmental Resource Workshop, 2009
- Redesigned and updated the Program in Environmental and Resource Economics (pERE) website 2009
- Assisted with TA training for the Center for Teaching Excellence, August 2006/2007/2008/2009
- Initiated and conducted fundraising efforts to sponsor the education of low income children in Sri Lanka
- Led a team of students to the Appalachian Service Project (ASP) for Spring Break, March 2005
- Initiated and coordinated Tsunami Fundraising Efforts at Ohio Wesleyan University, January 2005

REFERENCES

Amy W. Ando, Associate Professor, Ag and Cons Economics. Tel: 217 333-5130 Email: amyando@illinois.edu

Hayri Önal, Professor, Ag and Cons Economics. Tel: 217 333-5507 Email: h-onal@illinois.edu

Alex Winter-Nelson, Professor and Director of Graduate Studies. Tel: 217 244-1381 Email: alexwn@illinois.edu

Richard J. Brazee, Associate Professor, Nat Res and Env Science. Tel: 217 333-6271 Email: brazee@illinois.edu