Gi-Eu Lee

Department of Agricultural, Food, and Resource Economics, Michigan State University 458 West Circle Drive, Rm 125, Cook Hall, East Lansing, Michigan 48824, USA leegieu@msu.edu +1-517-515-3327

Education

Ph.D. Agricultural, Food and Resource Economics, Michigan State University, expected Fall 2015

Dissertation: Essays in State-Level Climate Change Policies

Advisor: Prof. Scott Loveridge

M.A. Natural Resource Management, National Taipei University, 2001

Thesis: An Exploration of Environmental Problems from the Biophysical Perspective and System

Thinking - A Case Study of Chung-Kang River Water Quality and Quantity

B.A. Land Economics & Administration, National Taipei University, 1999

Research Experience

Michigan State University

Research Assistant (2011-present)

- Developed and analyzed surveys related to public attitudes about climate change and biofuel policies
- Collected data of the U.S. sectorial greenhouse gas emission; and reviewed literature regarding local food and import substitution
- Wrote draft papers

Taiwan Agricultural and Resource Economics Association

Contract Associate Research Fellow (2009 – present)

- Evaluated major industries' water footprints in Taiwan
- Translated chapters of Water Footprint Assessment Manual (published by Water Footprint Network)
 into Traditional Chinese

Taiwan Institute of Economic Research (TIER)

Adjunct Associate Research Fellow (2008-09)

- Assessed economic benefits of the telecommunication industry policy
- Developed strategies for meeting & exhibition industry
- Conducted cost-benefit analysis of the flood control program

Section Chief & Associate Research Fellow (2007-08)

- · Conducted research on:
 - Integration of CGE and system dynamics model
 - Analysis of environmental costs and benefits of water resource infrastructure
 - Construction of hybrid input-output table for green GDP estimation
- Coordinated the extramural project participants with STEM background
- Managed projects, supervised researchers and coordinated administrative tasks
- Represented division director and TIER at meetings and conferences
- Interviewed job applicants

Assistant Research Fellow (2001-2006)

- Conducted research on:
 - Water CGE modelling; green tax reform analysis; tourism industry policy evaluation
- Developed strategies on:
 - Renaissance of land subsidence rural area; tourism and sport industry promotion
- Administrated departmental tasks
- Prepared speech drafts for the president of TIER

National Taipei University

Research Assistant (1999-2001)

Collected data and searched literature

Teaching Experience

- 2009: Substitute lecturer, Microeconomics (undergraduate level course), Department of Leisure and Recreation Management, Kainan University, Taiwan
- 2007: *Instructor*, Constructing Hybrid Input-Output Table Workshop, *Directorate General of Budget*, *Accounting and Statistics of Executive Yuan*, Taiwan
- 2006: *Instructor*, Integrating Hydraulic Engineering Model and CGE Model Workshop, *National Chiao Tung University*, Taiwan
 - Instructor, Taiwan Satellite Account and Its Application Workshop, Tourism Bureau, Ministry of Transportation and Communications, Taiwan
- 2005: Guest Speaker, Green Accounting (graduate level course), Institute of Natural Resource Management, National Taipei University, Taiwan
- 2004: *Instructor*, Economic Analysis of Water Resource Development Projects Workshop, *Water Resources Agency, Ministry of Economic Affairs*, Taiwan
- 2000-01: Adjunct Instructor and Coach of University Debate Team, Undergraduate Extracurricular Activity, National Taipei University, Taiwan

Professional Service

2015: *Session Chair*, the 5th Congress of the East Asian Association of Environmental and Resource Economics

2014-present: Reviewer, Climate Research

2010: External Reviewer, Legislative Research Bureau, Legislative Yuan, Taiwan

Fellowships and Awards

- Dissertation Completion Fellowship, Michigan State University (2015)
- Graduate Travel Fellowship, Michigan State University (2015)
- Quality of Research (Golden Pen) Award, Taiwan Inst. of Econ. Research (2001, 2002, 2004, 2006)
- Distinguished Master's Thesis Scholarship, Archilife Research Foundation (2001)
- Distinguished Graduate Award, National Taipei University (2001)
- Lions Cup Best Debater, Lions Clubs International District 300A2 (1997)

Skills and Certificate

Currently using: Stata, IMPLAN, MATLAB, MS Office

Ever used or trained: GEMPACK, R, GAMS, SAS, Mathematica, ArcView, HTML, Visual Basic, ASP, Stella

Certificate: Futures Specialist, Taiwan

Professional Affiliations

Current: American Economic Association

Agricultural and Applied Economics Association

East Asian Association of Environmental and Resource Economics

2006-2010: Taiwan Agricultural and Resource Economics Association

2002-2008: Taiwan Water Resource Management Association

Papers In-Progress

- **Lee, G.-E.**, S. Loveridge, and J. Winkler. Public Attitudes toward Agricultural Climate Change Adaptation Policies and the Influence of a Warm Spell: A Case Study from Michiga (dissertation chapter). NSF grant BCS 0909378.
- **Lee, G.-E.** S. Loveridge and S. Joshi, Spatial Heterogeneity and Local Acceptance of Biorefineries: A Case Study from the State of Michigan (dissertation chapter). USDA-NIFA Grant # 2012-67009-19693.
- **Lee, G.-E.**, and S. Miller, S. Loveridge, Modelling Local Food Policy and the Greenhouse Gas Emission due to Transportation (dissertation chapter).

Miller, S., Mann J., and G.-E. Lee, Measuring Import Substitution with IMPLAN: A Case of Local Food.

Presentations

- **Lee, G.-E.** S. Loveridge and S. Joshi. 2015. Measuring Local Acceptance of Biorefineries: A Case Study from the State of Michigan. *Presented at the Fifth Congress of the East Asian Association of Environmental and Resource Economics, Academia Sinica, Taipei, Taiwan*. August 5th-7th, 2015.
- **Lee, G.-E.**, S. Loveridge, and J. Winkler. 2014. Does a Warm Spell Influence Public Attitudes about Assisting Farmers in Climate Change Adaptation Policies? Evidence from a Natural Experiment from Michigan. *Presented at the Agricultural & Applied Economics Association's 2014 AAEA Annual Meeting, Minneapolis, Minnesota*. July 27 29th, 2014.
- **Lee, G.-E.,** S. Loveridge, and J. Winkler. 2014. The Influence of a Warm Spell on Willingness to Pay of an Agricultural Climate Change Adaptation Policy. *Presented at the Adaptation in the Great Lakes Region Conference, Grahma Sustainability Institute, University of Michigan. Ann Arbor, Michigan.* June 24 26th 2014.
- **Lee, G.-E.**, S. Loveridge, and C.-E. Chou. 2014. A Computational General Equilibrium Analysis of Tourism Policy: Taiwan's Doubling Tourist Arrivals Plan. *Presented at the Mid-Continent Regional Science Association 45th Annual Conference, Madison, Wisconsin.* June 3-5th, 2014.
- Lee, G.-E., and S. Loveridge. 2014. The Influence of a Climate Change Mitigation Policy: Michigan Public Willingness to Pay to Attract or Keep out Local Biorefineries. *Presented at 7th Midwest*

- *Graduate Student Conference in Applied Economics, Regional Studies. The University of Illinois at Urbana-Champaign, Urbana-Champaign, IL.* April 4-6th 2014.
- **Lee, G.-E.**, and S. Loveridge. 2014. Michigan Public Willingness to Pay to Attract or Keep out Local Biorefineries. *Presented at Graduate Student Research Symposium, Department of Agricultural, Food and Resource Economics. Michigan State University. East Lansing, MI.* March 20 -21th 2014.
- Loveridge, S., **G.-E. Lee**, and J. Winkler. 2012. "Who Should Pay for Climate Change Adaptation in Agriculture? Which Crops? How Much?". *Presented at 2012 International Geographical Congress, Cologne, Germany*. August 26-30th 2012.
- Loveridge, S., **G.-E. Lee**, and J. Winkler. 2012. "Regional Attitudes toward Climate Change Adaptation in Agriculture. Preliminary Results of a Michigan Public Opinion Survey." *Presented at Mid-Continent Regional Science Association 43rd Annual Conference*, *Bloomington*, *Minnesota*. June 6-8th, 2012.
- Lee, G.-E., S. Loveridge, and J. Winkler. 2012, "Michigan Public Opinion about Agricultural Adaptation to Climate Change." *Presented at 2012 Graduate Student Research Symposium, Department of Agricultural, Food and Resource Economics. Michigan State University. East Lansing, MI.* March 23 2012.
- Yang, C.C., **Lee**, **G.-E.**, L.C. Chang, and C.S. Chen. 2007. "Application of System Dynamics to Evaluate Water Strategies in Taiwan." *Presented at 2007 Conference of System Dynamics and Management Science* ~ *Sustainable Development of Asia Pacific, Shanghai, China*. October 19-21th, 2007.

Project Reports as Collaborator

- Decision Support Systems for Regional Planning and Impact Assessment of Biorefineries. Sponsored by United States Department of Agriculture, and National Institute of Food and Agriculture (USDA-NIFA Grant # 2012-67009-19693), 2013 – current.
- 2. Measuring Michigan Public Attitudes towards Climate Change & Adaptation in Agriculture. Sponsored by National Science Foundation (CNH 0909378), Institute for Public Policy and Social Research at Michigan State University, and Michigan Applied Public Policy Research Program, 2011-2012.
- 3. Residents Support Farmers Adapting to Climate Change: A Survey of Attitudes toward Government Assistance to Crop Farmers. Sponsored by The Institute for Public Policy and Social Research, Michigan State University, 2012.

Academic Outputs in Chinese

Water Economics & Management, Water Footprint, and CGE

Journal Articles

- Chou, C.-E., and **G.-E. Lee**, H.F. Lin, S.L Ran. 2011. "New Index for Business Water Management." *Industrial Pollution and Prevention Control* 117:175-199.
- Chou, C.-E., and **G.-E. Lee**. 2008. "Virtual Water and Food Security." *Water Resource Management News Letter* 10(1):15-22.
- Chou, C.-E., and **G.-E. Lee.** 2002. "The New Trend and Strategies of Water Resource Management." *Taiwan Economic Research Monthly* 2(3):1-36.

Conference Papers

- Chou, C.-E., and **G.-E. Lee**. 2009. "Virtual Water Flow and Food Security: A Case Study from Taiwan." Paper presented at Taiwan Economic Association 2009 Annual Meeting. Taipei, Taiwan. Dec. 19th, 2009.
- Chou, C.-E., and **G.-E. Lee.** 2008. "Virtual Water and Food Security." Paper presented at Cross Strait Modern Agriculture Development and Food Security Conference, Huazhong University, Wuhan City, China, May 4th, 2008.
- **Lee, G.-E.**, C.-E. Chou, C.C. Yang, L.J. Chang, Z.W. Chang, Z.W. Chen, and Z.C. Ho. 2006. "Simulation of the Water Resources Use Strategies of Taichung with a Cost-Benefit Analysis: An Integrated Application of System Dynamic Model and CGE Model." Paper presented at 15th Conference on Hydraulic Engineering, National Central University, Chung-Li, Taiwan, July 5th, 2006.
- Chou, C.-E., and **G.-E. Lee.** 2005. "A Review of WATERGEM and MR-WATERGEM, Paper presented at 2005 Water Resources Agency Commissioned Projects Accomplishment Conference. Tamkang University, Taipei, Taiwan. November 3rd, 2005.
- Chou, C.-E., and **G.-E. Lee.** 2005. "An Economic and Financial Analysis on Water Development Project." Paper presented at 2005 Water Resources Planning Institute Commissioned Projects Accomplishment Conference, Feng Chia University, Taichung, Taiwan. August 3rd, 2005.

Project Reports as Primary Writer

- 1. An Economic Analysis on the Regulation Project of Flood-prone Areas, commissioned by Water Resources Agency, Ministry of Economic Affairs, 2006-2008. Taipei, Taiwan.
- 2. Financial and Economic Analysis of Evaluating Strategies for the Sustainable Development of Regional Water Resources and Alternative Methods for Supplying Regional Water Resources (III), commissioned by National Chiao Tung University, 2007. Taipei, Taiwan.
- 3. Financial and Economic Analysis of the Sustainable Development of Regional Water Resource (II), commissioned by National Chiao Tung University, 2006. HsinChu, Taiwan.
- 4. A Review of WATERGEM and MR-WATERGEM (III), commissioned by Water Resources Agency, Ministry of Economic Affairs, 2006. Taipei, Taiwan.
- 5. A Review of WATERGEM and MR-WATERGEM (II), commissioned by Water Resources Agency, Ministry of Economic Affairs, 2005. Taipei, Taiwan.
- 6. A Review of WATERGEM and MR-WATERGEM (I), commissioned by Water Resources Agency, Ministry of Economic Affairs, 2004. Taipei, Taiwan.

Project Reports as Collaborator

- 1. Environmental Cost-Benefit Analysis of Water Development Project and Water Management (III), commissioned by Water Resources Agency, Ministry of Economic Affairs, 2006. Taipei, Taiwan.
- 2. A Study on Adjusting Supply Entity and Operation Model in Pan-Hsin Area, commissioned by Water Resources Agency, Ministry of Economic Affairs, 2007. Taipei, Taiwan.
- 3. An Economic and Financial Analysis on Water Development Project, commissioned by Water Resources Planning Institute, Ministry of Economic Affairs, 2004. Taipei, Taiwan.
- 4. Environmental Cost-Benefit Analysis of Water Development Project and Water Management (I), commissioned by Water Resources Agency, Ministry of Economic Affairs, 2004. Taipei, Taiwan.

Industry Development and Regional Development Strategy

Journal Articles

- **Lee, G.-E.** 2007. "The Development Issues and Promotion Strategies of Taiwan's Sports Industry." *Taiwan Economic Research Monthly* 30(10):62-71.
- **Lee, G.-E.**, and C.-E. Chou. 2006. "The 'Three Links' Between Taiwan and China." *Taiwan Economic Research Monthly* 29(2):57-69.
- **Lee, G.-E.**, and C.-E. Chou. 2006. "Policy Recommendations about 'Three Links' between Taiwan and China." *Taiwan Economic Research Monthly* 29(2):70-84.
- **Lee, G.-E.**, and M.Y. Hsu. 2002. "The Humanistic Prospective of Tourism Industry Development in Taiwan." *Taiwan Economic Research Monthly* 25(4):117-126.
- Lin, W.J., and **G.-E. Lee.** 2002. "The Development Potential and Direction of Eco-Tourism in Taiwan." *Taiwan Economic Research Monthly* 25(4):105-116.
- **Lee, G.-E.** 2001. "The Causality and Prevention Strategies of Land Subsidence in the Coastal Area in Taiwan." *Taiwan Economic Research Monthly* 24(9):74-82.

Presentations

- Chou, C.-E., and **G.-E. Lee.** 2003. "A Feasibility Study on Introducing New Industry into Severe Land Subsiding Area (II)." Paper presented at 2003 Conference on Groundwater Monitoring Network Project & Land Subsidence Prevention and Treatment Implementation Program, National Cheng Kung University, Tainan, Taiwan, November 6th, 2003.
- Chou, C.-E., and **G.-E. Lee.** 2002. "The Planning on Introducing New Industry into Severe Land Subsiding Area." Paper presented at 2002 Conference on Groundwater Monitoring Network Project & Land Subsidence Prevention and Treatment Implementation Program, National Yunlin University of Science and Technology, Yunlin, Taiwan, November 14th, 2002.
- Chou, C.-E., and **G.-E. Lee.** 2002. "A Feasibility Study on Introducing New Industry into Severe Land Subsiding Area (I)." Paper presented at 2002 Water Resources Agency Commissioned Projects Accomplishment Conference, Tamkang University, Taipei, Taiwan, October 28th, 2002.
- Chou, C.-E., and **G.-E. Lee.** 2002. "On the Evaluation of Physical Planning and Industry Development in Severe Land Subsiding Area." Paper presented at Symposium on Technology of Land Subsidence Prevention, Water Resources Agency, Taichung, Taiwan, September 12th, 2002.
- **Lee, G.-E.**, C.-E. Chou, and K.C. Chang. 2001. "Physical Planning and Land Subsidence Prevention." Paper presented at Conference on Problems and Solutions of Water Resource Management in the New Era, Chia-Nan Irrigation Association, Tainan, Taiwan. December 20th, 2001.

Project Reports as Primary Writer

- 1. A Study on Economic Benefits of 2008-2009 Mobile Taiwan Application Promotion Project, commissioned by Industrial Technology Research Institute, 2009. Taipei, Taiwan.
- 2. A Study on Economic Benefits of 2007 Mobile Taiwan Application Promotion Project, commissioned by Industrial Technology Research Institute, 2008. Taipei, Taiwan.
- 3. Analysis of Economic Benefits of 2006 Mobile Taiwan Application Promotion Project, commissioned by Industrial Technology Research Institute, 2007. Taipei, Taiwan.
- 4. Study on Economic Benefits of 2005 Mobile Taiwan Application Promotion Project, commissioned by Industrial Technology Research Institute, 2006. Taipei, Taiwan.

5. A Feasibility Study on Introducing New Industry into Severe Land Subsiding Area (I), commissioned by Water Resources Agency, Ministry of Economic Affairs, 2001. Taipei, Taiwan.

Project Reports as Collaborator

- 1. Integrated Planning of Meeting & Exhibition Industry's Development for Taiwan, commissioned by Bureau of Foreign Trade, Ministry of Economic Affairs, 2008. Taipei, Taiwan.
- 2. The Master Plan for MICE Promotion & Development III, commissioned by Ministry of Economic Affairs, 2007. Taipei, Taiwan.
- 3. The Master Plan for MICE Promotion & Development II, commissioned by Ministry of Economic Affairs, 2006. Taipei, Taiwan.
- 4. Survey and Development Strategies of Water Industries: A Case Study of Water Reuse Industry, commissioned by Water Resources Agency, Ministry of Economic Affairs, 2005. Taipei, Taiwan.

Green Accounting and Ecological Economics

Journal Articles

- **Lee, G.-E.** 2006. "An Application of Hybrid Input-Output Table: The Ecological Footprint of SOx Emission." *Taiwan Economic Research Monthly* 29(12):92-101.
- Ferng, J.J., and G.-E. Lee. 2001. "An Exploration of Environmental Problems from the Biophysical Perspective and System Thinking--A Case Study of Chung-Kang River Water Quality and Quantity." *City and Planning* 28(3): 348-366.

Presentation

Ferng, J.J. and **G.-E. Lee.** 2000. "Biophysical Dimension of the Issues Related to Resource Depletion and Environmental Quality Degradation." Paper presented at 1st Land Economics Conference, National Chengchi University, Taipei, Taiwan, November 11th, 2000.

Project Reports as Collaborator

- 1. On Developing Taiwan's Industry Environmental Accounting System (2006), commissioned by Environmental Protection Administration, 2006. Taipei, Taiwan.
- 2. Construction of Evaluation Matrix and Indicator System for Taiwan Green National Account (II), sponsored by National Science Council, 2005. Taipei, Taiwan.
- 3. Construction of Evaluation Matrix and Indicator System for Taiwan Green National Account (I), sponsored by National Science Council, 2004. Taipei, Taiwan.

Public Economics

Journal Articles

- **Lee, G.-E.** 2004. "Critical Issues of Fiscal Policies in Taiwan." *Taiwan Economic Research Monthly* 27(5):29-44.
- Chou, C.-E., and **G.-E. Lee.** 2004. "Green Tax Reform and Double Dividends of Environmental Tax." *Taiwan Economic Forum* 2(3):1-36.

Presentations

Chou, C.-E., **G.-E. Lee**, T.H. Yang, and S.H. Hsu. 2003. "A Feasibility Study and Planning on Green Tax Reform (II)." Paper presented at 2003 Conference on Sustainable Development Research Projects, National Taiwan University, Taipei, Taiwan. December 23th, 2003.

- Chou, C.-E., and **G.-E. Lee.** 2003. "International Experiences and Practices in Green Tax Reform (II)." Paper presented at 2003 Conference on Sustainable Development Research Projects, National Taiwan University, Taipei, Taiwan. December 23th, 2003.
- Chou, C.-E., **G.-E. Lee**, T.H. Yang, and S.H. Hsu. 2002. "A Feasibility Study and Planning on Green Tax Reform (I)." Paper presented at 2002 Conference on Sustainable Development Research Projects, National Taiwan University, Taipei, Taiwan, December 27th, 2002.
- Chou, C.-E., and **G.-E. Lee.** 2002. "International Experiences and Practices in Green Tax Reform (I)." Paper presented at 2002 Conference on Sustainable Development Research Projects, National Taiwan University, Taipei, Taiwan, December 27th, 2002.
- Chou, C.-E., and **G.-E. Lee.** 2002. "A Study on the Green Tax Reform in EU and US." Paper presented at Conference on Green Tax Reform, National Taiwan University, Taipei, Taiwan. May 4th, 2002.

Project Reports as Primary Writer

- 1. International Experiences and Practices in Green Tax Reform (II), granted by National Science Council, 2002-2003. Taipei, Taiwan.
- 2. A Feasibility Study on Introducing New Industry into Severe Land Subsiding Area (II), commissioned by Water Resources Agency, Ministry of Economic Affairs, 2002. Taipei, Taiwan.
- 3. International Experiences and Practices in Green Tax Reform (I), granted by National Science Council, 2001-2002. Taipei, Taiwan.

Tourism Satellite Account

Project Reports as Primary Writer

1. Linking Tourism Satellite Account with a Multi-Country Tourism CGE Model. Research Project Granted by National Science Council, 2007, Taipei, Taiwan.

Project Reports as Collaborator

- 1. *Taiwan Tourism Satellite Account 2006, commissioned by* Tourism Bureau, Ministry of Transportation and Communications, 2006. Taipei, Taiwan.
- 2. *Taiwan Tourism Satellite Account 2004, commissioned by* Tourism Bureau, Ministry of Transportation and Communications, 2004. Taipei, Taiwan.

Environmental Law

Journal Article

Lee, G.-E. 2005. "A Review of Waste Recycle Related Laws." *Taiwan Economic Research Monthly* 28(2):22-44.

Other Publications (Selected)

- Lee, G.-E. 2008. "A Light of the Future for Taiwan An Overview of Taiwan's Sports Industry Development." *Taiwan Service Industry Development Newsletter Bimonthly* 17: 2-7, (in Chinese & English).
- Lee, G.-E. 2007. "A Brief Discussion of Climate Change and Investment." Published in Investors Daily 2007/11/09.
- Lee, G.-E. "Learning Sports Business Management from Chien-Ming Wang." Published in Apple Daily

- 2006/11/21, Opinion-editorial.
- Lee, G.-E. 2006. "Cross Strait Trade Policy Should Not Be Made by a Simple Thought." Published in China Post 2006/04/23, Opinion-editorial.
- Lee, G.-E. 2005. "WTO, Agriculture Policy and the Rice Terrorist." Published in China Post 2005/12/18, Opinion-editorial.
- Chou, C.-E., and G.-E. Lee. 2005. "Is 80 Billions Enough for Flood Control?" *The Journalist*, No. 995.
- Chou, C.-E., and G.-E. Lee. 2003. "2003 Outlook for Taiwan and World Economy." *New Century Logistic*, Special Issue, pp3-8.

References

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