

Next-generation Circular Bio Economy Symposium

Celebration of the 70th Anniversary of Friendship between Japan and Cambodia

Royal University of Agriculture

Phnom Penh

February 2024

Date: February 2 (Fri), 2024

Time: 10:00 ~ 16:45

Venue: Samdech Akka Moha Sena Padei Techo Hun Sen Hall,
Faculty of Agronomy, Royal University of Agriculture, Dangkor District,
Phnom Penh, Cambodia

Hosted by

Royal University of Agriculture, Cambodia

General Directorate of Agriculture, MAFF, Cambodia

Nagoya University

International Center for Research and Education in Agriculture

Center for Low-temperature Plasma Sciences

Center for Asian Legal Exchange

Graduate School of Bioagricultural Sciences

Graduate School of Engineering

Asian Satellite Campuses Institute



Nagoya University
Asian Satellite Campuses Institute



Nagoya University
Graduate School of Bioagricultural Sciences
School of Agricultural Sciences



低温プラズマ科学研究センター
Center for Low-temperature Plasma Sciences, Nagoya University

School of Engineering /
Graduate School of Engineering
Nagoya University

Co-organized by

IRRI-Cambodia Liaison

Nagoya University Interdisciplinary Frontier Fellowship

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Satake Corporation

Japan Embassy in Cambodia

Japan Intellectual Support Network in Agricultural Sciences
(JISNAS)

Kota Town, Aichi Prefecture



Food and Agriculture
Organization of the
United Nations



Embassy of Japan in Cambodia



SATAKE



幸田町
Kota Town



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Background and Objectives

Cambodia's primary industry production has increased dramatically in recent years, ranking 10th in the world in case of rice production, and its position in the international market has increased to 9th in the world in terms of milled rice exports. However, even with such rapid progress in rice production, there are still many issues. For example, approximately 70% of rice is produced under rain-fed conditions due to the lack of irrigation development, and so measures to stabilize rice cultivation are highly needed. On the other hand, there are also high hopes for improving the quality of agricultural products domestically and internationally. Towards such improvements in quantity and quality, there are challenges such as a shortage of supplies of fertilizers and other materials due to climate change and unpredictable changes in the international social situation, as well as social needs of a shift to sustainable and circular cultivation technologies.

In this aspect, Nagoya University has been closely collaborating with a number of Cambodian government offices and agencies, universities, and private enterprises and international NGOs that are operating in Cambodia over the last two decades or longer. As a result, Nagoya University has established extensive and intensive networks and created a platform for interdisciplinary interactions among people from various sectors.

By utilizing such networks and the platform, we hold this symposium to deepen our understanding about the current situation surrounding ASEAN countries and east Asian countries and provide information on the progress of Cambodian primary industries in recent years and efforts to resolve various issues mentioned above. Through our collaboration, we will demonstrate the emerging technologies and systems of Next-generation Circular Bio Economy, and discuss measures to deploy them for social implementation, and aim to contribute to strengthening the green agri-bioeconomy targeting 2030 and 2050 taking into account the Royal Government of Cambodia – Pentagonal Strategy.

Scope of Symposium

Cambodian and Japanese experts from their governments, academia, private sectors and international organizations that have collaborated long for joint research projects and programs will share information on recent developments in Cambodian primary industries and their efforts to solve mounting challenges related to climate change and unpredictable changes in the international social situation with promotion of agricultural practices towards sustainable production. The symposium aims to discuss prospects and specific measures for strengthening the agri-bioeconomy taking into account the Royal Government of Cambodia – Pentagonal Strategy:

- Human Capital Development
- Economic Diversification and Competitiveness Enhancement
- Development of Private Sector and Employment
- Resilient, Sustainable and Inclusive Development
- Development of Digital Economy and Society

Who should attend

- Scientist, Researchers, University and Academics
- Private sector and Business practitioner
- Government institutions, International organizations and Policy makers
- Non-Government organization

Organizing Committee

Chair: NGO Bunthan, RUA Rector

Vice Chairs: MIZUTANI Norimi, NU Vice President

NGIN Chhay, MAFF GDA DG

Members: EHARA Hiroshi, NU ICREA Director

ISHIKAWA Kenji, NU CLPS Semiconductor Processes Division Head

MIYAZAKI, Seiichi, NU GSE Dean

MURAKAMI Masako, NU CALE Director

NAKAZONO Mikio, NU GSBS Dean

NOGV Penghuy, NU ASCI-Cambodia Director

YAMAUCHI Akira, NU ASCI Director

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Chair: HUON Thavrak, RUA Vice Rector

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EHARA Hiroshi, NU ICREA Director

Secretaries: BUNTONG Borarin, RUA Director of Research and Extension

SRUN Khema, GDA Crop Seed Crop Department Deputy Director

Treasurer: CHIBA Sotaro, NU GSBS Associate Professor

Members: OHKURA Satoshi, NU GSBS Vice Dean

KONG Kea, GDA Rice Department Director

PINN Thira, RUA Head of PICO

SURIYASATHAPORN Witaya, NU ASCI-Cambodia Designated Professor

RIN Soriya, NU ASCI-Cambodia Designated Assistant Professor

FUKUI Tatsuko, NU ASCI-Cambodia Project Assistant

ITO Kasumi, NU ICREA Associate Professor

NAKAMURA Sho, NU ASCI-GSBS Designated Associate Professor

HATCHO Junko, NU ASCI-headquarter Designated Supervisor

OKADA Naoko, NU ASCI-headquarter Leader

RUA: Royal University of Agriculture

GDA: General Directorate of Agriculture, Ministry of Agriculture, Forestry and Fisheries

NU: Nagoya University

ICREA: International Center for Research and Education in Agriculture

CLPS: Center for Low-temperature Plasma Sciences

GSE: Graduate School of Engineering

CALE: Center for Asian Legal Exchange

GSBS: Graduate School of Bioagricultural Sciences

ASCI: Asian Satellite Campuses Institute

PICO: Planning and International Cooperation Office

PROGRAMME

Opening Ceremony 10:00 ~ 11:00

MC: Dr. SOEUNG Rasmey (RUA)

Welcome Remark	Professor Dr. NGO Bunthan <i>Rector, Royal University of Agriculture of Cambodia</i>
Speech on purpose of the symposium	Prof. Dr. YAMAUCHI Akira <i>Director, Asian Satellite Campuses Institute, Nagoya University</i>
Remark	<i>Royal University of Phnom Penh Royal University of Law and Economics JICA Cambodia Office Embassy of Japan in Cambodia FAO</i>
Opening Remark	H.E CHAN Phaleun, Vice Secretary of State, MAFF

Keynote Session 11:00 ~ 12:00

Chair: Prof. OHKURA Satoshi (NU) & Dr. SOEUNG Rasmey (RUA)

Keynote Lecture	Dr. SAITO Kazuki <i>Senior Scientist, Cropping System Agronomy and Climate Change, International Rice Research Institute</i> “History and Progress in Rice Research and Its Future Perspective in Cambodia”
Keynote Speech	Dr. NGIN Chhay <i>Director General, General Directorate of Agriculture, Ministry of Agriculture, Forestry and Fisheries, Cambodia</i> “The 5th and 6th Priority Policy Programs for Agriculture”

Lunch 12:00 ~ 13:00

Session [1] 13:00 ~ 14:15

Chair: Prof. SURIYASATHAPORN Witaya & Dr. RIN Soriya (NU)

Theme 1	Human Capital Development 13:00 ~ 13:15
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	<p>Prof. Dr. MURAKAMI Masako <i>Director, Nagoya University Center for Asian Legal Exchange</i> “International Collaboration in Legal Education for Human Resource Development towards the Co-creation of Legal systems in Asia”</p>
Theme 2	<p>Economic Diversification and Competitiveness Enhancement 13:15 ~ 13:45</p>
	<p>Dr. KONG Kea <i>Director, Rice Department, General Directorate of Agriculture, Ministry of Agriculture, Forestry and Fisheries, Cambodia</i> "Gross Return Considering Input Costs and Expectations for Economic Effects from Quality Improvement in Rice Production"</p> <p>Prof. Dr. TOKUDA Hiromi <i>Nagoya University Graduate School of Bioagricultural Sciences</i> “Expectations and Challenges of Digital Innovation for Smallholders Economy”</p>
Theme 3	<p>Development of Private Sector and Employment 13:45 ~ 14:00</p>
	<p>Dr. FUJITA Akiko <i>Manager, Grain Research Team, Sensing Systems Group, Technical Division, Satake Corporation</i> “Rice Milling and Development of the quality evaluation system of the rice in Japan”</p>
Q & A [1]	
Intermission 14:15 ~ 14:45	
Session [2] 14:45 ~ 16:00 Chair: Dr. BUNTONG Borarin (RUA) & Dr. ITO Kasumi (NU)	
Theme 4	<p>Resilient, Sustainable and Inclusive Development 14:45 ~ 15:30</p>

	<p>Prof. Dr. ISHIKAWA Kenji <i>Head, Semiconductor Processes Division, Nagoya University Center for Low-temperature Plasma Sciences</i> “Sustainable Innovations of the Low-Temperature Plasma-Agriculture”</p> <p>Dr. THO Kimeang <i>Deputy Director, Division of Research and Extension, Royal University of Agriculture</i> "Cultivar Trials, and Pest and Disease Management for Peanut Production in Cambodia”</p>
	<p>Dr. CHEM Mouylin <i>Researcher, Faculty of Agro-Industry, Royal University of Agriculture</i> "Functional Foods and Nutraceuticals: Their Role in Resilient, Sustainable and Inclusive Health Development”</p>
Theme 5	Development of Digital Economy and Society 15:30 ~ 15:45
	<p>Dr. NISHIUCHI Shunsaku <i>Assistant Professor, Nagoya University Graduate School of Bioagricultural Sciences</i> “Utilization of AI in Crop Production for Development of ABC (Agri Bio Circular) Economy”</p>
Q & A [2]	
Wrap-up Session 16:00 ~ 16:30	
Moderators:	Prof. Dr. EHARA Hiroshi (NU) & Dr. SRUN Khema (GDA)
Commentator:	Prof. Dr. NAKAZONO Mikio <i>Dean, Nagoya University Graduate School of Bioagricultural Sciences</i>
Closing Ceremony 16:30 ~ 16:45	
MC: Dr. SRUN Khema (GDA)	
Closing address	Dr. HUON Thavrak <i>Vice Rector, Royal University of Agriculture of Cambodia</i>

THE VENUE

Royal University of Agriculture

Samdech Akka Moha Sena Padei Techo Hun Sen Hall, Faculty of Agronomy, Royal University of Agriculture, Dangkor District, Phnom Penh, Cambodia



Scan for the Venue