

# Witsanu Attavanich

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# **EDUCATION/TRAINING**

- Visiting Fellow, Harris Manchester College, University of Oxford (2014; 2016; 2017; 2019) Research Worked during the Visit: Climate Change, Food Security, and Food System; Program and Policy Evaluations
- Visiting Fellow, Puey Ungphakorn Institute for Economic Research (PIER), Bank of Thailand, (October 2017 June 2019)
- Postdoctoral, Rutgers, the State University of New Jersey, (Nov 2011 Oct 2012) Research Areas: Program and Policy Evaluations in Agriculture and Resource Economics

Doctor of Philosophy, Texas A&M University, (Aug 2007 – Oct 2011) Major: Environmental and Resource Economics Advisor: Dr. Bruce A. McCarl, University Distinguished and Regents Professor & 2007 Nobel Peace Prize Participant through efforts on Intergovernmental Panel on Climate Change

Dissertation Topic: Essays on the Effect of Climate Change on Agriculture and Agricultural Transportation

Master of Arts (English Program), Thammasat University, (Jun 2001 – May 2004) Major: International Economics Thesis Topic: The Effects of the EU's Directive on Waste from Electrical and Electrical Equipment (WEEE) on Thailand's Industry: A Case Study of Air-Conditioning Machine Industry

Bachelor of Science (Economics), Kasetsart University, (Jun 1997 – Mar 2001) Summa Cum Laude

# **CURRENT POSITION**

Associate Professor, Department of Economics, Faculty of Economics, Kasetsart University (November 2017 – Current)

- Deputy Head of Economics Department for Research, Faculty of Economics, Kasetsart University (March 2019 – Current)
- Member of Editorial Board, Atmosphere, MDPI, Switzerland (December 2019 Current)
- Associate Editor, *Kasetsart Journal of Social Science*, Kasetsart University (February 2019 Current)
- Associate Editor, *Applied Economics Journal*, Faculty of Economics, Kasetsart University (November 2012 Current)
- Member of Editorial Board, *Journal of Economics (Chiang Mai University)*, Chiang Mai University (January 2017 Current)

- Member of the Board of Directors, Office of National Higher Education Science Research and Innovation Policy Council (NXPO) (December 2019 – Current)
- Member of the Board of Directors, The Foundation for Thailand Rural Reconstruction Movement under the Royal Patronage (June 2019 – Current)
- National Sub-Committee on Academic for Solving Air Pollution Problems, National Environment Board (January 2020 – Current)
- Expert on Economic, Social and Environmental Impact Assessment, National Science and Technology Development Agency (NSTDA) (February 2018 – Current)
- Committee on Sustainable Development, NSTDA (March 2019 Current)
- Committee on Biodiversity Management and Utilization, NSTDA (March 2019 Current)
- Committee of Drafting "Intended Nationally Determined Contributions (INDCs) of Thailand", Office of Natural Resources and Environmental Policy and Planning (April 2015 – Current)
- Member of Working Group for Driving and Monitoring the Policies of Minister, Ministry of Higher Education, Science, Research and Innovation (August 2019 – Current)
- Committee Advisor on Promoting & Supporting Professional Development to Increase People's Income, Prime Minister's Office (November 2019 Current)

# PAST POSITION

Guest Editor, Atmosphere, MDPI, Switzerland (February 2019 – December 2019)

Member of Working Group for Minister of Agriculture & Cooperatives (Aug 2018 – Jul 2019)

- Advisor of Subcommittee on Finance, Banking, Financial Institutions and Capital Market under the Committee on Economic, Monetary and Public Finance, The National Legislative Assembly (August 2018 – July 2019)
- Chairman of the Working Group for Developing Economic Tools and Indicators to Create Economic Value, Bangkok Mass Transit Authority (February 2017 – May 2019)
- Administrative Committee of Faculty of Economics, Kasetsart University (February 2017 February 2019)
- Member of Editorial Board, Kasetsart Journal of Social Science, Kasetsart University (February 2017 February 2019)
- Assistant Professor, Department of Economics, Faculty of Economics, Kasetsart University (January 2014 October 2017)
- Committee of Expert Board for Evaluation and Acceptance Program of Eco-Industrial Town, the Federation of Thai Industries (August 2016 February 2017)
- Deputy Director of Center for Applied Economics Research, Faculty of Economics, Kasetsart University (March 2013 – October 2017)
- Secretary of the Academic Committee, KU-OAE Foresight Center (Monitoring and Forecasting Agricultural Economics), jointly cooperated by Office of Agricultural Economics & Kasetsart University (April 2013 – October 2017)
- Subcommittee for Economic Evaluation, Thai Health Promotion Foundation (February 2013 September 2015)
- Deputy Head of Economics Department for Research, Faculty of Economics, Kasetsart University (January 2013 – May 2015)

- Lecturer, Department of Economics, Faculty of Economics, Kasetsart University (Jan 2003 – December 2013)
- Assistant Dean for Student Affairs, Faculty of Economics, Kasetsart University (April 2005–May 2007)

### **INTERESTED RESEARCH AREAS**

Economics related to: Environment and Resource; Climate Change; Air Pollution; Agriculture; Public Program and Policy Evaluation; Management; Land Use; Food Security; Energy

#### **JOURNALS/ ARTICLES**

- Pochanasomboon, A., Attavanich, W. and Kidsom, A., 2020. Impacts of Land Ownership on the Economic Performance and Viability of Rice Farming in Thailand. *Land*, 9(3), pp.1-21.
- Attavanich, W. 2019. Cost of Thai Society from Air Pollution and Countermeasures. *aBRIDGEd* Issue 7/2019: 1-11. Puey Ungphakorn Institute for Economic Research, Bank of Thailand
- Hein, Y., Vijitsrikamol, K., Attavanich, W., & Janekarnkij, P. 2019. Do Farmers Perceive the Trends of Local Climate Variability Accurately? An Analysis of Farmers' Perceptions and Meteorological Data in Myanmar. *Climate* 7(64): 1-21.
- Hein, Y., Vijitsrikamol, K., Attavanich, W., & Janekarnkij, P. 2019. Economic Assessment of Climate Adaptation Options in Myanmar Rice-Based Farming System. *Journal of Agricultural Science* 11(5): 35-48.
- Attavanich, W., 2018. How Is Climate Change Affecting Thailand's Agriculture? A Literature Review with Policy Update. *FFTC Agricultural Policy Platform* November:1-9.
- Brown, M.E., R.C. Carr, K.L. Grace, K. Wiebe, C.C. Funk, W. Attavanich, P. Backlund, and L. Buja. 2017. Do Markets and Trade Help or Hurt the Global Food System Adapt to Climate Change? *Food Policy* 68: 154–159.
- Attavanich, W., B.J. Schilling, and K.P. Sullivan. 2016. "Measuring the Effects of Preservation on Farm Profits in a Continuous Treatment Setting" *Applied Economics* 48(60): 5850–65.
- Attavanich, W. 2016. "Did the Thai Rice-Pledging Program Improve the Economic Performance and Viability of Rice Farming?" *Applied Economics* 48(24): 2253-2265.
- Schilling, B.J., W. Attavanich, K.P. Sullivan, and L. Marxex. 2014. "Measuring the Effect of Farmland Preservation on the Profitability of Farms." *Land Use Policy* 41: 84-96.
- Schilling, B.J., W. Attavanich, and Y. Jin. 2014. "Does Agritourism Enhance Farm Profitability?" *Journal of Agricultural and Resource Economics* 39(1): 69-87.
- Attavanich, W. and B.A. McCarl. 2014. "How is CO<sub>2</sub> Affecting Yields and Technological Progress? A Statistical Analysis." *Climatic Change* 124(4): 747-762.
- Attavanich, W., B.A. McCarl, Z. Ahmedov, S. Fuller, and D.V. Vedenov. 2013. "Effects of Climate Change on U.S. Grain Transport." *Nature Climate Change* 3: 638–643.
- Attavanich, W., B. A. McCarl, and R. Hughes. 2011. "Trade Liberalization, Climate Change Policies, and the Environment: The Growing Interaction and Impact: Discussion." *American Journal of Agricultural Economics* 93(2): 558–559.

Attavanich, W., B. A. McCarl, and D. Bessler. 2011. "The Effect of H1N1 (Swine Flu) Media Coverage on Agricultural Commodity Markets." *Applied Economic Perspectives and Policy* 33(2): 241–259.

#### **BOOK CHAPTERS**

- McCarl, B.A., W. Attavanich, M. Musumba, J. Mu, and R. Aisabokhae. 2014. "Land Use and Climate Change." In the *Oxford Handbook of Land Economics*., Eds. Duke, M. Joshua, and J.J. Wu. Oxford University Press. ISBN 978-0-19-976374-0, pp 800.
- Attavanich, W., B.S. Rashford, R.M. Adams, and B.A. McCarl. 2014. "Land Use, Climate Change, and Ecosystem Services." In the Oxford Handbook of Land Economics., Eds. Duke, M. Joshua, and J.J. Wu. Oxford University Press. ISBN 978-0-19-976374-0, pp 800.

#### **BOOK REVIEWS**

Attavanich, W., B.A. McCarl and Y. Zhang. 2009. "Mitigating Climate Change through Food and Land Use." *Worldwatch Report* 179, Worldwatch Institute.

### BOOK

- Attavanich, W., P. Kajitvichyanukul, W. Limsawart, S. Pongpiajun, N. Sirimongkonlertkun, P. Saetang and K. Sribuaiam. 2020. *Clean Air Blue Paper*, Thailand. Thailand Clean Air Network. ISBN 978-616-393-295-2 (Role: Editor and Author)
- Limsawart, W., W. Attavanich, N. Jiarakul, A. Mutchimwong, S. Pongpiajun, N. Sirimongkonlertkun and K. Sribuaiam. 2019. *Clean Air White Paper*, Thailand. Thailand Clean Air Network. <u>https://thailandcan.org/whitebook/</u> (Role: Author)
- Witsanu Attavanich. 2014. *Energy Economics*. Department of Economics, Faculty of Economics, Kasetsart University. ISBN 978-616-374-721-1, 276 Pages.
- Witsanu Attavanich. 2016. *Microeconomics I*. Department of Economics, Faculty of Economics, Kasetsart University. ISBN 978-616-423-554-0, 303 Pages.
- Witsanu Attavanich. 2017. Managerial Economics: Economic Tools for Business Decision. ISBN 978-616-440-490-8, 325 Pages.

#### WORKING PAPERS

- Attavanich, W. Social Cost of Air Pollution from Particulate Matter 2.5 Micrometers (PM<sub>2.5</sub>) in Thailand.
- Pongpiajun, S., W. Attavanich., P. Kajitvichyanukul, W. Limsawart, N. Sirimongkonlertkun, P. Saetang and K. Sribuaiam. *Clean Air Green Paper*, Thailand. Thailand Clean Air Network. Forthcoming (Role: Author)
- Attavanich, W. Social Cost of Air Pollution from Particulate Matter 10 Micrometers (PM<sub>10</sub>) in Thailand.
- Attavanich, W., Chantarat, S., Chenphuengpawn, J. Mahasuweerachai, P. and Thampanishvong, K. (2019). Farms, Farmers and Farming: A Perspective through Data and Behavioral Insights. PIER Discussion Paper No.122. Puey Ungphakorn Institute for Economic Research, Bank of Thailand

- Attavanich, W. The Effect of Climate Change on Natural Rubber Production
- Attavanich, W. Effect of Zoning Policy in Agricultural Sector on Thai Social Welfare
- Attavanich, W. and S. Pipitpakdee. Effects of Climate Change on the Production of Global Food Crops in Thailand: Implications for Food Security. (Submitted)

#### **CONFERENCE PROCEEDINGS**

- Attavanich, W., R. Mungkung, I. Mahathanaseth, S. Sanglestsawai, and A. Jirajariyav. 2016. Developing Green GDP Accounting for Thai Agricultural Sector Using the Economic Input Output - Life Cycle Assessment to Assess Green Growth. SEE 2016 in conjunction with ICGSI 2016 and CTI 2016 On "Energy & Climate Change: Innovating for a Sustainable Future" 28-30 November 2016, Bangkok, Thailand.
- Attavanich, W. 2013. The Effect of Climate Change on Thailand's Agriculture. 7<sup>th</sup> International Academic Conference Proceedings. September 1-4, 2013. Prague, Czech Republic.
   Published by International Institute of Social and Economic Sciences (IISES), ISBN: 978-80-905241-7-0: Page 23-40.
- Attavanich, W., B. Chaivichayachat, W. Kittiampanont, and R. Thammaapiroam. 2006.
   "Attitudes of Entrepreneurs and Opinions of Alumni in the Bachelor of Economics Program of Kasetsart University." *Proceedings of 44th Kasetsart University Annual Conference: Agro-Industry, Economics and Business Administration*, Bangkok, Thailand. Published by Kasetsart University: 636–643 (Thai).

#### **REFEREE FOR JOURNALS/ARTICLES**

Referee for Climatic Change; Global Environmental Change; Land Use Policy; Energy Journal; Environment, Systems and Decisions; Ecological Economics; Journal of Agricultural and Resource Economics; American Journal of Agricultural Economics; Agricultural Economics; Applied Economics; Kasetsart Journal Social Science

#### SELECTED RESEARCH PROJECTS

### 2020

- Research Project "Drafting Clean Air Blue Paper, Thailand." Funded by Thai Health Promotion Foundation.
- Research Project "Social Cost of Air Pollution from Particulate Matter 2.5 Micrometers (PM<sub>2.5</sub>) in Thailand." Funded by Department of Economics, Kasetsart University (Role: Principal Investigator)
- Research Project "Development of a Framework for Measuring Sustainable Tourism Using System of Environmental Economic Accounting (SEEA) and Tourism Satellite Accounting (TSA) in Thailand." Funded National Science and Technology Development Agency (NSTDA) (Role: Researcher)
- Research Project "Economic valuation project of the development of a prototype of water management systems based on the 3Rs of the service sector in the Eastern Economic Corridor (EEC) area"

- Research Project "The Study of Food Loss in Thailand's Agricultural Sector: Funded by Agricultural Research Development Agency (Public Organization) (Role: Principal Investigator)
- Research Project "Evaluating the Outcomes and Impacts of the Public and Private Partnership Program for Maize Production after In-Season Rice Production." Funded by the Office of Agricultural Economics (Role: Principal Investigator)
- Research Project "The Effect of Climate Change on Natural Rubber Production." Funded by Department of Economics, Kasetsart University (Role: Principal Investigator)
- Research Project "Support the Development of Agriculture Climate Change Action Plan in Thailand." Funded by the Thailand Development Research Institute (Role: Principal Investigator)
- Research Project "Blue Carbon Potentials of Thailand: Mangrove." Funded by the Thailand Research Fund (Role: Researcher)

#### 2018

- Research Project "Effect of Zoning Policy in Agricultural Sector on Thai Social Welfare" Funded by Department of Economics, Kasetsart University (Role: Principal Investigator)
- Research Project "Drafting Report on the Performance of the United Nations Convention on the Prevention of Desertification Year 2018" Funded by Land Development Department, Ministry of Agriculture and Cooperatives (Role: Principal Investigator)
- Research Project "Monitoring and Evaluation of the Implementation of the Human Development Integrated Plan in All Ages for the Fiscal Year 2017" Funded by the Ministry of Social Development and Human Security (Role: Principal Investigator)
- Research Project "Developing the Demand Driven Strategic Plan for Trading Agricultural Product for Fiscal Year 2018: Maize" Funded by Trade Policy and Strategy Office, Ministry of Commerce (Role: Principal Investigator)
- Research Project "Study of Carbon Dioxide (Co2) Emissions per unit of Value-Added indicator for Sustainable Development Goals (SDGs) in Thailand" Funded National Science and Technology Development Agency (NSTDA) (Role: Researcher)

#### 2017

- Research Project "Developing the Master Plan for the Ministry of Social Development and Human Security year 2018-2036" with T. Prakai and S. Udomwitid. Funded by the Ministry of Social Development and Human Security (Role: Principal Investigator).
- Research Project "Effects of Climate Change on Thailand's Agriculture: New Results". Funded by Department of Economics, Kasetsart University (Role: Principal Investigator).
- Research Project "Support to the Development and Implementation of the Thai Climate Change Policy: Experts on GHG mitigation options in the Thai Agriculture sector" with P. Pengthamkeerati. Funded by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH under supervision of ONEP & OAE (Role: Principal Investigator).
- Research Project "Evaluating Economic Impacts of Microorganism's Utilization Invented by National Center for Genetic Engineering and Biotechnology (Biotech)" Funded National Science and Technology Development Agency (NSTDA) (Role: Principal Investigator).

Research Project "Supporting Thailand to Integrate the Agricultural Sectors into National Adaptation Plans (NAPs)" with S. Udomwitid Funded by FAO & UNDP under supervision of OAE. Project no. UNFA/GLO/616/UND (Role: Principal Investigator).

# 2016

Research Project "Developing the Action Plan Following Industrial Zone Development Plan in 15 Provinces" with several researchers. Funded by Department of Industrial Works, Ministry of Industry (Role: Research).

#### 2015

- Research Project "Climate Change, Global Food Security, and the U.S. Food System." USDA Technical Report for the National Climate Assessment. Brown, M.E., J.M. Antle, P. Backlund, E.G. Carr, W.E. Easterling, M.K. Walsh, C. Ammann, W. Attavanich, C.B. Barrett, M.F. Bellemare, V. Dancheck, C. Funk, K. Grace, J.S.I. Ingram, H. Jiang, H. Maletta, T. Mata, A. Murray, M. Ngugi, D. Ojima, B. O'Neill, and C. Tebaldi., The United States Department of Agriculture (USDA) and the National Center for Atmospheric Research, USA (Role: Researcher) Available online at <u>http://www.usda.gov/oce/climate\_change/FoodSecurity2015Assessment/FullAs</u> sessment.pdf. (Presented at COP 21 Paris, France)
- Research Project "Natural Resource Use and Environmental Impacts of Food Systems: Regional Report on South-East Asia" with several researchers. United Nation Environmental Programme (UNEP) & International Resource Panel - Working Group. (Role: Researcher)
- Research Project "Developing the Strategic Plans of the Ministry of Social Development, and Human Security for Fiscal Years 2017-2021" with several researchers. Ministry of Social Development, and Human Security (Role: Principal Investigator).
- Research Project "Developing Master Plan for Eco-Industrial Town" with several researchers. Department of Industrial Works, Ministry of Industry (Role: Research).
- Research Project "Drafting Master Plan to Conserve and Develop Green Spaces in Bangkajao for Sustainability" with several researchers. Kasetsart University (Role: Main researcher of Faculty of Economics).
- Research Project "Evaluating the Impact of First-Time Car Buyer Program on the Environmental Cost Generated from Air Pollution in Bangkok" Department of Economics, Kasetsart University (Role: Principal Investigator).
- Research Project "Evaluating Impacts of Rice-Pledging Program on Economic Status of Thai Farmers", Thailand Research Fund (Role: Principal Investigator).

2014

- Research Project "Evaluating Impacts of Rice-Pledging Program on Economic Viability of Rice Farming in Thailand" Department of Economics, Kasetsart University (Role: Principal Investigator).
- Research Project "Green Gross Domestic Product (GDP) Accounting of Thai Agricultural Sector via Economic Input Output Life Cycle Assessment (EIO LCA) to Assess Green Growth." Mungkung, R., I. Mahathanaseth, S. Sanglestsawai, and A.Jirajariyavech. The

National Science and Technology Development Agency, Ministry of Science and Technology (Role: Researcher).

- Research Project "Risk Analysis and Management of Agri-food Products on Carbon, And Water Footprints for Value Adding, Competiveness Enhancing and Green Economy Promoting." with Mungkung, R., S. H. Gheewala, N. Chuchird, and I. Mahathanaseth (Role: Researcher).
- Research Project "Economic Evaluation of Environmental Impacts for Inland Natural Gas's Transport System." with P. Janekarnkit, I. Mahathanaseth, K. Pensupar, S. Sanglestsawai, and K. Vijitsrikamol. PTT Public Company Limited (Role: Researcher).

# 2013

- Research project "Contribution of Climate Change on Farmland Values in Thailand." Department of Economics, Kasetsart University (Role: Principal Investigator).
- Research project "Does Agritourism Enhance Farm Profitability?" with Schilling, B.J., and Y. Jin. The USDA National Institute of Food and Agriculture (Role: Co- Principal Investigator).
- Research project "The Study of Value Creation from Services of Thailand's High Speed Rail" with several researchers. Department of Creative Economy, Office of the Prime Minister (Role: Co- Principal Investigator).

# 2012

- Research project "Measuring the Effect of Farmland Preservation on the Profitability of Farms." with Schilling, B.J., K.P. Sullivan, L. Marxen. Funded by the USDA National Institute of Food and Agriculture. (Role: Researcher).
- Research project "The Effect of Farmland Preservation on Farm Profitability: Does the Extent of Farm Participation Matter?" with Schilling, B.J., K.P. Sullivan, L. Marxen. Funded by the USDA National Institute of Food and Agriculture. (Role: Researcher).

# 2011

Research project "The Effect of Climate Change on Crop Production Patterns with Implications to Transportation Flows and Inland Waterways" with Bruce A. McCarl, Stephen W. Fuller, and Dmitry V. Vedenov funded by the University Transportation Center for Mobility, Texas Transportation Institute. UTCM Project #10-54-51. (Role: Researcher).

# 2010

Research project "Quantitative Model of Iraqi Agriculture" with Siyi Feng and Bruce A. McCarl funded by Norman Borlaug Institute for International Agriculture, Texas A&M University. (Role: Researcher).

# **CONFERENCE PRESENTATIONS/ POSTERS**

- Attavanich, W. 2019. Social Cost of Air Pollution in Thailand. The 21<sup>st</sup> Thammasat-Kasetsart-Mahidol-Royal Thai Navy Academic Conference. Thammasat University, Thailand. September 6, 2019.
- Attavanich, W. 2019. Effects of the Cropland Zoning Policy on Thailand's Agricultural Sector. International Conference on "Impacts of Climate Change on Food Security, Environment

and Economy" Organized by Korea University, Kangwon National University, and Korea Rural Economic Institute, Jeju, Republic of Korea May 23-27, 2019

- Attavanich, W. 2018. The Effect of Climate Change on Thailand's Agriculture: New Results. 2018 Bruce McCarl Lecture Series. Organized by Chung-Hua Institution for Economic Research (CIER), Taiwan, May 15-16.
- Attavanich, W. 2016. "The Effect of Climate Change on Global Rice Production under Shared Socioeconomic and Representative Concentration Pathways" Selected Paper Presented at the 2016 East Southeast and South Asia Taiwan Korea Japan Agricultural Economics Conference, Taipei, Taiwan, November 5-8.
- Attavanich, W., R. Mungkung, I. Mahathanaseth, S. Sanglestsawai, and A. Jirajariyav. 2016. Developing Green GDP Accounting for Thai Agricultural Sector Using the Economic Input Output - Life Cycle Assessment to Assess Green Growth. SEE 2016 in conjunction with ICGSI 2016 and CTI 2016 On "Energy & Climate Change: Innovating for a Sustainable Future" 28-30 November 2016, Bangkok, Thailand.
- Attavanich, W. 2016. "Evaluating the Impact of the Rice Price Policy on Economic Well-Being of Farm Household in Thailand" Selected Paper Presented at the 2016 Australian Agricultural and Resource Economics Society 60<sup>th</sup> Annual Conference, The Park Hyatt Hotel, Canberra, ACT, Feb 2-5.
- Brown, M.E., J.M. Antle, P. Backlund, E.G. Carr, W.E. Easterling, M.K. Walsh, C. Ammann, W. Attavanich *et al.* 2015. "Climate Change and Global Food Security: Food Access, Utilization, and the US Food System." 2015 American Geophysical Union (AGU) Fall Meeting. San Francisco, USA. December 14-18.
- Brown, M.E., J.M. Antle, P. Backlund, E.G. Carr, W.E. Easterling, M.K. Walsh, C. Ammann, W. Attavanich *et al.* 2015. "USDA Town Hall on Climate Change, Global Food Security and the U.S. Food System Report." 2015 American Geophysical Union (AGU) Fall Meeting. San Francisco, USA. December 14-18.
- Brown, M.E., J.M. Antle, P. Backlund, E.G. Carr, W.E. Easterling, M.K. Walsh, C. Ammann,
  W. Attavanich *et al.* 2015. "Global Food Security in a Changing Climate: Considerations and Projections." 2015 American Geophysical Union (AGU) Fall Meeting. San Francisco, USA. December 14-18.
- Attavanich, W. 2014. "Evaluating Impacts of Rice-Pledging Program on Economic Viability of Rice Farming in Thailand." Selected Paper Presenting at the 14<sup>th</sup> International Convention of the East Asian Economic Association, Bangkok, Thailand. November 1–2.
- Schilling, B.J., W. Attavanich, and Y. Jin. 2013. "Does Agritourism Enhance Farm Profitability?" Selected Paper Presenting at 2013 NAREA Annual Meeting, Ithaca, NY, USA. June 22–25.
- Attavanich, W. 2013. "The Effect of Climate Change on Thailand's Agriculture." Selected Paper Presenting at the 7th International Academic Conference, Prague, Czech Republic. September 1–4.
- Attavanich, W and S. Singhapreecha. 2013. "Agricultural Sector Modeling Studies & Economy Report for Thailand" Presenting at 2013 Food Security Policy Modeling Forum, Taipei Taiwan. October 3–4.

- Attavanich, W., B.S. Rashford, R.M. Adams, and B.A. McCarl. 2012. "Land Use, Climate Change, and Ecosystem Services." Selected Paper Presenting at 2012 AAEA Annual Meeting, Seattle, WA. August 12–14 (AERE Session).
- Attavanich, W., B.J. Schilling, K.P. Sullivan, and L.J. Marxen. 2012. "Do Farmland Preservation Programs Improve the Profitability of Farming? Selected Poster Presenting at 2012 AAEA Annual Meeting, Seattle, WA. August 12–14.
- Attavanich, W., B.J. Schilling, L.J. Marxen, and K.P. Sullivan. 2012. "Measuring the Effect of Farmland Preservation Program Participation on the Economic Viability of Farms." Selected Paper Presenting at 2012 NAREA Annual Meeting, Lowell, MA. June 10–12.
- Attavanich, W. and B.A. McCarl. 2011. "The Effect of Climate Change, CO<sub>2</sub> Fertilization, and Crop Production Technology on Crop Yields and Its Economic Implications on Market Outcomes and Welfare Distribution." Selected Paper Presenting at 2011 AAEA & NAREA Joint Annual Meeting, Pittsburgh, PA. July 24–26.
- Attavanich, W., B.A. McCarl, S. Fuller, V.V. Dmitry, and A. Zafar. 2011 "The Effect of Climate Change on Transportation Flows and Inland Waterways due to Climate-Induced Shifts in Crop Production Patterns." Selected Paper Presenting at 2011 AAEA & NAREA Joint Annual Meeting, Pittsburgh, PA. July 24–26.
- Attavanich, W. and B.A. McCarl. 2011. "The Roles of Climate Change, Atmospheric CO<sub>2</sub>, and Technological Progress on Crop Yields and Their Implications on Market Outcomes and Welfare Distribution." Selected Paper Presented at 2011 CAES & WAEA Joint Annual Meeting, Banff, Alberta, Canada. June 29–July 1.

# SELECTED INVITED PRESENTATIONS

- The impact of air pollution on Thai economy and society. Meeting for consideration of "Economic Damage from PM<sub>2.5</sub>" Organized by the Economic Development Commission House of Representatives at the Parliament Building. 19 February 2020.
- The impact of air pollution on Thai economy and society. Public dialogue "Resolve the PM<sub>2.5</sub> crisis with research and innovation" organized by the National Strategy Development Committee on creating a quality of life that is environmentally friendly. National Research Office, Office of Bio-Economic Development (Public Organization), Royal Institute of Thailand, and Khon Kaen University at Chamchuri 10 Building, Chulalongkorn University. 14 February 2020.
- The effects of drought and mitigation measures: An economic perspective. In Academic Seminar on "Drought 2020 and Management Measures for Future Prevention. Organized by National Research Office and Chulalongkorn University. Bangkok. February 13, 2020.
- Climate Change and Thailand's Agriculture. Program for smart agriculture technologies and policies for the adaptation of climate change, Ministry of Agriculture, The People's Republic of Bangladesh organized by King Mongkut's University of Technology North Bangkok, Kasetsart University, Bangkok, Thailand February 13, 2020.
- Economic costs of Thai society from air pollution. Seminar In the seminar on "PM<sub>2.5</sub> and love" Kasetsart University Alumni Association under The King's Patronage. Kasetsart University, Bangkok. 11 February 2020.

- Structural Transformation in Thai Agriculture: Challenges and Solutions for Sustainability. (Keynote Speaker). 16<sup>th</sup> RSEP International Multidisciplinary Conference. The Review of Socio-Economic Perspectives (RSEP), Thailand February 4-6, 2020.
- Look at the development of Thai agriculture with a large database. Kasikorn Research Center. Kasikorn Bank (KBANK) Public Company Limited. January 31, 2020.
- Accelerating climate change adaptation with digital solutions in Thailand's agriculture. International Conference on "Digital Solutions to Accelerate Adaptation to Climate Change in Agriculture" Divecha Centre for Climate Change, Indian Institute of Science CGIAR and CCAFS Bengaluru, India. Jan 13-14, 2020.
- Particulate Matter 2.5 Micrometers (PM<sub>2.5</sub>) and Thai Social Cost. (Invited Speaker). National Conference on Air Quality in Thailand: PM<sub>2.5</sub>. Pathumwan Princess Hotel, Bangkok, Thailand. December 12, 2019.
- Agriculture and food industry in Thai context: Issues, challenges, and sustainability. (Keynote Speaker). In EC-Asia Research Network on Integration of Global and Local Agri-Food Supply Chains Towards Sustainable Food Security hosted by Regional Centre for Manufacturing Systems Engineering (RCMSE) Chulalongkorn University, The Tawana Bangkok, Bangkok, Thailand. December 10, 2019.
- Air Pollution Costs of Thai Society: An Economic Perspective. (Keynote Speaker). The 21<sup>st</sup> Thammasat-Kasetsart-Mahidol-Royal Thai Navy Academic Conference. Thammasat University, Thailand. September 6, 2019.
- Changes in the structure of the Thai agricultural sector: implications for the Bank for Agriculture and Agricultural Cooperatives (BAAC). Organized by BAAC, Bangkok, September 12, 2019.
- Economic project evaluation for land degradation management. Land Development Department. Ministry of Agriculture and Cooperatives. Nakhon Nayok province. August 28-30, 2019.
- Roundtable on the Impact of Globalization on Agriculture and the Changing Role of Private Sector Forecasting. Australian Embassy, Bangkok. June 27, 2019.
- Thai agriculture in a world of climate change. The 13<sup>th</sup> National Economist Conference (Econ Never Die). Songkhla. June 23, 2019. (Keynote Speaker)
- Climate change, public policy and the structure of the Thai agricultural sector: New knowledge in the Thai agricultural sector. Thailand Development Research Institute (TDRI). June 10, 2019.
- Climate change ... effects on agriculture and food production in Thailand. Kasikorn Research Center. Kasikorn Bank (KBANK) Public Company Limited. May 30, 2019.
- Cost of Thai Society from Air Pollution and Solutions. Invited Panel Discussion on Driving the National Strategy and Systemic Reform of the Air Pollution Management PM<sub>2.5</sub>. Organized by: The National Strategic Committee for Creating Green Growth on a Quality of Life; The National Reform Council on Natural Resources and Environment; National Research Council of Thailand; and Royal Institute. Tawana Surawong Hotel, April 26, 2019.
- Social Cost of Air Pollution in Thailand and Solutions. Panel Discussion on the topic "Is "Dirty Air" the New Normal for Once Tourist-Friendly Thailand?". The Foreign Correspondents' Club of Thailand (FCCT). Bangkok. April 10, 2019.

- Air Pollution in Bangkok: Status, Causes & Economic Effects. PIER Economic Seminar. Bank of Thailand, Bangkok. February, 11 2019.
- Global rice trade with social network analysis. with Song Soo Lim (Korea University). Brown Bag Seminar. Department of Economics, Kasetsart University. Bangkok Thailand. February 8, 2019.
- Air Pollution in Bangkok: Status, Causes & Economic Effects. (Invited Speaker) The European Union Consular Meeting. Delegation of the European Union, Bangkok. February 6, 2019.
- How Does Climate Change Affect Thailand's Food Security? (Keynote Speaker) Puey Ungphakorn Award Ceremony for the 2019 Outstanding Thai Young Economists. Bank of Thailand. March 9, 2019.
- Climate Change and Agriculture in Thailand. (Keynote Speaker). 10<sup>th</sup> RSEP International Multidisciplinary Conference. The Review of Socio-Economic Perspectives (RSEP), Thailand Jan 15-17, 2019.
- Climate change impacts and mitigation potentials in Thailand's agriculture with policy update. International Symposium on Frontier of Science, Technology and Engineering 2018 (FOSTE 2018) Northern Science Park, Chiang Mai, Thailand. November 19-22, 2018
- Mitigation Potentials of Greenhouse Gases Emission Reduction in Thailand's Agriculture Sector. Workshop Meeting under the Project of Studying Mitigation Potentials of Greenhouse Gases Emission Reduction in Thailand's Agriculture Sector. Organized by Office of Natural Resources and Environmental Policy and Planning (ONEP), Office of Agricultural Economics, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Bangkok, Thailand, June 13, 2018.
- Thailand's Climate Change Policy Update. Organized by Council of Agriculture and Chung-Hua Institution for Economic Research (CIER), Taiwan, May 17-18, 2018.
- Effects of Climate Change on Thailand's Agriculture. Organized by National Committee on Natural Resources and Environment, National Legislature and National Research Council of Thailand, Thai Parliament, Bangkok, January 30, 2018.
- Global Warming...How to Manage the Data? Organized by National Committee on Natural Resources and Environment, National Legislature and National Research Council of Thailand, Bangkok, December 20, 2017.
- Climate Change and Seed Industry. 2017. Pre-Congress Workshop in 2017 Asian Seed Congress organized by the Asia and Pacific Seed Association (APSA), Bangkok, November 13, 2017.
- Impact of the First-Time Car Buyer Program on the Environmental Cost of Air Pollution in Bangkok. 2017. Kuala Lumpur Seminar Series hosted by the World Bank's Development Research Group. Kuala Lumpur, Malaysia, April 20, 2017.
- The Impacts of Global Climate Change on Thai Economy and Industries. Deloitte Economic Update 2/2017 and Headline Topic 1/2017, Deloitte Touche Tohmatsu Jaiyos Co., Ltd., Bangkok, Thailand. May 12, 2017.
- Non-Market Valuation Techniques in Economics Used for Social and Economic Impact Evaluation. Organized by National Science and Technology Development Agency (NSTDA), Bangkok, Thailand. February 9, 2017.

- Existing International Efforts in Data Collection, Impact Assessment, and Reduction of Food Loss and Waste in APEC Region. 2016 APEC Expert Consultation on Food Loss and Waste at Retail and Consumer Levels. Taipei, Taiwan, 18-19 July, 2016.
- Did the Thai Rice-Pledging Program Improve the Economic Performance and Viability of Rice Farming? Mini-Conference on Development Economics at Puey Ungphakorn Institute for Economic Research, The Bank of Thailand, December 14, 2015.
- Effects of Climate Change on Global Rice Production. 2015 Global System Risk in Food, Energy and Finance, Hosted by Department of Food and Resource Economics Korea University, Seoul, Republic of Korea, October 29 – Nov 1, 2015.
- Natural Resource Use and Environmental Impacts Related to the Food System in Thailand. International Resource Panel - Working Group on Food Second Regional Workshop: "Natural Resource Use and Environmental Impacts of Food Systems in Southeast Asia" Jakarta, Indonesia, April 30 – May 1, 2014.
- How to Publish in a Good Academic Journal? Brown Bag Seminar. Faculty of Economics, Kasetsart University, Bangkok, Thailand, September 13, 2013.
- Tools in Economics for Analyzing Impacts in Agriculture. Office of Agricultural Economics, Ministry of Agriculture and Cooperatives. Nakhon Nayok, Thailand, December 2, 2013.
- Climate Change, Agriculture, and Transportation. Systemic Impacts of Climate on Transportation Workshop. U.S. Department of Transportation. Arlington, VA, October 11-12, 2012. (Panel Discussion).
- The Effect of Farmland Preservation on Farm Profitability: Does the Extent of Farm Participation Matter? Department of Agricultural, Food and Resource Economics, Rutgers, the State University of New Jersey, New Brunswick, NJ, October 17, 2012.
- Transportation Alternatives to Inland Waterways for U.S. Agriculture. U.S. Army Corps of Engineers Water Resources Science, Engineering, and Planning, the National Academies, Washington D.C., December 12, 2011. with S. Fuller.

# **TEACHING EXPERIENCE**

Kasetsart University, Thailand (Department of Economics) (2003 – Current) Bachelor Level: Energy Resource Economics, Principles of Micro Economics I & II, Principles of Macro Economics I, International Economics, and Quantitative Methods in Economics

- Master Level: Advanced Environmental Economics, Advanced Managerial Economics, and Seminar in Business Economics
- Ph.D. Level: Microeconomics III and Advanced Research Methods in Economics: Section of Econometrics of Program and Policy Evaluations; Selected Topics in Environmental Economics

Texas A&M University, USA (Department of Agricultural Economics)

Lecturer, Agribusiness Analysis and Forecasting: Mathematical Programming Section with Dr. James W. Richardson (Graduate Level: Spring 2010 and 2011)

Course covered linear programming, mixed programming, risk programming, and supply chain management in the context of agribusiness.

Invited Lecturer, Homeland Security - Economic Issues and Implications for Policy Design: A case study of 2009 H1N1 flu impacts (Graduate Level: Fall 2010)

#### SCHOLARSHIPS, HONORS AND AWARDS

#### International Level

2016 Abraham Lincoln Honor Award for Increasing Global Food Security for the Contributed USDA Technical Report on "Climate Change, Global Food Security, and the U.S. Food System" from the US Department of Agriculture, 2016.

#### National Level

- 2019 Puey Ungphakorn Award for the Young Thai Economist who has the outstanding academic performance awarded by Puey Ungphakorn Institute and 7 Thai prestigious academic institutions (one award given every two years)
- 2019 Outstanding Award for the Academic Services in the Field of Social Science and Humanities, Kasetsart University (one award given annually)
- 2016 Rising Star Academic Award. The Alumni Association of Economics & Business Administration, Kasetsart University
- 2015; 2017 Outstanding Award for Researcher in the Faculty of Economics, Kasetsart University who published articles in the journal with highest impact factor (two awards given annually)
- 2013 Kasetsart University Research Star (KU Research Star) Award in the Fields of Social Science and Humanities, Kasetsart University (one award given annually) (The award was provided to a university researcher under 40 years old who has the highest quantities and quality of peer reviewed journals in the fields of social science and humanities.)
- 2007-2011 Royal Thai Scholarship for Ph.D. study in Energy Policy and Economics (competitive at national level)
- 2011 AAEA Travel Grant from the Agricultural and Applied Economics Association (AAEA) (only 3 students in a university are given annually)
- 2011 Graduate Student Research and Presentation Grant funded by the Association of Former Students and the Office of Graduate Studies, Texas A&M University (competitive)
- 2010 Graduate Student Travel Scholarship from the Western Agricultural, Economics Association (WAEA) (only 5 scholarships given annually)
- 2010 Graduate Student Travel Scholarship from the Department of Agricultural, Economics, Texas A&M University (competitive)
- 2002-2003 Scholarship from KBANK Public Company Limited to Pursue Master Study at Thammasart University, Thailand (one award given annually)
- 1998-2000 Award for excellent academic record (highest GPA in class), Faculty of Economics, Kasetsart University, Thailand (one award given annually)
- 2000 Award for the student who assisted the various student's activities both Faculty and University level, Kasetsart University, Thailand (five awards given annually)
- 1999 Winner in the National Economic Competition (solving problems in Economics), the Economics Association of Thailand (one award given annually)

1999 Award for student who improved the reputation of the University to the public, Kasetsart University, Thailand

# **PROFESSIONAL DEVELOPMENT ACTIVITIES**

- Puey Ungphakorn Institute for Economic Research (PIER) Research Network, Bank of Thailand, Member 2016 present
- International Organizing Committee, 2016 East, Southeast, and South Asia, Taiwan-Korea-Japan Agricultural Economics Conference, 2016
- The Australian Agricultural and Resource Economics Society, Member, 2015-2016
- Agricultural and Applied Economics Association, Member, 2009–2012
- Association of Environmental and Resource Economists, Member, 2011-2014
- Northeastern Agricultural and Resource Economics Association, Member, 2012-2013
- Western Agricultural Economics Association, Member, 2010–2011
- Western Economics Association International, Member, 2010-2012
- Volunteer moderator in the AAEA selected paper session "Climate, Weather, and Demand" at the 2011 AAEA & NAREA Joint Annual Meeting, Pittsburgh, PA. July 24-26
- Volunteer moderator in the session "How Graduate School Prepared Me for a Career in Industry" at the 2010 AAEA, CAES, & WAEA Joint Annual Meeting in Denver, CO, July 25-27
- SAS Short Course, Texas A&M University, 2010
- Advanced GAMS course with B.A. McCarl, GAMS Corporation, 2009
- Diploma in English, Intensive English Language Institute, University of North Texas, Texas, USA, 2007

# SOFTWARE SKILLS

Excellent: GAMS, STATA, RATS, R, ArcGIS, Excel, Word, and PowerPoint

Good: Visual Basics, SPSS, ACCESS, SAS

# LEADERSHIP

President of the Texas A&M University Thai Student Association, 2009-2010

- Vice President of the 4<sup>th</sup> Kasetsart University's Employee after University's Privatization, 2004–Current
- Volunteer Member of Committee for the Cultural Display Division for "the International Week" Student Activity. Texas A&M University, 2010
- Vice President of the 40<sup>th</sup> Economic Student Group, Department of Economics, Faculty of Economics, Kasetsart University, 1997-2001