

### 2.6.3 Laboratory : Regional Environmental Economics

Member:	Professor	Kagatsume, Masaru
	Senior Lecturer	Shen, Jinhu
	Doctor's program	6
	Master's Program	6
	Undergraduate	5
	Other	2
	Researcher	1

#### **A. Research Activities (2009.4-2010.3)**

##### **A-1. Main Subjects**

###### **a) Systematization of research & education field of regional environmental economics**

Research on the interrelation between environmental resources conservation and agro-forest activities in various areas in the world, such as interactions between sustainable rural development & environmental resources constraints in global level. These research areas contain both theoretical and empirical approaches for fields of national resources accounts, social account matrix and regional input-output analysis as well as international trade of food & resources etc.

###### **b) Effects of Economic Integration in Asia-Pacific regions on Agricultural Trade of EU and APEC Countries**

This research conducts a positive analysis on effects of regional economic integration, such as trade and investment liberalization in APEC countries, on the international market of agricultural commodities and the regional environments.

###### **c) Agricultural Restructuring and Environmental Issues after the introduction of market mechanism in CEEC**

Having experienced transition from the central planned economic system to the market economic system since late 1980s, some central and east European countries began to prepare for joining into the EU now. However, in this process, agricultural structures have dynamically changed and serious environmental issues have occurred. A joint research has been conducted on the current situation and these problems.

###### **d) The International Effects of Foreign Direct Investments by Japanese Food Industry**

In addition to the liberalization negotiation, TPP(Trans-Pacific Strategic Partnership Agreement) has begun to be argued recently and Japanese food & agricultural sectors are required to shift towards the more open economy system. Under these situations, the foreign direct investment (FDI) by Japanese Food Firms has been increasing. This research project investigates the economic impacts of these trends on the international market and Japanese Agriculture.

e) Estimation of the Waste Input Output Table for promoting the resource recycling sustainable rural industries.

In the traditional Input-Output tables, the rows of the waste emission as the byproducts of the productive goods and the columns of the waste desposition (i.e. the “vein” sectors ) are added outsides the endogenous parts of the interactive relations among the sectors (i.e. the “artery” sectors ) and the rows of the environmental effects are added below the value added sectors . This table is called “waste input-output” table (WIO). By this WIO table, the economic and environmental effects of promoting the resource recycling sustainable rural industries are investigated in this study.

f) Evaluation of Environmental & Economic Effects of "Grain for Green" and "Ecological Emmigration Policy"

The "Grain for Green" project has been adoped as one part of Western Districd Developing Scheme" in China. This projects correspond to the CRP (Conservation Reserve Program) in USA and try to return the cropland in less favored areas to the forest or grassland etc in order to prevent environmental degradation. This research investigates the environmental & economic effects of "Grain for Green" Projects and Ecological Emmigration policy which has been adopted together with the former project.

## **A-2.Publications and presentations**

a) Publications

### Books

- Masaru KAGATSUME, "Canola Project as the Rural Resource Recycling and Regional Revitalization", edited by Dr Souki, Economic Development and Environmental Protection in Northern Districts of China, Inner Mongolia Science and Technology Publisher, pp321-345, July, 2009

- Huang Yu, Gensuo, Shunji Oniki and Masaru Kagatsume, "Specifying Factor Analysis on incoims of dairy farmers in Saihan District", in the book edited by Gensuo, Tufrin, Oniki Shunji, Hiroshi Komiyama, "Study on the development of sustainable pasture system in the arid areas of Northeast Asia", InnerMongolia Science & Technology

Publisher, pp180-193, Jan 2009

- Bao Xijiri, Gensuo, Shunji Oniki, Masaru Kagatsume et al., "Study on the Factors influencing the Grassland Use Type of the Nomads", in the book edited by Tofrin, Shunji Oniki & Hiroshi Komiyama, "Study on the development of sustainable pasture system in the arid areas of Northeast Asia", InnerMongolia Science & Technology Publisher, pp208-220, Jan 2006

- Paula ROSSI, Masaru KAGATSUME and Maurizio PROSPERI, "Impact of export control policy measures in solving Argentina's inflation", International marketing and trade of quality food products, (Chap 7, Part 1, pp115-128) edited by: Maurizio Canavari, Nicola Cantore, Alessandra Castellini, Erika Pignatti and Roberta Spadoni, Wageningen Academic Publishers, The Netherlands, 2009, 347 pages, hardback

#### Original Papers

- Masaru KAGATSUME, "How Did Historical Droughts change the Agricultural Economy in Australia ?", in Journal "Future of the earth from the viewpoint of regional environmental informations---nature and human Being---the history of communication and disturbance---", SEEDER, No.1, pp32-41, Dec 2009, Shouwadou

- Masaru KAGATSUME, "Agricultural Environmental Issues and Intra-industry Trade in the East Asia Community Concept", The Natural Resource Economics Review, No.14, pp43-63, March 2009

- Masaru KAGATSUME, "Characteristics of Agricultural Policy in Australia and Its Future Prospects", Hokkaido Journal of Agricultural Economics, Vol.14, No.2, pp1-17, Feb 2009

- ZHANG Hong-xia, Yu Jin, Masaru Kagatsume, Shunji Oniki, "An Empirical Analysis on Consumption Structure of Rural Residents in Northern Shaanxi after The Implementation of The Policy of Returning Farmland to Forests--Based on the investigation of 205 farmers in Linyou, Ansai, Mizhi County", Rural Economy, Vol.25(No.2), 2009, pp90-93

- Paula ROSSI and Masaru KAGATSUME, "Beef Export Restrictions in Argentina: Impact on the Beef Industry and National Welfare", International Journal of Food, Agriculture & Environment", Vol.7, No.2, pp122-130, 2009

- Tetsuji SENDA and Masaru KAGATSUME. "Simulation Analysis on the Consumption Pattern of Chinese Farmers", Research Paper for the Grant on Food Life Science, Culture and Environments, No.23, pp199-208, 2010

#### Reports

- Masaru KAGATSUME, "Trend of Foreign Direct Investment by Japanese Food & Agricultural Firms and Its Specifying Factors---Approach by Qualitative Selection Model (Tobit model), etc---", An Empirical Analysis on the Food and Agricultural Company's FDI, Intra-industry Trade and the Impacts on Japanese Agriculture (The report of granted research by Policy Research Institute, Ministry of Agriculture, Forestry and Fisheries, Project Leader: Masaru Kagatsume ), March 2010、pp1~26.
- Masaru KAGATSUME, "Applied General Equilibrium Analysis on the International Effects of Foreign Direct Investment Activities by Japanese Food Firms ", An Empirical Analysis on the Food and Agricultural Company's FDI, Intra-industry Trade and the Impacts on Japanese Agriculture (The report of granted research by Policy Research Institute, Ministry of Agriculture, Forestry and Fisheries, Project Leader: Masaru Kagatsume ), March 2010、pp27-46
- Masaru KAGATSUME, "Food crisis is avoidable---overcome by human efforts---", Kyoto University Newspaper, p7, Jan 9, 2009
- Shen, Jinhu, "The Trend and Area Distribution, Capital Share's Changes of Japanese Food Company's FDI in China", An Empirical Analysis on the Food and Agricultural Company's FDI, Intra-industry Trade and the Impacts on Japanese Agriculture(The report of committed research by Policy Research Institute, Ministry of Agriculture, Forestry and Fisheries, Project Leader: Masaru Kagatsume ), March 2010、pp.69~94。

b) Conference and seminar papers presented

- Masaru KAGATSUME, "Asia Pacific Community Concept and Sustainable Economic Growth in the Developing Countries", Japan International Regional Development Association, Mahoroba hall, Kinki University, Nov 28, 2009
- Masaru KAGATSUME, "Food & Resource Trade and Environmental Issues under the Australia-Japan FTA and Asia Pacific Community Concept", International Research Workshop, University of New South Wales, Australia, 18 to 20 February 2009
- Masaru KAGATSUME, "Australia's Environmental Resource Issues and Japan-Australia Relations", Australian Studies Association in Japan, Aoyama-Gakuin University, June 14, 2009
- Masaru KAGATSUME, "Food & Resource Trade and Environmental Issues under the East-Asia Community Concept", for the session "Land Cover and Land Use Changes in North East Asia: Problems of Sustainable Nature Management", by International Geographical Union Commission on Land Use/Land Cover Change, Russian Academy of Sciences, Far Eastern Branch, Pacific

Geographical Institute, 6-12 September, 2009

- Shen Jinhu, "The Income inequality and the Environmental deterioration Problems in China: A Big Challenge to become a Matured Modern Country to China" presented in the Chinese Economy Seminar by Shanghai Center of Kyoto University, May 17, 2009.

### **A-3.Off-campus activities**

#### Membership in academic societies

- Kagatsume, Masaru : Oceanian Economics Studies Association (President), Australian Studies Association of Japan (Director), The Agricultural Economics Society of Japan, The Farm Management Society of Japan, Pan Pacific Association of Input-Output Studies, The Japan Society for International Development, The Society for Environmental Economics and Policy Studies, Japanese Society of Behavioral Medicine, The Association for Regional Agricultural and Forestry Economics, Japanese Society of Agricultural Informatics, The Institute of Life Cycle Assessment, Japan

- Shen Jinhu : The Association for Regional Agricultural and Forestry Economics(Regular Director)

#### Research grants

##### 1. Grants-in-aid for Scientific Research(KAKENHI)

- Basis Research B2 : Masaru KAGATSUME : Agricultural Restructuring under the Development of Free Trade Agreement and International Comparison of Environmental Direct Payment System

##### 2.Other Research Grants

- Entrusted Research Project for Agriculture, Forestry and Fisheries Policy Science (2009-2011):Masaru KAGATSUME: Positive Analysis on the Impacts of Development Import by Food & Agricultural Firms and Intra-Industry Trade on Japanese Agriculture

### **A-4.International cooperation and overseas activities**

#### Membership in academic societies

- Masaru KAGATSUME: International Association for Agricultural Economists, The International Input Output Association

#### International meetings(country.roles)

- Masaru KAGATSUME: International Research Symposium on Land Use and Land Cover Change (LUCC):(Coordinating Committee Member : Oral Presenter at the Far East Russian

Symposium)

"Food & Resource Trade and Environmental Issues under the East-Asia Community Concept", for the session "Land Cover and Land Use Changes in North East Asia: Problems of Sustainable Nature Management", by International Geographical Union Commission on Land Use/Land Cover Change, Russian Academy of Sciences, Far Eastern Branch, Pacific Geographical Institute, 6-12 September, 2009

International joint research, overseas research surveys

- "Simulation Analysis on the Consumption Pattern of Chinese Farmers", Tetsuji SENDA, Shānxī Province, Dept of Agriculture, Shānxī Agricultural University, (Asahi Beer Academic Promotion Foundation, Research Grant for Sustainable Socio-Economics Division), May 17-28, 2009
- "Agricultural Restructuring under the Development of Free Trade Agreement and International Comparison of Environmental Direct Payment System"
- "Behavioral Economic Research on Hybrid Type Poverty Reduction Strategy in Asian Rural Villages"
- "Impacts Prediction of and Adaptation Strategy for Climate Fluctuation by the Asia Agriculture Model"
- "Positive Analysis on the Impacts of Development Import by Food & Agricultural Firms and Intra-Industry Trade on Japanese Agriculture"
- "Food & Resource Trade and Environmental Issues under the Australia-Japan FTA and Asia Pacific Community Concept"

Visiting Research Scholars

- Name Zong YI-XIANG (China)
- Title Researcher
- Organization Hebei Agricultural University, Associate Professor.

**B.Educational Activities(2009.4-2010.3)**

**B-1.On-campus teaching**

a) Courses given

- Undergraduate level: Resource & Environmental Economics (Kagatsume), Agricultural & Forestry Statistics (Kagatsume), Resource and Environmental Analytics (Shen), Basic Sociology & Economics for Agriculture (Shen and Adachi), Seminar in Resource & Environmental

- Economics I, II, III (Kagatsume, Shen), Outline of Natural Resource Economics (Kagatsume, 2 other professors), <Common subjects for all departments:> Worldwide Food, Agriculture and Environment (Kagatsume, 2 other professors), Basic Information Processing Method (Shen)
- Graduate level: Regional Environmental Economics I, II (Kagatsume), Advanced Seminar in Regional Environmental Economics I, II (Kagatsume, Shen), Rural Resources Economics (Shen)

## **B-2.Off-campus teaching etc.**

### Part-time lecturer

- Masaru KAGATSUME: Outemon Gakuin University, Food Economics, Australia's Rural Industrial Policy
- Masaru KAGATSUME: Junior College, Toyama Prefectural University, Environmental Economics

## **B-3.Overseas teaching**

### International students

- International students : Master 2 (China) Doctral 6 (China 3, Argentina 1, Nigeria 1, Mali 1) Research Students 2 (China 1, Bolivia 1)

### Special Lectures by the Invited Overseas Researchers

- Theme: "Payment for Ecosystem Services: Economic Principles and Political Realitie"

Lecturer: Dr Junjie Wu (Professor, Oregon State University, USA)

Date: May 11, 2009

Venue: Conference Room No3 (E020)

- Theme: "Toward Sustainable Development of Mountainous Regions--Lessons from Southeast Asia--"

Lecturer: Dr. Andreas Neef

(Associate Professor, Agricultural Resource Department, Hohenheim University, Germany)

Date: July 31, 2009, 15:00-18:00

Venue: Conference Room, No1

**C.Other Remarks**

- Masaru KAGATSUME :Kansai New Zealand Center, (Director General), Incorporated association, Agricultural Development and Training Center, (Councilor), "Enhancement Project of Rural Industry Research based on Edge-cutting Technologies", Research Project Evaluation Council (Committee Member), "Practical Technology Development Project promoting the New Rural Industry Policy", Research Project Evaluation Council (Committee Member)