# Chair International Agricultural Economics

# 2.6.3 Laboratory: Regional Environmental Economics

Member: Professor Kagatsume, Masaru

Associate Professor Shen, Jinhu

Doctor's program 7
Master's Program 11
Undergraduate 1

# **A. Research Activities (2010.4-2011.3)**

### 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 Emigration 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 Emigration policy which has been adopted together with the former project.

### A-2.Publications and presentations

a) Publications

Original Papers(including book-reviews)

- Masaru KAGATSUME, "Environmental Resource Issues in Australia and the Relations with Japan", Journal of Australian Studies, Vol.23, pp1-5, March 2010, Australian Studies Association of Japan, (peer-reviewed)
- Masaru KAGATSUME, "Determining Factors for Foreign Direct Investment by Japanese Food and Agricultural Companies --- An Approach by the Application of Tobit Model and Field Survey in Liaoning and Jiangsu Provinces in China ---", The Natural Resource Economics Review, No.15, pp17-40, March, 2010, (peer-reviewed)

- Shunji ONIKI, Masaru KAGATSUME, SHUANSXI, GENSUO and Tomoko KINUGASA, "The Farm Income and the Efficiency of Ecological Resettlement in Inner Mongolia, China", Journal of International Development Studies, Vol.19, No.2, pp87-100, Nov. 2010, The Japan Society for International Development, (peer-reviewed)
- Tetsushi SENDA and Masaru KAGATSUME, "Simulation Analysis on the Consumption Pattern of Chinese Farmers", Research Grant Journal for Food Life Science, Culture and Environment, Vol.23, pp199-208, 2010, (peer-reviewed)
- Shen, Jinhu, "Globalization, Declining Populations and the FDI of Japanese Food Industry: Focus on the Trends, Geographical Distribution and the Capital Rate Changes of the Concerned Local FDI Food Corporations in China", The Natural Resource Economics Review, No.16, March 2011, pp.55 ~74., (peer-reviewed)
- Shen, Jinhu, "Book Review about S.P.Yan, Rural-Urban Migration in China", Journal of Rural Problems, Vol. 46, No. 3, Dec. 2010, pp. 32 ~ 33.

### Reports, others

- 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
- Tetsushi SENDA and Masaru KAGATSUME, "Family Demand Structure in Chinese Rural Community and Its Changes -- Analysis by Panel Data ---", Report for Research Grant by Asahi Beer Company, 2010
- Masaru KAGATSUME, "Agricultural Policy and Trends of Grain Markets after Serious Droughts in Australia --- Impacts of Climate Change in Asia Pacific area on Food Markets---", Part 2, Chapter 10, in Prediction of Climate Change by Asian Agricultural Model and the Adaptation Strategy, Report for Grants-in-Aid for Scientific Research (B) No.19310027, Research Head: Mitsuhiro NAKAGAWA, pp91-109, March 2011
- Masaru KAGATSUME, "Australia-China FTA Negotiation and Its Effect on both countries' Food Economy", Part 2, Chapter 11, in Prediction of Climate Change by Asian Agricultural Model and the Adaptation Strategy, Report for Grants-in-Aid for Scientific Research (B), No.19310027, Research Head: Mitsuhiro NAKAGAWA, pp110-129, March 2011

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h	) Conference	and seminar	naners	nresented
U.		and schinnar	papers	prosented

<ul> <li>Masaru KAGATSUME,</li> </ul>	"Bio Fuels and Food Issues	Trial for the Sustainable Soc	ciety "
Presentation at Environme	ental Science Center, Toyama	a Prefecture, Dec 2, 2010	

- Masaru KAGATSUME, "Waste Input-Output Table and Its Application", Lecture for the Research Seminar at Environmental Science Center, Toyama Prefecture, Dec 3, 2010
- Masaru KAGATSUME, "How to Teach the Resources and Environmental Issues", Presentation for the Education Symposium at Australia Research Institute, Outemon Gakuin University, Nov 27, 2010
- -Yumi HATANO, Masaru KAGATSUME, Makiko TSUKUI and Takumi ICHIKAWA, Economic and Environmental Evaluation of Food Recycling Activities by Kyoto Prefecture Waste Input-Output Table", presentation at the 21st Annual Conference of Pan Pacific Association of Input-Output Studies, Nagasaki University, Nov. 30-31, 2010
- -Takumi ICHIKAWA, Masaru KAGATSUME, Makiko TSUKUI and Yumi HATANO, "Impacts Evaluation of Energy Saving policy by Kyoto Prefecture Waste Input-Output Table", presentation at 5th Annual Conference of The Institute of Life Cycle Assessment, Japan, Yokohama Campus of Tokyo City University, March 5, 2010
- -Takumi ICHIKAWA, Masaru KAGATSUME, Makiko TSUKUI and Yumi HATANO, "Impacts Evaluation of Energy Saving policy by Kyoto Prefecture Waste Input-Output Table", presentation at 6th Annual Conference of The Institute of Life Cycle
- -Shen Jinhu, "Changing Rapidly on the Soybean Market and the Wrong Policy Response: An Analysis on the Marketing and Policy Background about the Surge of Soybean import in China" presented at the Research Conference of the Association for Regional Agricultural and Forestry Economics, Oct.23,2010.

# A-3.Off-campus activities 1

Membership in academic societies

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

# A-3.Off-campus activities 2

### 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
- Basis Research C2 : Shen Jinhu : Study on the Status quo and Future Trends of Chinese Soybean Market: by A Comparative Study With Japan
- 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 1

Membership in academic societies

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

# International meetings(country,roles)

- Masaru KAGATSUME: Economic Impact of Japan's Food and Agricultural FDI on Worldwide Recipient Countries, ,13th Annual Conference on Global Economic Analysis "Trade for Sustainable and Inclusive Growth and Development", Penang, Malaysia, June 9-11, 2010,

#### International joint research, overseas research surveys

-Masaru KAGATSUME、"Agricultural Restructuring under the Development of Free Trade Agreement and International Comparison of Environmental Direct Payment System", Research Head: Masaru KAGATSUME, Grants-in-aid for Scientific Research (B), <Malaysia June 7-13, 2010> <China, Northwest Agricultural & Forest Science/Technology University, July 25-29>, <Russia & China, Sep 11-26, 2010>

- -Masaru KAGATSUME, "Positive Analysis on the Impacts of Development Import by Food & Agricultural Firms and Intra-Industry Trade on Japanese Agriculture", Masaru KAGATSUME, (Entrusted Research Project for Agriculture, Forestry and Fisheries Policy Science), <Thailand, ChiangMai University & Kasetsart University, Aug. 22-26, 2010>, <Australia, Australian National University, UNSW etc & China, Shanghai Academy of Agricultural Sciences, Northwest Agricultural & Forest Science/Technology University, Feb 23-28, 2011>
- -Masaru KAGATSUME、"Prediction of Climate Change by Asian Agricultural Model and the Adaptation Strategy", Grants-in-Aid for Scientific Research (B), No.19310027, Research Head: Mitsuhiro NAKAGAWA, <China, Shanghai Academy of Agricultural Sciences, Dec 24-31,>
- -Masaru KAGATSUME, "Research on current situation and future trend of Soybean market and related industries in China", Research Head: Shen JINHU, Grants-in-aid for Scientific Research (C), <China, Jan. 27-31, 2011>
- -Masaru KAGATSUME, "Econometric Study on Development, Utilization and Conservation of Local Common Resources and Promotion of Environment Friendly Rural Industries System", Research Head: Masaru KAGATSUME, Grants-in-aid for Scientific Research (Challenging Exploratory Research), <China, March 3-9, 29-31, 2011>
- -Masaru KAGATSUME, "Food & Resource Trade and Environmental Issues under the Australia-Japan FTA and Asia Pacific Community Concept", Research Head: Masaru KAGATSUME, Joint Research as Research Fellow in Faculty of Economics,
- -Shen Jinhu, Study on the Status quo and Future Trends of Chinese Soybean Market: by A Comparative Study With Japan, Shen Jinhu, China, Nanjing Agricultural University, Jilin Agricultural University, Anhui Agricultural University <Sep 11-22,2010. Nov.20-27,2010>
- -Positive Analysis on the Impacts of Development Import by Food & Agricultural Firms and Intra-Industry Trade on Japanese Agriculture, Research Head:Masaru KAGATSUME, Entrusted Research Project for Agriculture, Forestry and Fisheries Policy Science,<China, Shanghai Academy of Agricultural Sciences, Nanjing Agricultural University, Feb 28-March 8,2011>

**B.Educational Activities**(2010.4-2011.3)

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

a) Courses given

- Undergraduate level: Resource & Environmental Economics (Kagatsume), Agricultural & Forestry

Statistics (Kagatsume), Resource and Environmental Analytics (Shen), Foreign Food & Environmental Economics I(Shen), 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: Otemon Gakuin University, Dept of Economics and all other Departments,, Food Economics, Australia's Rural Industrial Policy
- Masaru KAGATSUME: Junior College, Toyama Prefectural University, Environmental Economics

### **B-3.**Overseas teaching 1

# International students

- International students: Master 4 (China 3, Bolivia 1) Doctral 4 (China 3, Argentina 1)

### B-3.Overseas teaching 2

#### Lectures and seminars

- Shen Jinhu

The Problems of Income Inequality & Environmental Degradation and Their Political Causes in China (Lecturer): School of Economics and Management, Anhui Agricultural University(China)

### **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)