

**Special Lecture**  
**Climate Change, Food Security, and Food Safety**  
*: Economic, Social and Environmental Implication*

15 February – 5 March, 2010

2 Credits

**Lecturers:**

**Dr. Vute Wangwacharakul** Associate Professor,  
 Department of Agricultural and Resource Economics,  
 Faculty of Economics,  
 Kasetsart University

**Dr. Kamol Ngamsomsuke** Assistant Professor,  
 Department of Agricultural Economics and Agricultural Extensions,  
 Faculty of Agriculture,  
 Chiang Mai University

**Dr. Mitsuyasu Yabe** Associate Professor,  
 Department of Agricultural and Resource Economics,  
 Faculty of Agriculture,  
 Kyushu University

**Dr. Pepijn Schreinemachers** Research Coordinator,  
 Department of Land Use Economics in the Tropics and Sub-tropics,  
 University of Hohenheim

**Lecture Schedule:**

Class	Theme	LECTURER	DATE	TIME	ROOM
Part 1.	The introduction part will overview the food security issue and linking it to climate change development in recent years. Part two will review climate change aspect, including causes and consequences (scientific aspects of climate change). Part three will introduce economic aspects of climate change and food security, globally and nationally, long-term and short-term (theories and practices). Part four will discuss the policy responses to climate change and recent development of climate change negotiation (political economics).	Dr. Vute	15Feb. (Mon)	9:30- 12:00	Room 2, 21st Century Plaza
			15 Feb. (Mon)	13:00- 15:00	
			16 Feb. (Tue)	9:30- 10:30	
Part 2.	The introduction topic will start with the discussion on the effects of climate change on food safety. The second topic will review economic, social and environmental impacts resulted from unsafe food. The third topic will cover various strategies for	Dr. Kamol	16 Feb. (Tue)	13:00- 15:00	

	<p>tackling the impacts of climate change on food safety. Model for analysis of consumer preferences and willing to pay for food safety will be extensively discussed. An intensive discussion will be paid on the use of conjoint analysis for the study of consumer preferences and willingness to pay for food safety. Some case studies will be presented and used for discussion. The last topic will highlight the applications and policy implications derived from the consumers' preferences analysis on food safety.</p>		17 Feb. (Wed)	9:30-12:00
			17 Feb. (Wed)	13:00-14:00
Part 3.	<p>Bio-ethanol production is important issue to decrease the emission of green house gasses. So how much should we support and increase domestic bio-ethanol production, especially in Japan. This lecture focuses on bio-ethanol and estimates the appropriate subsidy for domestic production in Japan. Firstly, policy for climate change and bio-fuel issue is overviewed. Secondly, the strong and weak points of many environmental economic methods are reviewed. Thirdly, the contingent valuation method was used to estimate additional willingness to pay for domestic bio-fuel with an increased price for gasoline by a decrease of disposal income. Fourthly, the relative value of gasoline price and subsidies for domestic production of bio-ethanol were estimated by choice modeling and the subsidy for domestic production of bio-ethanol calculated based on these results. Lastly, we discuss the policy implication of this study.</p>	Dr. Yabe	23 Feb. (Tue)	9:30-12:00
			23 Feb. (Tue)	13:00-15:00
			24 Feb. (Wed)	9:30-10:30
Part 4.	<p>How might changes in climate affect crop output and how can farmers respond to it by adjusting their land use? Simulation models of land use change can address such questions by using scenarios to compare alternative assumptions about climate change. This lecture will focus on models of agricultural land use change in which land use decisions are endogenous and responsive to changes in agro-ecological conditions. The lecture will discuss the advantages and constraints of various modeling approaches, including representative farm models, bio-economic models, and agent-based models. Students will learn scrutinizing the assumptions underlying these models. They will also learn that the predictive power of most modeling approaches is rather low because of the great uncertainties in the variables involved (including rainfall, temperature, input and output prices, and technologies). Yet with respect to climate change, a well-informed guess might still be better than no clue at all.</p>	Dr. Pepijn	4. Mar. (Thu)	9:30-12:00
			4. Mar. (Thu)	13:00-15:00
			5. Mar. (Fri)	9:30-10:30