# **AAERE 2021**

The 10th Congress of the Asian Association of Environmental and Resource Economics

# Climate Risk and Sustainable Development in Asia

**DATE** August 20-21, 2021

**VENUE** Seoul National University, Seoul, Korea





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# **GREETINGS FROM THE PRESIDENT OF AAERE**

Dear distinguished guests, colleagues and students, and ladies and gentlemen,

I am honored to welcome all of you to the 10th Annual Congress of the Asian Association of Environmental and Resource Economics (AAERE) held at the campus of Seoul National University in Seoul, Korea. Here I can give this welcome message, and this is particularly gratifying because we had to cancel our 2020 AAERE meeting in the midst of the COVID-19 pandemic.

I believe the significance of the 10th Seoul Congress is twofold.

First, this is the first conference to be held under the new name of the Asian Association of Environmental and Resource Economics, which had been renamed from the East Asian Association of Environmental and Resource Economics (EAAERE) during the Beijing Congress in 2019. The vision and challenge of AAERE are to provide sound academic works and policy advices and enhance the sustainable development agenda for the entire Asian region. Hence, we should be ready to expand our membership countries from East Asia to other areas of Asia and the Pacific. With utmost delight, I share with you that participants from 17 countries, including Australia, Bangladesh and Nepal, will be giving presentations at this conference.

Second, unlike our previous gatherings, this Congress will be the first event to be held fully online. As we all know, the pandemic has dramatically triggered digital transformation, including lectures in universities and academic conferences. We are currently living in a world where online seminars might become the new norm for scholarly communication. Hopefully, both presenters and participants can enjoy sharing their research results and discussions through state-of-the-art webinar technology prepared by the Local Organizing Committee of the Seoul Congress.

Formally founded in 2010, AAERE has served as a scholarly platform for environmental, resource, energy, and climate economists in Asia. Throughout the years, AAERE has immensely grown not only in size but also in terms of the quality of its papers and activities. In 2018, AAERE successfully co-organized with the Association of Environmental and Resource Economists (AERE) and the European Association of Environmental and Resource Economists (EAERE) for the 6th World Congress on Environmental and Resource Economists held in Gothenburg, Sweden. These achievements would not have been possible without the continuous commitment from our members. I would especially like to express my deepest appreciation for the founding members and past Presidents of AAERE, Dr. Ueta Kazuhiro, Dr. Kim Il-Chung, Dr. Ma Zhong, Dr. Shaw Daigee, and Dr. Zhang Shiqiu for their dedication to AAERE from its establishment.

I further express my gratitude to those who made the 10th Seoul Congress possible. First of all, I want to thank the Chair of the Local Organizing Committee and former BOD member of AAERE, Professor Kwon, Oh-Sang of Seoul National University, for his commitment to this great event. I also appreciate the dedication shown by the Chairs of the Scientific Committee, Professor Abdul Rahim Abdul Samad, and Program Committee, Professor Oh, Hyungna, as well as the members of the two Committees. Without their sacrifice and effort, this conference would not have been possible. Finally, I extend my sincere appreciation to the honorable keynote speakers, Mr. Ban, Ki-moon, former Secretary General of the United Nations, and Dr. Robert Pindyck, Professor of economics and finance at MIT, for sharing their insights on climate change issues at the global and regional level.

The world is currently witnessing and suffering from the economic crisis caused by a global infectious disease. Scientists have repeatedly warned that zoonotic diseases such as COVID-19 have been exacerbated stemming from climate change. The future and sustainability of the global society thus depend on whether the current generation can overcome the economic and environmental risks posed by the climate crisis. Asia is no exception, where, with the current level of carbon emission and vulnerability to climate impact, climate mitigation and adaptation policies should immediately be put into action. We, the environmental and resource economists in Asia and the Pacific region, should assume scholarly responsibility to provide theoretical and empirical findings and policy alternatives to tackle the climate crisis. Thus, it is very timely and meaningful that the main theme of the 10th Congress is "Climate Risk and Sustainable Development in Asia."

It is my hope that the AAERE conference this year can serve as a unique opportunity to share innovative ideas and enthusiastic discussions. Enjoy the two-day Seoul Congress, and I will see you at the plenary and parallel sessions as well as the General Assembly.

Hong, Jong Ho

President, AAERE Professor, Graduate School of Environmental Studies, Seoul National University





# GREETINGS FROM THE LOCAL ORGANIZING COMMITTEE

Dear all participants,

On behalf of the Local Organizing Committee (LOC), I would like to take this opportunity to welcome all of you participating in the 10th AAERE Congress and Annual Conference. I also would like to extend a cordial welcome to our distinguished keynote speakers, Mr. Ban, Ki-moon, former Secretary-General of the United Nations, and Dr. Robert Pindyck, professor of economics and finance at MIT.

Due to the COVID-19 pandemic, the 10th Congress is a hybrid type conference, and most of the submitted papers will be presented and discussed online. Otherwise, all of you might have come to Seoul and get together at the beautiful campus of Seoul National University (SNU).

As the LOC chair, I wish to express my great gratitude to our co-hosts, the Korea Environmental Economics Association and the College of Agriculture and Life Sciences of SNU, and co-organizers, Korea Environment Institute, Korea Rural Economic Institute, Korea Energy Economics Institute, Institute of Economics and International Trade, Pusan National University, and Korea Resource Economics Association for their support and participation. My gratitude also goes to our sponsors, Hanwha Energy Corporation, Korea Power Exchange, Korea Federation of Water Science and Engineering Societies, Korea Rural Community Corporation, and MUREPA KOREA for their financial support. Those institutions and corporations gladly decided to support our conference despite the pandemic-driven economic slowdown. Most of all, I would like to give very special thanks to our LOC members and all staff. Without their dedication and hard work, opening this Congress would not be possible.

The main theme of the 10th Congress is "Climate Risk and Sustainable Development in Asia." Global climate risk calls for urgent actions to mitigate and adapt to climate change. Asia is a climate change-vulnerable region. Because of its large share of global production and population, establishing and implementing effective measures for mitigation and adaptation in the region is crucial for avoiding potential global damages.

Members and colleagues from 17 countries around the world submitted their scientific papers to the 10th Congress. The conference sessions include 22 subtopics of climate risk, including mitigation and adaptation policies, risk and uncertainty assessment, energy transitions, international cooperation, etc. There are also 10 thematic sessions organized by research groups and institutions.

I wish the 10th Congress of AAERE provide very productive and successful opportunities to exchange and share our experiences and research results on all the aspects of Climate Risk and Sustainable Development. And finally, I wish all the participants and their families keep safe from the pandemic and healthy.

Thank you.

Oh-Sang KWON

Chair, Local Organizing Committee Professor, Department of Agricultural Economics and Rural Development. Seoul National University



# **ORGANIZATION**

### **Host & Organizer**

AAERE Asian Association of Environmental and Resource Economics (AAERE)

### **Co-hosts**

শুরুষ্টরুমুম্ম Korea Environmental Economics Association (KEEA)

College of Agriculture and Life Sciences (CALS) &
Research Institute of Agriculture and Life Science (RIALS), Seoul National University

### Co-organizers

শুরুশুরুম্মথ্য Korea Environmental Economics Association (KEEA)

Korea Environment Institute (KEI)

Korea Rural Economic Institute (KREI)

Korea Energy Economics Institute (KEEI)

Institute of Economics and International Trade, Pusan National University

Korea Resource Economics Association (KREA)

### **Sponsors**

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KREI

에너지경제연구원

Hanwha Energy Corporation

Korea Power Exchange (KPX)

Korea Rural Community Corporation (KRCC)

MUREPA KOREA



# COMMITTEES

#### **Scientific Committee**

Abdul Rahim Abdul Samad, Universiti Putra Malaysia: Chair

Dongsoon Lim. Dongeui University: Co-chair

Doohwan Won, Pusan National University

**Inkee Hong**, Daegu University

Je-Liang Liou, Chung-Hua Institution for Economic Research

Jian Wu, Renmin University of China Katsuya Tanaka, Shiga University

Soocheol Lee, Meijyo University

### **Program Committee**

Hyungna Oh, Kyung Hee University: Chair

Akihisa Mori, Kyoto University: Co-chair

Budy Prasetyo Resusodarmo, Australian National University

Chazhong Ge, Chinese Academy for Environmental Planning

So Eun Ahn, Korea Environment Institute (KEI)

**Hyunseok Kim**, Korea Development Institute (KDI)

Orapan Nabangchang, Sukhothai Thammatirat Open University

Sangiun Lee, Korea Energy Economics Institute (KEEI)

Shi-Miin Liu, National Taipei University

Shiqiu Zhang, Peking University

Suyi Kim, Hongik University

Toshihide Arimura, Waseda University

Wooyoung Jeon, Chonnam National University

### **Local Organizing Committee**

Oh-Sang Kwon, President of KEEA, Seoul National University: Chair

Yongsung Cho, President of Korea Energy Economics Institute: Co-chair

Jevoung Yoon. President of Korea Environment Institute: Co-chair

Hongsang Kim, President of Korea Rural Economic Institute: Co-chair

Andy Sungnok Choi, National Institute of Ecology

Donggyu Yi, University of Seoul

Jong-Soo Lim, Kwangwoon University

Hyo-Sun Kim, Korea Carbon Finance Association

Hyoung Joon Koun, K-water

Hyuncheol Kim, Jeju Research Institute (JRI)

Hyun Seok Kim, Seoul National University

Jong Min Yu, Hongik University

Man-Ok Kang, Korea Environment Institute (KEI)

Seung-Rae Kim, Hallym University

Sung Hoon Kang, Hanyang University

Yong-Gun Kim, Korea Environment Institute (KEI)

Yongil Jeon, Sungkyunkwan University

Young-Keun Chung, Sunmoon University

Young Seong Yoo, Gyeonggi Research Institute







### College of Agriculture and Life Sciences (CALS) of Seoul National University [Address] Seoul National University 200-dong, CALS 1, Gwanak-ro, Gwanak-gu, Seoul, Republic of Korea

The College of Agriculture and Life Sciences (CALS) of Seoul National University (SNU) is Korea's leading institution specializing in agricultural and environmental education and research. The College has 8 departments offering 17 major and interdisciplinary programs; these share a common vision: to develop innovative studies in the field of agricultural and life sciences while nurturing global leaders in agriculture.

CALS promotes "on-site" education and research through the construction of the SNU PveongChang campus. In addition, the College provides unstinting support for CALS members through various academic facilities, research groups, and supporting programs.

Furthermore, CALS is fully committed to being the cradle of global agricultural and environmental education and research, participating in international exchanges with 43 foreign renowned universities and institutions. CALS is ranked 28th in the QS World University Rankings in Agriculture and Forestry (2020).

#### TRANSPORTATION to CALS

Campus map: http://map.snu.ac.kr/web/main.action

CALS is located in SNU Gwanak campus which has more than 200 buildings. Although the campus is near a subway station, it is not within walking distance. You will need to take a bus or a taxi to get to the university. The SNU Gwanak campus is located in a mountainside, and hence walks around the campus are quite steep.

If coming by public transport, there are two subway stations that you can use: Subway Line No. 2 (Green Line) Seoul National University Entrance Station (Exit No. 3) and Subway Line No. 2 (Green Line) Naksungdae Station (Exit No. 4). Both stations are similar in terms of the time it takes from the station to CALS.

Please refer to the Seoul Metro Cyber Station map if you plan on using the subway.





# **GENERAL INFORMATION**

### **CONFERENCE VENUE**

### College of Agricultural and Life Sciences, SNU

Registration : 201dong 1F Lobby

Opening Remarks / Keynote Speech: 201dong 101 International Conference Hall

**KEEA Member's Meeting** : 200dong 3016

### **CONGRESS WEBSITE**

Registration http://www.aaere2021.org

Zoom Access (links) https://aaere2021.creatorlink.net

Youtube https://www.youtube.com/watch?v=rCX6XvfYeFM

### **PROGRAM CHANGES**

Schedule changes will be notified to https://aaere2021.creatorlink.net.

### PARALLEL SESSION ASSISTANTS

If you encounter problems with the progress of a session, session assistants can help you.

#### **CONTACTS**

All questions regarding submission, registration, program, venue, press & media, etc. should be sent to: aaere2021@gmail.com

### ATTENDANCE AND PUNCTUALITY

The AAERE Committee would like to extend its gratitude for your presence and for coming on time in all sessions and activities throughout the Congress.





# INSTRUCTIONS FOR CONFERENCE PARTICIPAN

#### **PARALLEL SESSIONS**

#### [Time Frame]

A zoom link will be available in each session. Session participants can use either a PowerPoint (.ppt or .pptx) or Portable Document Format (.pdf) for their presentations. Conference staff will be happy to assist in resolving any technical issues. The time available for each paper is 30 minutes, with 17-20 minutes for presentation, 5 minutes for discussant's comments, and 5 minutes for the authors' responses and a general discussion.

#### [Presenters and Discussants]

Presenters are recommended to make a 17-minute presentation file with a .mp4 format and upload it to the AAERE web folder (p.10) or send it to the session chair one-day before their sessions. Common file names such as AAERE or 2021 should be avoided due to potential confusion. Pre-recorded files will be used when a presenter suffers from internet connection problems, and if presenters want to, they can use pre-recorded files for their entire presentation. Discussants are expected to provide a concise comment. Detailed suggestions can be passed on to the presenters via CHATTING during the session or emails after the session. Both presenters and discussants are expected to join the zoom link from their PC, Mac, iPad, or Android device. The zoom link will be informed through the registration email by August 18, 2021.

#### [Chairs]

Chairs are invited to join the zoom link 10 minutes prior to the beginning of a session. They will introduce the session and speakers, make sure the presentation proceeds as scheduled, and guide the discussion from the audience following the paper presentation. If there is a problem with the presenter's internet connection, chairs should play or ask the session assistant to play the presenter's pre-recorded file. In case the scheduled chair does not attend, the presenter of the actual last paper in the session is expected to take the role of chair.

### **POSTER SESSION**

#### [Presenters]

Presenters should send their poster files to the session chair by August 18, 2021. Session participants can use either a PowerPoint (.ppt or .pptx) or Portable Document Format (.pdf) for their poster presentations. Presenters are also recommended to make an 8-minute presentation file with a .mp4 format and upload it to AAERE web folder (p.10) or send it to the session chair one-day before the session. Common file names such as AAERE or 2021 should be avoided due to potential confusion. Pre-recorded files will be sequentially played during the poster session.





# INSTRUCTIONS FOR CONFERENCE PARTICIPAN

#### **ALL PARTICIPANTS**

### [How to upload pre-recorded video on the AAERE web folder]

- 1. Access to the AAERE web folder by clicking the link: https://murepas.synology.me:5001 with D aaere PW 2021Seoul
- 2. After logging-in, click "File Station folder" and find the session sub-folder with session code
- 3. Upload your presentation video file.

### [Zoom Access] (links)

All participants can easily access this online conference by visiting our website; www.aaere2021.org, and then click the pop-up page to connect convenient webpage for access the zoom links or visit the webpage directly to https://aaere2021.creatorlink.net. When you see the main page of the zoom link webpage, please follow the easy procedure as you did: find your session and simply click the session information card. Your zoom program will be automatically activated and allow you to access the session with the given password.

The session password follows a simple rule. Password has been constructed with session code (i.e., S1-13c or T2-11) and attached with 2021: for example, S1-13c2021 or T2-112021. Therefore, if you want to access Parallel Session II, Adaption to Climate Change, whose session code is S1-13b, your password is S1-13b2021. There is a session code under each session time.





# **SCHEDULE AT A GLANCE**

Time	August 19, 2021	August 20, 2021		August	21, 2021
08:00 - 09:00		Registration 08:00-09:00			
09:00 - 10:00			<b>Remarks</b> -09:45	Parallel S	Session IV
10:00 - 11:00		<del>-</del>	<b>Speech</b> -11:25	Thematic	Session -11:00
11:00 - 12:00			KEEA Member's	Parallel S	Session V
12:00 - 13:00		AAERE Member Assembly 11:40-12:40	Meeting 11:40-12:10	Thematic	<b>Session</b> -13:00
13:00 - 14:00		Parallel Session II		AAERE Announcement 13:00-13:15	Thomatia
14:00 - 15:00		Thematic Sessions 13:00-15:00	Thematic Sessions	Parallel Session VI 13:20-15:20	Thematic Session 13:00-15:00
15:00 - 16:00		Parallel Session III	14:00-16:00		Thematic Session
16:00 - 17:00	BOD 1st Meeting 16:00-17:30	Thematic Sessions 15:00-17:00	BOD 2nd Meeting 16:00-17:30	Parallel Session VII 15:20-17:20	15:00-17:00
17:00 - 18:00			.0.00 11.00		





# **SCHEDULE**

# Day 0 / August 19, 2021

Time	Program	
16:00-17:30	BOD 1st Meeting	
Day 1 / /	August 20, 2021	
Time	Program	
08:00-09:00	Registration	
09:00-11:00	Plenary Session	
09:00-09:45  You Tube  ((•)) LIVE	Opening Remarks	President of KEEA, LOC Chair President of AAERE President of SNU
09:45-11:25  You Tube ((•)) LIVE	Keynote Speech  09:45-10:30 Keynote Speech 1  10:30-10:35 Q & A  10:35-11:20 Keynote Speech 2  11:20-11:25 Q & A	Chair: Kim, Il Chung Robert Pindyck Ban, Ki-moon
11:40-12:40	AAERE Member Assembly	
11:40-12:10	KEEA Member's Meeting	
13:00-17:00	Parallel and Thematic Sessions	
13:00-15:00	Parallel Session II	
	S1-13a Extreme Weather Event and Assessment S1-13b Adaption to Climate Change S1-13c Energy Transition I S1-13d Environment and Development I	
15:00-17:00	Parallel Session III	
	S1-15a Climate Risk and Assessment S1-15b Energy Transition II S1-15c Environment and Development II S1-15d Food and Agriculture	
13:00-17:00	Thematic Sessions	
	13:00-15:00 T1-13a (AEERE-SANDEE) (13:30-15:00) T1-13b (Bioenergy toward carbon neutral) 14:00-16:00 T1-14a (KREI-KOREA) T1-14b (Economics and Policy of Hydroge 15:00-17:00 T1-15a (KREA-KOREA)	

T1-15b (KEEI-KEEA-KOREA) (16:00-18:00)

**BOD 2nd Meeting** 

16:00-17:30





# **SCHEDULE**

# Day 2 / August 21, 2021

Time	Program
09:00-17:15	Parallel and Thematic Sessions
09:00-11:00	Parallel Session IV
	S2-09a Green Innovation S2-09b Green Industries S2-09c International Trade and Environment S2-09d Non-market Valuation I
09:00-11:00	Thematic Session
	T2-09 JBNU-KOREA
11:00-13:00	Parallel Session V
	S2-11a Health and Environment S2-11b Mitigation Policies of Climate Change I S2-11c Non-market Valuation II
11:00-13:00	Thematic Session
	T2-11 SNU-KOREA: Climate Change and Smart Agriculture
13:00-13:15	AAERE Announcement: New President and Next Years' Venue
13:20-15:20	Parallel Session VI
	<ul> <li>S2-13a Mitigation Policies of Climate Change after COVID 19</li> <li>S2-13b Mitigation Policies of Climate Change II</li> <li>S2-13c Ecosystem and Natural Resources</li> <li>S2-13d Environment and Behavior</li> </ul>
13:00-15:00	Thematic Session
	T2-13 KEI-KOREA
15:20-17:20	Parallel Session VII
	S2-15a Regional Development S2-15b Renewable Energy S2-15c Waste Management S2-15d Poster Session
15:00-17:00	Thematic Session
	T2-15 Carbon leakage, relocation, and halo

# **KEYNOTE SPEAKERS**

Robert Pindyck Professor, MIT

Ban Ki-Moon Secretary-General of the United Nations, 2007-2016







# **KEYNOTE SPEAKERS**



**Keynote Speech I** Friday, August 20, 2021 09:45 - 10:30

Robert Pindyck Professor, MIT

Robert S. Pindyck is the Bank of Tokyo-Mitsubishi Professor of Economics and Finance in the Sloan School of Management at MIT. He is also a Research Associate of the National Bureau of Economic Research, and he has been a Visiting Professor at Tel-Aviv University, Harvard University, and Columbia University. He is a Fellow of the Econometric Society, a past President and Fellow of the Association of Environmental and Resource Economists, and a winner of the Jamieson Prize for Excellence in Teaching.

Professor Pindyck's research and writing have covered topics in microeconomics and industrial organization, the behavior of natural resource and commodity markets, financial markets, capital investment decisions, and environmental economics. His work in economics and finance has examined the determinants of market structure and market power, the dynamics of commodity spot and futures markets, criteria for investing in risky projects, and the economics of R&D and the value of patents. His recent work in environmental economics has focused on climate change, and examined policy design in the face of uncertainty. He has also worked on the economic and policy implications of global catastrophic events, including the recent COVID-19 pandemic.

Professor Pindyck has published numerous academic journal articles, and he is also the author or co-author of seven books, including three popular textbooks: Econometric Models and Economic Forecasts (McGraw-Hill), Microeconomics (Pearson), and Investment Under Uncertainty (Princeton University Press). He has been Co-Editor of The Review of Economics and Statistics. In addition to his academic research and teaching, Professor Pindyck has been a consultant to a large number of public and private organizations. More information about Professor Pindyck is available on his website: http://web.mit.edu/rpindyck/www.

# **KEYNOTE SPEAKERS**



**Keynote Speech II**Friday, August 20, 2021
10:35 – 11:20

Ban Ki-Moon

Secretary-General of the United Nations, 2007-2016

Ban Ki-moon, born June 13, 1944 is a South Korean diplomat who was the eighth Secretary-General of the United Nations from January 2007 to December 2016. Before becoming Secretary-General, Mr. Ban was a career diplomat in South Korea's Ministry of Foreign Affairs and in the United Nations. As the eighth Secretary-General of the United Nations Ban Ki-moon's priorities were to mobilize world leaders around a set of new global challenges, from climate change and economic upheaval to pandemics and increasing pressures involving food, energy and water.

One of the Secretary-General's first major initiatives was the 2007 Climate Change Summit, followed by extensive diplomatic efforts that have helped put the issue at the forefront of the global agenda. At the height of the food, energy and economic crises in 2008, the Secretary-General successfully appealed to the G20 for a \$1 trillion financing package for developing countries. Under Ban's leadership in 2015 countries adopted a set of 17 Sustainable Development Goals (SDGs) to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda. Each goal has specific targets to be achieved until 2030 and to leave no one behind. Mr. Ban also led the efforts for the Paris Climate Agreement, which entered into force in 2016 less than a year later. Countries agreed to work to limit global temperature rise to well below 2 degrees Celsius, and given the grave risks, to strive for 1.5 degrees Celsius.









### Day 0 / August 19, 2021

Time		Program
16:00-17:30	<b>BOD 1st Meeting</b>	

## Day 1 / August 20, 2021

Time		Program
08:00-09:00	Registration	
09:00-11:00	Plenary Session	
09:00-09:45	Opening Remarks	President of KEEA, LOC Chair President of AAERE President of SNU
09:45-11:25	Keynote Speech  09:45-10:30 Keynote Speech 1  10:30-10:35 Q & A  10:35-11:20 Keynote Speech 2  11:20-11:25 Q & A	Chair : Kim, Il Chung Robert Pindyck Ban, Ki-moon
11:40-12:40	AAERE Member Assembly	
11:40-12:10	KEEA Member's Meeting	
13:00-17:00	Parallel and Thematic Sessions	
13:00-15:00	Parallel Session II	
13:00-15:00 <b>S1-13a</b>	Extreme Weather Events and Ass Session Chair Huang, Chung-Huang (Na	

The impact of extreme weather events on flight delays and cancellations with a focus on Gimpo-Jeju air route Kim, Seonho (Seoul National University)

Hong, Jongho (Seoul National University)

Living with Floods:

Examining the Protection Motivation of Micro, Small, and Medium Enterprises in Marikina City, **Philippines** 

Madriaga, Cherry Ann D. (National Graduate Institute for Policy Studies)

Estimating the effect of extreme weather, epidemic and circularity on residential electricity consumption: An integrated model of household production and characteristic demand

Huang, Chung-Huang (Huazhong Agricultural University)

Lo, Shin-Hang (Industrial Technology Research Institute) Kao, Shao-Hui (Industrial Technology Research Institute)

Li, Ching-Yu (Industrial Technology Research Institute)

Liao, Wen-Hwa (Industrial Technology Research Institute)

Impact of Climate Change on Chemical Inputs: Evidence of Pesticide Usage from China

Liu, Huilin (Nanjing Agriculture University)

Quan, Quan (Nanjing Agricultural University)



### Day 1 / August 20, 2021

Times	Ducaman
Time	Program
13:00-15:00	Parallel Session II
13:00-15:00	Adaption to Climate Change
S1-13b	Session Chair Resosudarmo, Budy P. (Australian National University)
	Perception and Adaptation of Agricultural Households to Climate Change in the Semi-Arid Districts of Rajasthan, India  Mohapatra, Geetilaxmi (BITS, Pilani Campus)  George, Meera (BITS, Pilani Campus)
	Demand for index-based flood insurance in Jakarta, Indonesia Cobian, Jose (Australian National University)  Resosudarmo, Budy P. (Australian National University)  Halimatussadiah, Alin (Universitas Indonesia) Olivia, Susan (University of Waikato)
	Extreme Weather and Yield Variability: Mitigation effect of Agricultural Mechanization in China Wang, Teng (Nanjing Agricultural University) Yi, Fujin (Nanjing Agricultural University) Wu, Ximing (Texas A & M University) Liu, Huilin (Nanjing Agricultural University) Zhong, Funing (Nanjing Agricultural University)
	Constructing the adaptability evaluation framework for citizens' capacity building from an earthquake Lin, BihChaun (National Dong Hwa University)  Lee, Chun-Hung (National Dong Hwa University)
13:00-15:00 <b>S1-13c</b>	Energy Transition I Session Chair Rahman, Syed Mahbubur (American International University-Bangladesh)

The energy-employment nexus: Exploring the implications of Bangladesh's rural and urban electrification on sectoral employment patterns

#### Rahman, Sved Mahbubur (American International University-Bangladesh)

Rahman, Syed Mustafizur (University of Rajshahi)

Kirshner, Joshua (University of York)

Household fuel transition and under-5 child mortality reduction: Evidence from the census data in China

#### Zhu, Lin (Beijing Institute of Technology)

Liao, Hua (Beijing Institute of Technology)

Burke, Paul (Australian National University)

An International Comparison Study on Investigating the Factors Influencing Residential Energy Consumption: The Case of the Four Asian Dragons

#### Sun, Ting-Jui (Industrial Technology Research Institute)

Liao, Wen-Hua (Industrial Technology Research Institute)

Lin, Yu-Hsuan (Industrial Technology Research Institute)

Chen, Yi-Hung (Industrial Technology Research Institute)

Su, Chuan-Yi (Industrial Technology Research Institute)

#### Effects Evaluation of New-Energy Vehicles Promotion in Beijing

#### Wang, Yue (Renmin University of China)

Chen, Hui Xin (Renmin University of China)

Shi, Lei (Renmin University of China)





### Day 1 / August 20, 2021

Time	Program	
13:00-15:00	Parallel Session II	
13:00-15:00 <b>S1-13d</b>	Environment and Development I  Session Chair Yang, Xuan (Renmin University of China)	
	Is China's air pollution control policy effective?: Evidence from a quasi-natural experiment in Beijing-Tianjin-Hebei region Yang, Xuan (Renmin University of China) Wang, Yue (Renmin University of China) Shi, Lei (Renmin University of China)	
	International Environmental Efficiency with CO <sub>2</sub> : Using Meta Stochastic Frontier Analysis <b>Li, Ziyao (Pusan National University)</b> Kang, Sangmok (Pusan National University)	
	The Effects of Economic Growth and Renewable Energy Consumption on Air Quality Xie, Jia Yu (Korea University) Suh, Dong Hee (Korea University)	
	Efficiency estimation on civil health, well-being, and economic growth in China Chang, Ming-Chung (Chihlee University of Technology)	
13:00-17:00	Thematic Sessions	
13:30-15:00 <b>T1-13a</b>	AEERE-SANDEE: Sustainability Transitions for Climatic Risks in Asia  Session Chair  Hayashi, Daisuke (Ritsumeikan University)  The development of sustainable niches during the energy transition pathway: The case of solar photovoltaics in Japan Chen, Yi-chun (University of Tokyo)	

Harnessing innovation policy for industrial decarbonization:

Capabilities and manufacturing in the wind and solar power sectors of China and India

Hayashi, Daisuke (Ritsumeikan University)

Catalyzing momentum for low carbon mobility transitions through urban experimentation with e-buses and policy instruments in Jakarta, Indonesia

Wimbadi, Ramanditya Wimbardana (United Nations University)

Djalante, Riyanti (United Nations University)

Mori, Akihisa (Kyoto University)

13:00-15:00 T1-13b

#### Bioenergy toward carbon neutral

Session Chair Mizuno, Kosuke (University of Indonensia)

Climate Consideration on Bioenergy Policy in Indonesia

Halimatussadiah, Alin (Universitas Indonesia)

Effect of Carbon Tax on Emission Reduction and Renewable Energy Promotion in Indonesia: A Preliminary Analysis

Hartono, Djoni (Universitas Indonesia)

Mori, Akihisa (Kyoto University)

Nugroho, Anda (Fiscal Policy Office, Ministry of Finance, Republic of Indonesia)





# Day 1 / August 20, 2021

Time	Program		
13:00-17:00	Thematic Sessions		
13:00-15:00 <b>T1-13b</b>	Bioenergy toward carbon neutral Session Chair Mizuno, Kosuke (University of Indonensia)		
	REDD+ in Indonesia through the context of a sustainable landscape approach Indrawan, Mochamad (Universitas Indonesia)  Mori, Akihisa (Kyoto University)		
	Biomass energy - Alternative means of livelihood to palm oil-based biofuel production in Indonesia Mizuno, Kosuke (University of Indonesia) Sodori, Ahyahudin (University of Indonesia)		
14:00-16:00	KREI-KOREA		
T1-14a	Activation strategies of low-carbon agriculture to realize a carbon-neutral target by 2050		
	Opening Remarks Jeong, Hakkyun (Korea Rural Economic Institute)		
	Welcome Remarks Kim, Hongsang (Korea Rural Economic Institute)		
	Mitigations of Greenhouse Gas (GHGs) Emissions and Carbon Sequestration for Agruicultural Sector in Korea Shin, Jungdu (National Institute of Agricultural Sciences)  Kwon, Hyosuk (National Institute of Agricultural Sciences)		
	Lee, Sunil (National Institute of Agricultural Sciences)		
	Cheo, EunJeong (National Institute of Agricultural Sciences) Kim, Minkyeong (National Institute of Agricultural Sciences)		
	Lee, Sang Beom (National Institute of Agricultural Sciences)		
	Policies to Promote Low-Carbon Agriculture  Jeong, Hakkyun (Korea Rural Economic Institute)  Lim, Younah (Korea Rural Economic Institute)  Kang, Kyungsu (Korea Rural Economic Institute)		
	Japan's carbon neutral policies Aoyagi, Midori (National Institute for Environmental Studies, Japan)		
	EU Carbon Neutral Policies and its Implications  Matthews, Alan (University of Dublin Trinity College)		
	Panel Discussion Moderator: Kim, Jeongin (Chungang University) Matthews, Alan (University of Dublin Trinity College) Aoyagi, Midori (National Institute for Environmental Studies, Japan) Kang, Sangin (Korea Environment Institute) Lee, Sangmin (Korea Rural Economic Institute) Sung, Jaehoon (Korea Rural Economic Institute)		
14:00-16:00	Economics and Policy of Hydrogen Energy System		
T1-14b	Session Chair Ushifusa, Yoshiaki (University of Kitakyushu)		
	Introduction of Solution-Driven Co-creative R&D Program for SDGs Ushifusa, Yoshiaki (University of Kitakyushu)		
	User Preferences in Hydrogen Electricity Storage Configurations  Kato, Takaaki (University of Kitakyushu)		

Miyuki Kajitani (University of Kitakyushu) Ushifusa, Yoshiaki (University of Kitakyushu)





# Day 1 / August 20, 2021

Time	Program		
13:00-17:00	Thematic Sessions		
14:00-16:00 <b>T1-14b</b>	Economics and Policy of Hydrogen Energy System Session Chair Ushifusa, Yoshiaki (University of Kitakyushu)		
	Examination of Hydrogen Energy System for Reducing Purchasing Power by Self-Consumption of Photovoltaic Power  Yamamoto, Shuhei (Kyushu Institute of Technology)  Ushifusa, Yoshiaki (University of Kitakyushu)		
	Introduction of Kitakyushu City Hydrogen Demonstration and Policy Ushifusa, Yoshiaki (University of Kitakyushu) Kenji Tamai (Kitakyushu City)		
15:00-17:00	Parallel Session III		
15:00-17:00	Climate Risk and Assessment		
S1-15a	Session Chair Gronwald, Marc (Xi'an Jiaotong-Liverpool University)		
	Long-run covariability of global temperature anomalies and forcings from greenhouse gases  Gronwald, Marc (Xi'an Jiaotong-Liverpool University)  Jin, Xin (Xi'an Jiaotong-Liverpool-Liverpool University)		
	Using an agent-based model and a choice experiment to simulate climate-change induced migration: the case of the Mekong River Delta, Vietnam  Trinh, Tra Thi (National Graduate Institute for Policy Studies)  Munro, Alistair (National Graduate Institute for Policy Studies)		
	Learning Can Help Society Avoid Catastrophic Consequences of Climate Change Yoo, Jonghyun (University of Seoul)		
15:00-17:00 <b>S1-15b</b>	Energy Transition II Session Chair Hu, Yuhan (Peking University)		
	Stranded assets discourses in the energy sector: Any way out toward sustainability transition?  Firdaus, Nur (Kyoto University)  Mori, Akihisa (Kyoto University)		
	Conditions affecting overseas investments in coal and renewable power generation: An analysis of 23 countries  Edianto, Achmed Shahram (Tohoku University)  Trencher, Gregory (Kyoto University)  Matsubae, Kazuyo (Tohoku University)		
	What Determines Household Cooking Fuel Preferences? Empirical Evidence from South Korea  Lee, Chan Hee (Seoul National University)  Hong, Jong Ho (Seoul National University)  Kang, Sung Hoon (Hanyang University)		
	Regional Heterogeneity of the Social Impacts of Gasoline-to-Electric Vehicle Substitutions in China <b>Hu, Yuhan (Peking University)</b> Jin, Yana (Environmental Defense Fund) Zhang, Shiqiu (Peking University)		
	Power Dispatch Reform and Energy Efficiency Distortions: Evidence from China Cao, Jing (Tsinghua University)  Zhang, Yu (Tsinghua University)		





### Day 1 / August 20, 2021

Time	Program
15:00-17:00	Parallel Session III
15:00-17:00 <b>S1-15c</b>	Environment and Development II  Session Chair Abdul-Rahim, Abdul-Samad (Universiti Putra Malaysia)
	An Empirical Study of the Mutual Impact of Environmental Regulation and Economic Growth: Based on Spatial VAR model and China's Provincial data Xu, Yingying (Renmin University of China) Ye, Yuhan (Renmin University of China)
	Impact of Manufacturing Value Added on Environmental Degradation: Empirical Evidence from India Abdul-Rahim, Abdul-Samad (Universiti Putra Malaysia) Sulaiman, Chindo (Universiti Putra Malaysia) Nur-Syadiyah, Zainal-Abidin (Universiti Putra Malaysia)
	Capturing Tibetan' perspectives towards flagship and non-flagship species under restoration program in Sanjiangyuan National Park Lee, Chun-Hung (National Dong-Hwa University)
	Nexus between energy consumption and economic growth-A perspective of embodied energy Lin, Jin-Xu (Chung Yuan Christian University) Tsao, Yu-Fen (Chung Yuan Christian University) Lin, Shih-Mo (Chung Yuan Christian University)

### 15:00-17:00

#### **Food and Agriculture**

S1-15d

Session Chair Lee, Hanbin (University of California, Davis)

The Economic Impacts of Shifting Growing season of the Major Food Crops in Korea

Lee, Seoungho (Seoul National University)

Kwon, Oh Sang (Seoul National University)

Demand for Organic, Convenience Foods

: A Large Online Survey from U.S. Carrot Buyers during COVID-19

Lee, Hanbin (University of California, Davis)

Goldstein, Robin (University of California, Davis)

Sumner, Daniel A. (University of California, Davis)

Study on the Regional Agricultural Water Use Efficiency in China and its Spatial Pattern from the Perspective of Water Footprint

Wang, Yanying (Peking University)

Shi, Changfeng (Hohai University)

Chen, Qiyong (Hohai University)

The Food and Agriculture Biomass Input-Output Model and Environmental footprints in Korea Han, Mijin (Seoul National University)

Kwon, Oh Sang (Seoul National University)





# Day 1 / August 20, 2021

Time	Program
13:00-17:00	Thematic Sessions
15:00-17:00 <b>T1-15</b> a	KREA-KOREA Session Chair Kim, Suyi (Hongik University)
	Does the proliferation of smartphones reduce consumer search cost? The Case of the Korean Gasoline Market Choi, Bongseok (Kookmin University) Kim, Donghun (Yonsei University)
	Analysis of determinants of electricity import and export in Europe using spatial econometrics  Hong, Won Jun (Dankook University)  Lee, Jhoon (Dankook University)  Noh, Jooman (Dankook University)  Cho, Hong Chong (Dankook University)
	Sustainable Development and SDG7 in Sub-Saharan Africa: Balancing Energy Access, Economic Growth and Carbon Emissions Li, Dmitriy (Chonnam National University) Bae, Jeong Hwan (Chonnam National University) Rishi, Meenakshi (Seattle University)
	Estimating the Operating Reserve Demand Curve for Efficient Energy Transition in Korea Jeon, Wooyoung (Chonnam National University)
	The relationship between ICT and greenhouse gas emissions: the evidence from OECD countries Kim, Suyi (Hongik University)
16:00-18:00 <b>T1-15b</b>	KEEI-KEEA-KOREA The Challenges and Policy Issues on the Journey to Net Zero in Energy and Industry Sectors Session Chair Noh, Dongwoon (Korea Energy Economics Institute)
	Government's objectives and constraints for the optimal transition path toward net zero Cho, Hong Chong (Dankook University)
	The role of Hydrogen in the era of clean energy transitions Kim, Taehwan (Korea Energy Economics Institute)
	POSCO's 2050 Carbon Neutral Vision and its Policy Implications Ahn, Yoon-Gih (POSCO Research Institute)
	Improving the Carbon Pricing in South Korea to Carbon Neutrality by 2050  Lee, Jiwoong (Pukyong National University)
16:00-17:30	BOD 2nd Meeting





### Day 2 / August 21, 2021

Time	Program
09:00-17:15	Parallel and Thematic Sessions
09:00-11:00	Parallel Session IV
09:00-11:00 <b>S2-09a</b>	Green Innovation Session Chair Miyamoto, Takuro (Tohoku Gakuin University)
	The Evolution of Green Innovation Networks: Evidence from Chinese Listed Firms Cui, Jingbo (Duke Kunshan University) Lai, Te (Duke Kunshan University)
	The role of green technological innovation in promoting the effectiveness of the Kyoto Protocol Kim, Yoomi (Ewha Womans University)
	Climate Change, Climate Policy, and Corporate Green Innovation: Evidence from Chinese Listed Firms Cui, Jingbo (Duke Kunshan University)  Qu, Chenling (Duke Kunshan University)
	Green product diffusion and innovation in supply chains Miyamoto, Takuro (Tohoku Gakuin University)

### 09:00-11:00

#### **Green Industries**

#### S2-09b

Session Chair Honma, Satoshi (Tokai University)

Are we greening our industries on the transformation path toward Industrial 4.0:

Measurement of industrial transformation in Taiwan

Yang, Chin-Wen (Chung-Hua Institution for Economic Research)

Huang, Chung-Huang (National Taipei University)

Lee, Chien-Ming (Taiwan Research Institute)

Success and Failure of the Voluntary Action Plan:

Disaggregated Sector Decomposition Analysis of Energy-related CO2 Emissions in Japan

Lu, Guanyu (Waseda University)

Sugino, Makoto (Yamagata University)

Arimura, Tohi H (Waseda University)

Horie, Tetsuya (Sophia University)

Incorporating Producer Side Response on Assessing the Impact of Consumer Targeted Environmental **Policies** 

Choi, Hyunhong (Hong Kong University of Science and Technology)

Koo, Yoonmo (Seoul National University)

Types of environmental policies and productivity in iron and steel industry:

an analysis of international firm-level panel data

Honma, Satoshi (Tokai University)

Hu, Jin-Li (National Yang Ming Chiao Tung University)





### Day 2 / August 21 2021

Day 2/	August 21, 2021		
Time	Program		
09:00-11:00	Parallel Session IV		
09:00-11:00 <b>\$2-09c</b>	International Trade and Environment  Session Chair  Yoon, Sang Won (Southern Connecticut State University)  The impact of trade openness on CO <sub>2</sub> emissions for newly industrialized countries  Lin, Yue (Kyoto University)		
	Umetsu, Chieko (Kyoto University)  Pollution Haven Hypothesis in Bangladesh: Impact of Foreign Direct Investment, Economic Growth, and Energy Consumption on Environmental Pollution  Imran, Mohammad Iftekhar Ashik (Xi'an Jiaotong University)  Qin, Botao (Xi'an Jiaotong University)		
	Strategic Environmental Aid and Trade  Yoon, Sang Won (Southern Connecticut State University)  Kim, Younjun (Southern Connecticut State University)  Park, Byung G (SUNY Albany)  Yoon, Chang-ho (Korea University)		
	Analysis of the Impacts of Carbon Control Policies and Carbon Border Tax Adjustment on International Trade: The case of Indonesia  Ramadhani, Dwi Pangestu (Seoul National University)  Koo, Yoonmo (Seoul National University)		

# 09:00-11:00

#### Non-market Valuation I

S2-09d

Session Chair Andersson, Henrik (Toulouse School of Economics)

Nudging Preferences for Mortality Risk Reductions: A Cross Country Comparison

Andersson, Henrik (University of Toulouse Capitole)

Ouvrard, Benjamin (University of Toulouse Capitole)

Willingness to Pay for World Heritage Site Conservation in the Context of Flooding:

A Case Study of Hoi An Ancient Town, Vietnam

Huynh, Vy Thi Bao (University of Tsukuba)

Kaida, Naoko (University of Tsukuba)

Relationships Between Environmental and Health Perceptions and Willingness to Pay Regarding Industrial Wastewater Discharge into Dokehtawaddy River in Myanmar

Ko Ko, Aung (University of Tsukuba)

Kaida, Naoko (University of Tsukuba)

Valuation of cultural ecosystem services provided by beaches - A comparison between stated-preference and biophysical valuation methods -

Kim, Miju (Seoul National University)

Oh, Chi-Ok (Chonnam National University)

Kang, Daeseok (Pukyong National University)





### Day 2 / August 21, 2021

Time	Program	
09:00-11:00	Thematic Session	
T2-09	JBNU-KOREA: Modeling and Evaluation of Health Risks of PM2.5 in Korea	
	Session Chair Eom, Young Sook (Jeon Buk National University)	
	Regression Based Methods for Predicting Fine Particulate Concentrations in South Korea Shadbegian, Ron (San Diego State University) Schreiber, Andrew (US EPA, National Center for Environmental Economics), Hong, Won-Tak (Kyung Hee University)	
	Averting Behavior and Willingness to Pay to reduce Health Risks from Fine Particulate Matters: Evidence from Air Purifier Rental choices in South Korea  Eom, Young Sook (Jeon Buk National University)  Ahn, So Eun (Korean Environmental Institue) Oh, Hyungna (Kyung Hee University)	
	The Effects of Ambient Air Pollution on Children's Acute Respiratory Illness Kim, Moon Joon (Korea University) Shadbegian, Ronald (San Diego State University) Eom, Young-Sook (Jeonbuk National University) Schreiber, Andrew (US EPA, National Center for Environmental Economics)	
	How do Fine Particles Affect Birth Outcomes? Evidence from South Korea Eom, Young-Sook (Jeonbuk National University) Shadbegian, Ron (San Diego State University) Kim, Moon Joon (Korea University)	

11:00-13:00	Parallel Session \

11:00-13:00 S2-11a

#### **Health and Environment**

Session Chair Liu, Xiaoying (University of Pennsylvania)

The Asian Games, Air Pollution and Birth Outcomes in South China: An Instrumental Variable Approach

#### Liu, Xiaoying (University of Pennsylvania)

Lam, Juleen (California State University)

Miao, Huazhang (Guangdong Women and Children Hospital)

Behrman, Jere (University of Pennsylvania)

Hannum, Emily (University of Pennsylvania)

Liang, Zhijiang (Guangdong Women and Children Hospital)

Zhao, Qingguo (Family Planning Research Institute of Guangdong Province)

Impact of Air Pollution on Labor Supply in Ulaanbaatar, Mongolia

Altansukh, Bayarbileg (National Graduate Institute for Policy Studies)

Evaluation of Farmers' Attitudes Towards the Environmental Impact of Biogas Technology,

Usage Satisfaction and Future Prospects of Promoting Household-Scale Biogas Energy in Central Vietnam

Hoang, Huong Thanh (The University of Kitakyushu)

Kato, Takaaki (The University of Kitakyushu)

Hoang, Ha (Duy Tan University)

Air pollution, labor productivity, and human health in China

He, Qi (Brandeis University)

Ji, Xinde (Brandeis University)





### Day 2 / August 21, 2021

Time	Program	
11:00-13:00	Parallel Session V	
11:00-13:00	Mitigation Policies of Climate Change I	
S2-11b	Session Chair Liu, Qingfeng (Tsinghua University)	
	Synergy of Pollution Control and Carbon mitigation: Evidence from the eleventh Five-Year Plan in China Cao, Jing (Tsinghua University) Gong, Yazhen (Renmin University) Liu, Qingfeng (Tsinghua University)	
	Korean carbon pricing characteristics and its effect on Korea companies' carbon performance in the first phase of K-ETS (2015-2017)  Suk, Sunhee (Nagasaki University)	
	How Does the Allowance Price Move under the Expectation for Insufficient Market Supply and Individually Constrained Banking?  Yoon, Beomseok (University of Georgia)	
	Progresses and Challenges in the Implementation of China's New Pollutant Emission Permit System Jia, Ce (Renmin University of China)  Gong, Yazhen (Renmin University of China)	

11:00-13:00 S2-11c

#### Non-market Valuation II

Session Chair Jin, Yana (Environmental Defense Fund)

Willingness to pay and willingness to volunteer for Water Onion (Crinum thaianum) habitat conservation Petcharat, Areeyapat (Royal Forest Department, Thailand)

Chang, Jae Bong (Konkuk University) Lee, Yohan (Yeungnam University)

Eliciting preferences to reduce health risk related to air pollution in choice experiments: the effect from survey mode

#### Jin, Yana (Environmental Defense Fund)

Andersson, Henrik (University of Toulouse Capitole)

Zhang, Shiqiu (Peking University)

The amount of monetary benefits of phasing out the dioxin-like compounds 'century poison' emissions in half a century

#### Liou, Je-Liang (Chung-Hua Institution for Economic Research, CIER)

Chen, Han-Hui (National Chengchi University)

Wu, Pei-Ing (National Taiwan University)

The relationship between the imaged nature and environmental valuation

#### Nagao, Yamane (Tohoku University)

Nishikori, Ayano (Tohoku University)

Imoto, Tomoko (Tohoku University)





# Day 2 / August 21, 2021

Time	Program	
11:00-13:00	Thematic Session	
T2-11	SNU-KOREA: Climate Change and Smart Agriculture Session Chair Kim, Hak Jin (Seoul National University)	
	Precise leaf temperature extraction/analysis technique for the estimation of crop water stress Kim, Sung Jay (Seoul National University), Hong, Suk-Ju (Seoul National University), Kim, Sang-Yeon (Seoul National University), Kim, Eungchan (Seoul National University), Lee, Chang-Hyup (Seoul National University), Roh, Seung-Woo (Seoul National University), Nurhisna, Nandita (Seoul National University), Ryu, Jiwon (Seoul National University), Kim, Ghiseok (Seoul National University)	
	Development of A Standard Model for Agrophotovoltaic System Considering Crop Productivity  Lee, Sangik (Seoul National University),  Park, Jaesung (Seoul National University),  Lee, Jonghyuk (Seoul National University),  Jeong, Youngjoon (Seoul National University),  Kim, Dongsu (Seoul National University),  Choi, Won (Seoul National University)	
	The Optimal Rate of Subsidies on Smart Greenhouse Farming System Installation Costs Lee, Won Seok (Seoul National University)  Kim, Hyun Seok (Seoul National University)	
	Smart Agriculture Technology and Its Value Creation Kim, Hak Jin (Seoul National University), Yoo, Do-il (Seoul National University)	
13:00-13:15	AAERE Announcement: New President and Next Years' Venue	
13:20-15:20	Parallel Session VI	
13:20-15:20 <b>S2-13a</b>	Mitigation Policies of Climate Change after COVID 19  Session Chair Lee, Soocheol (Meijo University)  2050 Carbon Neutral Strategy in Oceans and Fisheries of The Republic of Korea  Kim, Youngdon (Korea Marine Environment Management Corporation)  Kim, Hyungwon (Ministry of Oceans and Fisheries)  Heo, Namki (Ministry of Oceans and Fisheries)  Kang, Jeonggoo (Ministry of Oceans and Fisheries)	





### Day 2 / August 21, 2021

	August 21, 2021
Time	Program
13:20-15:20	Parallel Session VI
13:20-15:20	Mitigation Policies of Climate Change after COVID 19
S2-13a	Session Chair Lee, Soocheol (Meijo University)
	Impact on the power mix and economy of Japan under a 2050 carbon-neutral scenario:  Analysis using the E3ME macro-econometric model  Lee, Soocheol (Meijo University)  He, Yanmin (Otemon Gakuin University)  Suk, Sunhee (Nagasaki University)  Morotomi, Toru (Kyoto University)  Chewpreecha, Unnada (Cambridge Econometrics)
	Financial Policy, Green Transition and Recovery after the COVID-19  Pan, Dongyang (University College London)  Chen, Chuanqi (Central University of Finance and Economics)  Grubb, Michael (University College London)  Wang, Yao (Central University of Finance and Economics)
	Will Taiwan achieve the net-zero-emission target in terms of the energy policy and technological innovation in the future?  Feng, Chun-Chiang (National Taipei University), Chang, Kuei-Feng (Chung Yuan Christian University), Lin, Jin-Xu (Chung Yuan Christian University), Lee, Tsung-Chen (National Taipei University), Lin, Shih-Mo (Chung Yuan Christian University)

#### 13:20-15:20

#### Mitigation Policies of Climate Change II

#### S2-13b

Session Chair Zhang, Yashu (Renmin University of China)

Price Dynamic of Regional Carbon Market in China-VECM Analysis

Qu, Jingyu (Chonnam National University)

Jeon, Wooyoung (Chonnam National University)

Personality Traits, Economic Preferences, and the Individual Support of Climate Policy Measures: An Empirical Study for Japan

Chattopadhyay, Mriduchhanda (Waseda University)

Arimura, Toshi H. (Waseda University)

Ziegler, Andreas (University of Kassel)

Nonparametric Bounds on Treatment Effects with Imperfect Instruments

Ban, Kyunghoon (Iowa State University)

Kedagni, Desire (Iowa State University)

Which instruments can reduce carbon emission better?

Command and control instruments or market-based instruments

Zhang, Yashu (Renmin University of China)

Shi, Lei (Renmin University of China)





### Day 2 / August 21, 2021

Time	Program
13:20-15:20	Parallel Session VI
13:20-15:20	Ecosystem and Natural Resources
S2-13c	Session Chair Watanabe, Mikihiko (University of YAMANASHI)
	Willingness to conduct the forest operations for environmental services  Lee, Ji-Eun (Seoul National University)  Youn, Yeo-Chang (Seoul National University)
	Economic Evaluation of Ecosystem Services - UNESCO Biosphere Reserves in Yamanashi Watanabe, Mikihiko (University of Yamanashi)
	Sharing in the Commons: Evaluating the Pooling System in a Danish Seine Fishery in Japan Sakai, Yutaro (University of Tokyo) Ishihara, Hiroe (University of Tokyo) Ishino, Mitsuhiro (Japan Fisheries Research and Education Agency)
	Conducting the evaluation framework of Importance and Performance Analysis for Sustainable Forest Management in a rural area  Chen, Hsing-Chih (National Dong Hwa University)  Ferdin, Arockia E J (National Dong Hwa University)  Lee, Chun-Hung (National Dong Hwa University)

## 13:20-15:20

#### **Environment and Behavior**

S2-13d

Session Chair Kondo, Noriaki (Shiga university)

Does Fukushima Daiichi Nuclear Power Plant Affect Chinese Capital Markets:

Empirical Analysis From The Marine Economy Enterprises

Du, Honglin (Renmin University of China)

Liu, Xinya (Renmin University of China)

Shi, Lei (Renmin University of China)

Citizens' Preferences for Sustainable Mobility Mix in Portland

Kondo, Noriaki (Shiga university)

Tanaka, Katsuya (Shiga university)

Reference point adaptation and air quality: Experimental evidence with anti-PM 2.5 facemasks from China

Zhang, Nan (Xi'an Jiaotong University)

Qin, Botao (Xi'an Jiaotong University)

Estimating the Economic Value of Environmental Education

Kang, Jinyoung (Seoul National University)

Yi, Donggyu (University of Seoul)

Hong, Jong Ho (Seoul National University)

Air pollution, residential attention and capital market

Liu, Xinya (Renmin University of China)

Chang, Dunhu (Renmin University of China)

Du, Honglin (Renmin University of China)





# Day 2 / August 21, 2021

Time	Program		
13:00-15:00	Thematic Session		
T2-13	KEI-KOREA		
	Applications of Integrated Assessment Models for Policy Appraisals in Korea		
	Session Chair Ahn, So Eun (Korea Environment Institute)		
	Assessing the National Policy Using the Integrated Analysis Framework: Fine Dust Seasonal Management System in the Electrical Power Generation Sector  Jeon, Hocheol (Chungnam National University)		
	Economic Benefits of Ecological Stream Restoration Project: An Empirical Study on Integrated Environmental and Economic Analysis Kim, Hyun No (Korea Environment Institute)		
	Estimation of Health Impact Value Using Hg as a Case Study  Jung, Dawoon (Korea Environment Institute)  Suh, Yangwon (Korea Environment Institute)  Kim, Jin Ok (Korea Environment Institute)		
15:20-17:20	Parallel Session VII		
15:20-17:20	Regional Development		
S2-15a	Session Chair Lim, Dongsoon (Dongeui University)		
	Regional Recycling Efficiencies in Japan: Findings from Network DEA  Hu, Jin-Li (National Yang Ming Chiao Tung University)  Honma, Satoshi (Tokai University)  Chang, Tzu-Min (National Yang Ming Chiao Tung University)		
	Is Clean House Policy Effective for an Isolated Region? Policy Analysis of Waste Management in Jeju Province Lim, Dongsoon (Dongeui University)		
	Integrated water resource management of the Yellow River Basin in China Sun, Menglu (University of Kitakyushu) Kato, Takaaki (University of Kitakyushu)		
15:20-17:20	Renewable Energy		
S2-15b	Session Chair Eom, Jiyong (KAIST)		
	Assessing benefits of integrating V2G on high-penetration of renewable energy power system:  A Unit-Commitment approach  Lee, Wonjong (Seoul National University)  Koo, Yoonmo (Seoul National University)		
	The factors that influencing intention to install solar photovoltaic (PV) among household in Klang Valley Sharifuddin, Nur Shazleen Ilyana (Universiti Putra Malaysia) Zainudin, Norzalina (Universiti Putra Malaysia)		

Sabri, Mohamad Fazli (Universiti Putra Malaysia)

Chen, Wan-Jiun (Chinese Culture University)

An appliance-level analysis of small business behavior under dynamic prices

Renewable energy, carbon pricing policy and low carbon economy

Breaking routine for energy savings:

Wolak, Frank A (Stanford University)

Eom, Jiyong (KAIST)





# Day 2 / August 21, 2021

Time	Program		
15:20-17:20	Parallel Session VII		
15:20-17:20 <b>S2-15c</b>	Waste Management Session Chair Han, Tack-Whan (SeoKyeong University)		
	Market Structure and the Optimal Waste Disposal Charge Rate: A Numerical Simulation with Comparative Statics Han, Taek-Whan (SeoKyeong University)		
	Relationships of Socio-economic Factors and Environmental Attitudes with Waste Reduction: A Case Study of Kasumigaura City, Japan Yue, Shengran (University of Tsukuba) Kaida, Naoko (University of Tsukuba)		
	Changes in intention and behaviour: Comprehending young generation's action of waste separation at source <b>Hu, Jiarong (Ritsumeikan University)</b> Tang, Kelvin (University of Tokyo) Qian, Xuepeng (Sophia University) Zhou, Weisheng (Ritsumeikan University)		
	Evaluating Local's Preferences for Plastic Waste Management Adaptation under Community Engagement Approach  Chook, Jia Wei (National Dong Hwa University)  Lee, Chun-Hung (National Dong Hwa University)		
15:20-17:20 <b>S2-15d</b>	Poster Session Session Chair Yi, Donggyu (University of Seoul)		
	Environmental Regulations and Employment in Industrial Enterprises:  Evidence from the Eleventh Five-Year Plan in China  Liao, Jia Qi (Jinan university)  Zhang, Ning (Shangdong University)		
	A Study of Residents Acceptability on the Construction Solid Refuse Fuel (SRF) Power Plant Yoo, DaGyeong (Pusan National University) Won, DooHwan (Pusan National University)		
	Institutional and Policy mechanisms for Renewable Energy in India/Delhi: Drawbacks and Challenges in Energy Transition  Koduvayur Venkitaraman, Abhishek (Kyoto University)  Mori, Akihisa (Kyoto University)		
	The Effects of Household Structure Transition on Residential Electricity Consumption in China		

Xie, Jia Yu (Korea University) Suh, Dong Hee (Korea University)

Does Eco-Innovation Induce Environmentally-Friendly Trade? Implications for Green Growth Jeong, Hyunju (Korea University)

Suh, Dong Hee (Korea University)

Examining the Effects of Local Economic Growth and Government Expenditures on Water Quality Kang, Hyonyong (Korea University)

Suh, Dong Hee (Korea University)





### Day 2 / August 21, 2021

Day III	14gust 21, 2021
Time	Program
15:20-17:20	Parallel Session VII
15:20-17:20	Poster Session
S2-15d	Session Chair Yi, Donggyu (University of Seoul)
	A Study on the Valuation of Marine Bio Museum: A Case of SeaQrium in Korea  Lee, Chang su (National Marine Biodiversity Institute of Korea),  Kim, Taeyoung (Gyeongsang National University)
	An analysis of optimal backup costs in South Korea using mixed-integer linear programming: Focused on high proportion of renewable energy Seo, Yujin (Seoul National University) Koo, Yoonmo (Seoul National University)
	Managing Biodiversity and Ecosystem Functions: Implications of Economic Growth and Renewable Energy Consumption Park, Jinseon (Korea University) Suh, Dong Hee (Korea University)
	Policy Effects of Power Generation in Power Plants by Climate Policy Kim, BuKwon (Pusan National University) Won, DooHwan (Pusan National University)
	Factors affecting agricultural land abandonment and potential biological consequences in Japan: Spatial econometric approach Matsumoto, Mitsuki (Shiga University) Tanaka, Katsuya (Shiga University)
	Analysis of the Social Welfare Impact of Dried Pepper Pest & Disease Damage Due to Climate Change Han, Donggeun (Gyeongsang National University) Jeon, Sanggon (Gyeongsang National University) Kim, Taeyoung (Gyeongsang National University)

#### 15:00-17:00

#### **Thematic Session**

#### T2-15

#### Carbon leakage, relocation, and halo

Session Chair Mori, Akihisa (Kyoto University)

Struggles for Energy Transition in the Electricity System in Asian Countries: A Complementarity Perspective Mori, Akihisa (Kyoto University)

The Economic and Carbon Impact of China's Outward Foreign Direct Investment in the Power Sector Ban, Hikari (Kobe Gakuin University)

Fujikawa, Kiyoshi (Aichi Gakuin University)

The Role of China in Energy Transition in Indonesia: Perspective of availability and affordability Sambodo, Maxensius Tri (Indonesian Institute of Sciences, LIPI)

Generating or Receiving carbon leakage? An examination of China in Asia

Vo, Le Tuyet (Nagoya University)

JU, Yiyi (Waseda Institute for Advanced Study)









Abdul-Rahim, Abdul-Samad (Universiti Putra Malaysia)	S1-15c
Ahn, So Eun (Korea Environment Institute)	T2-13
Ahn, Yoon-Gih (POSCO Research Institute)	T1-15b
Altansukh, Bayarbileg (National Graduate Institute for Policy Studies)	S2-11a
Andersson, Henrik (University of Toulouse Capitole)	S2-09d
Aoyagi, Midori (National Institute for Environmental Studies, Japan)	T1-14a
Ban, Hikari (Kobe Gakuin University)	T2-15
Ban, Ki-moon (former Secretary-General of the United Nation)	Keynote Speech
Ban, Kyunghoon (Iowa State University)	S2-13b
Chang, Ming-Chung (Chihlee University of Technology)	S1-13d
Chattopadhyay, Mriduchhanda (Waseda University)	S2-13b
Chen, Hsing-Chih (National Dong Hwa University)	S2-13c
Chen, Wan-Jiun (Chinese Culture University)	S2-15b
Chen, Yi-chun (The University of Tokyo)	T1-13a
Cho, Hong Chong (Dankook University)	T1-15b
Choi, Bongseok (Kookmin University)	T1-15a
Choi, Hyunhong (Hong Kong University of Science and Technology)	S2-09b
Chook, Jia Wei (National Dong Hwa University)	S2-15c
Du, Honglin (Renmin University of China)	S2-13d
Edianto, Achmed Shahram (Tohoku University)	S1-15b
Eom, Jiyong (KAIST)	S2-15b
Eom, Young Sook (Jeon Buk National University)	T2-09
Feng, Chun-Chiang (National Taipei University)	S2-13a
Firdaus, Nur (Kyoto University)	S1-15b
Gronwald, Marc (Xi'an Jiaotong-Liverpool University)	S1-15a
Halimatussadiah, Alin (Universitas Indonesia)	T1-13b
Han, Donggeun (Gyeongsang National University)	S2-15d
Han, Mijin (Seoul National University)	S1-15d
Han, Taek-Whan (SeoKyeong University)	S2-15c
Hartono, Djoni (Universitas Indonesia)	T1-13b
Hayashi, Daisuke (Ritsumeikan University)	T1-13a
He, Qi (Brandeis University)	S2-11a
Hoang, Huong Thanh (The University of Kitakyushu)	S2-11a
Hong, Jong Ho (President of AAERE, SNU)	Opening Remarks
Hong, Won Jun (Dankook University)	T1-15a
Hong, Won-Tak (Kyung Hee University)	T2-09
Honma, Satoshi (Tokai University)	S2-09b
Hu, Jiarong (Ritsumeikan University)	S2-15c
Hu, Jin-Li (National Yang Ming Chiao Tung University)	S2-15a





Hu, Yuhan (Peking University)	S1-15b
Huang, Chung-Huang (National Taipei University)	S1-13a
Huynh, Vy Thi Bao (University of Tsukuba)	S2-09d
Imran, Mohammad Iftekhar Ashik (Xi'an Jiaotong University)	S2-09c
Indrawan, Mochamad (Universitas Indonesia)	T1-13b
Jeon, Hocheol (Chungnam National University)	T2-13
Jeon, Wooyoung (Chonnam National University)	T1-15a
Jeong, Hakkyun (Korea Rural Economic Institute)	T1-14a
Jeong, Hyunju (Korea University)	S2-15d
Jia, Ce (Renmin University of China)	S2-11b
Jin, Yana (Environmental Defense Fund)	S2-11c
Jung, Dawoon (Korea Environment Institute)	T2-13
Kang, Hyonyong (Korea University)	S2-15d
Kang, Jinyoung (Seoul National University)	S2-13d
Kang, Sangin (Korea Environment Institute)	T1-14a
Kato, Takaaki (University of Kitakyushu)	T1-14b
Kim, BuKwon (Pusan National University)	S2-15d
Kim, Hak Jin (Seoul National University)	T2-11
Kim, Hongsang (Korea Rural Economic Institute)	T1-14a
Kim, Hyun No (Korea Environment Institute)	T2-13
Kim, Hyun Seok (Seoul National University)	T2-11
Kim, Il Chung (former President of AAERE)	Keynote Speech
Kim, Jeongin (Chungang University)	T1-14a
Kim, Miju (Seoul National University)	S2-09d
Kim, Moon Joon (Korea University),	T2-09
Kim, Seonho (Seoul National University)	S1-13a
Kim, Sung Jay (Seoul National University)	T2-11
Kim, Suyi (Hongik University)	T1-15a
Kim, Taehwan (Korea Energy Economics Institute)	T1-15b
Kim, Yoomi (Ewha Womans University)	S2-09a
Kim, Youngdon (Korea Marine Environment Management Corporation)	S2-13a
Ko Ko, Aung (University of Tsukuba)	S2-09d
Koduvayur Venkitaraman, Abhishek (Kyoto University)	S2-15d
Kondo, Noriaki (Shiga university)	S2-13d
Kwon, Oh Sang (President of KEEA, LOC Chair and SNU)	Opening Remarks
Lai, Te (Duke Kunshan University)	S2-09a
Lee, Chan Hee (Seoul National University)	S1-15b
Lee, Chang su (National Marine Biodiversity Institute of Korea)	S2-15d
Lee, Chun-Hung (National Dong-Hwa University)	S1-15c





Lee, Hanbin (University of California, Davis)	S1-15d
Lee, Ji-Eun (Seoul National University)	S2-13c
Lee, Jiwoong (Pukyong National University)	T1-15b
Lee, Sangik (Seoul National University)	T2-11
Lee, Sangmin (Korea Rural Economic Institute)	T1-14a
Lee, Seoungho (Seoul National University)	S1-15d
Lee, Soocheol (Meijo University)	S2-13a
Lee, Wonjong (Seoul National University)	S2-15b
Li, Dmitriy (Chonnam National University)	T1-15a
Li, Ziyao (Pusan National University)	S1-13d
Liao, Jia Qi (Jinan university)	S2-15d
Lim, Dongsoon (Dongeui University)	S2-15a
Lin, BihChaun (National Dong Hwa University)	S1-13b
Lin, Jin-Xu (Chung Yuan Christian University)	S1-15c
Lin, Yue (Kyoto University)	S2-09c
Liou, Je-Liang (Chung-Hua Institution for Economic Research, CIER)	S2-11c
Liu, Huilin (Nanjing Agriculture University)	S1-13a
Liu, Qingfeng (Tsinghua University)	S2-11b
Liu, Xiaoying (University of Pennsylvania)	S2-11a
Liu, Xinya (Renmin University of China)	S2-13d
Lu, Guanyu (Waseda University)	S2-09b
Madriaga, Cherry Ann D. (National Graduate Institute for Policy Studies)	S1-13a
Matsumoto, Mitsuki (Shiga University)	S2-15d
Matthews, Alan (University of Dublin Trinity College)	T1-14a
Miyamoto, Takuro (Tohoku Gakuin University)	S2-09a
Mizuno, Kosuke (University of Indonensia)	T1-13b
Mohapatra, Geetilaxmi (BITS, Pilani Campus)	S1-13b
Mori, Akihisa (Kyoto University)	T2-15
Nagao, Yamane (Tohoku University)	S2-11c
Noh, Dongwoon (Korea Energy Economics Institute)	T1-15b
Oh, Se-jung (President of SNU)	Opening Remarks
Pan, Dongyang (University College London)	S2-13a
Park, Jinseon (Korea University)	S2-15d
Petcharat, Areeyapat (Royal Forest Department, Thailand)	S2-11c
Qin, Botao (Xi'an Jiaotong University)	S2-13d
Qu, Chenling (Duke Kunshan University)	S2-09a
Qu, Jingyu (Chonnam National University)	S2-13b
Rahman, Syed Mahbubur (American International University-Bangladesh)	S1-13c
Ramadhani, Dwi Pangestu (Seoul National University)	S2-09c





Resosudarmo, Budy P. (Australian National University)	S1-13b
Robert Pindyck (Bank of Tokyo-Mitsubishi Ltd Professor in Finance and Economics, MIT)	Keynote Speech
Sakai, Yutaro (The University of Tokyo)	S2-13c
Sambodo, Maxensius Tri (Indonesian Institute of Sciences, LIPI)	T2-15
Seo, Yujin (Seoul National University)	S2-15d
Shadbegian, Ron (San Diego State University)	T2-09
Sharifuddin, Nur Shazleen Ilyana (Universiti Putra Malaysia)	S2-15b
Shin, Jungdu (Korea Rural Development Administration)	T1-14a
Suk, Sunhee (Nagasaki University)	S2-11b
Sun, Menglu (University of Kitakyushu)	S2-15a
Sun, Ting-Jui (Industrial Technology Industrial/Research Institute)	S1-13c
Sung, Jaehoon (Korea Rural Economic Institute)	T1-14a
Trinh, Tra Thi (National Graduate Institute for Policy Studies)	S1-15a
Ushifusa, Yoshiaki (The University of Kitakyushu)	T1-14b
Vo, Le Tuyet (Nagoya University)	T2-15
Wang, Teng (Nanjing Agricultural University)	S1-13b
Wang, Yanying (Peking University)	S1-15d
Wang, Yue (Renmin University of China)	S1-13c
Watanabe, Mikihiko (University of Yamanashi)	S2-13c
Wimbadi, Ramanditya (United Nations University)	T1-13a
Xie, Jia Yu (Korea University)	S1-13d, S2-15d
Xu, Yingying (Renmin University of China)	S1-15c
Yamamoto, Shuhei (Kyushu Institute of Technology)	T1-14b
Yang, Chin-Wen (Chung-Hua Institution for Economic Research)	S2-09b
Yang, Xuan (Renmin University of China)	S1-13d
Yi, Donggyu (University of Seoul)	S2-15d
Yoo, DaGyeong (Pusan National University)	S2-15d
Yoo, Jonghyun (University of Seoul)	S1-15a
Yoon, Beomseok (University of Georgia)	S2-11b
Yoon, Sang Won (Southern Connecticut State University)	S2-09c
Yue, Shengran (University of Tsukuba)	S2-15c
Zhang, Yashu (Renmin University of China)	S2-13b
Zhang, Yu (Tsinghua University)	S1-15b
7hu. Lin (Reijing Institute of Technology)	S1-13c

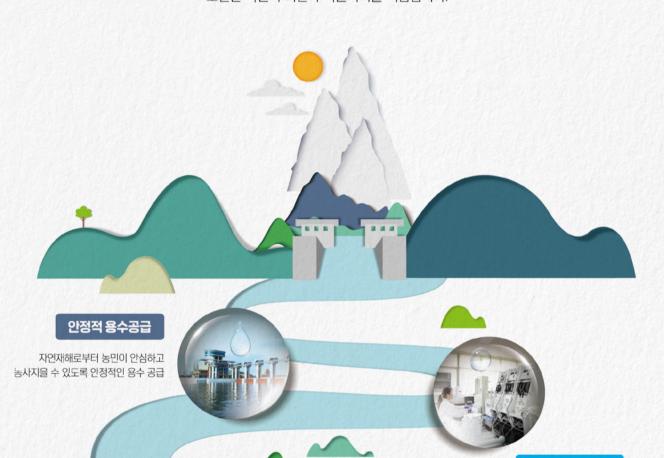






# 똑똑한 물관리, 한국농어촌공사가 시작합니다.

농업용수의 과학적이고 체계적인 물관리로 오천만 국민의 터전과 먹을거리를 책임집니다.



### 쾌적한 친수공간

다시 찾고 싶은 농어촌이 되도록 아름다운 친수공간 조성



# 스마트 물관리

물관리 정보의 빅데이터화를 통한 과학적 물관리



### 친환경 수질개선

수질오염에 대해 친환경기술을 통한 정화로 보다 깨끗한 농업용수 공급

