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**The 10<sup>th</sup> ASAE International Conference**

**Gearing Asian Agriculture under the Fourth Industrial Revolution:  
Opportunities and Challenges**

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# **Conference Proceedings**

**6-8 December 2021 / Beijing, China**

**Online via Zoom Meeting**

## **Organizers**

**Asian Society of Agricultural Economists**

**Peking University**

**Renmin University of China**

**China Agricultural University**

## **Co-organizers**

**Chinese Association of Agricultural Economics**

**Chinese Association of Agro-Technical Economics**

**Official website:** [www.asae2020.pku.edu.cn](http://www.asae2020.pku.edu.cn)



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中國農業大學  
China Agricultural University

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## The 10<sup>th</sup> ASAE International Conference

### Gearing Asian Agriculture under the Fourth Industrial Revolution: Opportunities and Challenges

**Date:** 6-8 December 2021

**Venue:** Online via Zoom Meeting

The Asian Society of Agricultural Economists (ASAE) is a recognized association of agricultural economists and other professionals in Asia. The ASAE International Conference effectively promotes scientific and technical interactions among agricultural economists, development practitioners, policymakers, academicians, researchers, and students from all over the world. It provides an excellent opportunity to share knowledge and ideas for research, teaching, as well as real-world policy making. With the new wave of information technology and biotechnology revolution in the past four decades, Asia faces huge challenges and opportunities to raise agricultural productivity and achieve rural transformation in the new era. The 10<sup>th</sup> ASAE International Conference in 2021 will be a good opportunity for participants around the world to learn how Asian countries respond to the opportunities and challenges brought to agriculture by the fourth industrial revolution. It will also provide useful insights and experience for Asian countries to fight against COVID-19, and facilitate food system transformation in the long run.

#### 1. Introduction

Since the middle of the 18<sup>th</sup> century, there are three industrial revolutions in human history. Although the previous three industrial revolutions have brought unprecedented prosperity to the human society, they have also caused huge consumption of energy and resources, dramatically expanded the contradiction between human and nature. In the 21st century, mankind is confronted with the unprecedented global energy and resources crisis, global ecological and environmental crisis, global climate change crisis and multiple challenges, which triggered the Fourth Industrial Revolution.

The Fourth Industrial Revolution is a new green industrial revolution, which is represented by the IoT (Internet of Things), Big data, Robot, Artificial Intelligence, Gene Editing, Nano-technology and other new technologies. The applications of

these cutting-edge technologies in the agricultural field will greatly improve agricultural productivity and facilitate food system transformation. The past four decades have witnessed a rapid development of agricultural technology along with the new wave of information technology and biotechnology revolutions, throughout the whole world.

Many countries in Asia still face a large number of challenges in the process of agricultural development and rural transformation. Asia has more than 70% of world's small farms. Without appropriate institutional innovation and policy support, they will be unable to enjoy rapid technological progress and lag behind the pace of agricultural modernization. Therefore, how to realize the agricultural modernization, promote transformation of small farms in the new era, and increase resilience of food system in light of uncertainty around the spread of the COVID-19 internationally has become a major concern of the world's agricultural societies.

The challenges require academia, researchers, scientists, and practitioners (from public, private, and civil society) to analyze and better understand the implications of the fourth industrial revolution to agriculture in general and small farms in particular in Asia.

## 2. Objectives

The 10<sup>th</sup> ASAE international conference aims to provide a venue by bringing together a good mix of acknowledged policymakers, university researchers, professionals and specialists from development agencies and private industry to share experiences, exchange perspectives, and discuss how Asian countries can effectively cope with the opportunities and challenges brought by the fourth industrial revolution to Asia's agricultural economies and rural societies. Through discussing the topics about the impact of advanced technologies on Asian countries, rural economic revitalization in Asia, consuming transformation, modern food value chain, regional food security, the sustainable development of Asian agricultural economic environment etc., it would enhance participators' understanding of Chinese experience in rural development, expanding international exchanges and cooperation to promote the rapid development of agricultural and rural economy. Furthermore, it aims to draw up intellectual inputs that can help in shaping agricultural policy design in the region.

## 3. Conference themes

**Main theme:** Gearing Asian Agriculture under the Fourth Industrial Revolution: Opportunities and Challenges

### Sub-themes

- Accessing the impacts of advanced technologies (i.e. ICT, IoT, AI, etc.) on agriculture in Asian countries.

- Innovating and prioritizing institutions, policies and investment initiatives to modernize small farms dominated Asian agriculture.
- Rural development and policies under the new wave of biotechnology and gene revolution in Asian countries.
- Revitalizing Asian rural economy: agricultural transformation, rural industrialization, off-farm employment, farm mechanization, etc.
- Changing consumer behaviors, smart agriculture and risk management (including agricultural insurance and financial development in rural areas etc.).
- The modern food value-chain, network trading and digital economy.
- Food security, agricultural trade and market integration under the uncertain international relationships.
- Innovative solutions for sustainable and environmental-friendly agriculture.
- Facilitating food system transformation in Asian countries, to cope with uncertainty caused by climate change and trade dispute.
- Increasing resilience of food system and fighting against COVID-19.

#### 4. Organizers and co-organizers

*Organizers:*

Asian Society of Agricultural Economists  
Peking University  
Renmin University of China  
China Agricultural University

*Co-organizers:*

Chinese Association of Agricultural Economics  
Chinese Association of Agro-Technical Economics

*Sponsors:*

Peking University  
Renmin University of China  
China Agricultural University  
Agricultural Economics Society of Japan

#### 5. Official website: [www.asae2020.pku.edu.cn](http://www.asae2020.pku.edu.cn)

#### 6. Contacts

Ms. Li Wang, [asae2020@pku.edu.cn](mailto:asae2020@pku.edu.cn) (Peking University)  
Mr. Zeyu Yang, [yangzeyu@ruc.edu.cn](mailto:yangzeyu@ruc.edu.cn) (Renmin University)  
Ms. Yihan Liu, [liyihan@cau.edu.cn](mailto:liyihan@cau.edu.cn) (China Agricultural University)  
Tel : (86)-10-62767327; Fax: (86)-10-62767145

## 7. Executive Committee for ASAE 2017-2020



The Asian Society for Agricultural Economists (ASAE), established in Tokyo on August 23, 1991, is a non-profit voluntary association of agricultural economists primarily to promote inclusive development of Asian agriculture and improve the welfare of farmers and rural families in Asia.

The Executive Committee for ASAE composes of the President, President-in-Elect, Vice President, Secretary General and other Executive Members, who are elected by the General Council. The Executive Committee is the main policy making and strategic planning body of the Association and at the same time executes programs on behalf of the General Council.

The Executive Committee for ASAE for 2017-2020 contains 10 members as follows:



**Jikun Huang (China)**

*President of ASAE*

[jkhuang.ccap@pku.edu.cn](mailto:jkhuang.ccap@pku.edu.cn)

Professor, China Center for Agricultural Policy, School of Advanced Agricultural Sciences, Peking University, China.



**Mercedita A. Sombilla (Philippines)**

*Secretary General of ASAE*

[mercysom@yahoo.com](mailto:mercysom@yahoo.com)

Undersecretary, Regional Development Group, National Economic Authority, Philippines.



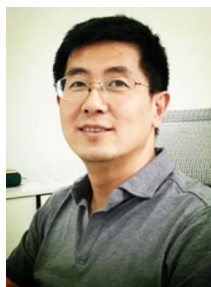
**Kei Kajisa (Japan)**

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**Yu Sheng (China)**

*Vice President of ASAE*

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**Bustanul Arifin (Indonesia)**

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Professor, School of Agricultural Economics, University of Lampung (UNILA), Indonesia.



**Doo Bong Han (Korea)**

*ASAE Executive Committee Member*

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Professor, Department of Food and Resource Economics, Korea University, Korea.



**Pramod Kumar Joshi (India)**

*ASAE Executive Committee Member*

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President, Agricultural Economics Research Association, India.



**Mohammad Abdul Malek (Bangladesh)**

*ASAE Executive Committee Member*

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Advisory (Honorary) Council Member, Global Development & Research Initiative Foundation (GDRI), Bangladesh.



**Saidatulakmal Mohd (Malaysia)**

*ASAE Executive Committee Member*

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Associate Professor, School of Social Sciences,  
Universiti Sains Malaysia, Malaysia.



**Nipon Poapongsakorn (Thailand)**

*ASAE Executive Committee Member*

[nipon.tdri@gmail.com](mailto:nipon.tdri@gmail.com)

Distinguished fellow and former president, Thailand  
Development Research Institute (TDRI).

## 8. Keynote Speaker

**Prof. Jikun Huang, ASAE President, Peking University, China**



Professor Jikun Huang is Professor at School of Advanced Agricultural Sciences and Director of China Center for Agricultural Policy (CCAP) in Peking University, Fellow of the World Academy of Sciences - for the advancement of science in developing countries (TWAS), Honorary Life Member of the International Association of Agricultural Economists (IAAE), and Fellow of Agricultural and Applied Economics Association (AAEA). He is the president of Asian Society of Agricultural Economists and vice-president of Chinese Association of Agro-Technical Economic. His research covers a wide range of issues on China's agricultural policy and rural development. He received Award for China's Outstanding Youth Scientists in 2002, Outstanding Achievement Award for Overseas Returning Chinese in 2003, Fudan Prize for Eminent Contributors to Management Science in 2008, and IRRI's Outstanding Alumni Award in 2010. He has published more than 580 journal articles, including Science, Nature and many leading journals in development economics. He is co-author of 24 books.

## 9. Invited Plenary Speakers

**Prof. Carl Pray, the State University of New Jersey, Rutgers, United States**



Professor Carl Pray is a distinguished Professor in the Agricultural, Food and Resource Economics Department, the School for Environmental and Biological Sciences, Rutgers, the State University of New Jersey. He earned his PhD in Economic History from the University of Pennsylvania, Philadelphia, Pennsylvania, the US. His research mainly focuses on agricultural science and technology policy in China, South Asia, Africa and Latin America. Key issues related to his recent research include: How does government research, science policy, intellectual property rights, regulations and advances in basic sciences influence the development and adoption of new agricultural technology? What are the economic and institutional impacts of new agricultural technology – especially its impact on poor farmers in Asia and Africa?

Professor Pray is the President of ICABR, the International Consortium for Applied Bioeconomy Research. He is currently leading research projects on the economics of agricultural research by private firms in India and China and on the impact of agricultural policy changes in Africa and Asia. He is also working on projects on digital agriculture. He has published more than 80 journal articles in international top ranking journals such as *Science*, *Nature*, the *American Journal of Agricultural Economics*, *Economic Development and Cultural Change*, and *Research Policy* as well as publishing 7 books and 45 book chapters.

**Dr. Will Martin, International Food Policy Research Institute, United States**



Dr. Will Martin is a Senior Research Fellow at the International Food Policy Research Institute (IFPRI), Washington D.C. He is also the former President of the International Association of Agricultural Economists (IAAE). He was trained in economics and agricultural economics at University of Queensland, Australian National University and Iowa State University, and had been worked at Australian Bureau of Agricultural Economics and Australian National University in early years. He was also appointed as the World Bank's research manager for agricultural and rural development before joining IFPRI in 2015.

Dr. Martin has a wide range of research interests, and in particular, his recent research has focused the impacts of changes in trade policies and food prices on poverty and food security in developing countries; and on the impacts of productivity growth on poverty. Over the past decade, he has published a large number of research works on "high-value agricultural exports from Africa" and "food trade policy and the dietary transition". The most recent two influential reports are published in 2008.

**Prof. Pramod Kumar Joshi, President, Agricultural Economics Research Association, India**



Professor Pramod Kumar Joshi superannuated as the Director-South Asia, International Food Policy Research Institute (IFPRI), India. Prior to this post, he held the position of Director, ICAR-National Academy of Agricultural Research Management, and Director of the ICAR-National Centre of Agricultural Economics and Policy Research. He is presently the President of the Agricultural Economics Research Association (AERA); and the Secretary of the National Academy of Agricultural Sciences (NAAS), and serves as Policy Advisers to the World Bank, the FAO, Harvest Plus of the CGIAR; ACIAR; and the BAIF Development Research Foundation.

Professor Joshi has extensively been working on agriculture transformation and market integration in India, and many South and Southeast Asian countries. To date, he has published more than ten books and several journal articles in national and international journals of repute. Professor Joshi has received a lot of awards, which include Dr. MS Randhawa Memorial Award of the National Academy of Agricultural Sciences, Dr. RC Agarwal Life Time Achievement Award of the Indian Society of Agricultural Economics; the Life Time Achievement Award of the Pantnagar Alumni Almamater Advancement Association; and the Global Leadership Award by the Indian Chambers of Food and Agriculture.

**Dr. Johan Swinnen, Director General, International Food Policy Research Institute, United States**



Dr. Johan Swinnen is Director General of the International Food Policy Research Institute (IFPRI), Washington D.C. Prior to that, he held positions as Professor of Economics and Director of LICOS-Centre for Institutions and Economic Performance at KU Leuven, Lead Economist at the World Bank, and Economic Advisor at the European Commission. He was elected Fellow of the Agricultural & Applied Economics Association (AAEA) and the European Association of Agricultural Economists (EAAE) and is a former President of the International Association of Agricultural Economists (IAAE). He holds a PhD from Cornell University and Honorary Doctorates from Gottingen University and Nitra University.

Dr. Swinnen has published widely on agricultural and food policies, political economy, institutional reforms, agricultural transition, and international development. His books include “The Political Economy of Agricultural and Food Policies”, “Political Power and Economic Policy”, “Quality Standards, Value Chains and International Development”, and “From Marx and Mao to the Market”.

**Prof. Kym Anderson, Crawford School of Public Policy, Australian National University, Australia**



Professor Kym Anderson is George Gollin Professor Emeritus in the School of Economics at the University of Adelaide and an Honorary Professor at Crawford School of Public Policy, Australian National University. He had also served as deputy head of economic research at the GATT (now WTO) Secretariat in Geneva (1990-92) and as Lead Economist (Trade Policy) at the World Bank in Washington DC (2004-07). He became the first economist to serve on a series of dispute settlement panels at the World Trade Organization (WTO) (1996-2008). During 2010-17 he served on the Board of Trustees of the International Food Policy Research Institute (IFPRI), Washington D.C, and chaired it from 2015.

Professor Anderson has published more than 400 articles and 40 books. His books include *The Political Economy of Agricultural Protection* (with Yujiro Hayami, 1986), *Disarray in World Food Markets* (with Rod Tyers, 1992), *Agricultural Trade Reform and the Doha Development Agenda* (with Will Martin, 2006) and, during 2008-10, a set of 4 regional and 3 global books on Distortions to Agricultural Incentives.



### **Prof. Shenggen Fan, China Agricultural University, China**



Professor Shenggen Fan is a world renowned economist for his work on transitional economies, global food systems, and agricultural and rural development. He is currently senior chair professor at the China Agricultural University, Beijing where he is leading a national innovation lab on food economics and policy. He serves as advisor to many national governments (including China and Vietnam) on agriculture, food security and nutrition. He is former director general of the International Food Policy Research Institute (IFPRI), Washington D.C., from 2009 to 2019.

Professor Fan is one of the Champions of Target of the UN Sustainable Development Goals, dedicated to inspiring ambition, mobilizing action, and accelerating progress toward cutting global food loss and waste. In 2017, he received the highly prestigious Fudan Management Excellence Award, referred to in China as the “Nobel Prize for Management,” which recognizes individuals who have made outstanding contributions to the field of economics and management. In 2014, Professor Fan also received the Hunger Hero Award from the World Food Programme in recognition of his commitment to and leadership in fighting hunger worldwide.

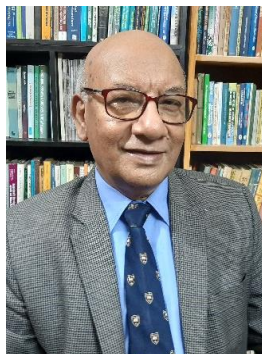
**Prof. Robert Chambers, University of Maryland: Park, United States**



Professor Robert G. Chambers is a Professor of Department of Agricultural and Resource Economics, University of Maryland, College Park, the US and Honorary Professor, School of Economics, University of Queensland, Australia. He is also an elected fellow of Agricultural and Applied Economics Association, the editor-in-chief for Journal of Productivity Analysis, and an adviser to OECD Trade and Agricultural Directorate for Environmental Adjusted Agricultural TFP Measurement. His research interests cover agricultural economics, decision making under uncertainty, production economics, microeconomic theory, public economics and agricultural and natural resource policy.

Professor Chambers has made a great achievement in the field of decision making under uncertainty, agricultural economics and productivity analysis and published more than 100 articles in reputable international refereed journals including American Economic Review, Econometrica, Review of Economic Studies, Economic Journal, American Journal of Agricultural Economics etc. His recent research work on analyzing the climate effects on the US Agricultural Total Factor Productivity has also been published in world top scientific journal “Proceedings of the National Academy of Sciences (PNAS)”.

**Prof. M. A. Sattar Mandal, Bangladesh Agricultural University, Bangladesh**



Professor M. A. Mandal is currently affiliated with Bangladesh Agricultural University (BAU), Mymensingh as the first Emeritus Professor. He also works as the Vice-Chancellor of Bangladesh Agricultural University, Mymensingh, and as a Member of the Bangladesh Planning Commission. In addition, professor Mandal is currently invited as a member of the Agriculture Expert Pool of the Bangladesh government, and works as a Senior Advisor to FAO, Bangladesh, while serving as advisor for World Bank WRG 2030, CIMMYT-Bangladesh and other development partners.

An agricultural economist, professor Mandal has been involved in teaching, research and policy planning in agriculture and rural development for over four decades. Apart from his academic researches, he also led the preparation of many important national policy documents, including Agricultural Mechanization Policy (2019), Bangladesh Country Position Paper on Food Security for the SAARC Region (2007), National Agriculture Policy (1999). His works on irrigation water market and institutions made significant impact on the large-scale privatization of Bangladesh agriculture. His recent edited book on “Rural Mechanization: A Driver to Agricultural Change and Rural Development” is widely acclaimed.

**Prof. Linxiu Zhang, Director, UN Environment Programme-International Ecosystem Management Partnership (UNEP-IEMP), China**



Professor Linxiu Zhang, TWAS Fellow, UNEP senior staff and Director, UNEP-International Ecosystem Management Partnership (UNEP-IEMP), a joint center between the Chinese Academy of Sciences (CAS) and UNEP. She is also leading the implementation of a UNEP flagship programme focusing on the nexus of climate change, ecosystem services and sustainable livelihoods (CEL) through South-South cooperation. Prof. Zhang used to be the Director/deputy director of Center for Chinese Agricultural Policy of CAS. She is now affiliated with the Institute of Geographic Sciences and Natural Resources Research of CAS as a senior research fellow. Her previous fields of research covered policy relevant studies on rural development, particularly on public goods and services provision, early childhood development, poverty alleviation and sustainable livelihoods, climate change adaptation and gender.



## 10. Local Conference Organizing Committee

### Co-chairs:

**Professor Baojian Chen**, Vice President, Peking University

**Professor Jikun Huang**, President, ASAE; Director, New Rural Development Institute, Peking University

**Professor Xian Xin**, Vice President, China Agricultural University

**Professor Xinkai Zhu**, Vice president, Renmin University of China

### Members:

**Professor Shenggen Fan**, School of Economics and Management, China Agricultural University

**Professor Huangang Qiu**, Deputy Dean, School of Agricultural Economics and Rural Development, Renmin University

**Professor Yu Sheng**, Vice President, ASAE; Deputy Director, New Rural Development Institute, Peking University

**Professor Wei Si**, Dean, School of Economics and Management, China Agricultural University

**Professor Zhong Tang**, Dean, School of Agricultural Economics and Rural Development, Renmin University

**Professor Funing Zhong**, Vice Chair of Academic Committee, Nanjing Agricultural University

## 11. Final Program (in Beijing Time)

### 6 December 2021, Monday

#### 09:00-09:30 **Opening Ceremony**

Join Meeting: <https://zoom.us/j/7818057389>

Zoom ID: 7818057389

Chair: Prof. Yu Sheng (*Vice-president of ASAE*)

*China Center for Agricultural Policy, Peking University, China*

Welcome remarks and introduction of the program

Prof. Xinkai Zhu

*Vice President, Renmin University of China, China*

Prof. Wei Si

*Dean, College of Economics and Management, China Agriculture University, China*

Prof. Jikun Huang (*President of ASAE*)

*Director, New Rural Development Institute, Peking University, China*

Dr. Mercedita A. Sombilla (*ASAE Secretary General*)

*Undersecretary, Regional Development Group, National Economic Authority, Philippines*

**Tech support:** Mr. Zeyu Yang, +86 17740968665, [yangzeyu@ruc.edu.cn](mailto:yangzeyu@ruc.edu.cn)

#### 09:30-09:35 **Photo Session**

#### 09:35-10:40 **ASAE President's Speech and Plenary Session I: Advancing Agriculture Development through Pioneering Technologies**

Join Meeting: <https://zoom.us/j/7818057389>

Zoom ID: 7818057389

Chair: Prof. Saidatulakmal Mohd (*ASAE Executive Committee Member*)

*School of Social Sciences, Universiti Sains Malaysia, Malaysia*

Embracing Digital Technology in Agricultural and Rural Development in China: Opportunities and Challenges

Prof. Jikun Huang (*President of ASAE*)

*Director, New Rural Development Institute, Peking University, China*

GMOs, CRISPR, Genomics and the Future of Asian Agriculture

Prof. Carl Pray

*Department of Agricultural, Food and Resource Economics, Rutgers, the State University of New Jersey, United States*

Q&A

**Tech support:** Mr. Zeyu Yang, +86 17740968665, [yangzeyu@ruc.edu.cn](mailto:yangzeyu@ruc.edu.cn)

#### 10:50-12:20 **Parallel Session I**

**Break**

#### 13:30-15:00 **Parallel Session II**

#### 15:10-16:40 **Parallel Session III**

#### 16:50-18:20 **Parallel Session IV**

### 7 December 2021, Tuesday

#### 09:00-10:00 **Plenary Session II: New Institutional Policies to Incentivize Small Farms**

Join Meeting: <https://zoom.us/j/7818057389>

Zoom ID: 7818057389

Chair: Prof. Huanguang Qiu

*Dean, School of Agricultural Economics and Rural Development, Renmin University of China*

Agricultural Subsidy Reform and Greenhouse Gas Emission

Dr. Will Martin

*Senior Research Fellow, International Food Policy Research Institute, United States*

Emerging Institutions in Agriculture for Incentivizing Smallholders in India

Prof. Pramod Kumar Joshi (*ASAE Executive Committee Member*)

*President, Agricultural Economics Research Association, India*

Q&A

**Tech support:** Mr. Zeyu Yang, +86 17740968665, [yangzeyu@ruc.edu.cn](mailto:yangzeyu@ruc.edu.cn)

10:10-11:40 **Parallel Session V**

11:50-13:20 **Parallel Session VI**

**Break**

13:30-15:00 **Parallel Session VII**

15:10-16:40 **Parallel Session VIII**

16:50-17:50 **Plenary Session III: New Opportunities in Marketing and International Trade**

Join Meeting: <https://zoom.us/j/7818057389> Zoom ID: 7818057389

Chair: Prof. Bustanul Arifin (*ASAE Executive Committee Member*)

*School of Agricultural Economics, University of Lampung, Indonesia*

Transforming Food Systems Post COVID-19

Dr. Johan Swinnen

*Director General, International Food Policy Research Institute, United States*

International Trade's Role in Enhancing Food Security in Asia

Prof. Kym Anderson

*Crawford School of Public Policy, Australian National University, Australia*

Q&A

**Tech support:** Mr. Zeyu Yang, +86 17740968665, [yangzeyu@ruc.edu.cn](mailto:yangzeyu@ruc.edu.cn)

20:00-21:00 **Local Committee Meeting /Award Committee Meeting**

**Tech support:** Ms. Rui Huang, +86 13972063086, [2020102693@ruc.edu.cn](mailto:2020102693@ruc.edu.cn)

### 8 December 2021, Wednesday

09:00-10:00 **Plenary Session IV: Food Security and Sustainable Agricultural and Rural Development I**

Join Meeting: <https://zoom.us/j/7818057389> Zoom ID: 7818057389

Chair: A/Prof. Mohammad Abdul Malek (*ASAE Executive Committee Member*)

*Advisory (Honorary) Council Member, Global Development & Research Initiative Foundation, Bangladesh*

Food System Transformation and Rural Development

Prof. Shenggen Fan

*College of Economics and Management, China Agricultural University, China*

Genetically Modified Organisms and Agricultural Labor Productivity

Prof. Robert G. Chambers

*College of Agricultural and Natural Resources, University of Maryland, United States*

Q&A

**Tech support:** Ms. Rui Huang, +86 13972063086, [2020102693@ruc.edu.cn](mailto:2020102693@ruc.edu.cn)

10:00-11:00 **Plenary Session V: Food Security and Sustainable Agricultural and Rural Development II**

Join Meeting: <https://zoom.us/j/7818057389> Zoom ID: 7818057389

Chair: Dr. Nipon Poapongsakorn (*ASAE Executive Committee Member*)

*Distinguished Fellow and Former President, Thailand Development Research Institute, Thailand*

Agricultural and Rural Transformation: Process and Lessons for Asia

Prof. M. A. Sattar Mandal

*Emeritus Professor, Department of Agricultural Economics, Bangladesh Agricultural University, Bangladesh*

Enhancing Agri-food System Resilience with Nexus Approach: Actions, Impacts and Implications to Asia

Prof. Linxiu Zhang

*Director, UN Environment Programme-International Ecosystem Management Partnership (UNEP-IEMP), China*

Q&A



**Tech support:** Ms. Rui Huang, +86 13972063086, [2020102693@ruc.edu.cn](mailto:2020102693@ruc.edu.cn)

11:00-12:00 **Closing Ceremony**

Join Meeting: <https://zoom.us/j/7818057389>

Zoom ID: 7818057389

Chair: Prof. Wei Si

*Dean, College of Economics and Management, China Agricultural University, China*

Announcement of Best Paper Awards on behalf of ASAE

Prof. Doo Bong Han (*ASAE Executive Committee Member*)

*Department of Food and Resource Economics, Korea University, Korea*

ASAE 2023 in Tokyo

Prof. Kei Kajisa (*President-Elect of ASAE*)

*School of International Politics, Economics, and Communication, Aoyama Gakuin University, Japan*

Closing Remarks

Prof. Jikun Huang (*President of ASAE*)

*Director, New Rural Development Institute, Peking University, China*

**Tech support:** Ms. Rui Huang, +86 13972063086, [2020102693@ruc.edu.cn](mailto:2020102693@ruc.edu.cn)



## 12. Details of Parallel Sessions (in Beijing Time)

### AM 6 December 2021 Monday

#### 10:50-12:20 Parallel session I

##### Zoom ID: Session 1.1 Digital Technology and Agricultural and Rural Development

7818057389 Join Meeting: <https://zoom.us/j/7818057389>

Chair: Hongmei Yi, Peking University, [hmyi.ccap@pku.edu.cn](mailto:hmyi.ccap@pku.edu.cn)

Developing an Index to Measure the Progress of Digitalization in Agriculture and Rural Development at County Level in China

*Zhibin Lv, AliResearch*

Progress of Digitalization in Agriculture and Rural Development in China

*Lanlan Su, Peking University*

Blockchain for Agribusiness: A Systematic Review

*Jiajia Zhao, Peking University*

Willingness to Pay for Blockchain-based Traceability of Tea in China

*Wen Hu, Peking University*

Discussants:

Lingling Hou, Peking University, [llhou.ccap@pku.edu.cn](mailto:llhou.ccap@pku.edu.cn)

Min Liu, Peking University, [minliu@lzu.edu.cn](mailto:minliu@lzu.edu.cn)

**Tech support:** Mr. Jinhui Wei, +86 19800350682, [weijinhui@ruc.edu.cn](mailto:weijinhui@ruc.edu.cn)

##### Zoom ID: Session 1.2 Choices and Agricultural Productivity

7643220743 Join Meeting: <https://zoom.us/j/7643220743>

Chair: Hang Xiong, Huazhong Agricultural University, [hxiong@hzau.edu.cn](mailto:hxiong@hzau.edu.cn)

Does Internet Use Create a Digital Divide in Production Efficiency among Grain Farmers: Evidence from Central China

*Xiaohui Li, Huazhong Agricultural University*

Specification and Estimation of a Spatial Autoregressive Sample Selection Model

*Xiaotian Liu, Huazhong Agricultural University*

Farmers' Willingness to Pay for Smart Farming Technologies: A Choice Experiment among Drip Irrigation Users

*Hui Tao, Huazhong Agricultural University*

Animal Welfare or Own Welfare: What Motivates Consumers' Choice of Free-range Products

*Juan He, Huazhong Agricultural University*

Discussants:

Chengfang Liu, Peking University, [cflu.ccap@pku.edu.cn](mailto:cflu.ccap@pku.edu.cn)

Xiaotian Liu, Huazhong Agricultural University, [xiaotianliu369@gmail.com](mailto:xiaotianliu369@gmail.com)

**Tech support:** Ms. Heng Wang, +86 18810856202, [2020102704@ruc.edu.cn](mailto:2020102704@ruc.edu.cn)

##### Zoom ID: Session 1.3 The Impact of Advanced Technologies on Asian Agriculture I: ICT

9597879032 Join Meeting: <https://zoom.us/j/9597879032>

Chair: Sangeeta Shroff, Gokhale Institute of Politics and Economics,

[sangeetashroff@hotmail.com](mailto:sangeetashroff@hotmail.com)

The Impact of Internet Use on Rural Households' Farmland Transfer: An Empirical Study Based on CFPS

*Baoling Zhou, Southwest University*

The impact of ICT Application on Farmers' Subjective Well-being: Based on the Mediation Effect of Absolute Income and Relative Income

*Jingru Xiang, Southwestern University of Finance and Economics*

Does Internet use increase farm profit and reduce risk exposure of wheat production in China?

*Hongyun Zheng, Huazhong Agricultural University*

Promoting Information and Communication Technology in Agriculture-A study of Kisan Call Centres in Maharashtra, India

*Sangeeta Shroff, Gokhale Institute of Politics and Economics*

Q&A

**Tech support:** Ms. Ruiqiu Tan, +86 18813020056, [2020102703@ruc.edu.cn](mailto:2020102703@ruc.edu.cn)

Zoom ID: **Session 1.4 The Impact of Advanced Technologies on Asian Agriculture II: ICT, IoT, AI**

5667512748 Join Meeting: <https://zoom.us/j/5667512748>

Chair: Tetsufumi Kubota, National Agriculture and Food Research Organization,  
[bota@affrc.go.jp](mailto:bota@affrc.go.jp)

Research on the adoption willingness of Internet of Things technology of Chinese large and specialized vegetable farmers based on integrated UTAUT model and TOE framework

*Ke Cheng, Jiangxi Agricultural University*

Determinants of ICT and smart farming technology adoption by agricultural corporations in Japan

*Jie Mi, Kyushu University*

Effects of the introduction of robot tractors onto dairy farms in Hokkaido, Japan

*Tetsufumi Kubota, National Agriculture and Food Research Organization*

Efforts for the Sixth industrialization and its Issues in Japan

*Chie Onishi, National Agriculture and Food Research Organization*

Farm and household factors affecting adoption of smart rice seed planter in Shanghai

*Yuquan Zhang, Shanghai Jiao Tong University*

Q&A

**Tech support:** Ms. Huimin Liu, +86 18811379585, [2020102699@ruc.edu.cn](mailto:2020102699@ruc.edu.cn)

Zoom ID: **Session 1.5 Engaging Smallholders in Modern Agriculture**

5567141402 Join Meeting: <https://zoom.us/j/5567141402>

Chair: Daisuke Takahashi, Takushoku University, [dtakahas@ner.takushoku-u.ac.jp](mailto:dtakahas@ner.takushoku-u.ac.jp)

Time Cost of Shopping and Labor Supply: Evidence from Rural E-commerce Expansion in China

*Yue Wang, Peking University*

China's Smallholder Farmers Engaging in E-commerce: Sale Scale and Platform Selection

*Xinyu Liu, Peking University*

The Impact of Rice Production and Marketing Zoning Policy on the Use of Farmland in Taiwan

*Daisuke Takahashi, Takushoku University*

Q&A

**Tech support:** Mr. Zili Wang, +86 15966309932, [2020102718@ruc.edu.cn](mailto:2020102718@ruc.edu.cn)

### PM 6 December 2021 Monday

13:30-15:00 **Parallel session II**

Zoom ID: **Session 2.1 High-yielding Variety, Factor Misallocation and Agricultural Productivity in China**

7818057389

Join Meeting: <https://zoom.us/j/7818057389>

Chair: Xiaobing Wang, Peking University, [xbwang.ccap@pku.edu.cn](mailto:xbwang.ccap@pku.edu.cn)

Institutional innovation, farmland transfer and potential source for grain future growth in China

*Xiaoheng Zhang, Nanjing University of Aeronautics and Astronautics*

Hybrid Advantage and Its Induced Overdose of Fertilizer: A Case Study of Rice Cropping in China

*Moyu Chen, Peking University*

Water quality monitoring and agricultural TFP

*Binlei Gong, Zhejiang University*

High-yielding variety and infant mortality in China

*Xinyu Liu, Peking University*

Panel Discussion

**Tech support:** Mr. Jinhui Wei, +86 19800350682, [weijinhui@ruc.edu.cn](mailto:weijinhui@ruc.edu.cn)

Zoom ID: **Session 2.2 Impacts of Technological and Institutional Revolution on Agriculture in Japan and China**  
7643220743

Join Meeting: <https://zoom.us/j/7643220743>

Chair:

Dongpo Li, Hunan University of Technology and Business, [791728448@qq.com](mailto:791728448@qq.com)

Teruaki Nanseki, Kyushu University, [nanseki.teruaki.005@m.kyushu-u.ac.jp](mailto:nanseki.teruaki.005@m.kyushu-u.ac.jp)

Impacts of smart farming technologies on rice production in Japan: evidences from the large-scale on-farm studies

*Teruaki Nanseki, Kyushu University*

How smart technologies transform agriculture development: the China experience

*Leifeng Guo, Agricultural Information Institute, CAAS*

Impact of fishermen's livelihood assets on satisfaction of withdrawal policy in the upper and middle reaches of the Yangtze River

*Tingui Chen, Shanghai Ocean University*

Analysis of supply and demand of feed grain in China: is there enough feed for livestock under the Sino-US trade war?

*Hui Zhou, Institute of Agricultural Economics and Development, CAAS*

Impact of TPP and the countermeasures by Japanese agricultural corporations: empirical analysis based on a national survey

*Dongpo Li, Hunan University of Technology and Business*

Q&A

**Tech support:** Ms. Heng Wang, +86 18810856202, [2020102704@ruc.edu.cn](mailto:2020102704@ruc.edu.cn)

Zoom ID: **Session 2.3 The Impact of Biotech and Genetic Revolution on Asian Agriculture**  
9597879032

Join Meeting: <https://zoom.us/j/9597879032>

Chair: Md. Sadique Rahman, Sher-e-Bangla Agricultural University, [saadrhmn@yahoo.com](mailto:saadrhmn@yahoo.com)

Can Education Improve Consumers' Attitude Towards Genetically Modified food? An Empirical Analysis in China

*Siwei Chen, Beijing Normal University*

Analysis of farmer decision-making for biotech corn adoption in the Philippines in connection with the 2015 GMO Supreme Court ban

*Clarisse Gonzalvo, Hiroshima University*

Intensity Of Adoption And Welfare Impacts Of Drought Tolerant Rice Varieties Cultivation In Bangladesh

*Md. Sadique Rahman, Sher-e-Bangla Agricultural University*

Q&A

**Tech support:** Ms. Ruiqiu Tan, +86 18813020056, [2020102703@ruc.edu.cn](mailto:2020102703@ruc.edu.cn)

Zoom ID: **Session 2.4 Toward Sustainable and Environmental-Friendly Agriculture I: Livestock Farming**  
5667512748

Join Meeting: <https://zoom.us/j/5667512748>

Chair: Yanjun Ren, Northwest A&F University, [ren@iamo.de](mailto:ren@iamo.de)

Determinants of livestock breeding scale for pastoral areas in Inner Mongolia Autonomous Region

*Aoduntuya, Hokkaido University in Japan*

What influences farmers' normative use of veterinary drugs -- An expanded version of the theory of planned behavior

*Mengqi Wang, Jiangxi Agricultural University*

Understanding Farmers' Behavior in Using Feed Additives: Self-Interest or Altruism?

*Dan Peng, Jiangxi Agricultural University*

Drivers of Farmers' Intentions to Use Eco Breeding: Integrating the Theory of Planned Behavior and the Norm Activation Model

*Pan Lu, Jiangxi Agricultural University*

Q&A

**Tech support:** Ms. Huimin Liu, +86 18811379585, [2020102699@ruc.edu.cn](mailto:2020102699@ruc.edu.cn)

Zoom ID: **Session 2.5 Toward Sustainable and Environmental-Friendly Agriculture II: Crop Farming**  
5567141402 Join Meeting: <https://zoom.us/j/5567141402>

Chair: Huaiyu Wang, Beijing Institute of Technology, [hwang@bit.edu.cn](mailto:hwang@bit.edu.cn)  
Effects Of Alternative Approaches On Nitrogen Fertilizer Reduction Of Rice Production In  
The Demonstration Program In China

*Huaiyu Wang, Beijing Institute of Technology*

Long- and short-term effects of field training on farmers' nitrogen fertilizer reduction: Dose  
training intensity matter?

*Cheng Xiang, Beijing Institute of Technology*

Effect of Fertilizer Subsidy on Fertilizer Usage in Rice Farming in Indonesia

*Amzui Rifin, IPB University*

The Influence of Embeddedness on Rice Farmers' Fertilizer Reducing Technologies Adoption  
Behavior in China

*Qi Li, Qufu Normal University*

Persistent and Transient Efficiency of the Chemical Fertilizer Firms in China: Does  
Ownership Matter?

*Bingyu Huangfu, Huazhong Agricultural University*

Discussant: *Jinyang Cai, Beijing Institute of Technology*

**Tech support:** Mr. Zili Wang, +86 15966309932, [2020102718@ruc.edu.cn](mailto:2020102718@ruc.edu.cn)

15:10-16:40 **Parallel session III**

Zoom ID: **Session 3.1 Panel Data Collection and Sustainable Land Use in Asia**  
7818057389

Join Meeting: <https://zoom.us/j/7818057389>

Chair: Hermann Waibel, Leibniz University Hannover, [waibel@ifgb.uni-hannover.de](mailto:waibel@ifgb.uni-hannover.de)

Overview and lessons learned from collecting panel data in seven Asian countries -  
Bangladesh, Cambodia, China, Laos, Indonesia, Thailand and Vietnam

*Hermann Waibel, Leibniz University Hannover*

Farmers 'knowledge and farm productivity in Thailand and Vietnam

*Sabine Liebenehm, University Saskatchewan*

Sustainability Standards in smallholder oil palm farming in Indonesia

*Eko Rudy Chahyadi, Bogor University*

Transformation of village economies in Northeast Thailand: a panel data analysis

*Chompunuch Nantajit, Leibniz University Hannover*

Towards a methodology to improve data consistency in household panel surveys in  
developing countries

*Mark Brooks, Leibniz University Hannover*

Discussants: *Jikun Huang, Peking University*

*Junfei Bai, China Agricultural University*

*Shi Min, Huazhong Agricultural University*

*Xiaobin Wang, Peking University*

*Suwanna Praneetvatakul, Kasetsart University*

*Sabine Liebenehm, University of Saskatchewan*

**Tech support:** Mr. Jinhui Wei, +86 19800350682, [weijinhui@ruc.edu.cn](mailto:weijinhui@ruc.edu.cn)

Zoom ID: **Session 3.2 Grassland Management and Rural Environment in China**  
7643220743

Join Meeting: <https://zoom.us/j/7643220743>

Chair: LingLing Hou, Peking University, [llhou.ccap@pku.edu.cn](mailto:llhou.ccap@pku.edu.cn)

Herders benefit from mongers competition in livestock market

*Dongqing Li, Chinese Academy of Agricultural Sciences*

Does property rights help explain Inverse Relationship between grassland size and  
productivity?

*Mingxue Zhang, Peking University*

A meta-regression analysis of economic value of grassland ecosystem services in China

*Huifang Liu, Lanzhou University*

Consumers' Willingness to Pay for Ecological Products: Evidence from a Field Experiment in China

*Xinxin Lv, Peking University*

Discussant:

Ting Meng, China Agricultural University, [tmeng@cau.edu.cn](mailto:tmeng@cau.edu.cn)

Xiaolong Feng, China Agricultural University, [fengxiaolong12@126.com](mailto:fengxiaolong12@126.com)

**Tech support:** Ms. Heng Wang, +86 18810856202, [2020102704@ruc.edu.cn](mailto:2020102704@ruc.edu.cn)

Zoom ID: **Session 3.3 Toward Sustainable and Environmental-Friendly Agriculture III: Irrigation**  
9597879032 Join Meeting: <https://zoom.us/j/9597879032>

Chair: Manoj Potapohn, Chiang Mai University, [potapohnm@gmail.com](mailto:potapohnm@gmail.com)

Irrigation investment in northern China: trends, affecting factors, impact

*Zhuanlin Wang, Peking University*

The Current Significance and Development Conditions of Lift Irrigation Systems in Dry Zone in Sri Lanka: Lessons Towards Sustainable Irrigation Development

*J.M.H.M. Upulwehera, Rajarata University of Sri Lanka*

Estimation of Irrigation Water Demand Price Elasticity and Economic Value of Water: Empirical Evidence from Irrigation Districts in Northern China

*Tianhe Sun, Hebei University of Economics and Business*

Chiang Mai's ongoing water management experiment: Developing an intelligence platform to facilitate shared use of irrigation water

*Manoj Potapohn, Chiang Mai University*

Q&A

**Tech support:** Ms. Ruiqiu Tan, +86 18813020056, [2020102703@ruc.edu.cn](mailto:2020102703@ruc.edu.cn)

Zoom ID: **Session 3.4 Toward Sustainable and Environmental-Friendly Agriculture IV: New Ways**  
5667512748 Join Meeting: <https://zoom.us/j/5667512748>

Chair: Leih Anne Odonon, Partido State University, [leihanne.odono@parsu.edu.ph](mailto:leihanne.odono@parsu.edu.ph)

Exploring the Determinants of Rice Farmers' Decision to Adopt Agricultural Low-Carbon Technologies: A Case study from China

*Linli Jiang, Wuyi University*

Heterogeneous Effects of Trust on Pro-environmental Behavior of Rural Residents

*Xi Ouyang, South China Agricultural University*

Socio-Psychological Factors Supporting the Sustainable Management and Conservation of Riverine Ecosystems in the Municipality of Goa, within Mt Isarog Natural Park

*Leih Anne Odonon, Partido State University*

Impact of Large-Scale Land Operation on the Development of Regional Public Brands of Agricultural Products

*Dalei Li, Northwest Agriculture & Forestry University*

Q&A

**Tech support:** Ms. Huimin Liu, +86 18811379585, [2020102699@ruc.edu.cn](mailto:2020102699@ruc.edu.cn)

Zoom ID: **Session 3.5 Policies for Inclusive and Sustainable Agriculture**  
5567141402 Join Meeting: <https://zoom.us/j/5567141402>

Chair: Deepak Shah, Gokhale Institute of Politics and Economics, [deepakshah@gipe.ac.in](mailto:deepakshah@gipe.ac.in)

Can environmental regulation achieve win-win growth in environmental and economic performance: evidence from the sugar industry under China's mandatory environmental information disclosure policy

*Jingfang Ge, China Agricultural University*

Using Contingent Valuation to Explore Willingness to Accept for Seasonal Land Fallowing Policy in the North China Plain

*Hongbo Deng, Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences*

Cost-effectiveness and Sustainability of Seasonal Land Fallowing Policy in Haihe River Basin

*Baozhu Guan, Peking University*

Central Government Agricultural Subsidies in India: Public Sector Expenditure, Issues and Policy Implications

*Deepak Shah, Gokhale Institute of Politics and Economics*

Formation of an Epistemic Community and the Process of Policy Creation around Direct Payments in Taiwanese Agriculture

*Tsaiyu Chang, Surugadai University*

Q&A

**Tech support:** Mr. Zili Wang, +86 15966309932, [2020102718@ruc.edu.cn](mailto:2020102718@ruc.edu.cn)

17:00-18:30 **Parallel session IV**

Zoom ID: **Session 4.1 Transformation of the Rural Economy in Rubber Producing Areas in Southwest China**  
7818057389

Join Meeting: <https://zoom.us/j/7818057389>

Chair: Shi Min, Huazhong Agricultural University, [min@mail.hzau.edu.cn](mailto:min@mail.hzau.edu.cn)

Does rubber expansion hinder the migration of rural labor in southwest China?

*Ningan Yang, Huazhong Agricultural University*

Location and economic resilience in rubber farming communities in southwest China

*Shaoze Jin, Research Center for Rural Economy, China*

Dynamics of Livelihood Strategies of Smallholder Rubber Farmers in Southwest China

*Haowen Zhuang, Leibniz University Hannover, Germany*

Determinants of farmers' risk aversion behavior under the decreasing rubber prices

*Ting Meng, China Agricultural University*

Valuing the External Social Benefits of Rubber Plantation Ecological Restoration Programs in Hainan Province, China: A Contingent Valuation Method Approach

*Yu Gan, Zhejiang University*

**Discussants:** Junfei Bai, China Agricultural University

*Yueji Zhu, Hainan University*

*Hermann Waibel, Leibniz University Hannover, Germany*

*Jikun Huang, Peking University*

**Tech support:** Mr. Jinhui Wei, +86 19800350682, [weijinhui@ruc.edu.cn](mailto:weijinhui@ruc.edu.cn)

Zoom ID: **Session 4.2 COVID-19 Pandemic and Welfare**

7643220743

Join Meeting: <https://zoom.us/j/7643220743>

Chair: Gucheng Li, Huazhong Agricultural University, [lgcabc@mail.hzau.edu.cn](mailto:lgcabc@mail.hzau.edu.cn)

More Panic, More Weight Gains? Evidence from China

*Jinghui Hao, Huazhong Agricultural University*

Face Mask Purchase and Usage amid the COVID-19 Pandemic: the Role of Risk and Trust

*Jie Feng, University of Wisconsin-Madison*

Gender Differences in Nutritional Status among Rural-Urban Migrants in China

*Qian Sun, Huazhong Agricultural University*

The Effect of Eating Restaurant Prepared Food on BMI: Evidence from China during the COVID-19 Pandemic

*Juan He, Huazhong Agricultural University*

Impact of COVID-19 on the aquaculture sector in Bangladesh

*G M Monirul Alam, Bangabandhu Sheikh Mujibur Rahman Agricultural University*

**Discussants:**

*Xu Tian, China Agricultural University, [tianxu@cau.edu.cn](mailto:tianxu@cau.edu.cn)*

*Jinghui Hao, Huazhong Agricultural University, [jinghui.hao@hzau.edu.cn](mailto:jinghui.hao@hzau.edu.cn)*

**Tech support:** Ms. Heng Wang, +86 18810856202, [2020102704@ruc.edu.cn](mailto:2020102704@ruc.edu.cn)

Zoom ID: **Session 4.3 Facilitating Food System Transformation to Cope with Climate Change**

9597879032

Join Meeting: <https://zoom.us/j/9597879032>

Chair: Qiu Chen, Beijing Institute of Technology, [chenqiusau@163.com](mailto:chenqiusau@163.com)

Differentiation of farmers' perception and adaptation to climate change in the Uplands of Yunnan, China

*Shuangquan Yang, Beijing Institute of Technology*  
Determinants of climate adaptation by smallholder rice producers: livelihood diversification in the Mekong Delta Region of Vietnam

*Tien Ho Nguyen Diem, Asian Institute of Technology/Tien Giang University*  
Accelerating green residential energy transition in rural China: Insights from household factors and north-south differences

*Qiu Chen, Beijing Institute of Technology*  
Climate Variability, Livelihood Diversification, and Household Food Security in Bangladesh

*Masanori Matsuura, National Taiwan University*  
Farmers' Strategies of Crop Diversification and their Regime-switching Behaviors with the Breakpoint of Food Consumption: Evidence from Rural Tanzania

*Takefumi Fujimoto, The University of Tokyo*

Q&A

**Tech support:** Ms. Ruiqiu Tan, +86 18813020056, [2020102703@ruc.edu.cn](mailto:2020102703@ruc.edu.cn)

Zoom ID: **Session 4.4 Fighting against COVID-19**

5667512748 Join Meeting: <https://zoom.us/j/5667512748>

Chair: Selvaraj Kattery Nanjundiah, Tamil Nadu Agricultural University,  
[nanjundiahselvaraj@gmail.com](mailto:nanjundiahselvaraj@gmail.com)

Consumers' Willingness to Pay for the COVID-19 Tested Foods in China

*Longzhong Shi, Huazhong Agricultural University*  
Vegetables Supply Chain Challenges and Salvage during the Pandemic in the of State of Tamil Nadu, India

*Selvaraj Kattery Nanjundiah, Tamil Nadu Agricultural University*

Impact of COVID-19 pandemic in agro-supply chain of Bangladesh and government response

*Mohammed Shahjahan Sabuz, Hiroshima University*

Employment adjustment to cope with COVID-19 pandemic: The impacts of policy response and its welfare consequence

*Yunli Bai, Institute of Geographic Sciences and Natural Resources Research, CAS*

COVID-19 and the change in lifestyle: Bodyweight, time allocation, and food choices

*Xiaolei Li, Huazhong Agricultural University*

Q&A

**Tech support:** Ms. Huimin Liu, +86 18811379585, [2020102699@ruc.edu.cn](mailto:2020102699@ruc.edu.cn)

Zoom ID: **Session 4.5 Agricultural Development**

5567141402 Join Meeting: <https://zoom.us/j/5567141402>

Chair: Binlei Gong, Zhejiang University, [gongbinlei@zju.edu.cn](mailto:gongbinlei@zju.edu.cn)

Spatial difference decomposition and convergence of rural green development efficiency: evidence from China

*Yu Cui, Northwest Agriculture & Forestry University*

Agricultural Productivity and Income Divergence: Evidence from the Green Revolution

*Kaixing Huang, Peking University*

New Growth Accounting for Agriculture in Asian Countries

*Binlei Gong, Zhejiang University*

Sustainable characteristics of the ancient food security model of village tank cascade systems in the dry zone of Sri Lanka: A qualitative exploratory study from a historical perspective

*Lasandha Irangani, Rajarata University of Sri Lanka*

How varied is the volatility of agricultural commodity prices across India?

*Prerona Baruah, Indian Institute of Technology Guwahati*

Panel Discussion

**Tech support:** Mr. Zili Wang, +86 15966309932, [2020102718@ruc.edu.cn](mailto:2020102718@ruc.edu.cn)

AM 7 December 2021 Tuesday

10:10-11:40 **Parallel session V**

Zoom ID: **Session 5.1 Asian Agriculture in a Changing World**

- 7818057389 Join Meeting: <https://zoom.us/j/7818057389>  
Chair:  
Keijiro Otsuka, Kobe University, [otsuka@econ.kobe-u.ac.jp](mailto:otsuka@econ.kobe-u.ac.jp)  
Presenters:  
*Akhter Ahmed, International Food Policy Research Institute*  
*Kevin Chen, Zhejiang University, China*  
*Jean Bali, International Rice Research Institute*  
*Shenggen Fan, China Agricultural University*  
General Discussion  
Closing Remarks: Kei Otsuka  
**Tech support:** Mr. Jinhui Wei, +86 19800350682, [weijinhui@ruc.edu.cn](mailto:weijinhui@ruc.edu.cn)
- Zoom ID: **Session 5.2 Policies/Institutions and Education**  
7643220743 Join Meeting: <https://zoom.us/j/7643220743>  
Chair: Chengfang Liu, Peking University, [cfliu.ccap@pku.edu.cn](mailto:cfliu.ccap@pku.edu.cn)  
Family policy and intergenerational education mobility: evidence from China's One-Child policy  
*Shaoping Li, Huzhou University*  
Is there an inverted U-shaped relationship between rural parents' educational aspiration and educational investment?  
*Xuejing Shen, Peking University*  
Relaxations of the One-Child Policy and Son Preferences in China  
*Shaoping Li, Huzhou University*  
The Impact of COVID-19 on Employment and Income of Vocational Graduates in China: Evidence from Surveys in January and July 2020  
*Xiao Liang, Peking University*  
Discussant: Renfu Luo, Peking University, [luorf.ccap@pku.edu.cn](mailto:luorf.ccap@pku.edu.cn)  
**Tech support:** Ms. Heng Wang, +86 18810856202, [2020102704@ruc.edu.cn](mailto:2020102704@ruc.edu.cn)
- Zoom ID: **Session 5.3 Revitalizing Asian Rural Economy I**  
9597879032 Join Meeting: <https://zoom.us/j/9597879032>  
Chair: Jayanti Kajale, Gokhale Institute of Politics and Economics, [jayanti@gipe.ac.in](mailto:jayanti@gipe.ac.in)  
Agrarian Relations and Agrarian Growth: An analysis of undivided state of Andhra Pradesh, India  
*Sujit Padhan, University of Hyderabad*  
Assessing Rural Change: Study of Village Gulumb in Maharashtra State of India  
*Jayanti Kajale, Gokhale Institute of Politics and Economics*  
Transforming Rural Economy: Farm-Nonfarm Linkages And Poverty Implications In Rural India  
*Balaji Sedithippa Janarthanan, Indian Council of Agricultural Research*  
When does irrigation efficiency cause water rebound effect? The contextual influences of crop mix and climate feature  
*Ying Chai, Guangdong University of Finance and Economics*  
Q&A  
**Tech support:** Ms. Ruiqiu Tan, +86 18813020056, [2020102703@ruc.edu.cn](mailto:2020102703@ruc.edu.cn)
- Zoom ID: **Session 5.4 Revitalizing Asian rural economy II: Agricultural Transformation**  
5667512748 Join Meeting: <https://zoom.us/j/5667512748>  
Chair: Prabhat Kishore, Indian Council of Agricultural Research, [kishore.prabhat89@gmail.com](mailto:kishore.prabhat89@gmail.com)  
Exploring the Sustainability of Urban Leisure Agriculture in Shanghai  
*Jianyun Nie, The University of Tokyo*  
Food-Groundwater-Energy nexus in Indian agriculture  
*Prabhat Kishore, Indian Council of Agricultural Research*



Empowering Shepreneurs to Achieve the Sustainable Development Goals: Exploring the Impact of Interest-free Start-up Credit, Skill Development and Use of ICTs on Entrepreneurial Drive

*Ali Sher, Nanjing Agricultural University*

Research on Farmers' Optimal Storage Decision -- Based on a survey of 1026 grape farmers in Beizhen

*Xiaoyu Sun, Shenyang Agricultural University*

Study on farmers behavior of reducing the use of veterinary antibiotics: evidence from China s poultry industry

*Jing Hou, Jiangsu Normal University*

Q&A

**Tech support:** Ms. Huimin Liu, +86 18811379585, [2020102699@ruc.edu.cn](mailto:2020102699@ruc.edu.cn)

Zoom ID: **Session 5.5 Agricultural Industry and Modern Food Value Chain**

5567141402

Join Meeting: <https://zoom.us/j/5567141402>

Chair: Niraj Prakash Joshi, Hiroshima University, [nirajpj@hiroshima-u.ac.jp](mailto:nirajpj@hiroshima-u.ac.jp)

A review on saffron farming and women in Afghanistan

*Mariam Khan, Hiroshima University*

Structural change and transformation of food processing industry growth in India

*Nithyashree ML, Indian Council of Agricultural Research*

Analysis on the evolution and agglomeration characteristics of Chinese apple production layout

*Qiangqiang Zhang, Peking University*

Production and trade dynamics of cassava starch in India

*Prakash P, Indian Council of Agricultural Research*

Hold-up Problem in the Broiler Industry in China: Empirical Evidence and Potential Strategies to Alleviate

*Shufen Tang, Nanjing Agricultural University*

Q&A

**Tech support:** Mr. Zili Wang, +86 15966309932, [2020102718@ruc.edu.cn](mailto:2020102718@ruc.edu.cn)

11:50-13:20 **Parallel session VI**

Zoom ID: **Session 6.1 Parenting and Early Child Development in Rural China**

7818057389

Join Meeting: <https://zoom.us/j/7818057389>

Chair: Renfu Luo, Peking University, [luorf.ccap@pku.edu.cn](mailto:luorf.ccap@pku.edu.cn)

Understanding the relationship between poverty and children's nutritional outcomes: empirical evidence from Central South China

*Xinjie Shi, Zhejiang University*

Caregiver-Child Interaction Duration and Early Childhood Development: Videotaped Evidence of Home Play in Rural China

*Yuting Chen, Peking University*

The Association between Parenting Styles of Great-Grandparent/Grandparent and Social Emotional Development of Great-Grandchild/Grandchild: The Moderated Mediation Effect of Gender

*Yang He, Peking University*

The Motherhood Penalty in China: Having A Child Increases Gender Inequality in Labor Market

*Mingxue Zhang, Peking University*

Discussant(s): Yu Bai, Minzu University of China

**Tech support:** Mr. Jinhui Wei, +86 19800350682, [weijinhui@ruc.edu.cn](mailto:weijinhui@ruc.edu.cn)

Zoom ID: **Session 6.2 Innovating Institutions, Policies and Investment for Rural Transformation I: Land Market and Property Rights**

7643220743

Join Meeting: <https://zoom.us/j/7643220743>

Chair: Thomas Bilalib Udimal, Southwest Forestry University, [udimal@swfu.edu.cn](mailto:udimal@swfu.edu.cn)

Local Government as the Intermediary in Rural Land Market: Impact Assessment from the Perspective of Large-scale Farmers  
*Xu He, The University of Tokyo*

Property Rights, Land Circulation and Off-farm Employment in China  
*Kangli Li, University of Wisconsin-Madison*

Plot Size, Adjacency, and Farmland Rental Contract Choice  
*Yueming Cao, Institute of Geographic Sciences and Natural Resources Research, CAS*

The Impact of Rural Land Registration And Certification Program On Farmlands Transfer In China  
*Thomas Bilalib Udimal, Southwest Forestry University*

Q&A  
**Tech support:** Ms. Heng Wang, +86 18810856202, [2020102704@ruc.edu.cn](mailto:2020102704@ruc.edu.cn)

Zoom ID: **Session 6.3 Innovating Institutions, Policies and Investment for Rural Transformation II: Income and Rural Livelihood**  
9597879032

Join Meeting: <https://zoom.us/j/9597879032>

Chair: Shree Kumar Maharjan, Hiroshima University, [smilingsiri@gmail.com](mailto:smilingsiri@gmail.com)

Analyzing the Determinants of Income Inequality between Urban and Rural Households in Underdeveloped Regions: The Case of Guizhou Province, China  
*Sho Komatsu, The University of Tokyo*

The Impact of Social Network on Rural Household Asset Allocation in China: Evidence from the China Household Financial Survey (CHFS)  
*Shixian Zhai, China Agricultural University*

Analysis of household income sources and their relationship to the livelihood among the farmers in Deukhuri valley, Nepal  
*Shree Kumar Maharjan, Hiroshima University*

Heterogeneous Effects of Off-Farm Employment on Production Choices of Rice Farmers in China  
*Donghui Song, South China Agricultural University*

Intra-household decision-making, crop diversity, and household dietary diversity: Evidence from five developing countries in Asia  
*Xuanye Zeng, Institute of Geographic Sciences and Natural Resources Research, CAS*

Q&A  
**Tech support:** Ms. Ruiqiu Tan, +86 18813020056, [2020102703@ruc.edu.cn](mailto:2020102703@ruc.edu.cn)

Zoom ID: **Session 6.4 Innovating Institutions, Policies and Investment for Rural Transformation III: Poverty Reduction**  
5667512748

Join Meeting: <https://zoom.us/j/5667512748>

Chair: Chitrasen Bhue, Tata Institute of Social Science, [chitra.hcu@gmail.com](mailto:chitra.hcu@gmail.com)

The 3Is of Agricultural Marketing (Institution, Infrastructure and Information) and Doubling Farmers' Income in India  
*Chitrasen Bhue, Tata Institute of Social Science*

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*Qing Chang, Huazhong Agricultural University*

Evaluation of Effects of "Pair-help" Policy on the Registered Poor Households  
*Hangyu Zhang, Peking University*

Multidimensional Poverty In Rural And Urban Malawi: A Comparative Analysis Of Nsanje District And Lilongwe City  
*Tapiwa Tizifa, Hiroshima University*

Risk preference and relative poverty: An analysis based on the data of China Family Panel Studies  
*Yong Fu, Shaanxi Normal University*

Q&A  
**Tech support:** Ms. Huimin Liu, +86 18811379585, [2020102699@ruc.edu.cn](mailto:2020102699@ruc.edu.cn)

Zoom ID: **Session 6.5 Healthcare and Welfare in the Aging Rural China**

5567141402 Join Meeting: <https://zoom.us/j/5567141402>  
Chair: Yunwei Chen, University of North Carolina at Chapel Hill, [ywchen@live.unc.edu](mailto:ywchen@live.unc.edu)  
Does social pension expansion relieve depression and decrease medical costs? Evidence from the rural elderly in China  
*Xiaotong Sun, Shenyang Agricultural University*  
Effects of Aging on Labor intensive Crop Production in China: Evidence from a Landform Perspective  
*Pingping Fang, Nanjing Agricultural University*  
The Impact of New Rural Pension Scheme on Consumption of Poor and Vulnerable Farmers: A Study based on CFPS 2010 and 2018 Panel Data  
*Jieying Bi, Agricultural Information Institute of CAAS*  
Explaining the Evolving Demand for Healthcare in Rural China 2011-2018: A Non-linear Decomposition Approach.  
*Yunwei Chen, University of North Carolina at Chapel Hill*  
Q&A  
**Tech support:** Mr. Zili Wang, +86 15966309932, [2020102718@ruc.edu.cn](mailto:2020102718@ruc.edu.cn)

### PM 7 December 2021 Tuesday

13:30-15:00 **Parallel session VII**  
Zoom ID: **Session 7.1 Transforming Agriculture in Asia: Findings and Key Policy Issues from Asian Development Outlook 2021 Update**  
7818057389 Join Meeting: <https://zoom.us/j/7818057389>  
Chair: Shingo Kimura, Asian Development Bank, [shkimura@adb.org](mailto:shkimura@adb.org)  
Transforming Agriculture in Asia: How can Agricultural Sector in Asia be more Productive, Sustainable, and Resilient against Risks including Climate Change?  
*Takashi Yamano, Asian Development Bank*  
Contemporary Irrigation Issues in Asia  
*Kei Kajisa, Aoyama Gakuin University*  
Institutional Innovations and Technology Applications in the People's Republic of China  
*Shingo Kimura, Asian Development Bank*  
Gender Inequality and Food Insecurity in Asian Food System During the COVID-19 Pandemic  
*Sonia Akter, National University of Singapore*  
Rising Importance of Aquaculture in Asia: Current Status, Issues, and Recommendations  
*Aya Suzuki, University of Tokyo*  
Q&A  
Concluding Remarks  
**Tech support:** Mr. Jinhui Wei, +86 19800350682, [weijinhui@ruc.edu.cn](mailto:weijinhui@ruc.edu.cn)

Zoom ID: **Session 7.2 Innovative Management in Agricultural Corporations**  
7643220743 Join Meeting: <https://zoom.us/j/7643220743>  
Chair: Dongpo Li, Hunan University of Technology and Business, [791728448@qq.com](mailto:791728448@qq.com)  
Can Digital Finance Promote the Technological Innovation of Agricultural Enterprises?- Evidence from NEEQ Companies in China  
*Zheng Gong, Zhongnan University of Economics and Law*  
Determinants of the Product Innovation Implementation in Japanese Agricultural Corporations  
*Thi Ly Nguyen, Kyushu University*  
Thailand's Maize Seed Companies' R&D Investment and Performance  
*Orachos Napasintuwong, Kasetsart University*  
Q&A  
**Tech support:** Ms. Heng Wang, +86 18810856202, [2020102704@ruc.edu.cn](mailto:2020102704@ruc.edu.cn)

Zoom ID: **Session 7.3 Changing Consumer Behaviors I: with a Growing Focus on Nutrition**  
9597879032 Join Meeting: <https://zoom.us/j/9597879032>  
Chair: Wei Xie, Peking University, [xiewei.ccap@pku.edu.cn](mailto:xiewei.ccap@pku.edu.cn)

Can knowledge calendar improve dietary knowledge? Evidence from a field experiment in rural China

*Minghui Hou, Huazhong Agricultural University*

Resource & Environment and Nutrition & Health Effects under Different Dietary Patterns

*Maoran Zhu, Peking University*

Information provision and consumers' willingness-to-pay for evaluative nutrition labels in China

*Minda Yang, Huazhong Agricultural University*

Consumer preferences and willingness-to-pay for “addition” and “reduction” reformulation strategies for healthier processed meat products

*Xinyi Hong, University College Dublin*

Discussant(s): Qi Cui, Beijing Normal University, [cuiqi@bnu.edu.cn](mailto:cuiqi@bnu.edu.cn)

**Tech support:** Ms. Ruiqi Tan, +86 18813020056, [2020102703@ruc.edu.cn](mailto:2020102703@ruc.edu.cn)

Zoom ID: **Session 7.4 Changing Consumer Behaviors II: Willingness**

5667512748

Join Meeting: <https://zoom.us/j/5667512748>

Chair: Sotaro Inoue, The Policy Research Institute, Ministry of Agriculture, Forestry and Fisheries, [sotaro\\_inoue470@maff.go.jp](mailto:sotaro_inoue470@maff.go.jp)

Study on Chinese Consumers' Willingness to Pay for Plant-based Milk and its Influencing Factors Based on CVM

*Wenfán Su, Renmin University of China*

Consumer characteristics and perceptions of country-of-brand and country-of-manufacture: A case of Japanese processed foods in urban China

*Takashi Ishida, Chiba University*

Generalized Axiom of Revealed Preference Tests for Foods and Drinks: The Case of Using POS Data in Japan

*Hideyasu Sato, Toyo University*

Discussants : *Prof. Hiroaki Kobayashi, Chiba University, [koba000@chiba-u.jp](mailto:koba000@chiba-u.jp)*

*Prof. Katsuhiko Saito, The University of Tokyo, [katsuhirosaito@g.ecc.u-tokyo.ac.jp](mailto:katsuhirosaito@g.ecc.u-tokyo.ac.jp)*

Q&A

**Tech support:** Ms. Huimin Liu, +86 18811379585, [2020102699@ruc.edu.cn](mailto:2020102699@ruc.edu.cn)

Zoom ID: **Session 7.5 Changing Consumer Behaviors III: New Ways**

5567141402

Join Meeting: <https://zoom.us/j/5567141402>

Chair: Chen Zhu, China Agricultural University, [zhuchen@cau.edu.cn](mailto:zhuchen@cau.edu.cn)

Community affordability of green food policy orientation: environmental awareness and daily expenditure scheme in Beijing

*Zhan Wang, Peking University*

Purchase Intention and Behavior of Young Consumers for Live-streaming Fresh Agricultural Products: Deviation Identification and Influencing Factors

*Ning Liu, Jiangxi Agricultural University*

Do Genetic Factors Predict Food Choice? A Case Study of Alcoholic Beverages

*Chen Zhu, China Agricultural University*

Transaction Costs, Institutions and Smallholder Participation in Modern Food Retail Chains: Empirical evidences from India

*Vinshnu Kedar, Christ University*

Q&A

**Tech support:** Mr. Zili Wang, +86 15966309932, [2020102718@ruc.edu.cn](mailto:2020102718@ruc.edu.cn)

15:10-16:40 **Parallel session VIII**

Zoom ID: **Session 8.1 Long-term dynamics and structural transformation in Asian Agriculture and Rural Economy**

7818057389

Join Meeting: <https://zoom.us/j/7818057389>

Chair:

Mohammad Abdul Malek, University of Tsukuba, [malekr25@gmail.com](mailto:malekr25@gmail.com)

Kei Kajisa, Aoyama Gakuin University, [kei.kajisa@gmail.com](mailto:kei.kajisa@gmail.com)

Changes in rice farming in the Philippines: Insights from five decades of the Central Luzon Loop Survey

*Kei Kajisa, Aoyama Gakuin University and Piedad Moya, IRRI*

Rural Non-Farm Employment in Eastern India: Implications for Economic Well-being of Rural Households

*Anjani Kumar*

Asset Inequality, Risk and Agriculture Productivity - examining development trajectories of smallholder farmers – A panel analysis from India

*Shalander Kumar, Sravya Mamidanna, Abhishek Das, Soumitra Pramanik, Anthony Whitbread*

Long term changes in rural Bangladesh: Evidence from Mahabub Hosain panel data

*Mohammad Abdul Malek, University of Tsukuba*

Panel Discussion

**Tech support:** Mr. Jinhui Wei, +86 19800350682, [weijinhui@ruc.edu.cn](mailto:weijinhui@ruc.edu.cn)

Zoom ID: **Session 8.2 Agricultural Products and Market Competition**  
7643220743

Join Meeting: <https://zoom.us/j/7643220743>

Chair: You-hua Chen, South China Agricultural University, [yhchen214@scau.edu.cn](mailto:yhchen214@scau.edu.cn)

Factors Determining the Competitive Strategic Positions of the SMEs in Asian Developing Nations: Evidence from Agro-based SMEs in Sri Lanka

*Indika Ruwan Prasanna, Rajarata University of Sri Lanka*

How Does The Spillover Effect Affect Food Safety Risk Management Of Companies?

Searching New Orientations Of Food Safety Governance

*Yangchen Xue, Nanjing Agricultural University*

Information, Capacity and Quality

*You-hua Chen, South China Agricultural University*

The Behavior and Determinants of Bid-ask Spreads in the Chinese Corn Futures Market

*Miao Li, Huazhong Agricultural University*

Q&A

**Tech support:** Ms. Heng Wang, +86 18810856202, [2020102704@ruc.edu.cn](mailto:2020102704@ruc.edu.cn)

Zoom ID: **Session 8.3 Agricultural Insurance and Financial Development in Rural Areas I**  
9597879032

Join Meeting: <https://zoom.us/j/9597879032>

Chair: Chao Zhou, Peking University, [zhouchao@chinalife.com.cn](mailto:zhouchao@chinalife.com.cn)

Determination of Crop Insurance Amount According to Production Cost and Expected Indemnity

*Chunli Wan, Shenyang Agricultural University*

Agricultural risk and insurance: The case of Kerala, India

*Neetha Rose C D, Kerala Agricultural University*

The Risk Analysis of the Financialization of Agriculture on Food System in China

*Peiran Su, Kyushu University*

The scale, channel and mechanism analysis of rural funds net outflow in China: from 1950 to 2016

*Lili Zhu, Tsinghua University*

Q&A

**Tech support:** Ms. Ruiqiu Tan, +86 18813020056, [2020102703@ruc.edu.cn](mailto:2020102703@ruc.edu.cn)

Zoom ID: **Session 8.4 Agricultural Insurance and Financial Development in Rural Areas II**  
5667512748

Join Meeting: <https://zoom.us/j/5667512748>

Chair: Anbukkani Perumal, ICAR-Indian Agricultural Research Institute, [anbueconomic@gmail.com](mailto:anbueconomic@gmail.com)

Impact of Credit on the Welfare of Rural Households: Evidence from a Long-Run Panel in Bangladesh

*MD Alamgir Hossain, Bangladesh Bank*

Impact of Credit on Vulnerability to Poverty: Empirical Evidence from Nepal

*Cong Wang, The University of Tokyo*



Bank Regulation or Main Shareholder: Who Shapes Microfinance Efficiency Better?  
Evidence from Village Banks in Liaoning Province of China

*Xiaoyan Fu, University of Tsukuba*

An Economic Analysis of Debt and Investment by Farm Household in Semi-Arid Tropics of  
India

*Anbukkani Perumal, ICAR-Indian Agricultural Research Institute*

Q&A

**Tech support:** Ms. Huimin Liu, +86 18811379585, [2020102699@ruc.edu.cn](mailto:2020102699@ruc.edu.cn)

Zoom ID: 5567141402 **Session 8.5 Agricultural Trade and Market Integration under the Uncertain International Relationships**

Join Meeting: <https://zoom.us/j/5567141402>

Chair: Vinshnu Kedar, Christ University, kedarvishnu@gmail.com

Analyzing the Border Effect on China's Agricultural Trade

*Ling Li, Seoul National University*

Dynamic link between Chinese and US agricultural futures markets under the China-US trade  
war

*Huilian Huang, Huazhong Agricultural University*

The Neglected Contribution of Agricultural Trade Liberalization to the Sectoral  
Transformation: A County-level Analysis on the Effects of China-ASEAN Free Trade  
Agreement

*Mengying Xing, Zhejiang University*

An assessment of the effect of Round Table on Responsible Soy certification on soybean  
exports in OECD countries

*Fuli Tan, China Agricultural University*

Does FDI intensify Economics Growth? Evidence from China and India

*Pratibha Neharkar, Christ University*

Q&A

**Tech support:** Mr. Zili Wang, +86 15966309932, [2020102718@ruc.edu.cn](mailto:2020102718@ruc.edu.cn)



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